Lisbon School of Economics & Management
Universidade de Lisboa

MASTER OF SCIENCE IN
FINANCE

MASTERS FINAL WORK
PROJECT

EQUITY RESEARCH:
EXXONMOBIL CORPORATION

ANTÓNIO MANUEL FIRMINO CALAPEZ CORREIA

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SUPERVISOR:

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Abstract

ExxonMobil Corporation (“ExxonMobil” or Company””) is the largest public Integrated Oil Company in the world and is involved in i) the exploration and production of crude oil and natural gas; ii) refining and marketing of petroleum products; and, iii) manufacturing and marketing of commodity petrochemicals.

This report issues a HOLD recommendation for ExxonMobil, with a 2022YE PT of $75.5/Share, using a DCF model, representing an upside potential of 20% in 18 months (IRR 12.7%), against the closing price of $63.08/Share, as of 30th June 2021, however, with a High Risk.

The company’s recommendation is mainly explained by: i) the Capital discipline; ii) the strong portfolio, with attractive economics; and, iii) significant proved reserves. However, ExxonMobil’s stock is trading at a discount mostly due to: i) exposure to high volatility in oil & gas prices; ii) uncertainty in global economic growth, following the pandemic economic crisis; and, iii) ambiguity over the industry energy transition and ExxonMobil’s controversial environment issues and historical position.

ExxonMobil’s valuation was performed using the FCFF model (Integrated and Sum of the Parts approaches) and complemented with other absolute methods, including FTE, CCF, DDM and NAV.

The Company valuation is subject to significant risks. Besides the high sensitiveness to commodities price changes, energy transition is a major threat to ExxonMobil’s operations. Nevertheless, the Company is increasing its resilience, significantly investing in the development of CCS, fuels cells, hydrogen and biofuels, mitigating energy transition risks.

However, reservations remain among activist shareholders considering ExxonMobil’s environmental controversies and low ESG scores, which suggest that further efforts must be made by the Company to address these issues.

JEL classification: G00; G10; G30; G32; G34; G35.

Keywords: ExxonMobil Corporation; Oil & Gas; Equity Research; Valuation; M&A.

Resumo

A ExxonMobil *Corporation* (“ExxonMobil ou “Empresa”) é a maior empresa cotada de *oil & gas* totalmente integrada a nível mundial cujas principais actividades incluem i) prospecção, pesquisa e produção de petróleo e gás natural; iii) refinação e *marketing* de produtos petrolíferos; e, iii) produção e comercialização de produtos petroquímicos.

Neste relatório é emitido uma recomendação de MANTER para a ExxonMobil, com um preço alvo de $75,5/acção no final de 2022, o que representa uma valorização potencial de 20% em 18 meses (TIR de 12.7%), face ao preço de fecho de $63,08/acção, a 30 de Junho de 2021, mas com risco elevado.

A recomendação da empresa é essencialmente explicada por: i) uma estratégia de disciplina no investimento; ii) forte carteira com rentabilidades atractivas; e, iii) reservas provadas significativas. Não obstante, as acções da ExxonMobil estão a ser transaccionadas a desconto, sendo maioritariamente explicado por; i) alta volatilidade dos preços do petróleo e gás natural; ii) incerteza relativamente ao crescimento económico mundial; e, iii) ambiguidade sobre a transição energética do sector e a controversa posição histórica da Empresa sobre estas matérias, em particular sobre temas ambientais.

A avaliação da ExxonMobil foi efectuada através do modelo FCFF (seguindo uma abordagem integrada bem como da soma de todas as partes) que foi complementada com outros métodos absolutos, nomeadamente, FTE, CCF, DDM e NAV.

Esta avaliação encontra-se sujeita a vários riscos significativos. Para além da elevada sensibilidade às alterações dos preços das *commodities*, a transição energética representa uma ameaça significativa às operações da ExxonMobil. Contudo, a ExxonMobil encontra-se a reforçar a sua resiliência, investindo significativamente no desenvolvimento de novas tecnologias para mitigar os riscos da transição energética, nomeadamente, CCS, células de combustível, hidrogénio e biocombustíveis.

No entanto, reservas permanecem entre os accionistas activistas, atendendo às controvérsias ambientais da ExxonMobil e as baixas pontuações nos índices ESG, o que sugere que deverão ser realizados esforços adicionais por parte da Empresa, de modo a endereçar estes temas.

Classificação JEL: G00; G10; G30; G32; G34; G35.

Keywords: ExxonMobil Corporation; *Oil & Gas*; *Equity Research*; Avaliação de Empresas; M&A; Fusões e aquisições.

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Patience.

Patience in accomplishing a long-time goal, where a lot of hard work and dedication was given.

Patience from the love of my life, Tânia, who, with endurance and persistence, supported me in this goal.

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Patience from my dearest friends, who, no matter which frequency is on, know I am there in heart and mind. A particular note to Sérgio and Pedro, who, patiently, helped a lot in this journey. Success was only possible working together.

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To all, thank you.

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Recomendation System Scale					
Level of Risk	Investment recomendation				
	Sell	Reduce	Hold	Buy	Strong Buy
Low risk	≤-10%	> -10% ∩ ≤ 0%	> 0% ∩ ≤10%	> 10% ∩ ≤20%	> 20%
Medium Risk	≤ 5%	> 5% ∩ ≤ 5%	> 5% ∩ ≤15%	> 15% ∩ ≤30%	> 30%
High Risk	≤ 0%	> 0% ∩ ≤ 10%	> 10% ∩ ≤20%	> 20% ∩ ≤45%	> 45%

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Glossary

	$ or USD	United States Dollar
A	**APV**	Adjusted Present Value
B	**B (/d)**	Oil Barrel(s) (per day)
	BBboe (/d)	Billion(s) barrel of oil equivalent (per day)
	Bbls (/d)	Oil Barrels (per day)
	BBtu	Metric Billion British Thermal Unit
	BEV	Battery electric vehicles
	Bn	Billion(s) (as in "$Bn")
	Boe (/d)	Barrel of oil equivalent (per day)
C	**CAGR**	Compound Annual Growth Rate
	CAPEX	Capital expenditures
	CAPM	Capital Asset Pricing Model
	CCF	Capital Cash Flow
	CCS	Carbon Capture and Storage
	CDS	Company Default Spread
	CEO	Chief Executive Officer
	CETR	Cash Effective Tax Rate
	Cf(d)	Cubic feet (per day)
	CFO	Cash flow from operating activities
	CO2	Carbon dioxide
	CPS	Current Policies Scenario
	CRP	Country Risk Premium
	CVX	Chevron
D	**D**	Debt
	DACF	Debt-Adjusted Cash Flow
	DCF	Discounted Cash Flow
	DDM	Dividend Discount Model
	DIO	Days Inventory Outstanding
	DPO	Days Payable Outstanding
	DPS	Dividend per Share
	DRM	Default Risk Model
	DSO	Days Sales Outstanding
E	**E**	Equity
	E&P	Exploration & Production
	EBIT	Earnings Before Interest and Taxes
	EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
	EBITDAX	EBITDA and Exploration Expenses
	EIA	U.S. Energy Information Administration
	EIU	Economist Intelligence Unit
	EPS	Earnings per Share
	ERP	Equity Risk Premium
	ESG	Environmental, Social, and Governance
	EV	Enterprise Value
	EV	Electric vehicle
F	**F**	Forecast (as in 2021F)
	F&D	Finding and Development
	FCFE	Free Cash Flow to Equity
	FCFF	Free Cash Flow to the Firm
	FCV	Fuel cell vehicles
	FY	Fiscal Year (as in FY2020)
G	**G**	Long-run sustainable growth rate
	GDP	Gross Domestic Product
	GHG	Greenhouse Gas
	GtCO2eq	Gigatonnes of equivalent carbon dioxide
	GWh	Gigawatt(s) hours
H	**HEV**	Hydrogen electric vehicle
I	**ICE**	Internal combustion engine
	IEA	International Energy Agency
	IMF	International Monetary Fund
	IOC	Integrated Oil Company
L	**lb**	Pound
	LNG	Liquified Natural Gas
M	**M&A**	Mergers and Aquisitions
	MBbls (/d)	Thousand(s) Barrels (per day)
	MBboe (/d)	Thousand(s) Barrel of oil equivalent (per day)
	MBtu	Metric Thousand(s) British Thermal Unit
	MBV	Multiples Based Valuation
	Mcf (/d)	Thousand(s) of cubic feet daily (per day)
	MMB (/d)	Million(s) Barrels (per day)
	MMBboe (/d)	Million(s) Barrel of oil equivalent (per day)
	MMBtu	Metric Million(s) British Thermal Unit
	MMcf (/d)	Million(s) of cubic feet daily (per day)
	MMT(A)	Million(s) Tonnes (per Annum)
	MMtoe (/d)	Million(s) Tonnes of oil equivalent (per day)
	Mn	Million(s) (as in "$'Mn")
	MT(A)	Thousand(s) Tonnes (per Annum)
N	**NAV**	Net Asset Value
	NCI	Non-Controling Interests
	NEO	Named Executive Officer
	NGL	Natural Gas Liquids
	NOA	Non operating Assets
	NOC	National Oil Company
	NOPAT	Net Operating Profit After Tax
	NWC	Net Working Capital
O	**OECD**	Organisation for Economic Cooperation and Development
	OPEC	Organization of the Petroleum Exporting Countries
	OPEX	Operational expenditures
P	**P**	Price (as in P / S)
	PD	Proved Developed Reserves
	PER	Price Earnings Ratio
	POC	Public Oil Company
	PT	Price Target
R	**R&D**	Research and Development
	R&M	Refining & Marketing
	RDSA	Royal Dutch Shell
	RFR	Risk free rate
	ROA	Return on Assets
	ROCE	Return on Average Capital Employed
	ROE	Return on Equity
	ROIC	Return on Invested Capital
S	**S**	Sales (as in P / S)
	SARD	Sum of Absolute Rank Diference
	SDS	Sustainable Development Scenario
	SG&A	Selling, General & Administrative expenses
	SoP	Sum of the Parts (valuation approach)
	SMR	Steam Methane Reforming
	STEPS	Stated Policies Scenario
T	**t**	Corporate tax rate
	Tn	Trillion (as in $'Tn)
	TSR	Total Shareholder Return
	TTE	TotalEnergies, SA
	TTM	Trailing Twelve Months
	TV	Terminal Value
U	**US**	The United States of America
	UK	The United Kingdom
	UN	United Nations Organization
W	**WACC**	Weighted Average Cost of Capital
	WC	Working Capital
	WEO	World Economic Outlook
	WTI	West Texas Intermediate
X	**XOM**	ExxonMobil Corporation
Y	**YE**	Year End (as in 2020YE)
	YoY	Year-over-year
	YTD	Yield-to-Date

ExxonMobil

Integrated Oil & Gas
NYSE

Ticker:	Current Price:	Target Price:	Recommendation:	Upside Potential:	Level of Risk:
XOM	$ 63.08 (30/06/2021)	$ 75.5 / Share (31/12/2022)	**HOLD**	↑ 20% (IRR:12.7%)	High

ExxonMobil: Leverage capital discipline while preserving dividends

1. Research Snapshot

ExxonMobil has a **HOLD recommendation**, with a **2022YE PT of $75.5/Sh.**, using a DCF model, representing an **annualized upside potential of 12.7%** against the **closing price of $63.08/Sh.**, as of 30th June 2021, however, with a **High Risk**.

ExxonMobil's **integrated business model** is characterized by i) a **strategy of capital discipline**; ii) **strong portfolio** with **attractive economics**; and, iii) **significant proved reserves**, that provides **long-term value to shareholders**, in a business with **high exposure to commodities price**.

Preserving dividends…

Despite the impact of the pandemic crisis in the Company's revenues and cash-flows, in contrast to European supermajors, **ExxonMobil did not cut dividends**, partly due to high retail ownership, maintaining the $3.48/Sh.

… through significant growth in leverage and decline of capital expenditures

However, these **dividends were not paid with organic cash-flows**. To commit to its dividend policy, ExxonMobil had to **increase the interest-bearing debt** by 44% YoY in 2020, to $67.6Bn. The Company had also to **cut 2020 capital spending** by 31% YoY to $21.4Bn. However, assuming a 2020-25F 24% CAGR in CFO, the Company **ensures sustainable organic growth** with an implied dividend coverage ratio of 1.06x and a payout ratio of 81%.

A strategy of Low Carbon Solutions was defined…

In the long-term, **crude oil is expected to remain the prevailing fuel** and **natural gas will be the fastest-growing fossil fuel**. However, in mature markets, renewables will be a growing energy source and **dependency on fossil fuels will erode**. Nevertheless, the Company is **significantly investing in** developing breakthrough energy efficiency processes related to **CCS, fuels cells, hydrogen and biofuels**, **mitigating the energy transition risks**.

… but reservations remain among activist shareholders

ExxonMobil has a **good individual environmental score**, regarding ESG, compared to other supermajors. However, paradoxically, several environmental **controversies** adversely impact the **Refinitiv ESG combined score** and the Company ranks in the **worst position among supermajors**, as well as the **worst quartile among the integrated oil industry**. Further efforts to mitigate ESG environmental controversies must be made by the Company, to address the concerns of **activist shareholders**.

However, commodities price remains the major key value driver

The **base case assumes a long-term Brent price of $55/Bbl.** However, **changes in crude oil prices might reassess the Company valuation**.

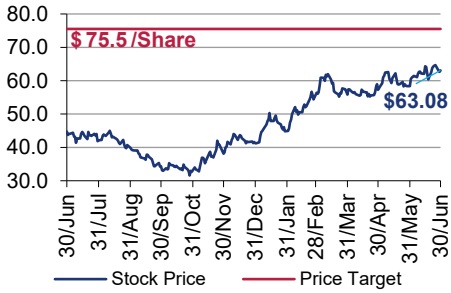
Table 3 – PT sensitivity ($/Share) to Brent Price ($/Bbl.)

Oil Price 2025F	30.0	35.0	40.0	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0
Price Target	41.5	48.3	55.1	61.9	68.7	75.5	82.3	89.1	96.0	102.8	109.6
Ann. Upside Potential	-24%	-16%	-9%	-1%	6%	**12.7%**	19%	26%	32%	38%	45%

Source: Author Analysis

Market cap ($'Mn)	**267,052**
Free float (%)	**99.8%**
No. shares outstanding (#'Mn)	**4,233**
YTD performance (%)	**34.7%**
52-week range ($/Share)	**$31.6 - $64.7**

Figure 1 – 52-week stock price vs. PT



Source: Author Analysis and Refinitiv

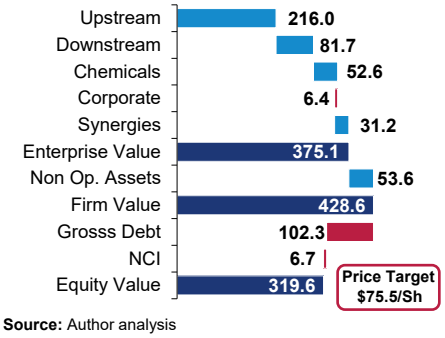
Table 1 – Financial Highlights

	2020	2022F	2025F
Revenues ($'Bn)	178.6	287.2	254.8
EBITDA ($'Bn)	18.3	43.8	49.9
EBITDA Mg. (%)	10.2%	15.2%	19.6%
Net Income ($'Bn)	(22.4)	18.1	20.6
Net income Mg. (%)	(12.5%)	6.3%	9.0%
CFO ($'Bn)	14.7	35.8	43.3
CAPEX ($'Bn)	21.4	21.0	27.3
Int. Bear. Debt ($'Bn)	67.6	79.9	74.5
Debt Ratio (%)	20.3%	39.6%	39.5%
Debt/EBITDA (x)	0.20	3.31	2.79
Book Debt/Equity (%)	43%	53%	44%
ROCE (%)	(1.4%)	6.8%	9.6%
ROE (%)	(12.9%)	12.3%	12.3%
Daily Prod.(MMboe/d)	3.76	3.72	4.14
Ref. Tput (MMbls/d)	3.78	4.10	4.38
Pet. Sales (MMbls/d)	4.90	5.41	5.63
Chem. Sales (MT)	25.5	26.9	34.8

Table 2 – ExxonMobil's dividend policy

	2020	2022F	2025F
DPS	3.48	3.48	3.90
EPS	(5.25)	4.24	4.82
Payout ratio (%)	(66.2%)	82.0%	80.9%
Dividend Yield (%)	5.5%	5.5%	6.2%
Div. Cover. Ratio (x)	(0.32)	1.08	1.06

Figure 2 – XOM EV Breakdown ($'Mn)



Source: Author analysis

2. Business Description

ExxonMobil Corporation ("ExxonMobil", "XOM", or "Company") is the **largest global Integrated Oil Company** ("IOC"), with a market capitalization of $267.1Bn and total assets amounting to $333Bn in 2020YE (Figure 3). The Company is involved in: i) the exploration and production of **liquids**[1] **and natural gas**; ii) transportation and sale of oil, natural gas, and petroleum products; iii) **manufacturing of petroleum products**; and, iv) **manufacturing and marketing of commodity petrochemicals**.

The Company was founded by John D. Rockefeller in 1870, in the USA, named "Standard Oil Trust" at that time, and in 1890 controlled almost 90% of the refined oil flows in the market. However, in 1911, it was dismantled by the US Supreme Court under anti-trust legislation and split into 34 companies, including Chevron, Jersey Standard[2] and Socony[3]. In 1999, **Exxon** and **Mobil Oil merged to form ExxonMobil** and in 2010 the **acquisition of XTO Energy made the Company the largest producer of natural gas in the USA**.

Geographic and business segments

The company operates through **three reportable business segments**: i) Upstream; ii) Downstream; and, iii) Chemicals. While **Downstream segment represents 79% of FY2020 revenues**, amounting to $140.9Bn, historically **Upstream had the largest net income**, due to larger margins and intersegment adjustments**. However, the FY2020 Upstream Net income amounted to negative $20Bn**, as a result of the COVID-19 pandemic crisis (Figure 4 and 5).

Geographically, the Company discloses the operations between **US and non-US**, but operates in all regions in the world, including: i) Canada / Other Americas; ii) Europe; iii) Africa; iv) Asia; and, v) Australia/Oceania (Appendix 2.1). Overall, **US has the highest FY2020 revenue**, representing 35%, followed by Canada, UK and Singapore (Figure 6).

Upstream

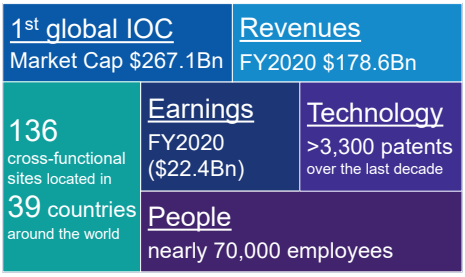
The **Upstream** segment **explores and produces oil and natural gas**. The Company's upstream business includes **exploration, development, production, marketing and research activities**.

The Upstream segment reported a **FY2020 EBITDA of $15.5Bn**, resulting in a **-4.5% CAGR**, in the FY2016-20 period. This decline was mainly due to lower **spreads** in FY2020, between oil & gas global **average realized price** and **F&D costs**, amounting respectively to **$33.0/Boe** and **$27.8/Boe** (Appendix 2.2).

In terms of portfolio, **ExxonMobil has a strong pipeline of Upstream projects, with attractive economics** (Appendix 2.3 and 2.4). ExxonMobil's **FY2020 total production** was **3,761 MBoe/d** with an **oil mix of 62%**, **diminishing the amount produced** by **1.9% CAGR** in the 2016-20 period (Figure 7). The most relevant projects for FY2020's production were i) **Qatar** (net capacity of 650 MBoe/d), ii) **Permian Basin** (367 MBoe/d); and, iii) **Kearl** (219 MBoe/d).

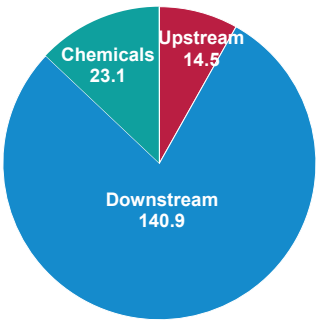
Regarding projected expansions, the main driving production growth projects are **Deepwater's Guyana** (331 MBoe/d); **Permian Basin** (187 MBoe/d); **Conventional Upper Zakum** in UAE (101 MBoe/d); LNG's PNG and Coral (119 MBoe/d); and **Deepwater *Bacalhau*** (ex-carcara), in Brazil (88 MBoe/d).

Figure 3 – ExxonMobil highlights



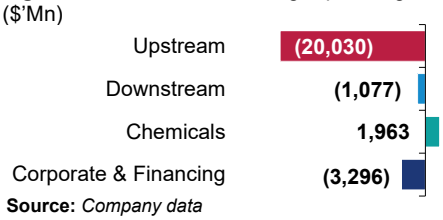
Source: *Company data*

Figure 4 – FY2020 Revenue per segment ($'Bn)



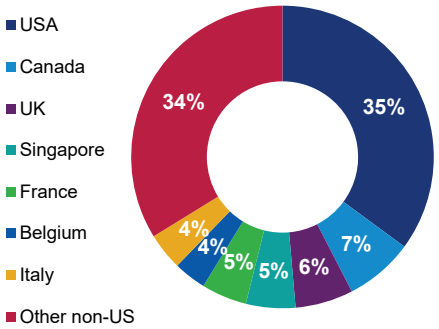
***Note**: Revenue do not include intersegment sales*
***Source**: Company data*

Figure 5 – FY2020 Earnings per segment ($'Mn)



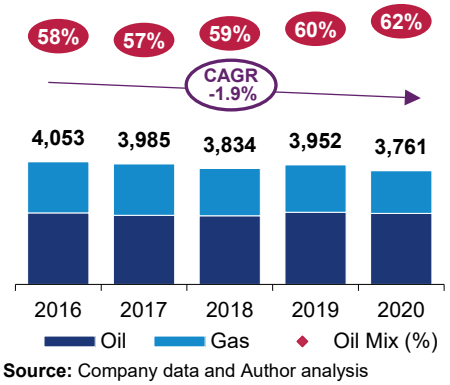
Source: *Company data*

Figure 6 – FY2020 overall revenue per country



Source: Company data and Author analysis

Figure 7 – Oil & Gas production (MBoe/d)



Source: Company data and Author analysis

[1] Liquids include crude oil, natural gas liquids, synthetic oil and bitumen – from now on referred as "oil".
[2] Which eventually became Exxon.
[3] Which eventually became Mobil.

In FY2020, **Proved Reserves decreased 32% YoY**, which became uneconomical due to COVID-19 pandemic crisis, amounting to **15.2 MMBoe in YE2020**, with an implied **reserve life ratio** of **11.1 years** (Figure 8).

Downstream

The **Downstream** segment **manufactures and sells petroleum products**, including **fuels and lubricants**. ExxonMobil's downstream operations refine and distribute products derived from crude oil and other feedstock. ExxonMobil's fuels and lubes marketing businesses have a portfolio of brands that include: i) **Exxon**; ii) **Mobil**; iii) **Esso**; and, iv) **Mobil1**, selling through **21,953 retail sites worldwide**.

Downstream segment **reported a FY2020 EBITDA of $1.4Bn**, corresponding to an **EBITDA margin of 0.8%** (Appendix 2.5)**.**

In FY2020, ExxonMobil **delivered petroleum product sales** of **4.9 MMBbls/d**, with gasoline and naphtha being the highest sold product (Figure 9).

ExxonMobil has an ownership interest in **21 refineries**, with a **total net capacity of 4.8 MMBbls/d**, which allowed a **FY2020 refinery throughput of 3.8 MMBbls/d**, i.e. **79% of refinery utilization** (Figure 10). The most relevant projects are in the **US** (Baytown, Baton Rouge and Beaumont) and in **Europe** (Antwerp, Gravenchon, Fawley). It is expected **improvement over refinery capacity**, through the following key expansions: i) **Beaumont Light-Crude Expansion**; ii) **FAST expansion**; and, iii) **Singapore Residual Upgrade** (Appendix 2.6).

Chemicals

The **Chemicals** segment manufactures and sells **petrochemicals**, including, olefins, aromatics, polyethylene, polypropylene, ethylene, polyolefins and other petrochemical products.

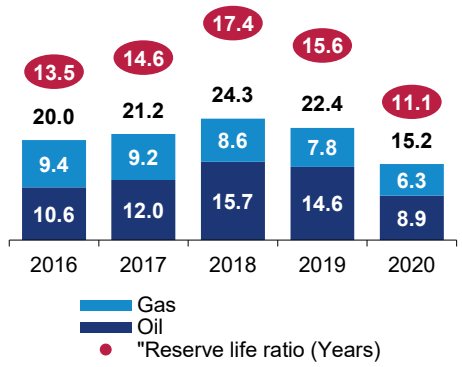
In FY2020, the Company has sold **25.4 MMT of chemical prime products**, which corresponds to **0.5% CAGR in the 2016-20 period** (Figure 11). **90% of XOM's chemical capacity is integrated with refineries or natural gas processing plants**, **boosting synergies across segments.** Besides the Downstream sites referred above, the major Chemicals projects are located in the Asia Pacific region, including the ones in Singapore and China. **Chemicals production capacity is expected to grow 8.75 MMTA**, **in the 2021-25F period**, following the expansion of the Corpus Christi and the Fuijan site in China (Appendix 2.7). This performance in Chemicals segment resulted in a **FY2020 EBITDA of $4.1Bn**, i.e., **a 12% EBITDA margin** (Appendix 2.8).

Company Key Drivers of profitability

ExxonMobil shares the same key drivers of profitability of the oil and gas industry and its peers, affecting i) **Revenue growth**, ii) **Cost management**, iii) **Asset efficiency** and, iv) **Organizational efficiency**. The Company's major key drivers of profitability are (not exhaustive)[4]:

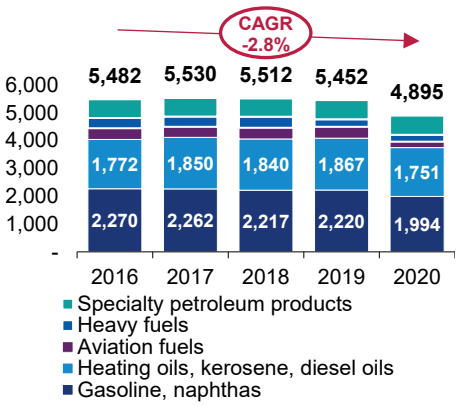
- **Commodities prices** – The prices of the commodities are the most important key value driver factor of the Company. Major oil and gas companies, due to their size, **cannot perform effective hedging strategies against the volatility of commodity prices** and, therefore, are **revenue takers** and **highly depend on the markets**.
- **Reserves** – Oil and Gas Reserves, particularly, **Proved Reserves** (Appendix 2.9), affect the Company's **potential revenue**, and **asset efficiency**, since ExxonMobil is very **capital intensive**, and its value depends on the

Figure 8 – Oil & Gas Proved Reserves (MMBoe)



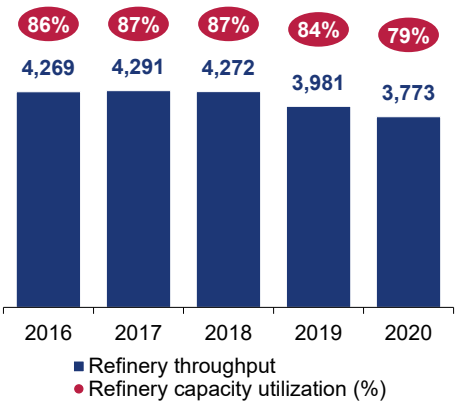
Source: Company data and Author analysis

Figure 9 – XOM's Petroleum sales (MBbls/d)



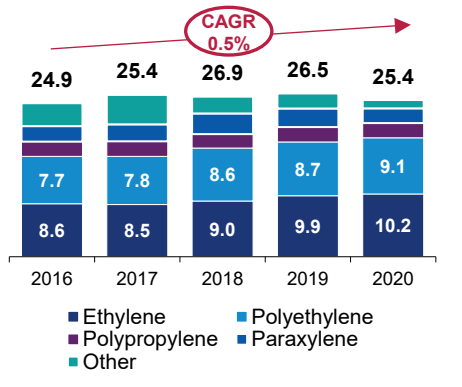
Source: Company data and Author analysis

Figure 10 – XOM Refining throughput (MBbls/d)



Source: Company data and Author analysis

Figure 11 – Chemicals products sales (MMT)



Source: Company data and Authors analysis

[4] For further details see Industry key drivers of profitability Section and the respective Appendix 4.6.

management of existing reserves and also the **capability to replace depleting reserves**. Therefore, the quantity and quality of oil and gas reserves affect the Company's **Capex** and **Working Capital**, considering **downtime's management of the assets** as well as **reserves replacement/life ratio**.

- **Asset portfolio management** – The management of the portfolio of assets is key to value creation, particularly, **rigs portfolio** in the upstream segment and the **refining sites** in the downstream and chemicals segments, investing based on highest value opportunities and **divesting based on strategic fit, materiality and growth potential**. A strong portfolio management assures the **optimization of the refining, marketing and chemicals production margins**.

Additionally, ExxonMobil, as an IOC, optimizes the **organizational efficiency** by the **synergy capture through vertical integration,** which **leverage efficiencies** and **enables better margins in the downstream and chemicals segments**.

Company Strategies

ExxonMobil's core business strategies provide the framework for the Company to comply with its commitments and create shareholder value throughout the commodities price cycle.

Sustain investment in oil and gas production, refining and chemicals

Considering long-term global prosperity, without continued investment to sustain existing producing fields and develop new resources **oil and gas supply declines 7% and 5% YoY**, respectively (Figure 12). These decline rates create a significant requirement for the Company to **maintain investments in oil & gas production and chemicals to sustain existing production levels and meet the projected global demand** (Appendix 2.10).

Significant new supplies are needed across a range of demand scenarios, considering the depletion of the estimated reserves without investment and current limitation in alternatives, which will **require approximately $20Tn of oil & gas investment needed by 2040**, according to IEA.

Capital discipline

Perform **disciplined investment and execute a dynamic capital reallocation from lower-return businesses to the highest return opportunities**, improving turnover, creating long-term value and providing **reliable and growing dividend**.

Leverage value chain integration

Value chain integration provides **competitive advantages** and enables the Company to **capture efficiencies, apply technologies, and create shareholder value across the business lines**, i.e. i) simplify standards and process interfaces; ii) **lower costs**; and, iii) **increase the speed and quality of the entire system**, by **maximizing capacity and minimize downtime** (Figure 14).

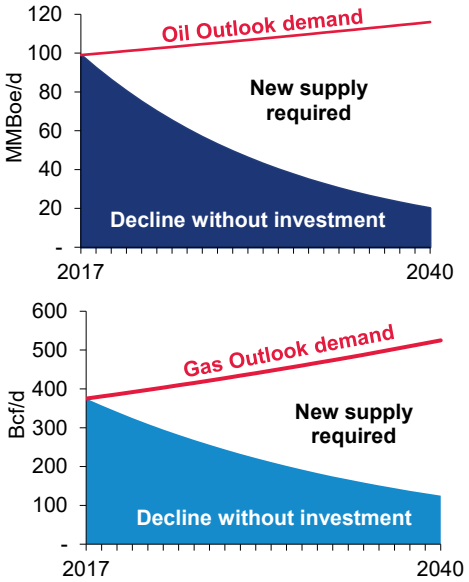
Maintain and improve financial strength

Higher financial strength provides **higher flexibility** in responding to **changing market conditions and economic cycles**.

Investment in innovative technologies

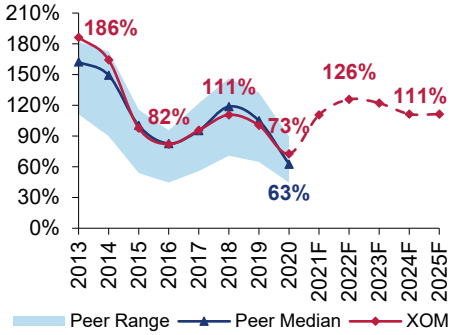
Investment in innovative and advanced technologies to strengthen advantages and address climate risk. **In the 2010-20 period**, ExxonMobil has **invested annually $1Bn in lower emissions solutions**. These technologies are needed to address barriers in existing alternatives to decrease CO_2 emissions in the **major pollutants sectors**, i.e. i) Commercial transportation, ii) Power generation; and, iii) Industrial sectors (Figure 15).

Figure 12 – Oil and Gas demand and supply warrant investment



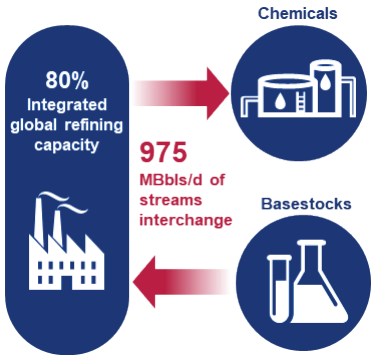
Source: *ExxonMobil (adapted by Author)*

Figure 13 – Assets Turnover (%)



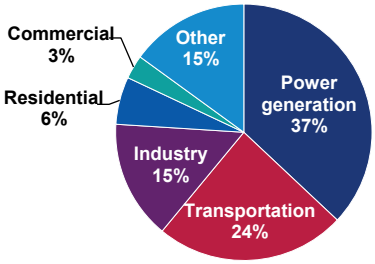
Source: Bloomberg, ExxonMobil and Author Analysis

Figure 14 – Integration synergies between Downstream and Chemicals segments.



Source: ExxonMobil (adapted)

Figure 15 – Energy Related CO_2 emissions by sectors



Source: IHS Markit, 2020

Business segment strategies

The detailed long-term strategies for each segment and the quantified goals can be observed in Appendix 2.11.

COVID-19 Tactical strategies

Due to the **COVID-19 pandemic** and, as a result, the economic crisis and low commodity prices, ExxonMobil has adopted **several tactical strategies** to address the issues:

- **Respond to low prices and margins environment while preserving advantages and value**: i) Reduce Capex by over 30% (Figure 16); ii) Preserve organizational capacity to capture upswing; iii) Maintain optionality and adjusting the pace of projects in line with markets; iv) Deferral costs offset with efficiencies and market savings.
- **Maintain capital allocation priorities**: i) Suspend discretionary activities; ii) Capture market savings and iii) lower Opex by 18% (Figure 17).
- **Leverage debt markets to mitigate demand impacts**: $20.7Bn in additional liquidity through revolving credit facilities.

Ownership Structure

The Company has **4,233 Million common shares outstanding**, each share representing one vote, with a free-float of circa 99.8% and inside ownership of 0.2% (Appendix 2.12). The Company has **high retail ownership (circa 45%)**, and among the 55% institutional shareholders, **86% are North American owners**, followed by British and Japanese owners (Appendix 2.12). Additionally, 82% of XOM's owners are investment advisor entities and the top shareholders are Vanguard Group (8.7%) followed by BlackRock (6.8%) – see Table 4.

Shareholders Activism

There is currently **four pending activism campaigns**, from CURA, Arjuna Capital, the New York Retirement Fund and a group of independent shareholders, requesting, i) **proper addressment of energy transition** in the Company's strategy; ii) the **upgrade of climate change policies**; ii) the review of corporate governance policies, to allow the **inclusion of an independent chairman** and; iii) the **review of the committees' compensation** (Appendix 2.13). **The success of these campaigns might benefit the Company's ESG score** and, inevitably, **its shareholder's value**. In early 2021, Engine nº1 activist shareholder won three seats on ExxonMobil's BoD to address concerns over climate change and energy transition.

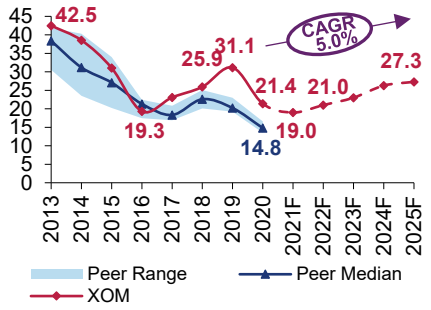
Dividend Policy

ExxonMobil has **consistently growing DPS at a 5.1% CAGR** in the 2013-20 Period, **aligned with the Company's long-term strategy**, even when earnings significantly decreased, with a payout ratio above 100% (Figure 19). In FY2020, despite the significant decrease in revenues and earnings, ExxonMobil **did not cut DPS**, at the cost of **lower capital expenditures, lower operational expenses** and **higher amounts of debt**.

However, **EPS had a -12.3% CAGR in the 2013-19 period**, resulting in the growth of the payout ratio, from 33% to 102%. Maintaining the growth of DPS above earning's **would be unsustainable in perpetuity** and, as a result, **it is expected convergence of the dividends growth with the earnings average growth**, within the economic cycle, **in the long-term**.

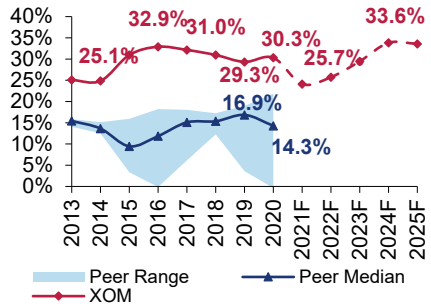
Additionally, following ExxonMobil's guidance, **significant repurchase of shares is not expected** in the mid-term, but a **consistent dividend growth is expected**. Therefore, **DDM is an appropriate valuation model for the Company**.

Figure 16 – XOM and peers Capex ($'Bn)



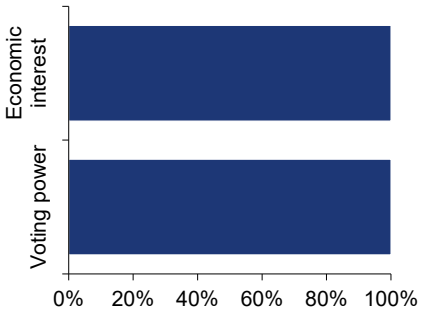
Source: Bloomberg and Author Analysis

Figure 17 – XOM and peers Gross Margin (%)



Source: Bloomberg and Author Analysis

Figure 18 – Voting power vs. Economic interest



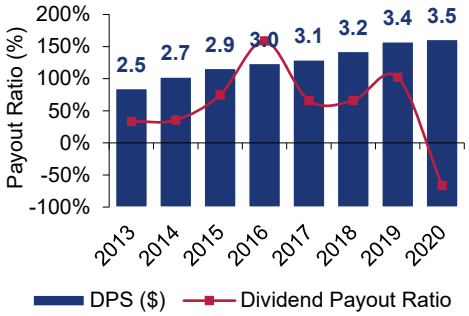
Source: Bloomberg

Table 4 – ExxonMobil Top Shareholders

Top 5 Shareholders		
#	**Shareholders**	**Out. (%)**
1	Vanguard Group	8.68%
2	Blackrock	6.80%
3	State Street Corp	4.88%
4	FMR LLC	1.73%
5	Geode Capital Management	1.49%
Total		**23.58%**

Source: Bloomberg

Figure 19 – ExxonMobil DPS & Payout Ratio



Source: ExxonMobil & Author analysis

3. ESG – Environment, Social and Governance

Regarding ESG metrics, **ExxonMobil has positive absolute metrics but it is behind its IOC peers**, with an ESG overall score of B+, and Controversies score of D-, which results in an ESG combined score of C [5] (Figure 20 and 21). This lower rank among peers is mainly due to **Social** and **Governance** pillars scores.

Environment

ExxonMobil has good Environment scores, either in absolute or relative terms. These results contribute to consistent reductions of CO_2 emissions, with a **-2.9% CAGR in the 2013-19 period** (Figure 22), accomplishing the **XOM's emissions curtailment defined targets**. Despite the consistent reductions, unlike the European IOC peers, **the Company did not state a "net-zero carbon emission" declaration so far**. Additionally, several environmental controversies were raised by public sources and NGOs [6]. Nevertheless, in the 2021 Investor's Day the Company announced a **new Low Carbon Solutions dedicated segment**.

Furthermore, in FY2020, **the Company spent circa $5.5Bn in environmental expenditures**, i.e., 5.1% of total Capex, and 1.9% of total revenues (Figure 23). However, **in 2013-20**, **these expenditures have declined at a 2.2% CAGR.**

ExxonMobil has invested a total of **$10 Bn since 2010**, in projects to research, develop and deploy lower-emission energy solutions. The defined **long-term strategies** regarding **alternative energy solutions** with lower-carbon intensity include:

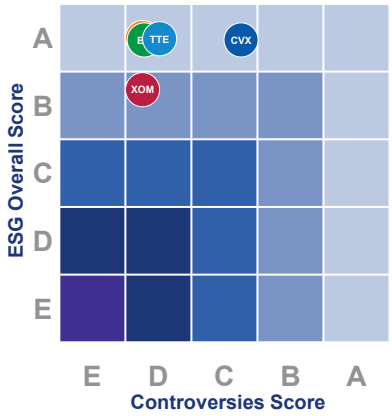
- **Advanced Biofuels** – ExxonMobil is currently developing two biofuels programs: i) **cellulosic biodiesel**; and, ii) **algae** and defined a target of **10 MBoe/d production** by 2025, i.e., 0.27% of 2020 Upstream production;
- **Carbon capture and storage ("CCS")** – ExxonMobil is currently progressing economic solutions for large-scale deployment for this technology, already having **20% of global CCS capacity, being the global leader**; and,
- **Energy-efficient manufacturing –** Development of new and efficient technologies that require less heat and energy, while reducing emissions, in the industry sector.

Considering the environmental controversies, **efforts must be performed to assure lower emissions commitment**, by **accepting the activist shareholders pending requests**.

Social

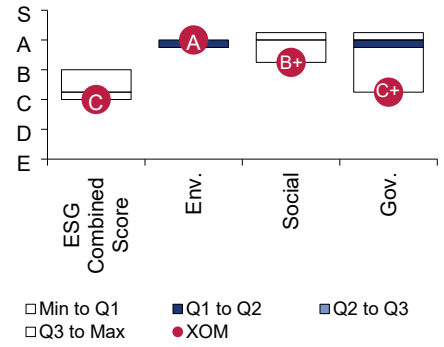
ExxonMobil Social Pillar B+ score, **in absolute terms, is positive**, **but it is the lowest compared with the peers**. **Improvement opportunities** were identified **regarding** mostly the **human rights area** (Appendix 3.1), including deficiencies concerning i) freedom of association policies, ii) hiring of human rights (breaches) contractors, iii) ethical trading initiatives. Also, deficiencies in other social areas were identified, regarding i) health & safety policies and training; ii) diversity and opportunity target definitions; and, iii) a minor number of layoffs. Additionally, controversies related to: i) business ethics; ii) tax fraud; and, iii) anti-competition were raised.

Figure 20 – Refinitiv ESG Score Matrix



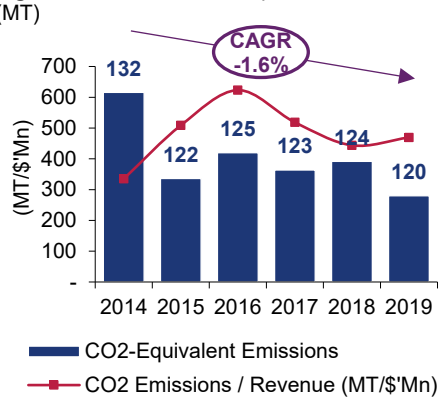
Source: *Refinitiv, adapted by Author*

Figure 21 – XOM's Refinitiv ESG pillars Score



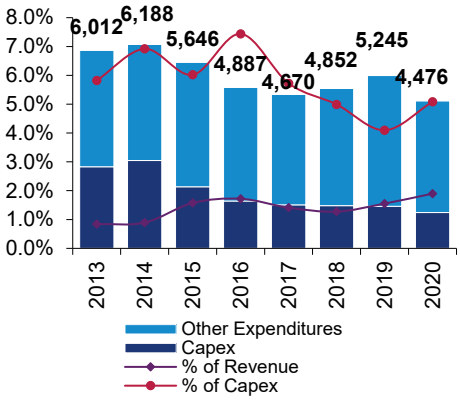
Source: Refinitiv, adapted by Author

Figure 22 – XOM's CO_2-equivalent Emissions (MT)



Source: Refinitiv and Author Analysis

Figure 23 – XOM's Environmental expenditures ($'Mn)



Source: Company data and Author analysis

[5] The Refinitiv ESG methodology scores ranges from E to S, being E the worse score and S the best Score. Refinitiv ESG Combined Score combines the weighted average score of ESG Overall Score with ESG Controversies Score. ESG Overall Score combines the weighted average of three pillars, i.e., Environment, Social and Governance.

[6] NGO InfluenceMap alleges ExxonMobil has been significantly lobbying against climate change policies (See Appendix 3 and Influence Map, 2017, 2018, 2019).

Nevertheless, **significant improvements** were identified in other areas, such as **Workforce and Community**, with **consistent decreasing incident rates**, **increasing women and minorities in management**, and **consistent donations to the communities**.

Management and Corporate Governance

ExxonMobil has the Worst Governance Score among peers, especially regarding Management and Shareholders (Appendix 3.1). ExxonMobil follows a **Unified Management Form**, where Mr. Darren Woods accumulates both Chairman of the Board of Directors and CEO positions, in accordance with industry's standard practices.

The Board of Directors ("BoD")

XOM's BoD is currently **composed of 12 members**, including the Chairman & CEO and **eleven independent directors** (Table 5). Annually, the BoD is subject to elections at the annual meeting of shareholders. BoD main functions include; i) Oversee the XOM's management, including oversight of risk management; ii) Review XOM's long-term strategic plans; iii) Exercise direct decision-making authority in key areas, such as declaring dividends; iv) Select the CEO; v) Evaluate the CEO's performance; and, vi) Review development and succession plans for XOM's top executives.

Based on adverse media search and screening procedures, **there is no evidence of potential conflicts of interests regarding BoD members' private interests**. Screening procedures on BoD members reveals a **mix of backgrounds, knowledge, skills and diversity**. However, **historical political ties were found,** considering **former Chairman and CEO Rex Tylerson was the President's Trump's Secretary State of Energy**. Additionally, **a non-independent chairman raises a potential conflict of interest issue**, already advised by global corporate governance expert entities, such as Glass Lewis, and activist shareholders, due to **self-evaluation of CEO performance**. Nevertheless, as referred, in early 2021 **Engine nº1 activist shareholder nominated three directors to BoD**, **to address concerns over climate change, energy transition** and **ESG records**.

The Management

Mr. Darren Woods, as referred, is simultaneously Chairman and CEO of ExxonMobil. Background check on remaining XOM's officers reveals a **high level of experience in the industry and the Company**, with **tenures reaching over 40 years**. XOM's Named Executive Officers ("NEO") include i) Darren Woods; ii) Andrew P. Swiger iii) Neil A. Chapman; iv) Jack P. Williams, Jr.; and, v) Neil W. Duffin (Table 5).

Management Compensation

ExxonMobil's executive direct compensation program applies to the NEOs and it is composed by: i) base salary; ii) Annual Bonus; and, iii) Performance Shares. In 2019, ExxonMobil's total reported CEO compensation amounted to $23.5Mn, from which $16Mn were direct compensation, being the best-paid executive, among peers (Figure 24). **The significant difference between the American IOC and European IOC is due to performance shares paid to the CEO**. In relative terms, compared to peers, **XOM has the worst pay-for-performance grade** (Figure 25).

ESG impacts on valuation

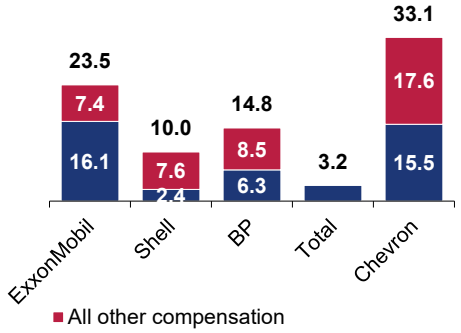
Lower performance in ESG combined scores, compared to peers, led to creating a specific recommendation for **ESG concerned and activist investors**, using a proxy to Damodaran's Punitive Vision Scenario, where **adjustments to WACC were applied in the primary DCF model**.

Table 5 – XOM's BoD and Officers members

Board of Advisors	
Darren W. Woods	Joseph L. Hooley
Susan K. Avery	Steven A. Kandarian
Angela F. Braly	Ursula M. Burns
Kenneth C. Frazier	Michael J. Angelakis
Jeffrey W. Ubben	Gregory J. Goff
Alexander A. Karsner	Kaisa H. Hietala

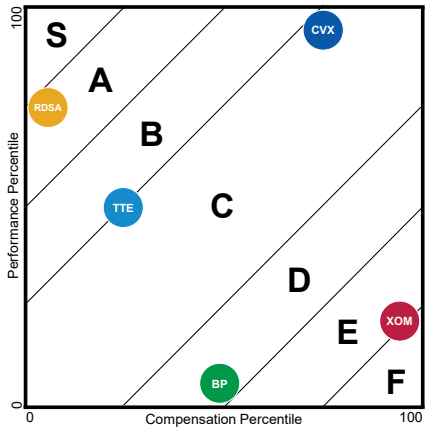
ExxonMobil's Officers		
Name	**Function**	
Corporate Officers		
D. W. Woods	Chairman & CEO	NEO
N. A. Chapman	Senior VP	
A. P. Swiger	Senior VP	
J. P. Williams, Jr.	Senior VP	
L. M. Fox	VP & Controller	
T. C. Gunnlaugsson	VP-HR	
S. A. Littleton	VP-Investor Relations & Secretary	
S. M. McCarron	VP-Public & Government Affairs	
C. S. Morford	VP & General Counsel	
J. M. Spellings, Jr.	VP, Treasurer & General Tax Counsel	
D. G. Wascom	VP-Op. Excellence, Safety, Sec., Health & Env.	
T. J. Wojnar, Jr.	VP-Corporate Strategic Planning	
Functional and service organizations		
Upstream		
L. D. DuCharme	President, XOM Upstream Bus. Dev. and Int. Sol.	
N. W. Duffin	President, XOM Global Projects Company	NEO
L. M. Mallon	President, XOM Upstream Oil & Gas Company	
Downstream		
D. L. Talley	President, XOM Research and Eng. Comp.	
I. S. Carr	President, XOM Fuels & Lubricants Company	
Chemicals		
K. T. McKee	President, XOM Chemical Company	
Other		
F. Y. Blommaert	President, XOM Low Carbon Solutions	
S. Gjervik	President, XOM Global Projects Company	
J. M. Gibbs	President, XOM Global Services Company	

Figure 24 – CEO 2019 compensation ($'Mn)



Source: Refinitiv, Company Data and Author analysis

Figure 25 – Pay-for-Performance CEO Grade



Note: *Analysis as of 2019. Information regarding compensation was not available as of 2020. Performance determined through the 10-year average TSR.*

Source: *Refinitiv, Bloomberg and Author analysis*

4. Industry overview and competitive positioning

World Economic Outlook

World Population

World population rose from 6.96 to 7.79Bn people in the 2010-20 period, growing at a **1.1% CAGR** in the last decade. In the 2020-40 Period, **a 0.8% CAGR is expected**, reaching a population of **9.20Bn people** (Figure 26). **An urbanization process** is also expected, where the urban population is projected to grow 1.3% CAGR in the 2020-25F period, above the overall population (Appendix 4.1).

World GDP Growth and Consumer prices

In the 2015-19 period, global real GDP has stabilized, with growth rates ranging between 2.3% and 3.2%, and non-OECD countries reaching an average growth rate of 3.8%, in the same period (Figure 27). However, **COVID-19 has significantly impacted the global economy,** with global real GDP reaching -5% YoY, **with emphasis on OECD countries** (-6.3% YoY). **It is expected a recovery in 2021F** to 5.7% YoY, driven by Asia and North America. Recovery will take longer in the remaining regions. The **pace of immunization programs will determine economic prospects for 2021-22F**. A potential **slow pace of vaccine distribution** could weigh on the global recovery and make it **possible for variants to emerge** that might prove resistant to current vaccines.

The consumer prices index is also expected to increase from 4,5% to 5.5% YoY in 2021F (Appendix 4.1). A **potential sharp rise in consumer prices could represent a risk to global recovery**, considering central banks would probably raise monetary policy rates to mitigate inflation.

World energy demand

The coronavirus pandemic and the lockdown measures needed to contain it have dramatically **decreased global oil demand in 2020**, which fell by nearly 8.7% YoY, to 91 MMBoe/d. Assuming the global economic recovery and a steady pace of the global immunization programs, it is **expected a growth in demand in 2021F** by 6% YoY, reaching pre-coronavirus level in 2022-23F (Figure 28).

Similar assumptions in the **natural gas demand forecasts**: In 2021, it is expected to increase natural gas demand by 3.3% YoY to 141.4 Tcf (Appendix 4.2).

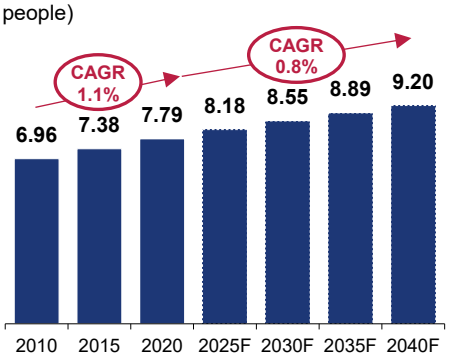
Long-term Scenarios

IEA has predicted three scenarios for the long-term outlook of primary energy sources demand, by 2040: i) Current Policies Scenario[7] ("CPS"); ii) Stated Policies Scenario[8] ("STEPS"); and, iii) Sustainable Development Scenario[9] ("SDS")[10]. Considering IEA STEPS, it is expected an **overall growth in global demand for energy sources**, to 343 MMBoe/d (Figure 29), **as prosperity rises, population grows and urbanizes**. Additionally, **fossil fuels remain dominant in the energy supply mix**.

Oil is expected to remain the prevailing fuel, with projected demand growth in IEA STEPS of 0.3% CAGR in 2019-2040F, to 97 MBoe/d by 2040, **driven by commercial transportation and feedstocks for the chemicals industry**.

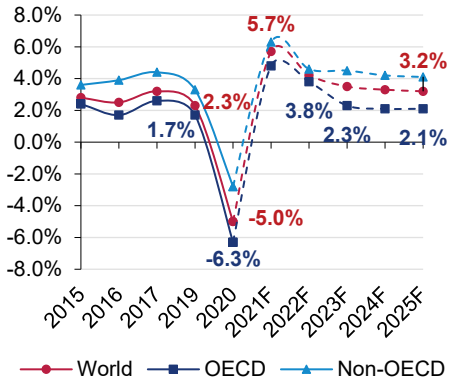
[7] Scenario that shows what happens if the world continues along its present path, without any additional changes in policy.
[8] Scenario that incorporates today's policy intentions and targets.
[9] Scenario regarding a strategic pathway to meet global climate, air quality and energy access goals in full.
[10] EIA STEPS, OPEC and XOM's 2040 outlooks, has similar trends, except for coal demand, where XOM's predicts a deeper fall of coal to 67 MMBoe/d.

Figure 26 – World population projections (Bn people)



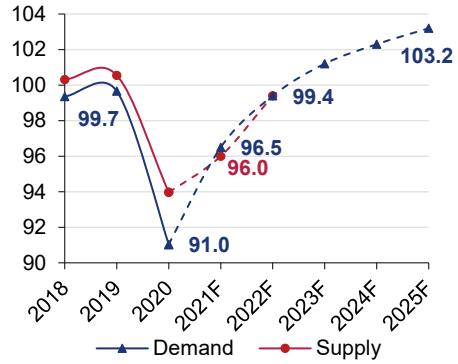
Source: United Nations, World Prospects

Figure 27 – World real GDP growth forecasts



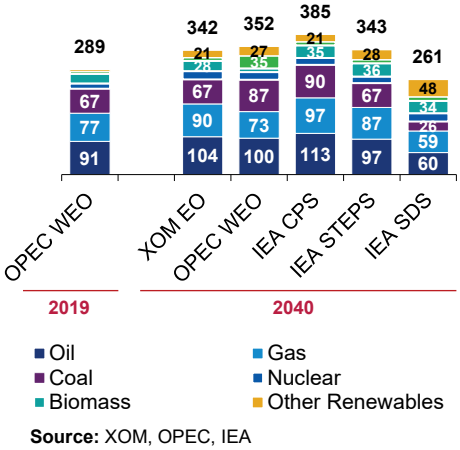
Source: EIU Forecasts

Figure 28 – Global oil demand and supply short-term forecasts (MMBoe/d)



Source: IEA & EIU, July 2021

Figure 29 – Energy Demand Outlook, by fuel type (MMBoe/d)



Source: XOM, OPEC, IEA

Natural gas is, by far, **the fastest-growing fossil fuel, with robust demand driven by the energy transition**, with a 0.6% CAGR in 2019-40F, i.e., an expected demand of 87 MMBoe/d by 2040. Global Natural gas demand is expectable to peak in the late 2030s as **electrification of heating and development of renewables may erode long-term demand**.

The renewables are fastest growing source of energy in the 2019-40F Period, with a 1.6% CAGR for Biomass and Hydro and 7.6% for other renewables, which include wind, solar and biofuels.

Global Oil & Gas Supply

Global oil production was volatile in 2020 due to the above-referred crash in demand and the implosion of the OPEC+[11] partnership, after Saudi and Russia failed to reach an agreement over production levels. The OPEC+ quota agreement reached in April 2020, defined that **OPEC countries and Russia would cut their production by a collective 9.7 MBbls/d**. Assuming the agreement to prevail, **oil supply is expected to grow 2.2% YoY** in **2021F**, to **96 MMBoe/d**, and **3.5% YoY** in **2022F**, to **99.4 MMBoe/d** (Figure 28).

Similar evolution in the **natural gas supply is assumed**, i.e., a **3.3% YoY growth in 2021F** and **2.5% YoY in 2022F** (Appendix 4.2).

Oil and gas prices

Oil prices are subject to a **significant level of volatility**, highly correlated with **exogenous economic shocks**, as well as **geopolitical tensions**.

The **significant decrease of oil demand**, as well as the **price war between Saudi Arabia and Russia in 2020**, which caused a spike in global oil supplies and flooded storage capacity, **led to prices tumbling to the lowest level in decades, even negative** (Appendix 4.3). Assuming OPEC+ compliance with the defined targets in the April 2020 agreement, until at least early 2022, **WTI** and **Brent indexes are expected to average $58.5 and $66.0/Bbl.**, respectively, **in 2021F** and **to peak in 2022F to $63.0 and $71.0/Bbl.**, **as the global economic recovery takes hold, boosting oil demand** (Figure 28). In 2024-25F, Brent index is expected to ease back steadily to **$55.0/Bbl.**, as global oil demand growth begins to taper off, reflecting the **global transition away from reliance on fossil fuels**.

Natural gas prices follow a similar trend: **2021F Henry Hub index** is expected to average **$2.6/MMBtu**, stabilizing to **$2.2/MMBtu in FY2025F** (Figure 31).

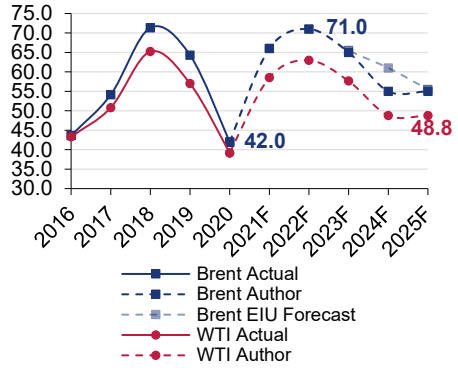
Considering commodities' prices evolution, **oil & gas players wrote down the value of several of their assets, since they became uneconomical, and it is likely to observe additional impairments in the upcoming years**.

Downstream

The corona virus outbreak had also affected the oil & gas downstream industries, particularly, refining, marketing and petrochemicals. **Refinery production** has **declined 9.6% YoY in FY2020**, to 73.9 MMBbls/d. However, it is projected a **recovery in refining throughput**, considering the growth observed in the first semester of 2021, to 75.0 MMBbls/d in 2021Q1 and 77.8 MMBbls/d in 2021Q2.

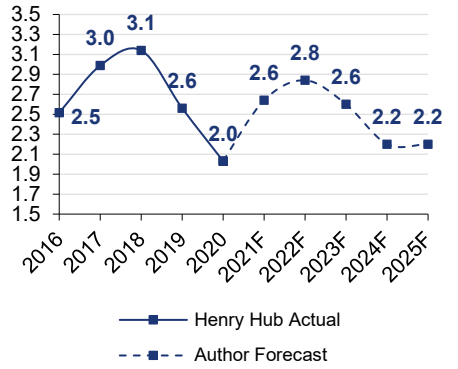
Refining margins also declined, with WTI crack spread [12] falling 63.4% YoY, from $25.0 to $9.1/Bbl. in the 2019M5-20M5 period, due to a **downturn in the jet fuel markets as a result of disrupted air travel** (Figure 33). **A recovery is expected in FY2021**, considering the evolution of 2021M03 crack spreads to $16.2/Bbl.

Figure 30 – Oil prices forecasts ($/Bbls)



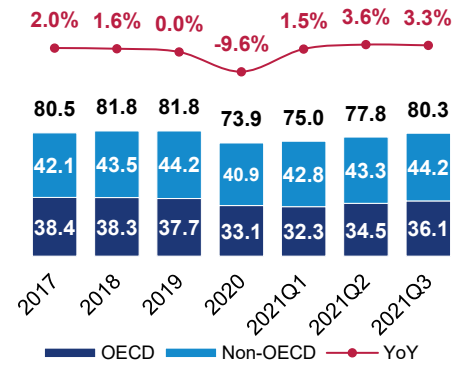
Source: EIU, IHS Markit & Author's analysis

Figure 31 – Natural gas price forecasts ($/MMbtu)



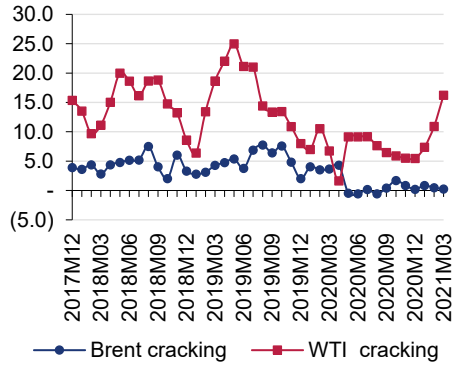
Source: Refinitiv & Author's analysis

Figure 32 – Global Refinery throughput by region (MMBbls/d)



Source: OPEC, July 2020 & Author analysis

Figure 33 – Major crack spreads indexes ($/b)



Source: OPEC

[11] OPEC+ includes OPEC members and 10 additional oil-exporting countries, led by Russia.
[12] Crack spreads are differences between wholesale petroleum product prices and crude oil prices.

Global Oil & Gas Industry Overview

Industry Structure

Oil & Gas industry includes the global processes of exploration and extraction – (**Upstream**); ii) transportation and trading (**Midstream**); and, iii) refining and marketing of finished products (**Downstream**[13]) – see Appendix 4.4.

The market structure is characterized by an **Oligopoly**, composed of a **small set of large players that influence the direction of the market and by a group of small companies conditioned by them**. ExxonMobil has a global crude oil production market share of 2.5% and **with the remaining supermajors a total of 11%** (Figure 34). As a result, **alone, they are not capable to significantly influence oil prices compared to OPEC, which owned 73% of the world's proved reserves** as of 2018 (Appendix 4.5). Among Supermajors, **ExxonMobil has the highest production market share**[14], amounting to 23% (Figure 35 and Appendix 4.5).

Oil & Gas industry is at a **mature stage in its life cycle**, with **business cycles ranging between 7 and 9 years** (Figure 36).

Mergers and Acquisitions activity in the industry

M&A operations are essential to oil and gas companies' long-term strategies, which enable i) the **enhancement of the portfolio**, through **asset rotation and strategic divestures**; ii) **maximize efficiency in capital allocations**, prioritizing **projects with lower break-even** assets and, iii) **improved organizational effectiveness**, that allows the **creation of value** to the shareholders.

The upstream M&A market had entered a **severe drop in 2020 following the radical deterioration of oil and gas industry conditions due to the COVID-19**. The number of deals in the global upstream activity has diminished 30% YoY in FY2020, from 175 to 123. M&A deals value also decreased significantly **from $154Bn to $101Bn**, i.e., **34% YoY in 2020F**. Based on the first semester of 2021, **it is expected an increase in M&A deals and value numbers** (Figure 37).

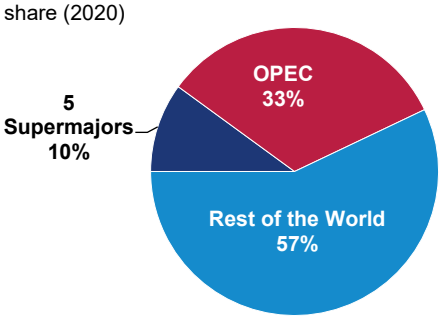
There were rumors in early 2021, of a **potential merger between ExxonMobil and Chevron**. Nevertheless, considering ExxonMobil's guidance and the market circumstances, **it is not expectable significant M&A transactions in 2021-22F**.

Industry key drivers of profitability

As referred in section Company Key Drivers of profitability, ExxonMobil and the industry share the same key drivers of profitability, i.e., i) **Commodities prices**; ii) **Reserves**; and, iii) **Asset Portfolio Management**, among others, affecting **Revenue growth**, **Cost management**, **Asset efficiency** and **Organizational efficiency** (Appendix 4.6).

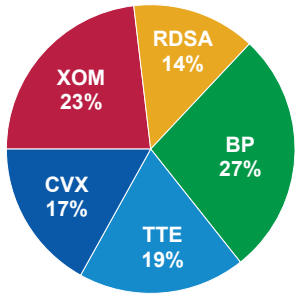
Although commodities prices are the most relevant factor to the companies' value, **Supermajors, individually, do not have control over the price markets** (Appendix 4.7). Regarding the other drivers, **ExxonMobil has advantages over its peers**, considering the **second highest average reserve life of 11.1 years**, **higher historical ROCE**, second highest **R&D / turnover ratio**, amounting to 0.57% (but historically has been the highest), and **significantly higher refinery capacity, amounting to 4.8 MMBbls/d in 2020F** (Figure 38 to 41).

Figure 34 – Global Crude Oil production market share (2020)



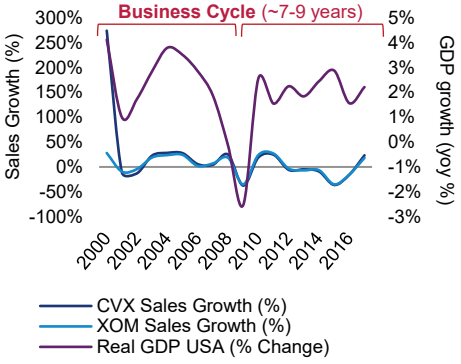
***Source:** Bloomberg, IEA & Author analysis*

Figure 35 – Oil & Gas supermajors reserves market share (2020)



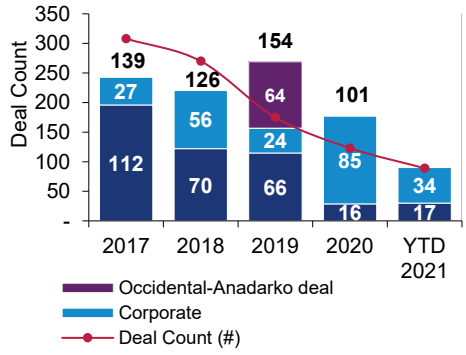
***Source:** Bloomberg, IEA & Author analysis*

Figure 36 – Oil & Gas US Business Cycle



***Source:** EIU and Author Analysis*

Figure 37 – Upstream industry transactions value and deal count ($'Bn)



Source: IHS Markit

[13] Industry's Downstream is equivalent to XOM's Downstream plus Chemicals segments.
[14] Historically, ExxonMobil has been the Supermajor with the highest proved reserves. However, due to the impairment of several major assets, in 2020, ExxonMobil has the second highest market share regarding proved reserves.

COVID-19 and Industry's challenges and opportunities

COVID-19 pandemic crisis combined a **supply shock with an unparalleled demand drop and a global humanitarian crisis**. On its current progress, the industry could be entering an era defined by **powerful competition**, **technological advancements**, **significant public/government pressure,** regarding climate and the environment, and **investor skepticism** considering the underperformance compared to S&P 500 and MSCI World indexes (Appendix 4.8).

A growing number of investors are **questioning** whether today's **oil and gas companies will ever generate acceptable returns** and the **uncertainty of their role in the energy transition**. Oil and gas companies will have to **demonstrate their alleged commitment to this subject. Discipline in investment, capital allocation, risk management, and governance will be critical**.

However, **oil and gas will remain foundational** under most scenarios**, even in models with the lowest level of energy demand.** The Industry's winner players will use this crisis to **reposition portfolios and transform their operating models**. The COVID-19 will profoundly impact the industry, **both short and long term** and **is rushing what was already shaping up to be one of the industry's most transformative trends**.

Industry Trends

Oil and gas industry **technological developments** have made progress towards **de-carbonization** and **energy efficiency improvements**. Research and Development over de-carbonization is **critical to achieving the Paris Agreement climate change targets of limiting global warming to 2ºC or less above pre-industrial levels by the year 2100**[15].

Carbon capture and storage (CCS)

Technology to capture CO_2 from industrial processes and production of fossil fuels or biomass and store them underground that prevent CO_2 from entering the atmosphere, with the capacity to capture 90% of CO_2 emissions. IEA SDS forecasts a **significant growth of this technology from 25 MT carbon captured in 2019 to 2,800 MT per year by 2050**.

Advanced Bio-fuels

Fuel for heavy-duty transportation needs high energy density, that liquid hydrocarbons provide, **and biofuels also meet this requirement**. **This technology can curtail 50% of GHG emissions** and it is also a **solution towards the power generation sector**.

Power generation

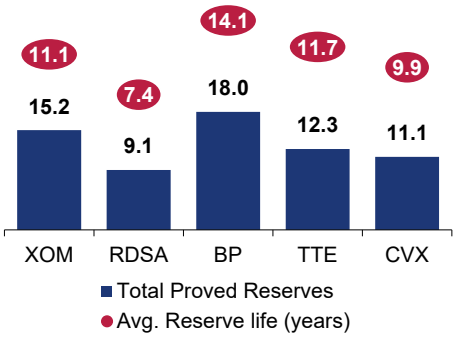
The power generation sector is responsible for 37% of CO_2 emissions (Figure 15). The world continues to "electrify" as **demand will increase**, regardless of each scenario, **with growth ranging 1.7%-2.2% CAGR, until 2040** (Figure 42).

Natural gas is a cleaner burning alternative to coal as the energy source for power generation, being the **fossil fuel with the least CO_2 emissions**. **It will grow in all scenarios as an electricity generation source**, except in IEA SDS, ranging between 1.7% and 2.3% CAGR, in the 2018-40F period.

The penetration of natural gas in power generation will depend on the impact of renewables, with **wind and other renewables predicted to range between 22% and 29%, in IEA CPS and IEA STEPS**, and even represent **50% in IEA SDS**.

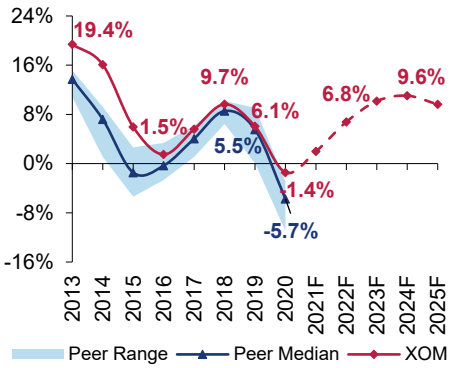
[15] Please refer to Political, Regulatory and Legal Risks subsection and Figure 79 – Historical and projected Global GHG emissions to 2030 (GtCO2eq).

Figure 38 – Supermajors Proved Reserves (BBoe) & average reserves life (2020)



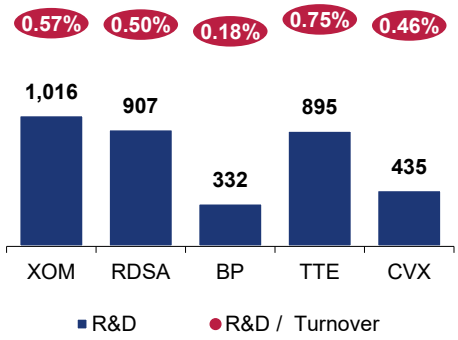
Source: Bloomberg and Author analysis

Figure 39 – Supermajors ROCE (%)



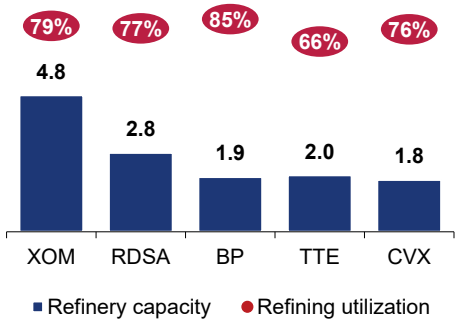
Source: Bloomberg, ExxonMobil and Author Analysis

Figure 40 – Supermajors R&D ($'Mn) and R&D / Turnover (2020)



Source: Companies Data and Author analysis

Figure 41 – Supermajors Refining Capacity (MMBbls/d) and Refining utilization (2020)



Source: Companies Data and Author analysis

Road transportation and electric vehicles

A decade ago, Electric Vehicles (EVs) were only a small niche market compared to Internal Combustion Engines ("ICE"). However, Battery EVs **("BEV") became mainstream in the road transportation sector due to the development of lithium-ion batteries** with vastly improved energy density. Provided EVs prices will continue to drop, **it is expected that by 2040 BEV's represent 14% of the global fleet**[16] (Figure 43 and 44).

The development of lithium-ion batteries made it possible to meet most drivers' daily needs, but **they are still far too big, heavy, and expensive to compete with ICE for long-distance heavy transportation**. An alternative might be Hydrogen EVs ("HEV") and Fuel Cell's EV's ("FCEV").

Hydrogen and fuel cells

As electricity, hydrogen is an energy carrier not an energy source. Currently it is mainly produced from **natural gas** and **oil-based hydrocarbons through Steam Methane Reforming ("SMR")**. It will likely be provided through electrolysis using **renewable power sources** (**green hydrogen**) in the future. An alternative could be **blue hydrogen** that uses **SMR plus CCS**. The **future demand between blue and green hydrogen will depend on the local economics**, i.e., the availability of cheap storage capacity for CCS or cheap renewable electricity.

Hydrogen might be used for power generation of EV, directly or through fuel cells. However, the current **higher efficiency of the BEVs suggests its demand will be higher than HEVs and FCEVs** (27% vs a total of 7% for new passenger cars) – Figure 44.

As referred, ExxonMobil is currently the **global leader in CCS**, with the **long-term strategy of producing hydrogen and fuel cells**

Competitive Positioning

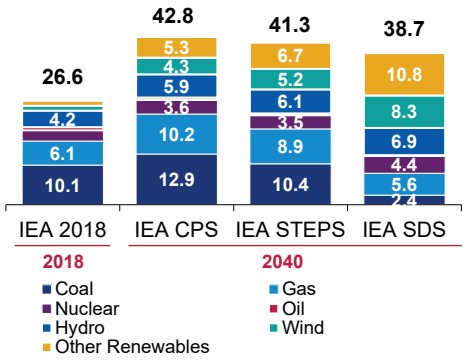
Peers identification

The identification of ExxonMobil peers for the competitive positioning analysis considered all companies classified as **"Integrated Oils"**, from Bloomberg's BICS classifications. Additional corporate intelligence procedures were performed: i) selection of **companies that were public oil companies** ("POC") and **not nationalized oil companies** ("NOC"); and, ii) selection of companies with the **highest market capitalization. ExxonMobil peers group includes Chevron, Royal Dutch Shell, Total and BP** (Table 6). Additional procedures were performed **for MBV**, including the SARD approach.

Industry corporate strategies

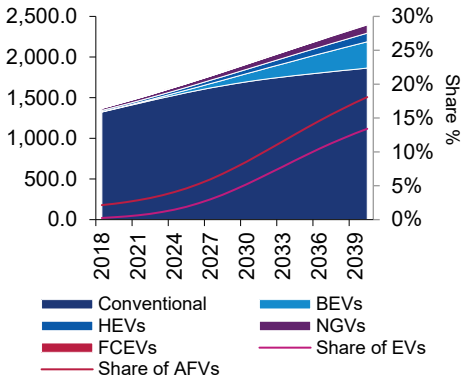
Oil and gas peer strategies to deal with the pandemic crisis are similar to ExxonMobil's, in the short-term i) IOCs **total Capex decreased 20% YoY in 2020 and expected to decrease an additional 11% in 2021F**[17], ii) **Near-term low-carbon spending among supermajors expected to drop down 17%**; iii) US Majors will continue to **preserve generous dividend payouts**[18]**,** as long as possible, in contrast to European peers, as this is key to satisfying investor expectations of returning funds to shareholders; iv) **cancellation of share buyback programs**; and, v) **higher debts to improve cash balances** (Figure 16 and Figure 46 to 50).

Figure 42 – Electricity generation 2040 Outlook, by fuel type (Thousand TWh)



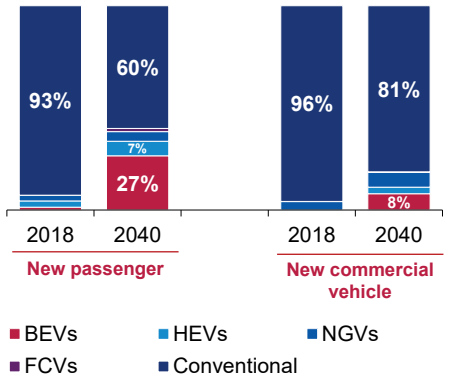
Source: IEA

Figure 43 – Composition of global fleet (Mn)



Source: OPEC in WOO

Figure 44 – Shares of new passenger car and new commercial vehicle sales by powertrain



Source: OPEC in WOO

Table 6 – BICS "Integrated Oils" ranked by market capitalization

Rank	Company	Market Cap ($'Bn)	Ownership	Relevant peer
1	Aramco	1,861,284	NOC	
2	ExxonMobil	267,052	POC	✓
3	Chevron	196,426	POC	✓
4	Shell	160,154	NOC	✓
5	Petrochina	123,640	NOC	
6	TotalEnergies	117,967	POC	✓
7	Gazprom	93,331	NOC	
8	BP	85,934	POC	✓
9	Rosneft	80,019	NOC	
10	Sinopec	70,653	NOC	

Source: *Bloomberg (July 2021) & Author analysis*

[16] Source: OPEC in World Economic Outlook.
[17] Similar evolution for organic capital expenditures.
[18] However, balancing high dividend payouts with capital discipline and sufficient reinvestment to replace reserves throughout the oil price cycle will continue to be a challenge, especially if crude oil prices drop to under $40/bbl.

Porter's 5 Forces

Threat of new entrants | Low (2)

The threat of newcomers into the industry is relatively low, considering:

- **Restrictive government policies** and competitive processes to obtain **production licensing**, which stands for long term and protect the current players;
- **Industry economies of scale**, being necessary a high level of production to reach the break-even and dilute the infrastructure fixed costs;
- **Need of high capital requirements** (WC and CAPEX), in all stages of the value chain, from Exploration (where investments does not even have a return guaranteed) to Refining (with large facilities), passing by R&D (for new technology e new products) – see Figure 16, 40, and 41;
- **Difficult access to distribution channels**, dominated by major companies that are vertically integrated, operating in almost every stage of the value chain;
- **Expected retaliation from actual players**, with substantial financial resources to overcome almost any strategy from newcomers, and with a track record of M&A processes over smaller players.

Bargaining power of buyers | Low (2)

Bargaining power of buyers is relatively small, by the following factors:

- **Vertical integration over the value chain** and **cartelization** within the industry gives companies a higher bargaining power than its customers;
- **Massive group of different kinds of buyers**, comprising single customers (e.g. refined products), industries (e.g. petrochemical) and state companies/incumbents (e.g. gas contracts);
- **Price determined in the market** (match of supply and demand), being the three main quotations the Brent Blend, the West Texas Intermediate ("WTI") and the Dubai/Oman;
- **Buyers are not price-sensitive**, given that there is no viable solution to massive alternative product substitution; and,
- **High costumer switching costs**, because changing from oil or gas, to another energy source is expensive and only possible in the long-run.

Bargaining power of suppliers | Medium (3)

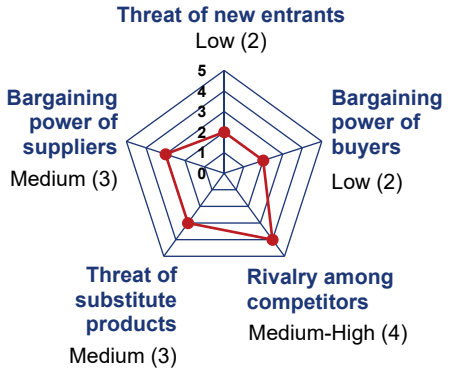
Given that the major players in the industry are **vertically integrated throughout the value chain**, the most relevant suppliers are oil producer countries, because of the following factors:

- States **detain the power to allocate** the exploration and production licensing;
- There are no **alternative substitute products**;
- **Oil producer countries cartelization, with OPEC having a major market share** (Appendix 4.5); and
- Oil producer countries might **integrate forward in the value chain**, creating a NOC to **explore their national resources**.

Although this is the powerful side of the negotiation, some **factors might offset** this power, such as:

- **Disruption in the cartel organization** (e.g. 2020 OPEC+ disagreement);
- **Political tension and economic sanctions** (e.g. Syria and Iran); and,
- Many countries are heavily **dependent on oil exportation** for financial stability.

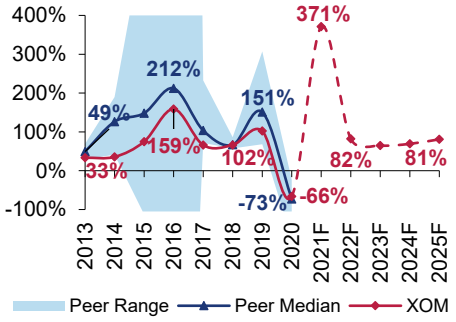
Figure 45 – Oil & Gas industry Porter 5 Forces



Legend: *Scale of 1 to 5 (from lower to higher threats to industry companies)*

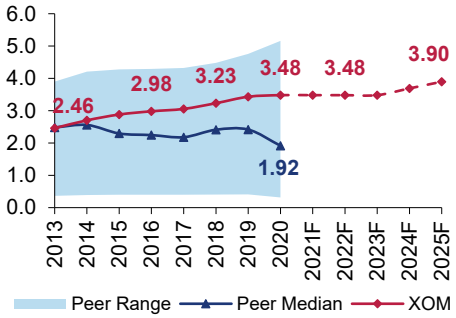
Source: *Author analysis*

Figure 46 – Supermajors Payout Ratio (%)



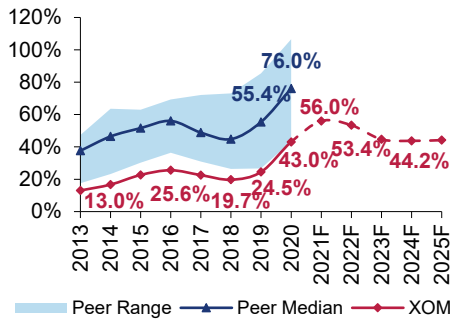
Source: Bloomberg, ExxonMobil and Author Analysis

Figure 47 – Supermajors DPS ($ / Share)



Source: Bloomberg, ExxonMobil and Author Analysis

Figure 48 – Peers Book Debt-to-Equity (%)



Source: Bloomberg, ExxonMobil and Author Analysis

Threat of substitute products | Medium (3)

The actual threat of substitute products or services is medium, given that:

- **No viable solution to massive substitution of plastic and most of petrochemicals**;
- Other **actual sources of energy tend to lose importance in the global energy mix**, for environmental (such as coal) and political reasons; and,
- **Alternative energy sources are not expected to substitute hydrocarbons in the short term**, only offsetting the rising energy demand.

As above referred, the **threat of substitute products tends to rise in the long-run,** with the search and development of alternative fuels and expansion of renewable energy production.

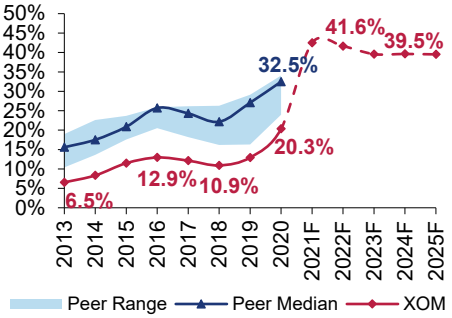
Rivalry among existing competitors | Medium-high (4)

- There are **many players**, and some of them are roughly **similar in size and power** (the 5 supermajors) – See Figure 51.
- **Industry is marginally growing**, so players must struggle for additional market share;
- NOCs **might not act based on economic rationality**, for instance, pursuing political agendas;
- Products have little or no differentiation; and,
- **Exit barriers are high given the decommissioning costs** of production stoppage (e.g. costs of shutting down a well or abandoning a refinery).

Although the previous factors, some characteristics of the industry partially offset the competition level, such as:

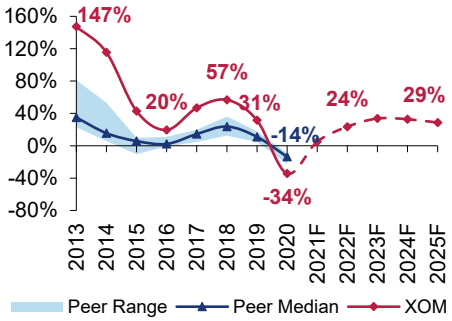
- **Players do not compete on price**, which is formed in the market by supply and demand match; and,
- Players try to **differentiate on brand and services delivered**.

Figure 49 – Peers interest-bearing debt ratio (%)



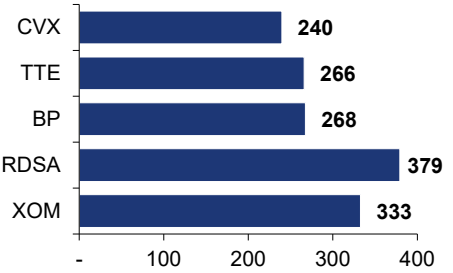
Source: Bloomberg, ExxonMobil and Author Analysis

Figure 50 – Peers debt coverage (%)



Source: Bloomberg, ExxonMobil and Author Analysis

Figure 51 – Supermajors Total Assets ($'Bn)



Source: Bloomberg and Company data

SWOT Analysis

Figure 52 – SWOT Analysis

Strengths	Weaknesses
• **Fully integrated business**; • **Historical highest reserve base** and **average reserve life** compared to other supermajors; • **Highest upstream production** compared to other supermajors; • **Firm downstream operation** with the largest refining capacity among supermajors; • **Increasing efficiency** • High historical M&A activity **improved portfolio**; • **Brand power**; • **Strategic agreements** and partnerships.	• **Low oil and gas prices**; • **Low ESG scores**, compared to other supermajors; • **High leverage** compared to ExxonMobil history; • **Cyclical business**; • **High maintenance costs** of the existing infrastructure.
Opportunities	**Threats**
• **Strategic Advantage in Permian, Guyana and LNG pipelines, with large potential to increase production growth**; • **Commercial opportunities linked to the energy transition** (Advanced biofuels and CCS); • **Investment in fuel cell technology** and hydrogen; • Long-term emerging markets **increase demand for oil & gas**; • **Deep water** and US tight oil.	• **Slow pace of COVID-19 vaccine distribution** and possible **new variants to emerge**; • **Energy transition trends**; • **Geopolitical context and supply tension** (*e.g. OPEC+ non-compliance with production quota; and, production disruption in countries under economic sanctions*); • **Environmental laws** (*Paris climate agreement*); • **Oil spills** with high economic, environmental and reputational costs; • Labor union **strikes**; • Governments **regulations**; • **Terrorism** / sabotage (e.g. strong presence in unstable countries)

Source: *Author analysis*

5. Investment summary

The **base case** recommendation for **XOM is to HOLD**, with a **2022YE PT of $75.5/Sh.**, representing an **upside potential of 20% in 18 months**, corresponding to an **annualized return of 12.7%**, against the **closing price of $63.08/Sh.**, as of 30th June 2021, however, with a **High Risk** (Appendix 5.1, 5.2 and Figure 53).

Blue and Grey Scenarios were determined with a 2022YE PT of **$89.1/Sh. and $51.3/Sh**, respectively, **considering the assumptions in Figure 54**.

Despite the base case neutral recommendation, **XOM's stock is trading at a discount**, mainly explainable by: i) exposure to **high volatility in oil & gas prices**; ii) **uncertainty in global economic growth**, following the pandemic economic crisis; and, iii) **ambiguity over the industry energy transition** and **XOM's controversial environment issues and historical position**. Nevertheless, **the recommendation is based on the following key pillars**:

Strong project pipelines with attractive economics (i.e., low Brent oil price index break-evens at 10% IRR), particularly the **Permian basin**, **Guyana** and **LNG portfolio** in Upstream and the **Beaumont Light-Crude Expansion** in Downstream and the **Corpus Christi** site in Chemicals.

Significant Proved Reserves, compared to peers, despite the 32% YoY decline, in FY2020, from 22.4 BBoe to 15.2 BBoe;

Integrated Business, with **significant synergies** within the three segments. **90% of XOM's central capacity is integrated** with large refineries or natural gas processing plants. Following the FCFF Sum of the Parts ("SoP") approach, it is estimated that **synergies represent circa 8% of the Company's EV**, i.e., $31Bn;

High dividend commitment, but questionable, partly due to **high retail ownership**, followed by a significant increase in the interest-bearing debt-to-book Equity from 2018YE's 19.3% to 43% in 2020YE, and reduction of Capex and Opex, which, **if not managed carefully, might compromise growth**.

Valuation Methods

Several **absolute methodologies** were computed to determine XOM's Price Target, with similar conclusions, **ranging from $75.0/Sh. to $78.7/Sh**. (Figure 55 and Appendix 5.1). The **FCFF discounted at WACC** was used as **the base model**, following a **SoP approach complemented with an integrated approach**, where implied synergies between segments were determined. Other methodologies were computed to complement the base model, including FTE, CCF, DDM and a high-level approach of NAV[19]. **Relative valuation methodologies** were also determined, but results were considered **not significant in the recommendation decision**.

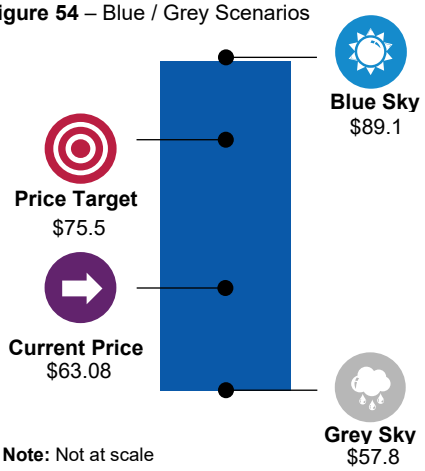
Investment Risks

XOM is exposed to **significant risks**, that must be highlighted to Investors. **XOM stock price is highly sensitive to commodities price**, particularly, Brent (Figure 56). Additionally, there is an emphasis on the **environment and operational risks**, particularly, in the case of an **oil spill**, that, although unlikely, **it would significantly impact XOM's PT**, changing the base case recommendation. Additionally, lower ESG combined scores compared to peers and industry, might also impact the recommendation, for an **ESG concerned investor if the Company does not make efforts to mitigate environmental controversies**.

Figure 53 – XOM's 2022YE PT ($/Share)

Source: Author analysis

Figure 54 – Blue / Grey Scenarios

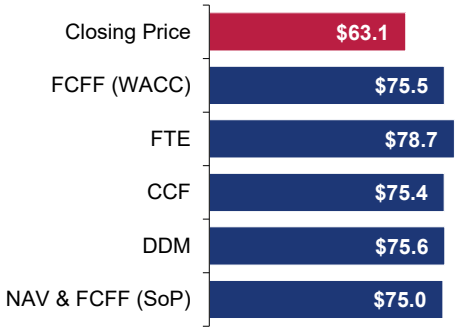


Note: Not at scale

Scenarios Assumptions			
Description	Base Case	Blue Scenario	Grey Scenario
Brent Long-term Price	$55/Bbl	$65/Bbl	$45/Bbl
Henry Hub Price	$1.80/MMBtu	$2.60/MMBtu	$1.80/MMBtu
G Growth	2.5%	2.5%	2.2%

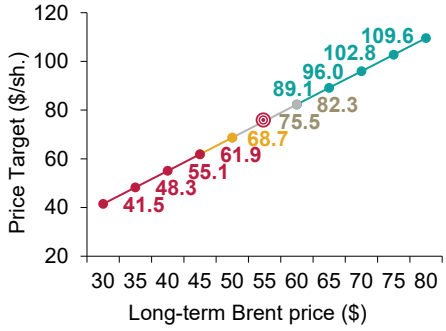
***Source:** Author analysis*

Figure 55 – Summary of relevant Valuation Methodologies vs. Current Price ($/Share)



Source: Author analysis

Figure 56 – Price Target sensitivity to Brent



Source: Author analysis

[19] Please see details over the rationale of NAV in the Valuation Chapter. Additionally, other absolute valuation methodologies were determined, such as Economic Profit and APV but considered not relevant.

6. Valuation

For ExxonMobil's valuation, please refer to the Forecasted macroeconomic and operational data in Appendix 6.1, standardized, rearranged and common-size financial statements, as well as complementary tables in Appendix 6.2 and 6.3, and a high-level rationale of the assumptions for relevant variables and inputs in Appendix 6.4.

Free Cash Flow to the Firm – Sum of the Parts Approach

FCFF SoP was the base model used for ExxonMobil's valuation, aligned with the Integrated approach. It was determined XOM's PT, with a two-stage DCF, where a detailed **2021-25F FCF schedule was computed**, complemented with a **stable growth rate model in the perpetual period**. A **WACC rate was also determined for each segment**. The FCFF SoP yields a **2022YE Price Target of $75.5/Sh.**, corresponding to an **annualized return of 12.7%**, against the **closing price of $63.08/Sh.** (Appendix 6.5 and Figure 57).

Following the FCFF SoP approach, the **majority of XOM's Enterprise Value comes from the Upstream segment**, which represents circa 58%, followed by Downstream with 22% and Chemicals with 14%. It is also estimated that **synergies between these segments are significant,** representing circa 8% of XOM's Enterprise Value and almost 10% of XOM's Equity Value.

The main drivers that contribute to the FCFF valuation are: i) **Commodities Prices and XOM's realization**; ii) **Downstream and Chemicals Margins**; iii) **Business segments production growth**; iv) **WACC rate assumptions**; and, v) **Long-run sustainable growth rate and terminal value**.

Commodities Prices and XOM's realization

As previously referred in previous sections, **commodities prices are the main key value driver for revenue growth**[20]. Author projections over Brent oil index were based on the information provided by the EIU. **XOM's oil price realization is naturally correlated with Brent's oil price index**, and therefore, **it is expected to follow the same trend**, corresponding to $46.0/b in 2025F (Figure 58). The same rationale applies to **Henry Hub's gas prices and XOM's natural gas realized prices**, corresponding to $2.2/Mcf in 2025F (Figure 59).

Refining and Chemicals Margins

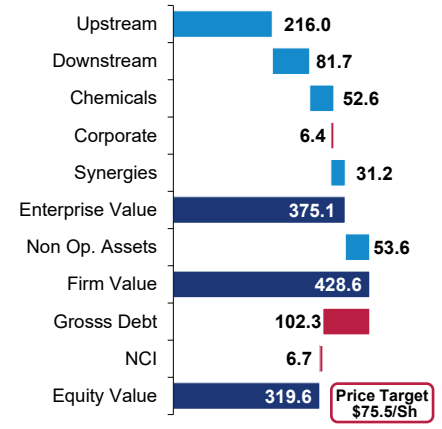
Refining and Chemicals Margins are also naturally linked to the Commodities Prices. The refining margins **depend on the oil & gas prices, affecting the crack spreads**, and it is expected a **stabilization between 2021F and 2025F**, from 16.9$/b and 17.3$/b to 15.3$/b and 13.2$/b, regarding U.S. and non-U.S., respectively (Appendix 6.1). The **Chemicals Margins are expected to follow the same evolution of Brent's oil price**, considering the 2025F projections over the price of prime products of **0.90$/lb for U.S**. and **0.62$/lb** for non-U.S. (Figure 60).

Business segments production growth

Business production growth analysis was performed project by project. ExxonMobil provided guidance over the **2025F Upstream production target of 5.0 Mboe/d**, driven by the **Permian Basin, Guyana and the LNG portfolio expansions**. However, it is likely to be revised, considering that, i) despite the projects with attractive economics, **XOM has consistently delivered overly optimistic production scenarios, missing the targets defined** (Appendix 2.3), and, ii) due to savings in capex, **several delays in the Upstream expansions are expected**,

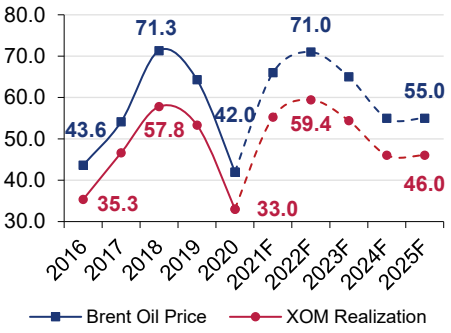
[20] Please revisit Industry key drivers of profitability section for further details.

Figure 57 – FCFF SoP Equity Value Breakdown ($'Bn)



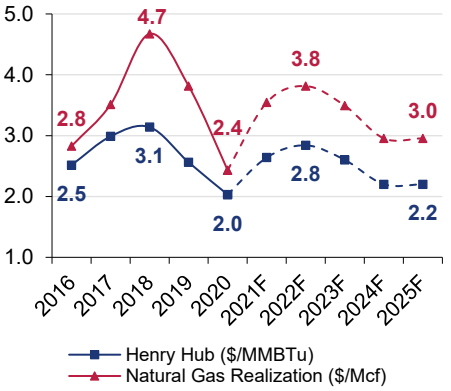
Source: Author analysis

Figure 58 – Brent vs. XOM realization ($/b)



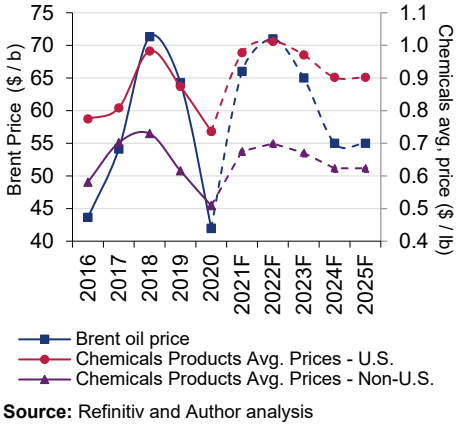
Source: Refinitiv and Author analysis

Figure 59 – Henry Hub vs. Natural Gas Realization



Source: Refinitiv and Author analysis

Figure 60 – Brent vs. Chemicals Avg. Price



Source: Refinitiv and Author analysis

with an **estimated total impact in revenues of $7.7Bn**, between 2021F and 2025F. Therefore, it was estimated a **2025F production of 4,138 Mboe/d**, with a **2020-25F CAGR of 1.9%** (Figure 61).

Regarding **Downstream**, the **refinery throughput is expected to grow** from 3,773 MBbls/d to 4,375 MBbls/d **in the 2020-25F period**, corresponding to a 3% CAGR. **This growth is driven by the expected improvement of the refining capacity** from 4,775 MBbls/d to 5,058 MBbls/d in the same period, corresponding to a **1.2% CAGR** and the **enhancement of refining utilization**, **from 79% to an average of 87%** (Appendix 2.6 and Figure 62).

Regarding **Chemicals**, **in 2020-25F**, it is expected a **6.4% CAGR in prime product sales**, considering: i) the **expected 5.5% CAGR in the production capacity**, from 28.2 MMTA to 36.9 MMTA; and, ii) **improvement of utilization rates** from **85.4% to 90.6%** (Figure 63, Appendix 2.7 and 6.1).

WACC rate assumptions

The FCF were discounted using the WACC method, considering the **long-term debt-to-equity** target of **30%,** defined by ExxonMobil and, therefore, **a stable capital structure is expected**, in the long-run. It is not reasonable to assume Debt-to-Market Equity to be stable in the 2021-25F, considering the **high level of debt underwritten by the Company** due to tactical measures over the pandemic.

The **cost of equity was determined using the CAPM**. The model includes i) a **1.28% RFR**, corresponding to the 10-year YTM of the U.S. Treasury Bond, i.e., the local bond methodology, assuming a null CRP, since the Company's country is the U.S.; ii) **MRP of circa 6%**, based on Fernandez (2021), adjusted with the above RFR and a null sovereign default risk spread; and, iii) **different unlevered betas corrected for cash for each segment**, based on the pure-play method, considering each industry average benchmark (Table 7 and Appendix 6.6).

The **integrated approach used the regression beta methodology** against the S&P500 index, **with the Blume adjustment**, which resulted in a **levered beta of 1.26** (Table 7 and Appendix 6.6).

The **1.91% cost of debt was determined using the Default Risk Model**, with an estimated Company Default Spread of 0.63% (Table 7 and Appendix 6.6).

Long-run sustainable growth rate and terminal value

The second stage of the DCF model consists of a perpetuity, in which was determined ExxonMobil's terminal value, using the **stable growth model.** The following steps were also performed: i) **normalization of FCF**; and, ii) **determination of the long-run sustainable growth rate**.

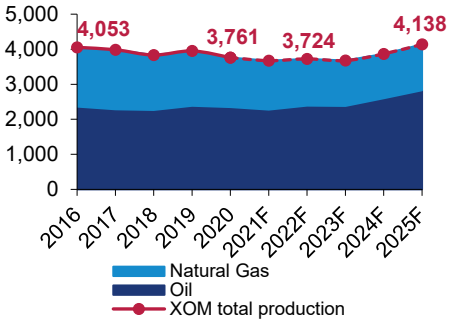
Normalization of Cash Flows

It was **determined the normalized NOPAT**, to **adjust the FCFF to the business cycle fluctuations** and provide the mid-cycle cash flow. This normalization was performed through a **linear regression in the 2018-25F NOPAT**, to reflect the 7-9 years business cycle (Appendix 6.7).

Long-run sustainable growth rate (g)

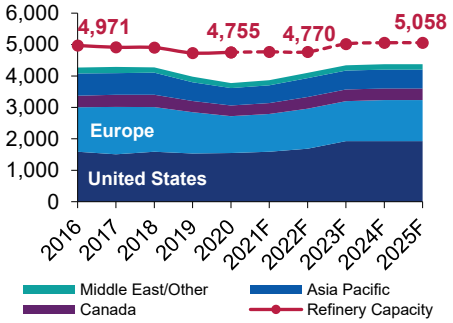
The **2.55% long-run sustainable growth rate** was determined, considering the **oil mix weighted CAGR of demand for oil & gas**, in the 2025-40 period, adjusted to inflation, reflecting the IEA STEPS, as a **conservative approach**.

Figure 61 – XOM Total Production (MBoe/d)



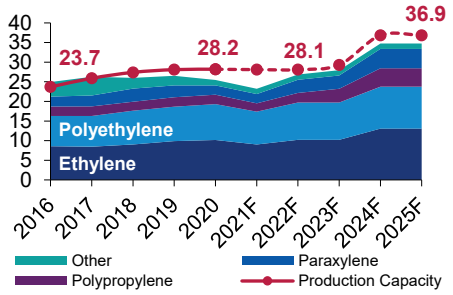
Source: Company data and Author analysis

Figure 62 – Refinery throughput vs. Capacity (MBbls/d)



Source: Company data and Author analysis

Figure 63 – Chemicals Prime Product Sales vs. Capacity (MMTA)



Note: Production Capacity excludes "Other" typology
Source: Company data and Author analysis

Table 7 – WACC determination and Weights

WACC Components - High level				
Description	**2023F**	**2024F**	**2025F**	**Terminal**
Cost of Equity (R_e)				
RFR	1.28%	1.28%	1.28%	1.28%
MRP	6.02%	6.02%	6.02%	6.02%
β_L - Integrated	1.26	1.26	1.26	1.26
β_L - Upstream	1.42	1.41	1.41	1.41
β_L - Down. & Chem.	1.18	1.18	1.18	1.18
D/E	30.0%	30.0%	30.0%	30.0%
Tax rate	18.8%	20.4%	19.7%	19.7%
R_e - Integrated (CAPM)	**8.9%**	**8.9%**	**8.9%**	**8.9%**
Upstream	9.8%	9.8%	9.8%	9.8%
Down. & Chem.	8.4%	8.4%	8.4%	8.4%
Cost of Debt (R_d)				
Cost of Debt	1.9%	1.9%	1.9%	1.9%
Cost of Debt, after Tax	**1.6%**	**1.5%**	**1.5%**	**1.5%**
WACC				
WACC - Integrated	**7.2%**	**7.2%**	**7.2%**	**7.2%**
WACC - Upstream	7.9%	7.9%	7.9%	7.9%
WACC - Down. & Chem.	6.8%	6.8%	6.8%	6.8%

Target Weights				
Description	**2023F**	**2024F**	**2025F**	**Terminal**
Debt Weight	23.1%	23.1%	23.1%	23.1%
Equity Weight	76.9%	76.9%	76.9%	76.9%

Free Cash Flow to the Firm – Integrated Approach

Complementing the SoP Approach, it was performed the **XOM valuation as a whole company**. The same DCF methodology was applied, adapting the WACC rate to 7.6%, to reflect the integrated business synergies, **yielding a 2022YE Price Target of $75.5/Sh.** (Appendix 6.5).

Flow to Equity

Complementing the FCFF methodologies, it was determined the FTE model. Using the **8.9% cost of equity** referred above, this model indicates a **2022YE PT of $78.7/Sh., providing consistent results with FCFF** (Appendix 6.8). Although the difference to the FCFF model is not significant, the deviation is mainly explained by: i) the interest expense forecasted has in consideration old debt in Company books[21] and **only new debt is paid at the cost of debt**; ii) the **operating cash effective tax rate is not fixed in the explicit period** (Figure 64), iii) the **debt structure changes in the 2021F-25F period** (Figure 65). Consequently, FTE was not considered the primary valuation model for the recommendation.

Capital Cash Flow

CCF was determined to complement FCFF methodologies, yielding a **2022YE PT of $75.4/Sh., providing similar results**[22]**.** This model determined an **unlevered cost of capital** (Pre-tax WACC) **of 6.1%** (Appendix 6.9).

Dividend Discount Model

As previously referred, ExxonMobil has provided **consistent growing dividends over the last decades, failing to raise dividends for the first time, in FY2020**. However, despite some of the European peers having cut dividends, due to the coronavirus crisis, ExxonMobil has chosen to increase the amount of debt and maintain dividends. Therefore, DDM is a suitable model and it is estimated **a 2022YE PT of $75.6/Sh., determined through two-stages**.

In the first stage, it is determined the **cash flows associated to shareholders**, i.e., **dividends** (Figure 66)[23].

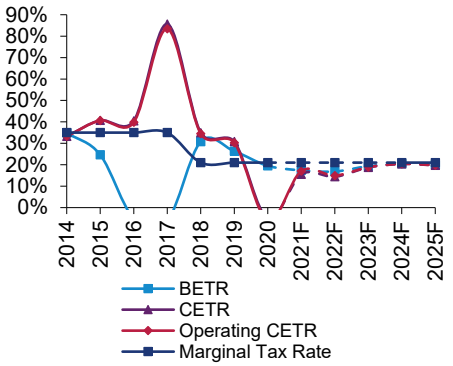
The second stage applies the H-Model[24], where it was considered i) an **initial short-term dividend growth rate of 6.1%**, aligned with the projected nominal world GDP growth, ii) an **half-life of the high-growth period of 8 years**, coherent with the oil & gas industry business cycles; and, iii) a **2.5% long-term dividend growth rate**, consistent with the FTE model (Appendix 6.10).

The DDM also implies a **2025F payout ratio of 81%**, ii) a **dividend coverage ratio of 1.06x**[25], and, iii) a **85% dividend coverage over FCFE**, assuming **XOM's policy will change to become sustainable in the long-term** (Figure 67).

Net Asset Value (Upstream) & FCFF SoP for Down. & Chemicals

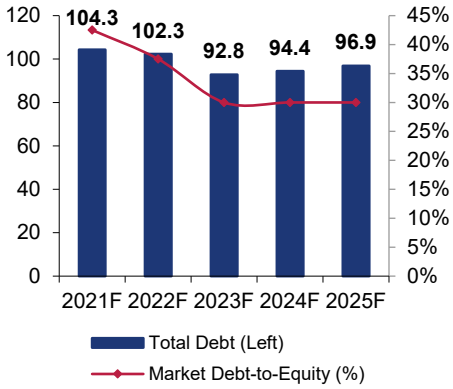
DCF models have disadvantages in the valuation of oil & gas companies: i) there is an unreasonable **assumption of perpetuity of companies**, but **natural resources are finite and scarce**; ii) **DCF models do not take into account a**

Figure 64 – Cash Effective Tax Rate vs. Book Effective Tax Rate vs. Marginal Tax Rate (%)



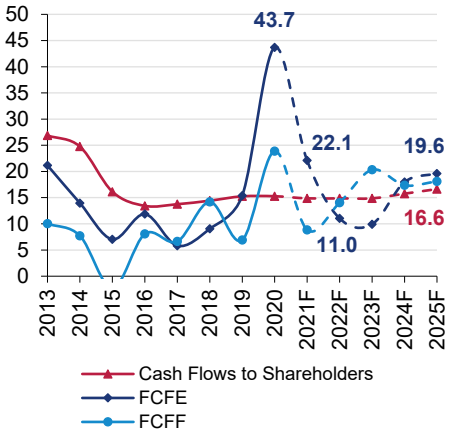
Source: Company data and Author Analysis

Figure 65 – Market Debt-to-Equity vs Total Debt ($'Bn)



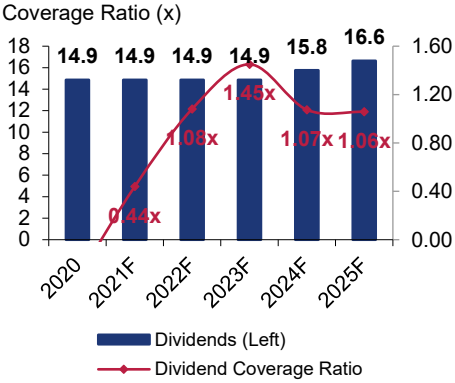
Source: Company data and Author Analysis

Figure 66 – FCFF vs. FCFE vs. Cash flows to Shareholders ($'Bn)



Source: Company data and Author Analysis

Figure 67 – Dividends ($'Bn) vs. Organic FCF Coverage Ratio (x)



Source: Company data and Author Analysis

[21] It was computed a detailed debt schedule, where the interest rate of each debt was considered.
[22] It was also determined a 2022F PT of $77.6/Sh., using the APV model. However, it is the preference of the author that the ITS should be discounted at the unlevered cost of equity, since the company actively manages its capital structure to reach a D/E target of 30% (Ruback, R.S., 2000, March 22).
[23] It is not expected share repurchases by ExxonMobil.
[24] A Gordon Growth Model where it is applied an higher dividend growth rate, in the short term, ensuring a smoother transition to a mature phase, with a lower dividend growth rate.
[25] Organic FCF coverage over dividends, i.e., Dividends represent 95% of 2025F organic FCF. It is defined organic FCF as cash flows from operations less organic less capex including cash capex towards affiliates. (Please see Appendix 6.2 – Cash Flow Breakdown, for details).

major oil & gas value driver, i.e., **Proved Reserves**; iii) they are **highly dependent on the Terminal Value**, which relies on long-term predictions of oil & gas prices; and, iv) **high capital expenditures requirements** that may create decreasing or even negative cash flows.

To circumvent these drawbacks, NAV models are commonly used to valuate oil & gas companies[26], considering the following features:

- NAV should be performed at an **individual asset level** and, based on estimated projections, it is determined the value of the **company as a whole**, at the end of the valuation;
- Assumption of **no capital expenditures nor reinvestment,** with **no additions to existing reserves**, except for **development costs over Proved Undeveloped Reserves**;
- Focus only on **cash flows linked to oil & gas exploration and production**;
- No assumption of perpetual growth – **Production only takes place while the company have proved reserves available**, i.e., completely runs out of natural resources.
- Cash flows are discounted at 10%, using the PV10 method, which is **consistent with the upstream 9.8% cost of equity that was determined**.

This model used **a high-level approach**, since no detail per project is provided[27], using the sum of the revenues, expenses and development costs linked to Upstream production, as a **proxy**. Regarding **Downstream and Chemicals**, it was used the **previously determined FCFF SoP valuation**. Using this model, it was determined a **2022F PT of $75.0/Sh., consistent with the main model** used (Appendix 6.11).

Regardless of the advantages of the model, the author met **several limitations**, which explain not using NAV as the primary model:

- ExxonMobil does not provide information regarding **probable and possible reserves** (Appendix 2.9);
- Although not material for the valuation, it was performed **strong assumptions in the high-level estimation of the undeveloped acreage value,** with no production (Table 8);
- ExxonMobil does not provide **detail of proved reserves as well as production & developments costs per project**; and,
- NAV is more appropriate to **focused E&P companies**.

Additionally, **64% of the FCFF model's Enterprise Value** (integrated approach) **comes from cash flows to be generated between 2023F and 2045F**, i.e., the explicit period and the first 20 years of the terminal period, partly **circumventing the limitation of the perpetuity assumption** (Table 9).

Multiples Based Valuation

Besides the absolute valuation models, MBV models were used, including TTM MBV and 2022F MBV models, but **both have limitations**.

Peer Group Selection

The peer group selection was performed combining **corporate intelligence procedures** and the **Top 6 players using the Sum of Absolute Rank Difference** ("SARD") **approach** (Table 10, Appendix 6.12 and 6.13).

Table 8 – NAV Undeveloped Acres estimations

XOM's Net Undeveloped Acreage			
Region	Acres (thous.)	$ / Acre	Value ($'Mn)
United States	3,031	350	1,061
Canada	6,514	250	1,629
Other Americas	12,471	250	3,118
Europe	6,232	250	1,558
Africa	24,707	200	4,941
Asia	280	200	56
Australia/Oceania	6,265	250	1,566
Total	**59,500**		**13,929**

Table 9 – Explicit Period vs. TV ($'Mn)

XOM's Enterprise Value ($'Mn)		
Description	Amount	%
Explicit Period	48,787	13%
TV - 20 Years	191,233	51%
Subtotal	**240,021**	**64%**
TV - Remaining Years	135,033	36%
Total	**375,053**	**100%**

Table 10 – MBV XOM's peers

SARD Rank	Company	SARD Result
1	Chevron	**18**
2	BP	**22**
3	Shell	**46**
4	TotalEnergies	**47**
5	ENI	**55**
6	Suncor	**58**

[26] For further detail over NAV models, please see: i) Howard, A. & Harp Jr., A. (2009); and, ii) S Valčić, S., Crnković-Stumpf, B. & Katunar, J. (2013).
[27] Except for oil & gas productions. The high level approach is also referred by Howard, A. & Harp Jr., A. (2009) and *Breaking Into Wall Street (n.d.)*, regarding oil & gas valuations.

Multiples Selection and specific oil & gas operating metrics

Besides the standard Price and EV Multiples, oil & gas companies' MBV can be performed through **specific industry multiples**. **EV/EBITDAX**[28] is preferable to EV/EBITDA, so companies that adopted different accounting policies can be compared[29]. **EV/DACF**[30] is also commonly used, since: i) it adjusts the effects of companies with different capital structure; and, ii) it adjusts the effects of taxes, since oil & gas fossil fuels have high tax burdens[31]. **EV/Proved Reserves** and **EV/daily Production** are also frequently used but are more appropriate to **E&P focused companies**.

Trailing Twelve Months (TTM)

TTM Price Multiples have provided inconsistent results since the peers selected have different capital structures (Appendix 6.14, Figure 68 and 69). Based on TTM EV multiples, excluding Proved Reserves and Daily Production, **2022F Price Targets range between $52.2/Sh. and 66.3/Sh**. **EV multiples** are usually more reliable but, considering the corona virus exogenous shock on companies' fundamentals, XOM's peers are mispriced and **also provide inconsistent results**. Additionally, **TTM multiples are not ideal for determining 2022F Price Targets**, since they rely on **historical data**, rather than **projected 2022F fundamentals**.

2022F Multiples

2022F multiples were also determined, where fundamentals[32] from ExxonMobil's peers were estimated using Bloomberg estimates. However, these multiples also **provided undervalued 2022F Price Targets**, **ranging between $26.4/Sh. and $48.4/Share**. This is because multiples denominators are based on projected 2022F values, but EV (numerator) regards to June 30, 2021 (instead of a projected 2022F EV[33]), resulting in an undervalued Price Target.

Based on the limitations above, **MBV was not considered relevant for ExxonMobil's valuation**.

Other methodologies determined but not used

The Author also determined a 2022YE PT of $50.2/Sh., using the **Economic Profit model**. Nevertheless, despite the rearrangement of financial statements and R&D adjustments, this model relies on accounting data, that is subject to biases. Further adjustments are required to provide reliable results. Additionally, as referred, **APV was also determined** but the Author preferred the CCF model (Figure 72).

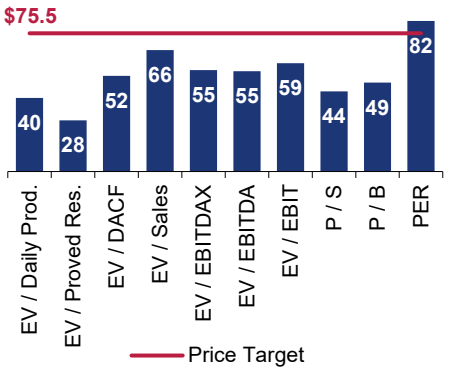
Author vs. Consensus

Author recommendation is aligned with consensus, with 59% of Neutral / Hold recommendations (Appendix 5.2).

Although with slight differences, Author projections are not far from consensus. ExxonMobil's 2024F oil realization projections are marginally higher than consensus (3.4%), but Revenue is aligned (only 1% higher). Author 2024F EBITDA projections are more conservative (5% lower) as well as 2024F EBIT (6% lower).

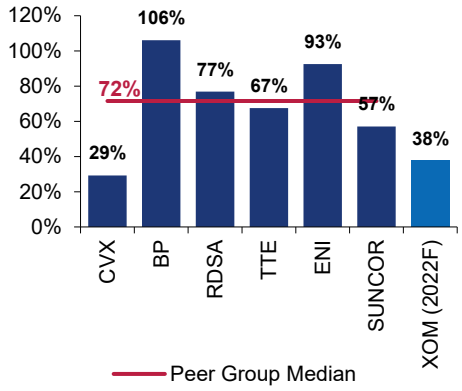
The Author's projected XOM's dividend policy is aligned with consensus in 2024F, with a similar DPS.

Figure 68 – Summary of TTM MBV Methodologies ($/Share)



Source: Author analysis

Figure 69 – Peer Group Market D / E Ratio (%)

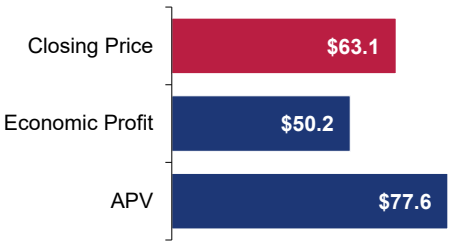


Source: Author analysis

Figure 70 – 2022F MBV Valuation ($ / Share)

Source: Author analysis

Figure 71 – Valuation Models not used ($ /Sh.)



Source: Author analysis

[28] EBITDAX means Earnings before interest, depreciation, amortization, and exploration.
[29] In Successful efforts standard unsuccessful exploration is expensed and in Full cost standard it is capitalized.
[30] DACF = Cash Flows from Operations + Financing Costs (After Tax).
[31] Source: Jewell, H. (2009) and Investopedia.
[32] It was extracted Bloomberg estimates ("BEst") regarding to earnings, sales, EBITDA and EBIT.
[33] Neither Bloomberg nor Refinitiv provide estimations to 2022F Enterprise Value.

7. Financial Analysis

Capital Discipline leads to higher profitability

ExxonMobil has been the **best in class in profitability due to its strong portfolio**. **Operating Margins have historically been higher than peers.** However, the COVID-19 crisis led to a drastic drop to negative **15.5%, below peers**. With the increase of oil realizations and chemical margins and the stabilization of the refining margins, **2025F operating margin is expected to recover to 11.5%** (Figure 72 and Appendix 7). Similar evolution projected in **2025F gross margins** and **net profit margins**, stabilizing to **33.6%** and **8.1%**, respectively (Figure 17 and Appendix 7).

ROCE has also been historically higher than peers, but the **advantage has been eroding in the last years**, **changing from 19.4% to -1.4%** in the **2013-20 period**. It is also expected recovery to 9.6% in 2025F (Figure 39 and Appendix 7).

Assets turnover have been historically following peers, which is explained by many assets being co-explored, in joint ventures, expecting a **recovery from 73% to 111% in the 2020-25F period** (Figure 13 and Appendix 7).

Materially weakened leverage ratios

ExxonMobil has historically been the least leveraged company between peers, with interest-bearing debt coverage, interest-bearing debt ratio and interest bearing Debt-to-Book Equity ranging 20%-147%, 6.5%-19.2%, and 13%-26%, respectively, in the 2013-19 Period (Figures 48 to 50 and Appendix 7). This means that **ExxonMobil was the most financially prepared supermajor to mitigate the adversities of COVID-19**, having margin to increase debt.

Nevertheless, **ExxonMobil's leverage increased significantly in 2020**, to a **43% Book D/E**, which is **expected to grow to 56% in 2021F**. Yet, assuming ExxonMobil will reduce spending plans in 2021F-25F, higher oil prices and recovery in Downstream and Chemicals segments, **Debt-to-Market Equity is expected to decrease and stabilize** in 2024F-25F, **to the defined target of 30%**. Additionally, **2025F interest-bearing debt coverage and interest-bearing debt ratio are expected to stabilize to 29% and 33%**, respectively.

Interest-bearing Debt-to-EBITDA is expected to decline in the 2020-25F period, from 7.26x to 2.79x., considering the **expected growth in EBITDA** (Figure 73).

Improving liquidity to deal with uncertain economic conditions

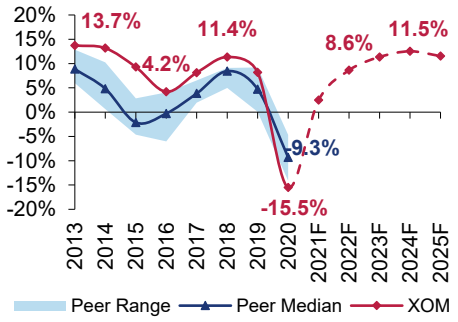
Historical **low interest-bearing debt ratios**, combined with **efficiencies in working capital**, with **cash cycle below peers**, allowed ExxonMobil to have **lower cash ratios**, ranging **between 4.8% and 7.7% in the 2013-2020 period** (Figure 74 and 75). However, with higher leverage and higher cash cycle in 2020F and 2025F, it is **expected a rise in the 2021F cash ratio to 12.3% and stabilization to 5% in 2025F**, below peers and IOC industry but aligned with historical figures.

Recover in Cash Flow Generation

ExxonMobil's DACF lead has eroded in the 2017-19 period and **has decreased significantly in 2020 to $15.9Bn**. However, it is expected a recovery, with a **2020-25F 22.7% CAGR**, leading to **$44.2Bn in 2025F** (Figure 77).

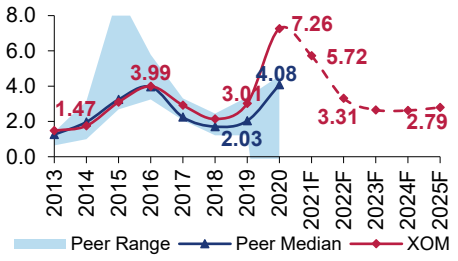
Nevertheless, ExxonMobil must ensure the **balance between debt management and the dividend policy** to secure the **business sustainability and resilience**.

Figure 72 – Operating Margin (%)



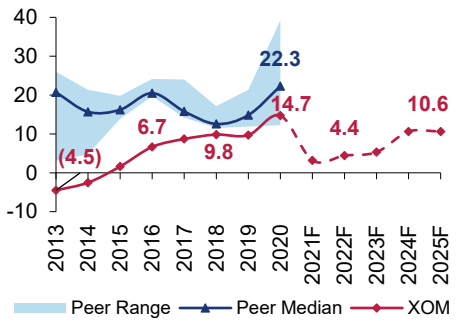
Source: Bloomberg, ExxonMobil and Author Analysis

Figure 73 – Interest bearing Debt-to-EBITDA (x)



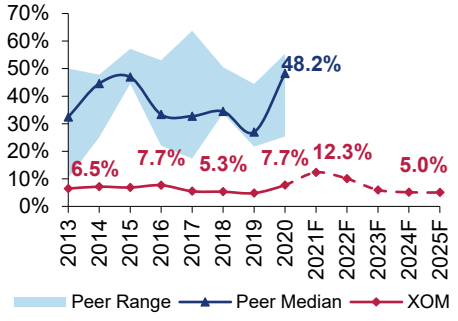
Source: Bloomberg, ExxonMobil and Author Analysis

Figure 74 – Cash Cycle Conversion (Days)



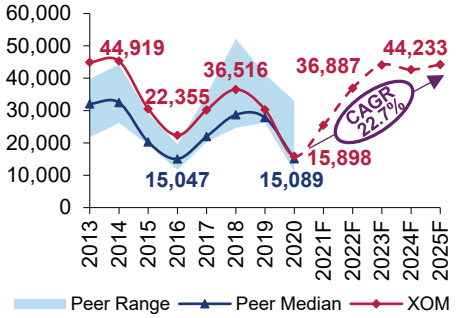
Source: Bloomberg, ExxonMobil and Author Analysis

Figure 75 – Cash ratio (%)



Source: Bloomberg, ExxonMobil and Author Analysis

Figure 76 – Debt Adjusted Cash Flow ($'Mn)



Source: Bloomberg, ExxonMobil and Author Analysis

8. Investment Risks

Risk identification and characterization

ExxonMobil is subject to significant risks that may materially impact its business. Among these risks, it is possible to assemble them by the following categories: i) **Market Risks**; ii) **Political, Legal & Regulatory Risks**; iii) **Operational Risks**; iv) **Environment & Geological Risks**; and, v) **Resources Risk** (Figure 77).

Market Risks

Commodities Prices volatility (M1)

ExxonMobil segments are fundamentally commodity businesses, i.e., the Company's operations, earnings and cash-flows are **highly sensitive to changes in oil & gas prices**. A material decline in the commodities prices could have **significant impact on Upstream operations and proved reserves**, which might lead the company to **reassess if assets are still economically viable** (Appendix 8.2). Alternatively, **a material increase in commodities prices could have a material impact on Downstream and Chemicals operations**. These effects are **relatively mitigated through ExxonMobil integrated business model**. However, ExxonMobil, as the major player in the industry, **is not able to hedge this risk through financial derivatives**, due to the Company's business size.

Oil & Gas prices high volatility is significantly influenced by **demand and supply** and, therefore, this **risk is highly correlated with the remaining risks** below (Figure 78 and 79).

World GDP Growth (M2)

Energy demand is highly dependent on broad-based economic activities and levels of prosperity. Recessions or long periods of low economic growth **might lead to a decline in commodities prices**, impacting ExxonMobil business adversely.

COVID-19 pandemic led to a **crash in commodity prices** and margins. **Current Oil & Gas prices projections might have to be reassessed**, depending on the evolution of the pandemic crisis. If new Covid-19 variants cause a renewed outbreak in major countries, such as China or the US, **the resulting hit to global economic activity could bring oil & gas prices down**.

Energy Transition (M3)

The **global economy is still currently reliant on fossil fuels** and, depending on the IEA scenarios, are still expected to be the **most demanded energy source**. However, in mature markets, renewables will be a growing energy source and dependency on fossil fuels will erode. Additionally, **electrification in light weight transportation might lead to a decline in refined petroleum products demand**.

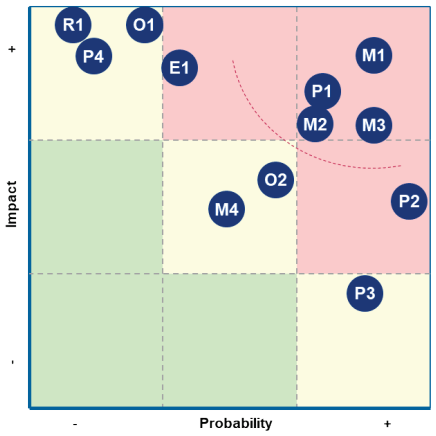
ExxonMobil has recently announced a **new segment dedicated to Low-Carbon Solutions**. The Company is **significantly investing** in developing breakthrough energy efficiency processes related to **CCS, fuels cells, hydrogen and advanced biofuels**, **mitigating the energy transition risks**.

Political, Regulatory and Legal Risks

Political Instability (P1)

Political instability and substantial changes in the legal and regulatory environment may harm ExxonMobil's international operations. ExxonMobil has **significant operations in countries with the danger of disruption** by civil unrest, acts of sabotage or terrorism and other local security concerns. These events **may require the Company's production to shut down for a specific period.**

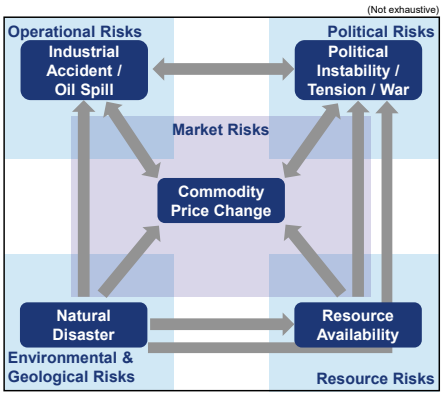
Figure 77 – Risk Matrix



Legend:
Impact – Economic-financial translation of potential risk impact on yield, growth, market share, operational efficiency, organizational efficiency
Probability – Degree of likelihood of risk materialization

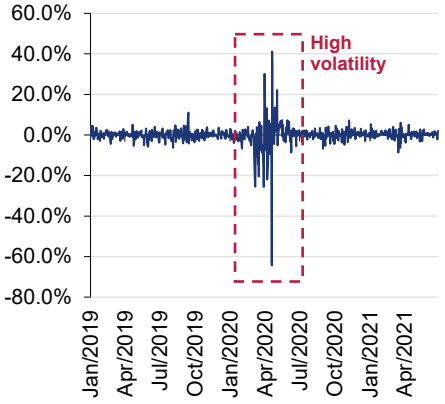
Source: *Author analysis*

Figure 78 – Risks Relationships



Source: *Adapted by author, based on "Risk Management Case Study – Oil & Gas Industry", Institute and Faculty of Actuary and EKT.*

Figure 79 – Brent oil index daily returns (%)



Source: Refinitiv, IEA and Author analysis

Additionally, global oil & gas supply is highly dependent on OPEC+. A **potential disagreement on production quotas by OPEC+ members**, comparable to 2020, **might increase commodities supply, leading to significant price drops**.

Paris Agreement and Climate change regulatory frameworks (P2)

Driven by concerns over climate change, several countries have adopted regulatory frameworks to reduce GHG emissions and achieve the 2ºC Scenario of the Paris Agreement, shifting demand toward lower-carbon sources of energy and restrict production or use of oil & gas (Figure 80). This increases the Company's **cost of compliance, requiring additional capital expenditures, and may reduce or delay available business opportunities**.

Growing concerns over ESG issues, specifically the environment, **may impact major shareholders' investment decisions**. Historical and recently controversies by ExxonMobil, regarding environmental issues, might lead to **investing discouragement in the Company**. **The Author assessed a specific scenario regarding a concerned ESG investor**.

Operational Risks

Oil Spill and other industrial hazards (O1)

Oil spills and industrial hazards are inherent oil & natural gas industry but might tremendously impact Company results. ExxonMobil is dependent on its Management ability to implement an effective internal control framework that mitigates these risks. Following BP Deepwater Horizon and Exxon Valdez oil spills, the Company has successfully implemented a rigorous hazards prevention system.

Due to the massive impact these hazards might have on ExxonMobil results and reputation, **the Author determined an oil spill scenario**.

Environment & Geological Risks

Natural Disaster (E1)

ExxonMobil operations include remote and occasionally inhospitable regions. Therefore, the **Company production might be subject to disruption due to natural disasters** such as hurricanes, severe storms, floods, other forms of severe weather, wildfires, ambient temperature increases, sea-level rise, fires, earthquakes. **Natural disaster risks might also lead to industrial hazards.**

Resources Risk

Resource availability (R1)

ExxonMobil has an extractive business and if the company does not successfully develop new resources, replacing the oil and natural gas produced with good prospects for future organic opportunities or through acquisitions, **reserves will decline**.

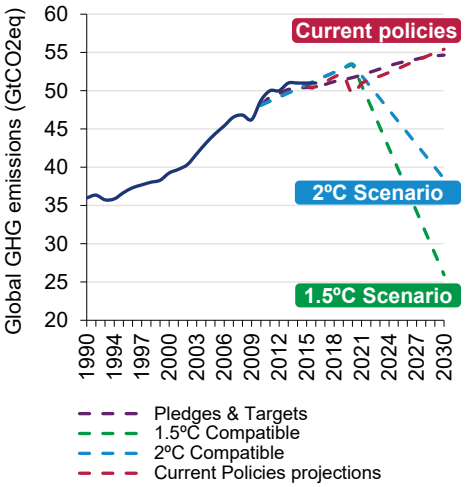
Maintaining a prospect of good organic projects, may depend on i) **Capital discipline**, ensuring completion on schedule and on budget; ii) drilling success; iii) obtain and renew rights to explore; iv) reservoir optimization; v) technology improvements to access previous previously inaccessible fields

These factors could **lead to an increase in capital expenditures and operational costs**, negatively affecting the company cash flows and results.

Risk Assessment

Considering the above, investing in ExxonMobil comprises a high level of risk, with the appropriate recommendation system represented in Figure 81. To reach this conclusion it was performed: i) sensitivity analyses; ii) scenario analyses; and, iii) a Monte Carlo Simulation. The approach is also summarized in Appendix 8.3.

Figure 80 – Historical and projected Global GHG emissions to 2030 (GtCO2eq)



Source: Climate Action Tracker emissions (May 2021)

Figure 81 – Recomendation system (High Risk)

Investment Recommendation	Threshold (annualized upside potential)
Sell	≤ 0%
Reduce	>0% & ≤10%
Hold	>10% & ≤20%
Buy	>20% & ≤45%
Strong Buy	>45

Sensitivity Analysis

ExxonMobil's main value drivers have significant impacts on the Company's valuation. Therefore, it was analyzed the 2022F Price Target sensitivity to changes in i) the **Long-term Brent oil price index**; ii) the **long-run sustainable growth rate**; and, iii) **Cost of Capital** (WACC)[34].

Brent Price and long-run terminal growth rate (g)

Commodities Price is the main value driver of ExxonMobil Valuation. **The base case considers the long-term Brent price to be $55/Bbls**. It is estimated that an **increase** (decrease) of **$5/Bbls will increase** (decrease) **PT in ~$6.8/sh**. (*ceteris paribus*).

Regarding the **long-run sustainable growth rate ("g")**, the base case considers a **2.55% scenario**. **There is not a linear relationship** between PT and this variable. The **g elasticity to XOM's PT, becomes higher as g increases**. All other variables remaining equal, **the recommendation would only change at a 2.3% and 2.9% g**, to a **REDUCE and a BUY recommendation, respectively** (Table 11).

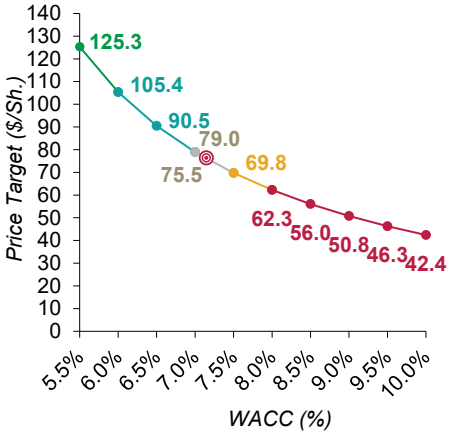
Table 11 – PT sensitivity to Brent Price and Long-run sustainable growth rate ($/Sh.)

PT sensitivity ($/Sh.) - Brent Price vs. Long-run sustainable growth												
	Long-Term Brent Price ($ / Bbls)											
Long-run sustainable growth (%)	2022F	30	35	40	45	50	55	60	65	70	75	80
	2.9%	46.1	53.5	60.9	68.3	75.7	83.1	90.5	97.9	105.3	112.7	120.1
	2.8%	44.9	52.1	59.3	66.6	73.8	81.1	88.3	95.5	102.8	110.0	117.3
	2.7%	43.7	50.8	57.9	64.9	72.0	79.1	86.2	93.3	100.4	107.5	114.6
	2.6%	42.6	49.5	56.4	63.4	70.3	77.3	84.2	91.2	98.1	105.1	112.0
	2.5%	41.5	48.3	55.1	61.9	68.7	75.5	82.3	89.1	96.0	102.8	109.6
	2.4%	40.4	47.1	53.8	60.5	67.1	73.8	80.5	87.2	93.9	100.6	107.2
	2.3%	39.4	46.0	52.5	59.1	65.6	72.2	78.7	85.3	91.9	98.4	105.0
	2.2%	38.5	44.9	51.3	57.8	64.2	70.6	77.1	83.5	89.9	96.4	102.8
	2.1%	37.6	43.9	50.2	56.5	62.8	69.1	75.5	81.8	88.1	94.4	100.8
	2.0%	36.7	42.9	49.1	55.3	61.5	67.7	73.9	80.1	86.3	92.5	98.8
	1.9%	35.8	41.9	48.0	54.1	60.2	66.3	72.4	78.5	84.6	90.7	96.8

Cost of Capital (WACC)

The terminal period WACC used in the base case was 7.2%[35]. **There is also not a linear relationship** between PT and WACC (Figure 82). The **WACC elasticity to XOM's PT, becomes lower as WACC increases**. All other variables remaining equal, **the recommendation would only change at a 6.80% and 7.33% WACC, to a BUY and a REDUCE recommendation, respectively.**

Figure 82 – PT Sensitivity to WACC ($/Sh.)



Source: Author analysis

Scenario Analysis

A blue and grey scenario was assessed, assuming changes in i) Brent Price; ii) Henry Hub; and, iii) long-run terminal growth rate. **The blue scenario** assumes a $65/Bbls in Brent and a $2.60/MMBtu in Henry Hub, **leading to a 2022F PT of $89.1/Sh**. **The grey scenario** assumes a $45/Bbls in Brent, a $2.40/MMBtu in Henry Hub and a 2.2% in g, **leading to a 2022F PT of $57.1/Sh.**

Oil spill scenario

An oil spill scenario is **unlikely to happen**, but **not impossible**. Based on BP Deepwater Horizon and Exxon Valdez oil spills events, it is known the **direct and indirect costs are significant**. Based on studies and the significant number of ExxonMobil wells, **it is estimated a 1% annual probability of an oil spill occurrence** (Table 12 and Appendix 8.5). It is challenging to predict the costs of a potential oil spill. **An oil spill with the impact of Deepwater Horizon would cost a nominal $65Bn**, based on research performed over the event. Assuming the hazard would occur in 8 years, i.e., a business cycle, the impact in the cash flows, discounted at the base case WACC, would be circa $37.3Bn. **This would lead to 2022F PT of $49.2/Sh. and the recommendation would change to SELL, the moment the hazard of this magnitude occurs**.

Table 12 – Estimated XOM's probability and impact in an oil spill hazard

Oil Spill Scenario Probability & Impact	
Probability	Impact in Discounted Cash Flows ($'Mn)
1.0%	37,347

Source: *Author analysis*

[34] It was used the integrated approach of FCFF (WACC) model. It was also analyzed the sensitivity using other models. Please refer to Appendix 8.4.

[35] The WACC in the 2023F-25F Period is almost the same, with slightly small changes, due to differences in the operating cash effective tax rate along the explicit period. The sensitivity analysis also considers the change in WACC in the explicit period.

ESG concerned investor – the Punitive Vision Scenario

The base case considered a **neutral approach regarding ExxonMobil's lower ESG combined score**, compared to peers.

Damodaran & Cornell (2020) suggested that incorporation of ESG in valuation might lead to three divergent scenarios: i) the **Virtuous Cycle scenario**, where, compendiously, "good" companies are compensated by customers and investors; ii) the **Punitive Vision scenario**, where "bad" companies are punished by customers and investors (Appendix 8.6), and, iii) the **Dystopian Vision scenario**, where "bad" companies are actually rewarded by customers, because they provide cheaper products or because it is convenient and investors buy their shares since the expected returns are higher. Damodaran & Cornell (2020) **concluded that it is "*highly ambiguous*" how ESG affects the firm value, market price and excess returns, justifying the Author's neutral approach in the base case**.

Nevertheless, research suggest that ESG can be incorporated in valuation through i) **adjusting the future cash flows of a company**; or, ii) **applying a premium to the cost of capital**[36]. However, **there is not a standardized and reliable approach to perform these adjustments**.

Assuming Damodaran and Cornell's Punitive Vision scenario, for a ESG concerned investor, the **Author applied a premium to the cost of equity, adjusting the unlevered beta.**

ExxonMobil's is ranked in the worst quartile considering the whole IOC industry, using the Refinitiv ESG combined score. On weighted average, **it was concluded that companies on this quartile have a 12% higher unlevered beta compared to the whole industry**. This percentual change was applied to the base case unlevered beta[37], leading to a 7.9% WACC. Based on this **new WACC**, for a **ESG concerned investor**, the recommendation is to **REDUCE the portfolio exposition to ExxonMobil**, with a **2022YE PT of $64.3/Share, until the Company makes further efforts to mitigate ESG environmental controversies** (Figure 83).

Monte Carlo simulation

Complementing the above risk assessment, a Monte Carlo Simulation was performed, stressing simultaneously changes in the following drivers: i) long-term Brent price; ii) the long-run terminal growth rate[38]; iii) WACC[39]; and, iv) the possible event of an oil spill.

Based on the simulation results, it was reached a **mean value of $75.5/Sh.**, **consistent with the base case Price Target**. However, a **28% probability of a HOLD recommendation** was estimated, against a **44% of SELL/REDUCE and a 27% BUY/STRONG BUY**, corroborating that **the level of risk in investing in ExxonMobil is high** (Figure 84 and Table 13).

There is also **evidence that the commodities price is the most relevant key value driver in ExxonMobil valuation** (Figure 85).

Figure 83 – ESG Concerned Investor Scenario

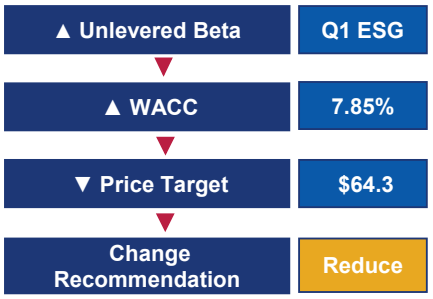
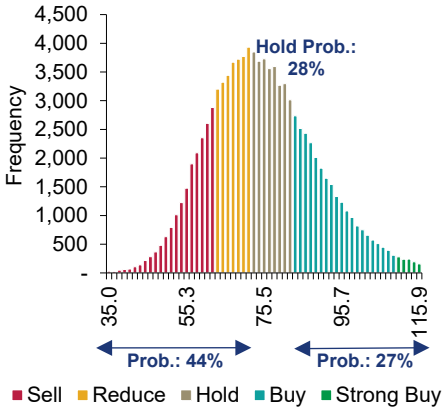


Figure 84 – Monte Carlo Simulation

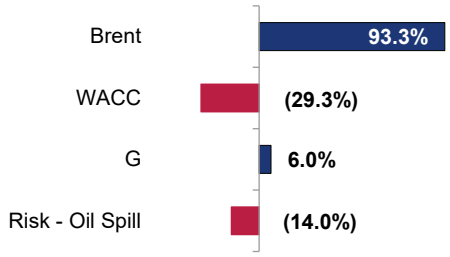


Source: Author Analysis

Table 13 – Monte Carlo statistics

Indicator	Amount
Nº of Trials	100,000
Base Case	75.5
Median	74.2
Mean	**75.5**
St. deviation	14.7
10th Percentile	58.0
90th Percentile	94.7
Upside Potencial	27%

Figure 85 – PT variables sensitivity



Source: Author Analysis

[36] Besides Damodaran, A. & Cornell, B. (2020), please see Bos, J. (2014) and Orsagh, M., Allen, J., Sloggett, J. Georgieva, A. Bartholdy. S. & Douma, K. (2018).
[37] Using the Integrated approach FCFF (WACC) model.
[38] G was considered a proxy to production disruption risks.
[39] Through changes in unlevered beta

9. Appendices

Appendix 1 – Research snapshot

Appendix 1.1 – Conversion Tables

Conversion Table					
Convert to:	TJ	Gcal	MMtoe	MMbtu	GWh
From:	Multiply by:				
TJ	1	238.8	2.39x10^-5	947.8	0.2778
Gcal	4.1868x10^-3	1	1.0E-07	3,968	1.163x10^-3
MMtoe	4.1868x10^+4	1.00x10^+7	1	3.968x10^+7	11,630
MMBtu	1.0551x10^-3	0.252	2.52x10^-8	1	2.931x10^-4
GWh	3.6	860	8.60x10^-5	3,412	1

Source: OPEC

Conversion Table				
Convert to:	Metric tonne	Long ton	Boe	Cubic metres (kilolitres)
From:	Multiply by:			
Metric tonne	1	0.984	7.33	1.165
Long ton	1.016	1	7.45	1.128
Boe	0.136	0.134	1	0.159
Cubic metres (kilolitres)	0.858	0.887	6.289	1

Source: IEA

Conversion Table		
Convert to:	Cubic feet (cf)	Boe
From:	Multiply by:	
Cubic feet (cf)	1	1.67x10^-4
Boe	6,000	1

Source: ExxonMobil

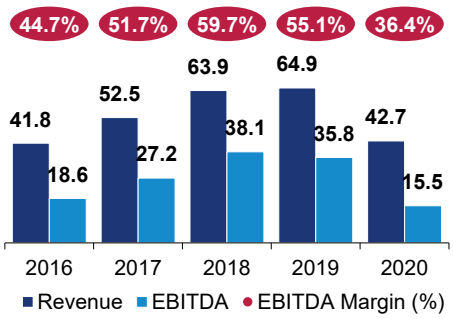
Appendix 2 – Business Description

Appendix 2.1 – ExxonMobil global operations as of 2020YE

Source: Company data, adapted by Author

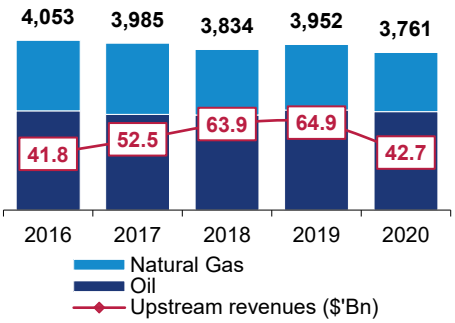
Appendix 2.2 – Upstream segment highlights

Upstream revenue & EBITDA ($'Bn)



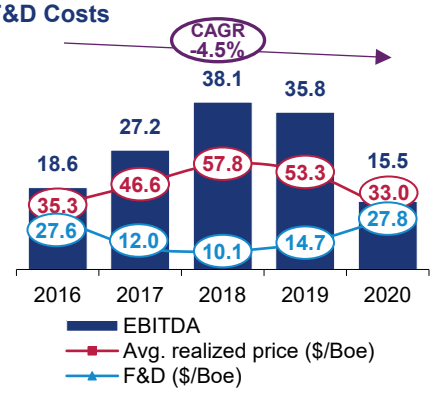
Note: Revenue includes intersegment sales but not other intersegment adjustments.
Source: Company data and Author analysis

Oil & Gas production (MBoe/d) vs. Upstream revenue



Note: Revenue includes intersegment sales but not other intersegment adjustments.
Source: Company data

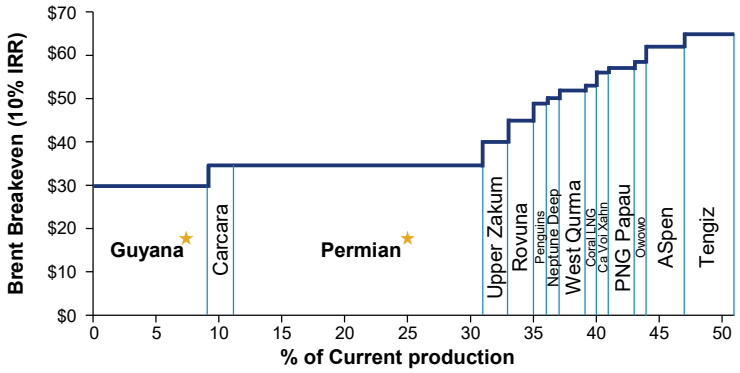
EBITDA ($'Bn) vs. Realized Prices & F&D Costs



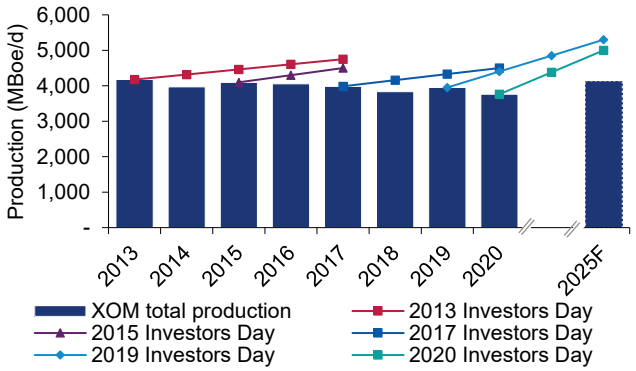
Source: Company data

Appendix 2.3 – Upstream Projects breakeven and Target Productions

Despite the Upstream projects with attractive economics…



…XOM has consistently missed production targets.



Source: Company data and Author analysis.

Appendix 2.4 – Upstream Portfolio Breakdown

Top 10 2020YE Upstream Projects

#	Country	Project	Production (MBoe/d)				Obs.
			Oil	Gas	Total	%	
1	Qatar	LNG Joint Ventures,Al Khaleej Gas,Barzan	152.0	497.8	649.8	17.3%	
2	United States	Permian	285.0	82.3	367.3	9.8%	
3	Canada	Kearl	219.0	-	219.0	5.8%	
4	United Arab Emirates	Upper Zakum	212.0	-	212.0	5.6%	
5	Kazakhstan	Tengiz	156.0	28.8	184.8	4.9%	
6	United States	Other Lower 48 Dry Gas	21.0	135.7	156.7	4.2%	
7	Nigeria	Offshore	149.9	1.5	151.4	4.0%	
8	Canada	Cold Lake	124.0	-	124.0	3.3%	
9	United States	Bakken	82.0	22.3	104.3	2.8%	
10	Australia	North West ShelfGorgon Jansz	5.0	89.0	94.0	2.5%	
	Other	Other	943.1	554.4	1,497.5	39.8%	Over 40 Projects
	Total		**2,349.0**	**1,411.8**	**3,760.8**		

Delayed Key Projects Additions (Mboe/d)

Project	Country	Type	Delayed productions		
			Oil	Gas	Total
Permian	United States	Unconventional	279	81	360
Liza Phase 2, Payara & Other	Guyana	Deepwater	104	-	104
Coral FLNG - Area 4	Mozambique	LNG	3	100	103
PNG LNG & Pnyang	PNG	LNG	5	128	133
Total			**390**	**308**	**699**

Impact of delayed projects

Project	Unit	Impacted net production			Obs.
		Oil	Gas	Total	
Quantity Delayed	(Mboe/d)	390	308	699	
Oil & Gas prices	$/b | $/Mcf	48	1.3		
Impact in revenues	**$'Bn**	**6.8**	**0.9**	**7.7**	

Key Future Projects - Expected net production (Mboe/d)

Project	Country	Type	XOM's net production			% of growth
			Oil	Gas	Total	
Liza Phase 2, Payara & Other	Guyana	Deepwater	331	-	331	30%
Permian	United States	Unconventional	145	42	187	17%
Upper Zakum	UAE	Conventional	101	-	101	9%
PNG LNG & Pnyang	Papua New G	LNG	9	91	100	9%
Bacalhau	Brazil	Deepwater	88	-	88	8%
Coral FLNG - Area 4	Mozambique	LNG	-	19	19	2%
Other			604	8	612	55%
Total			**947**	**160**	**1,107**	**100%**

Expected Production Growth Drivers (Mboe/d)

Type	XOM's net production			% of growth	Obs.
	Oil	Gas	Total		
Unconventional	145	42	187	17%	Permian
Deepwater	419	-	419	38%	Guyana is ~76%
LNG	9	75	85	8%	
Conventional	299	0	299	27%	
Other	75	42	117	11%	
Total	**947**	**160**	**1,107**	**100%**	

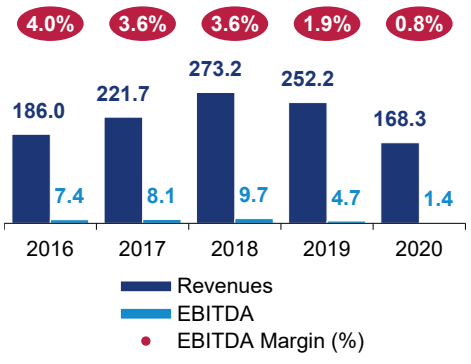
Forecasted productions

Hydrocarbon	2020 Balance	Additions							Base decline	2025F Balance	Obs.
		Guyana	Permian	LNG Portfolio	Upper Zakum	Bacalhau	Other	Total			
Oil	2,349	331	145	9	101	88	273	947	(469)	2,827	
Gas	1,412	-	42	110	-	-	8	160	(260)	1,311	
Total	3,761	**331**	**187**	**119**	**101**	**88**	**281**	1,107	(729)	4,138	
Oil Mix	*62%*	*100%*	*78%*	*8%*	*100%*	*100%*	*97%*	*86%*	*64%*	*68%*	

Source: Company data and Author analysis.

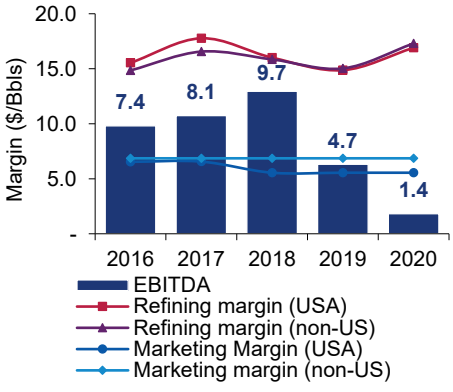
Appendix 2.5 – Downstream segment highlights

Downstream Revenue & EBITDA ($'Bn)



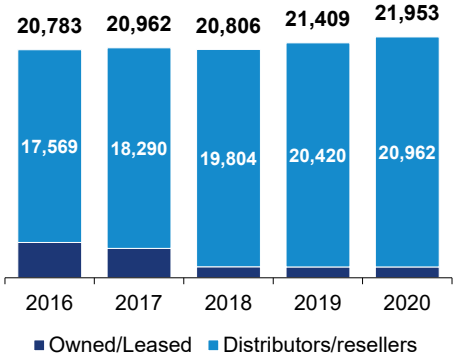
Note: Revenue includes intersegment sales.
Source: Company data and Authors analysis

EBITDA vs Dowsnstream margins ($'Bn)



Source: Company data and Authors analysis

Downstream global retail sites



Source: Company data and Authors analysis

Appendix 2.6 – Downstream Portfolio Breakdown

ExxonMobil net refining capacity (Mboe/d) - XOM's share

Site	Country / State	2020YE (XOM)	Total capacity forecast				
			2021	2022	2023	2024	2025
United States							
Joliet	Illinois	254	254	254	254	254	254
Baton Rouge	Louisiana	520	520	520	520	520	520
Billings	Montana	60	60	60	60	60	60
Baytown	Texas	561	561	561	561	561	561
Beaumont	Texas	369	369	369	619	619	619
Subtotal		**1,764**	**1,764**	**1,764**	**2,014**	**2,014**	**2,014**
Canada							
Strathcona	Alberta	196	196	196	196	196	196
Nanticoke	Ontario	113	113	113	113	113	113
Sarnia	Ontario	119	119	119	119	119	119
Subtotal		**428**	**428**	**428**	**428**	**428**	**428**
Europe							
Antwerp	Belgium	307	307	307	307	307	307
Fos-sur-Mer	France	133	133	133	133	133	133
Gravenchon	France	244	244	244	244	244	244
Karlsruhe	Germany	78	78	78	78	78	78
Trecate	Italy	132	132	132	132	132	132
Rotterdam	Netherlands	192	192	192	192	192	192
Slagen	Norway	116	116	116	116	116	116
Fawley	United Kingdom	262	262	262	262	300	300
Subtotal		**1,464**	**1,464**	**1,464**	**1,464**	**1,502**	**1,502**
Asia Pacific							
Altona	Australia	88	88	88	88	88	88
Fujian	China	67	67	67	67	67	67
Jurong/PAC	Singapore	592	592	592	592	592	592
Sriracha	Thailand	167	167	167	167	167	167
Subtotal		**914**	**914**	**914**	**914**	**914**	**914**
Middle East							
Yanbu	Saudi Arabia	200	200	200	200	200	200
Total worldwide		**4,770**	**4,770**	**4,770**	**5,020**	**5,058**	**5,058**

Source: Author Analysis based on Company data

Downstream Key Growth Projects

Country / State	Name	Expansion (Mboe/d)	Description
Texas	Beaumont Light-Crude Expansion	250	A project to **expand refining capacity** of integrated refining complex at Beaumont to **by 250 Mboe/d** (65%), from 366 to 619 Mboe/d, making it the largest refinery in the United States (Motiva's Port Arthur at 607 Mboe/d is currently the largest). The expansions in the in light crude processing capacity is supported by i) the increased production from the Permian basin; and, ii) the build-out of associated logistics infrastructure. Considering both have been impacted by the Covid-19 pandemic (i.e. reduced demand and reduced spending). The author assumes that **capacity expansion will be pushed back to 2023 vs the initial target of 2022**.
Texas	Permian USGC Long-Haul Pipeline	t.b.d.	The Wink-to-Webster pipeline to connect the Permian basin to the Gulf Coast refineries in East Texas. The Beaumont expansion and Permian pipeline are part of the 10-year, $20 Bn, "*Growing the Gulf initiative*".
United Kingdom	FAST (Fawley Strategy) Expansion	38	$1 bn expansion project at Fawley with a new diesel hydrotreater (hydrofiner) and hydrogen plant that will **expand** ultra-low sulfur diesel ("ULSD") **production capacity by 38 Mboe/d** and improve energy efficiency. Initial estimate for the project start-up was 2021. Nevertheless, in 3Q20 Call, XOM Stated that "had taken a pause". **Possibly, the expansion will be pushed back to 2024**.
Singapore	Singapore Resid Upgrade	48	Project to convert low-value refining and chemical feeds (e.g. fuel oil, chem heavy by-products) into high-value products (e.g. lube basestocks, distillate fuel oil). It is expected an additional clean fuel capacity of 48 Mboe/d. Construction began in 2019 and **start-up was expected for 2023, but will likely be delayed under current conditions**.
Total		**336**	

Appendix 2.7 – Chemicals Portfolio Breakdown

Chemicals production capacity (2020YE) (MMTA)

Site/Region	Total Capacity					
	2020	2021F	2022F	2023F	2024F	2025F
North America						
Baton Rouge, Louisiana	2.8	2.8	2.8	3.3	3.3	3.3
Baytown, Texas	5.1	5.1	5.1	5.9	5.9	5.9
Beaumont, Texas	2.9	2.9	2.9	2.9	2.9	2.9
Mont Belvieu, Texas	2.3	2.3	2.3	2.3	2.3	2.3
Sarnia, Ontario	0.8	0.8	0.8	0.8	0.8	0.8
Corpus Christi	-	-	-	-	4.2	4.2
Subtotal	**13.9**	**13.9**	**13.9**	**15.1**	**19.3**	**19.3**
Europe						
Antwerp, Belgium	0.4	0.4	0.4	0.4	0.4	0.4
Fife, United Kingdom	0.4	0.4	0.4	0.4	0.4	0.4
Gravenchon, France	1.1	1.1	1.1	1.1	1.1	1.1
Meerhout, Belgium	0.5	0.5	0.5	0.5	0.5	0.5
Rotterdam, Netherlands	0.7	0.7	0.7	0.7	0.7	0.7
Subtotal	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**
Middle East						
Al-Jubail, Saudi Arabia	1.3	1.3	1.3	1.3	1.3	1.3
Yanbu, Saudi Arabia	1.9	1.9	1.9	1.9	1.9	1.9
Subtotal	**3.2**	**3.2**	**3.2**	**3.2**	**3.2**	**3.2**
Asia Pacific						
Fujian, China	0.9	0.9	0.9	0.9	4.3	4.3
Singapore	6.5	6.5	6.5	6.5	6.5	6.5
Sriracha, Thailand	0.5	0.5	0.5	0.5	0.5	0.5
Subtotal	**7.9**	**7.9**	**7.9**	**7.9**	**11.3**	**11.3**
Total worldwide	**28.1**	**28.1**	**28.1**	**29.3**	**36.9**	**36.9**

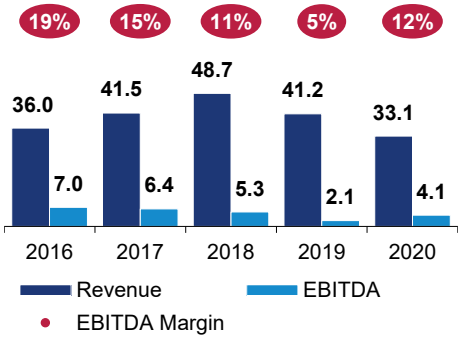
Chemicals Key Growth Projects

Region	Site	Expansion (MMTA)	Description
North America	Corpus Christi	4.20	**JV with SABIC to build the world's largest grassroots cracker** • 1.8 MMTA of Ethylene; 1.1 MMTA of Monoethylene Glycol; and, 1.3 Polyethylene. • 25% lower cost than industry; and. • Start-up by 2022; $500 million p.a. of earnings ($60/bbl Brent 20017 flat real, 2017 margins). **Possibly delayed.**
North America	Baton Rouge, Louisiana	0.45	**US Gulf Coast Olefin Derivatives.** • 0.45 MMTA of polypropylene; • Over $4 Bn of capital; • Nearly $600 Mn p.a. of earnings **by 2023** ($60/bbl Brent 20017 flat real, 2017 margins).
North America	Baytown, Texas	0.75	**Baytown Expansion** • $2 billion investment; **Start-up in 2022, likely delayed**. • Exxon first project to produce linear alpha olefins. Linear alpha olefins are used in numerous applications, including high-performing engine and industrial oils, waxes and building blocks for surfactants, polyethylene plastic for packaging, and other specialty chemicals. The new unit will produce about 350,000 tons of linear alpha olefins a year. • According to Exxon, an additional **0.4 MMTA capacity, regarding**, Vistamaxx performance polymers will be expanded.
Asia Pacific	Fujian, China	3.35	**Liquids Steam Cracker in China (Guangdong)** • 1.2 MMTA ethylene flexible feed steam cracker will include more than 2 MMT of polyolefins, according to XOM. The complex would produce 1.2 MMTA of polyethylene (PE) and 860,000 TA of polypropylene. • **Start-up in 2023, Likely delayed**. • 700 million p.a. in earnings and $4.4 bn in sales (16% Net Income margin).
Total		**8.75**	

Source: Author Analysis based on Company data

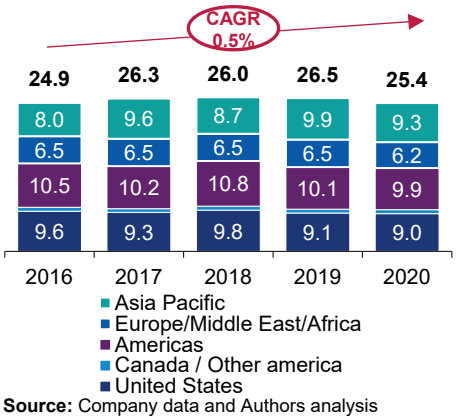
Appendix 2.8 – Chemicals segment in Figures

Chemicals revenues & EBITDA ($'Bn)



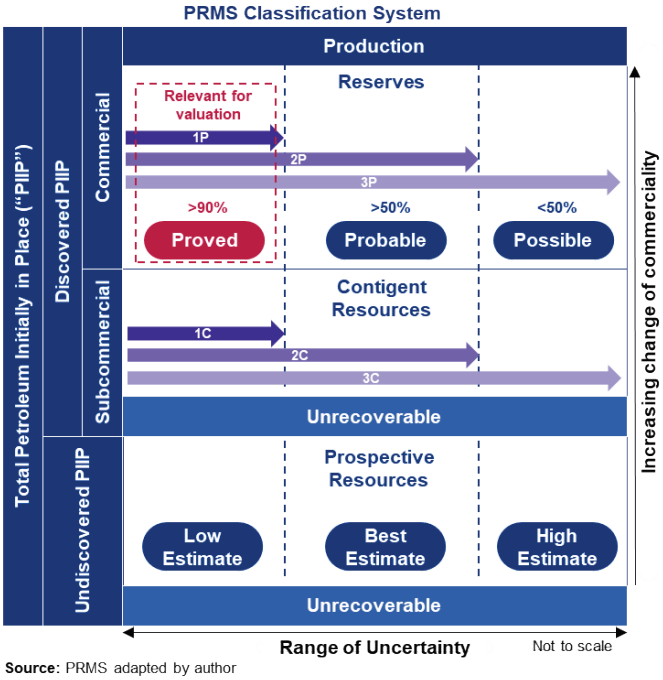
Note: Revenue includes intersegment sales.
Source: Company data and Authors analysis

Chemical sales by region (MMT)

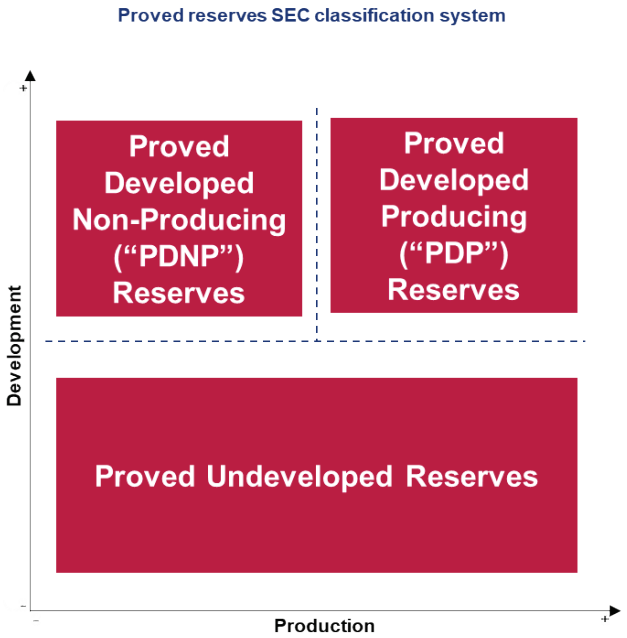


Source: Company data and Authors analysis

Appendix 2.9 – Resources and Reserves classification system

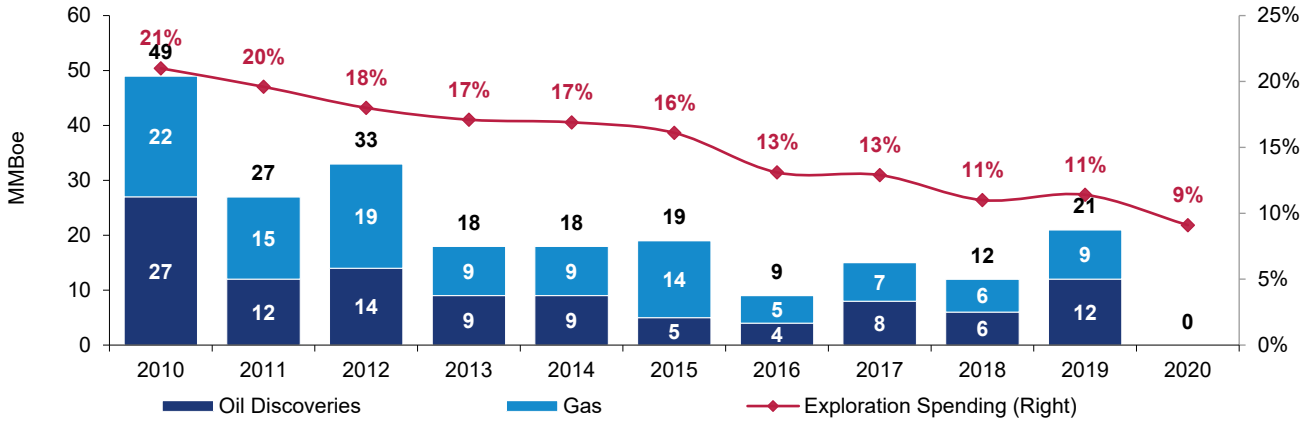


Source: PRMS adapted by author



Source: SEC adapted by author

Appendix 2.10 – Global oil resources discoveries and exploration spending as % of total investment



Source: IEA, 2020

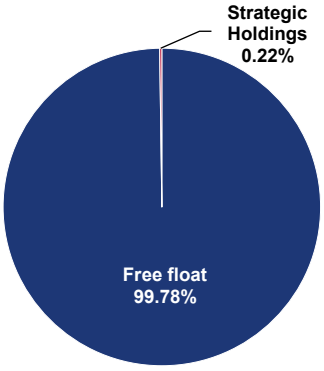
Appendix 2.11 – Business Segment Strategies

Segment	Strategy	Quantitative goals
Upstream	• Enhance asset portfolio with **divestment program**; • Deliver **lowest-cost-of-supply** projects; • Grow tight-liquids production **to more than 800 MBoe/d net by 2025**.	• **Increasing Permian tight-oil production** fivefold to nearly 600 MBoe/d net by 2025; • Rapidly **progressing three near-term developments in Guyana** to deliver ~450 MBoe/d production by 2025; • Starting up **new LNG projects in Mozambique and PNG**, with potential to add more than 20 Mta of capacity by 2025.
Downstream	• Maintain "**best-in-class" operational efficiency**; • Perform advantaged investments to **upgrade refinery configuration** and support demand growth for higher-value products; • Capitalize on **integration and maximize value from technology**.	• **Upgrading 200 Mb/d of fuel oil to higher-quality distillates**, lube basestocks, and chemicals by 2025; • **Growing lube basestock and synthetic lubricant businesses** by 2025; • **Capturing full value-chain benefits of the Permian and U.S. Gulf Coast facilities by 2025**.
Chemicals	• **Strengthen existing businesses and integrated complexes**; • **Leverage competitive position** for performance products growth; • Embed **sustainability leadership** into business.	• **Starting up 13 new facilities and increasing production by 10 million tonnes** per year by 2025; • Aggressively **growing sales** of high-value performance products **by 50%** by 2025; • **Expanding technology portfolio with a focus on sustainability leadership** by 2025.

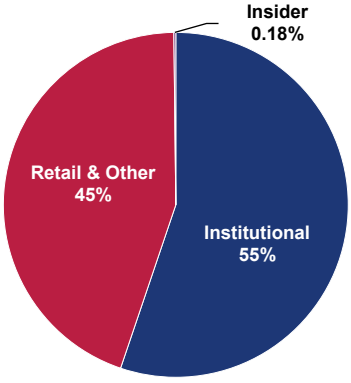
Source: ExxonMobil (adapted)

Appendix 2.12 – ExxonMobil Shareholders information in figures

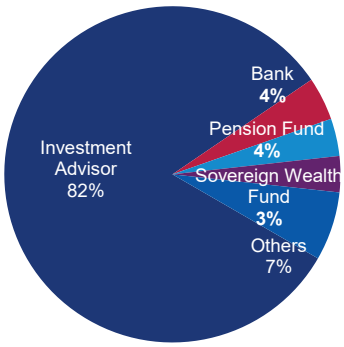
Ownership Free float vs Strategic holdings



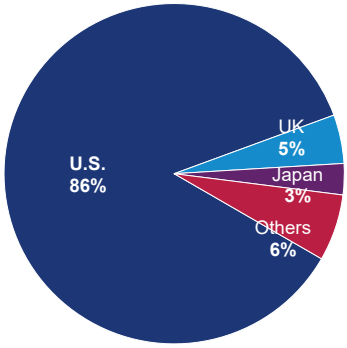
Shareholder structure by Institution Type



Institutional Ownership Distribution



Shareholder structure by geography



Source: Bloomberg

Appendix 2.13 – ExxonMobil's Shareholders Activism Campaigns

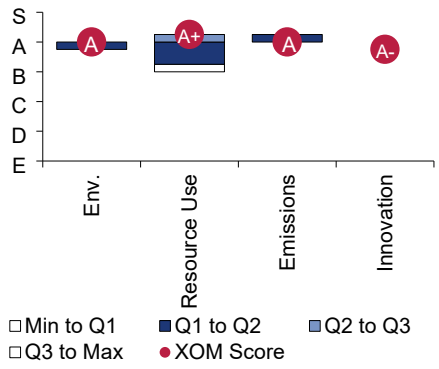
Activist Group Name	Campaign Description	Campaign announcement date	Tactics	Status	Demand	Campaign details
CURE	Concerns over ExxonMobil direction regarding energy transition	12/02/2021	Proxy fight	Pending	Seek Alternatives	Coalition United for a Responsible Exxon ("CURE") sent a open later to board of ExxonMobil which raises urgent concerns about ExxonMobil's current direction, which is premised on **outdated assumptions about high oil prices, demand, and margins that are incompatible with the reality of climate change and the inevitable transition to renewable energy sources**.
Arjuna Capital	Upgrade ExxonMobil climate change governance by establishing a focused board commitee	09/05/2019	Proxy fight	Pending	Shareholder rights	Arjuna Capital asks the ExxonMobil to **upgrade its climate change governance by establishing a focused board committee with oversight of climate issues**. This Proposal seeks contractual clarity to ensure that the existential threats of climate change are being addressed in depth by the Board.
New York Retirement Fund	Withhold their support from the re-election of all ExxonMobil directors and vote FOR an Independent Chairman	03/05/2019	Proxy fight	Pending	Shareholder rights	The New York State Common Retirement Fund (Fund) and the Church Commissioners for England (Church Commissioners) believe that ExxonMobils **inadequate response to climate change** constitutes a serious failure of corporate governance to which shareholders should respond firmly. The Fund and the Church Commissioners believe that at this time, **ExxonMobil would be better able to face its challenges**, **including those posed by climate change**, and to relate to its shareholders, **with an independent chairman**. Also, Fund and the Church Commissioners will **withhold their support from the re-election of all ExxonMobil directors and urging to a vote FOR the shareholder proposal regarding an Independent Chairman** at ExxonMobils Annual Meeting.
Independent shareholders	Review on executives compensation	26/05/2017	Proxy fight	Pending	-	Shareholders group (Shareholder) of the company intimated to the management of ExxonMobil to **review on executives / directors compensation & pay system**.

Source: Refinitiv, adapted by Author.

Appendix 3 – ESG

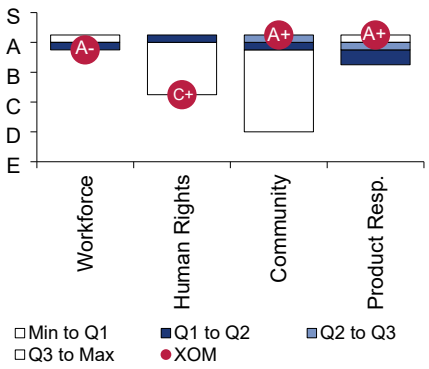
Appendix 3.1 – Refinitiv ESG Scores breakdown

XOM Refinitiv Environment Score



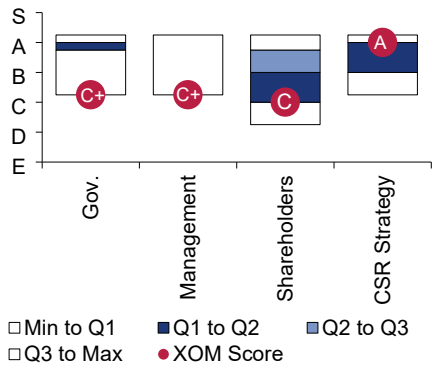
Source: Refinitiv

XOM Refinitiv Social Score



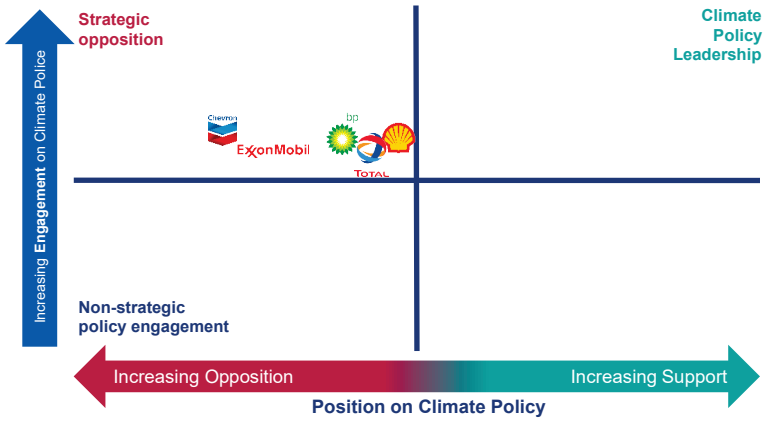
Source: Refinitiv

XOM Refinitiv Governance Score



Source: Refinitiv

Appendix 3.2 – InfluenceMaps's IOCs Climate Lobbying Landscape



Darren W. Woods
Current Chaiman & CEO of ExxonMobil

"*The solution is not just to leave fossils fuels in the ground*".

Rex Tylerson
Ex-CEO of ExxonMobil | Ex-Secretary State of Energy

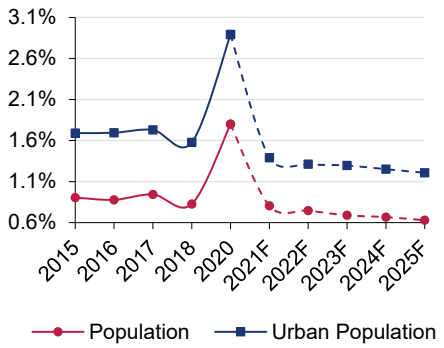
"[Climate Impact] *is very hard for anyone to predict*".

Source: "*Corporate Lobbying*", Influence Map (adapted by Author).

Appendix 4 – Industry overview and competitive positioning

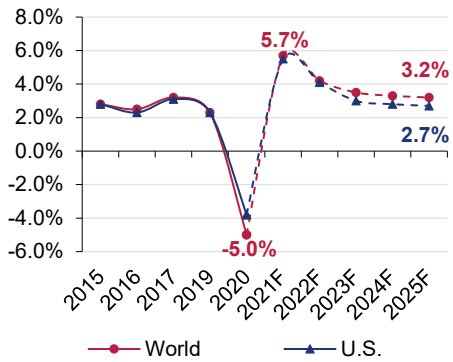
Appendix 4.1 – World Economic Outlook complementary charts

World population and urban population growth (yoy %)



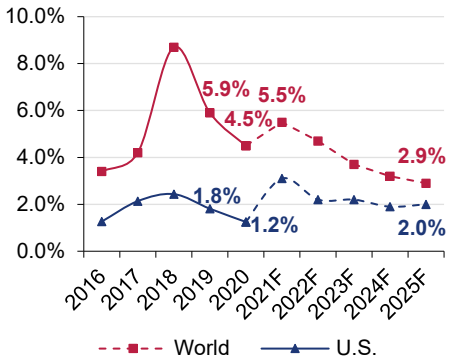
Source: EIU Forecasts

Real GDP growth (World vs. U.S.)



Source: EIU Forecasts

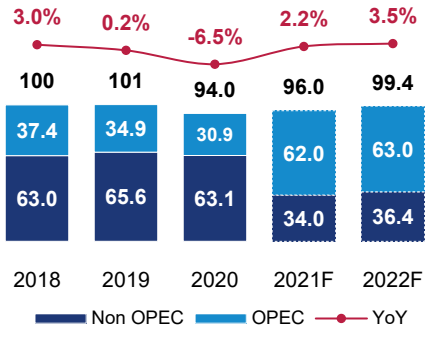
Inflation (World vs. U.S.)



Source: EIU Forecasts

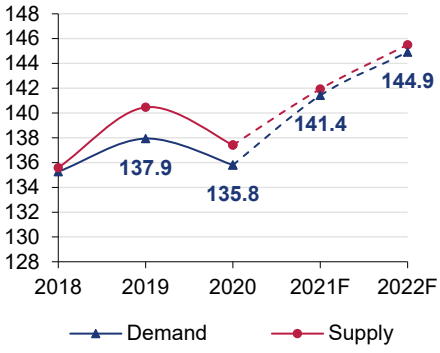
Appendix 4.2 – Oil and gas supply and demand complementary charts

Global Oil supply by region (MMBoe/d)



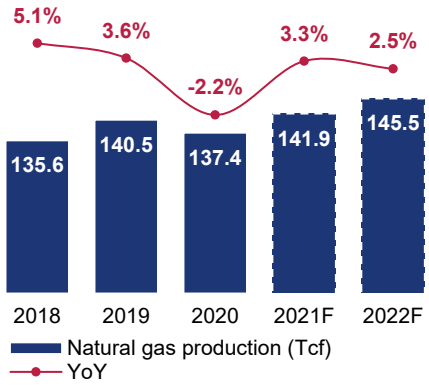
Source: IEA & EIU, July 2021

Global natural gas demand and supply short-term forecasts (Tcf)



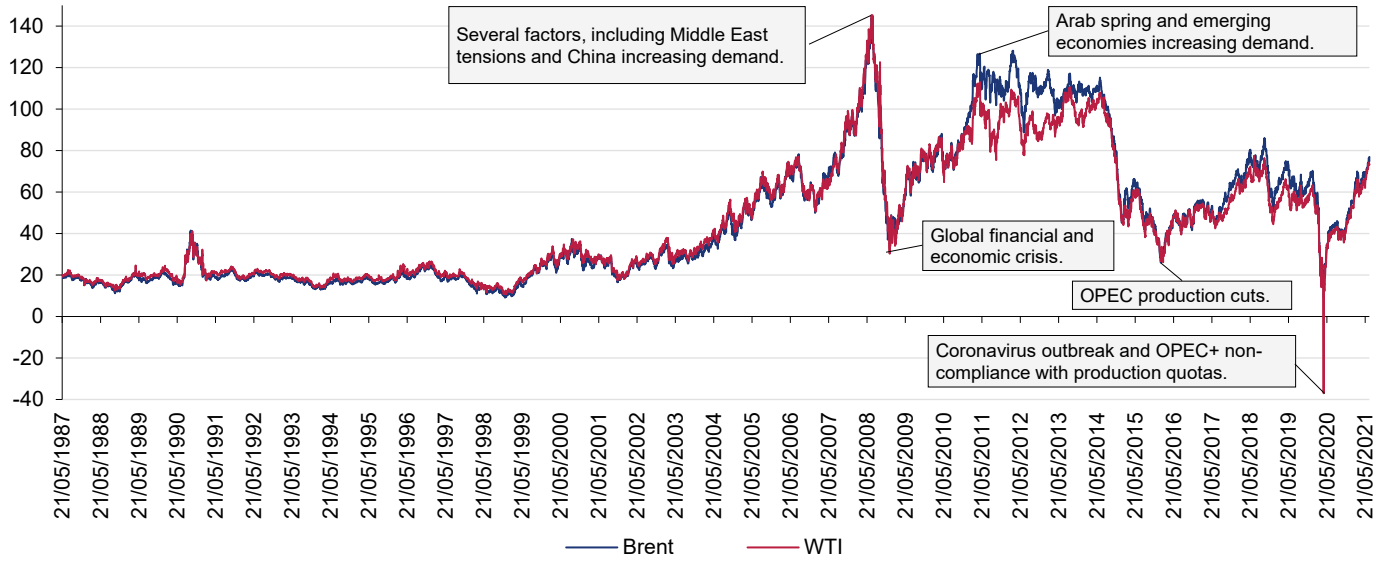
Source: EIU, July 2021, adapted by Author

Global natural gas supply (Tcf)



Source: EIU, July 2021, adapted by Author

Appendix 4.3 – WTI and Brent indexes evolution ($/Bbls)



Source: Refinitiv & IEA

Appendix 4.4 – Oil & Gas industry value chain

Upstream

Exploration
- Acquire exploration rights
- Seismic survey
- Exploration drilling

Development & Production
- Reservoir modeling
- Well design, drilling and completion
- Production modeling

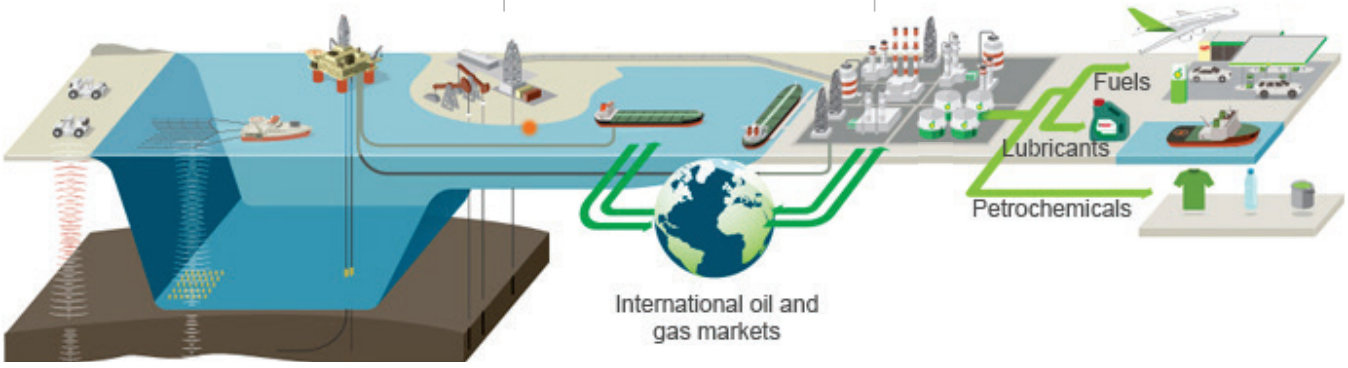
Midstream

Transportation & Trade
- Transportation by pipeline, ship, train and truck
- Terminals for processing, storage and distribution

Downstream

Refining, Processing & Blending
- Crude refining, processing and blending
- Petrochemicals, fuels and lubricants

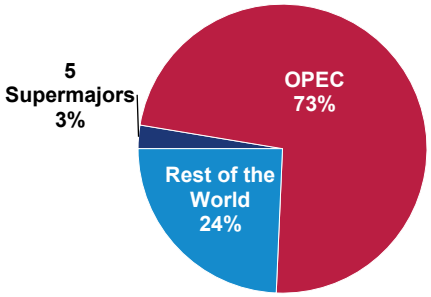
Marketing & Distribution
- Wholesale
- Retail
- Marketing to end-user



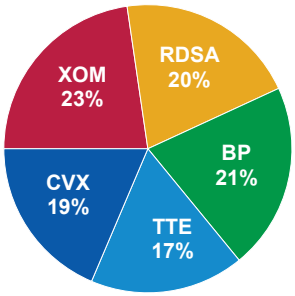
Infographic: BP

Appendix 4.5 – Oil & Gas Industry market shares

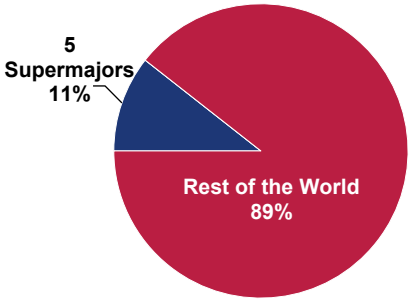
Global crude oil proved reserves market share (2018)



Oil & Gas Supermajors production market share (2020)

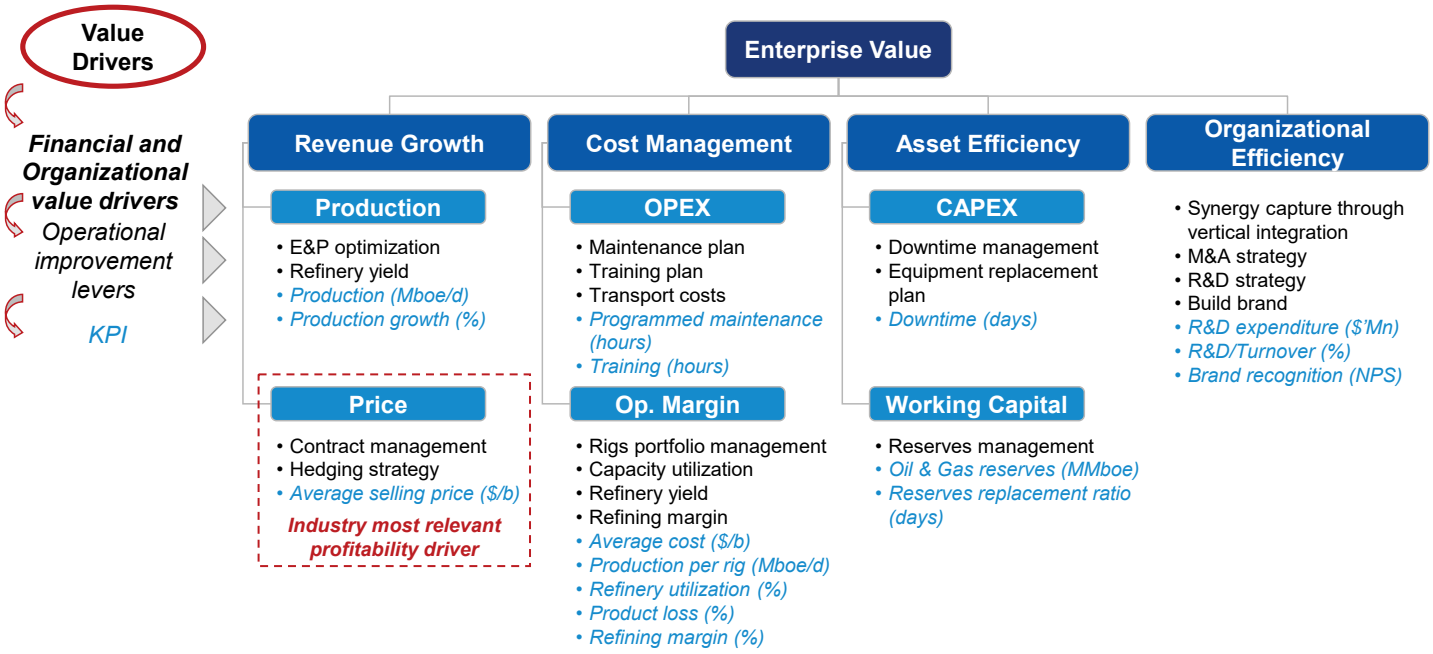


Global Oil & Gas production market share (2020)



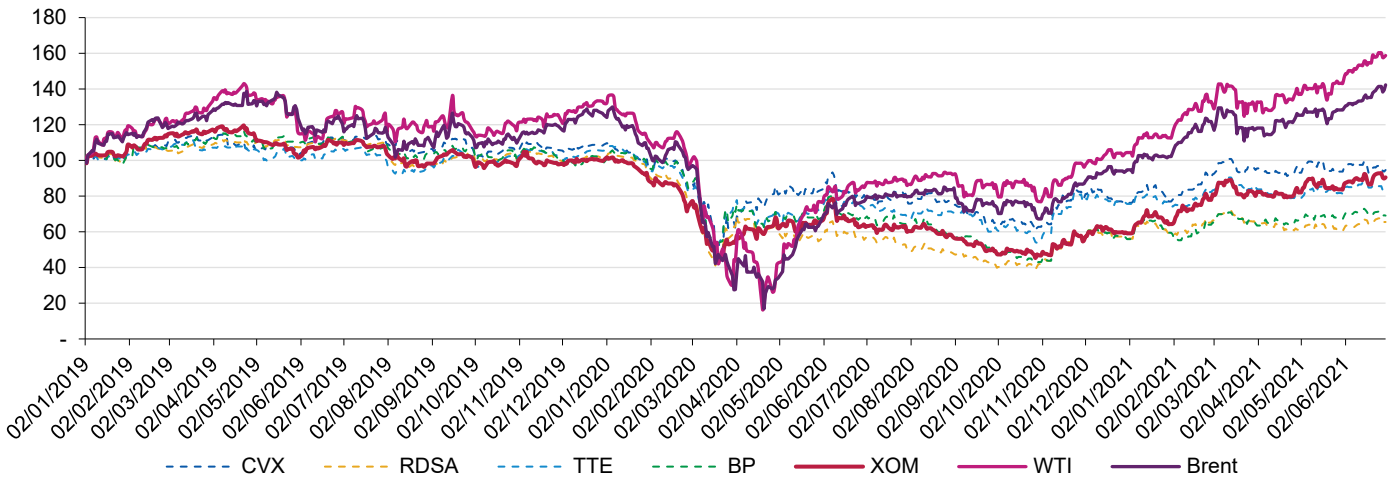
Source: Bloomberg, IEA and Author analysis.

Appendix 4.6 – Oil & Gas key drivers of profitability



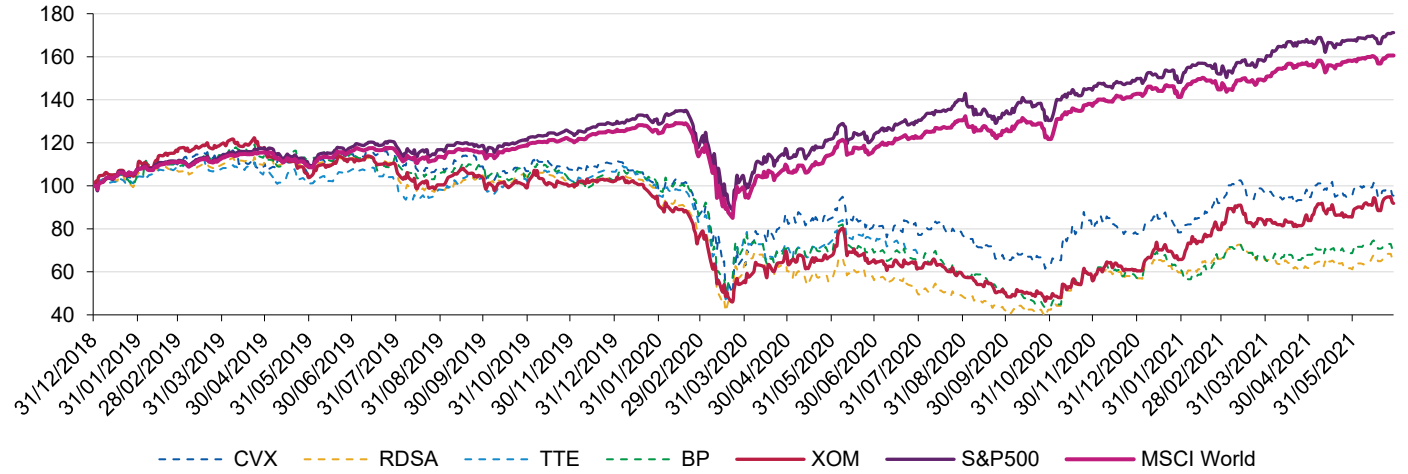
Source: Deloitte's framework;
World Bank – NOC's and Value Creation (2011);
Author adaptation and analysis

Appendix 4.7 – Supermajors stock price vs. WTI & Brent evolution (Base year analysis – 100)



Source: Refinitiv, IEA and Author analysis

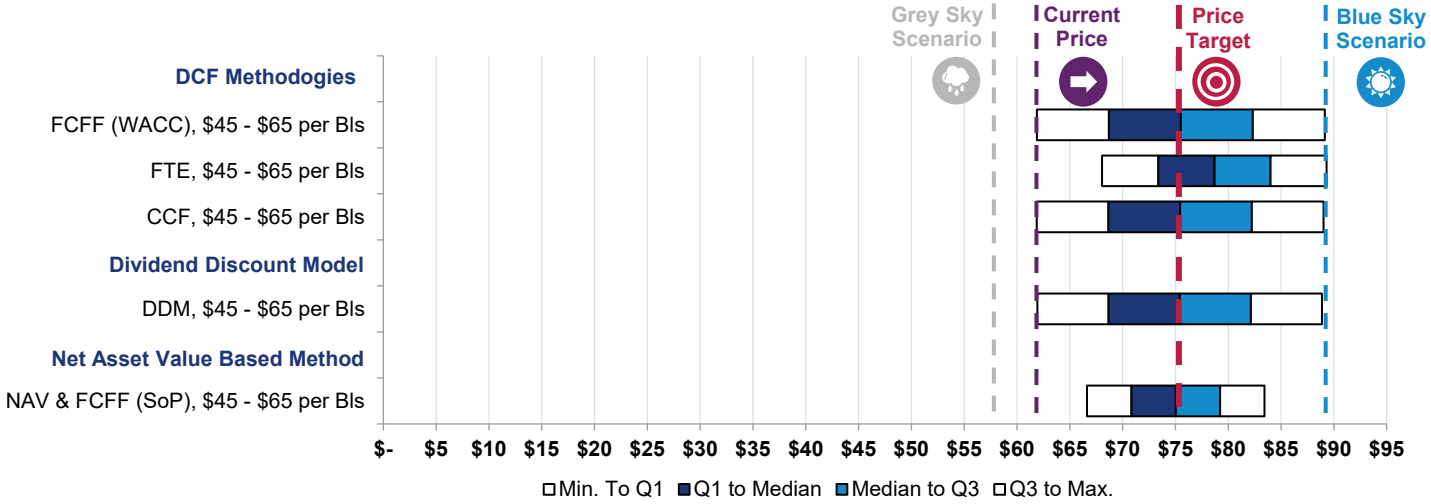
Appendix 4.8 – Supermajors stock price vs. S&P500 and MSCI World index (Base year analysis – 100)



Source: Refinitiv, IEA and Author analysis

Appendix 5 – Investment summary

Appendix 5.1 – Summary of Relevant Absolute Valuation Methodologies



Souce: Author Analysis

Appendix 5.2 – Consensus estimates and recommendation summary

Consensus Operational & Fundamentals estimates - ExxonMobil

Caption	Unit	Year			
		2021F	2022F	2023F	2024F
Operational data					
Production					
Oil	MBbls/d	2,295	2,322	2,335	2,404
Gas	MMcf/d	8,281	8,047	7,913	7,877
Total Production	**MBoe/d**	**3,039**	**3,398**	**3,203**	**3,766**
YoY Growth		*-19.2%*	*11.8%*	*-5.7%*	*17.5%*
% Diference		*17.2%*	*8.8%*	*12.9%*	*2.6%*
Commodity Prices					
XOM's Global Oil Realization	$/Bbl.	58.2	57.3	52.6	
% Diference		-5%	3.5%	3.4%	
Fundamentals					
Revenue & Other Income	$'Mn	266,569	273,485	264,584	258,084
% Diference		*-2%*	*9%*	*8%*	*1%*
EBITDA	$'Mn	46,855	51,692	50,479	54,693
% Diference		*-82%*	*-18%*	*1%*	*-5%*
EBITDAX	$'Mn	47,263	52,107	51,546	61,708
% Diference		*-76%*	*-16%*	*2%*	*-15%*
EBIT	$'Mn	25,665	32,155	29,889	32,877
% Diference		*-307%*	*-35%*	*2%*	*-6%*
DPS	$/Sh.	3.5	3.5	3.6	3.7
% Diference		*0%*	*-1%*	*-2%*	*0%*
Payout ratio	%	83%	73%	76%	75%

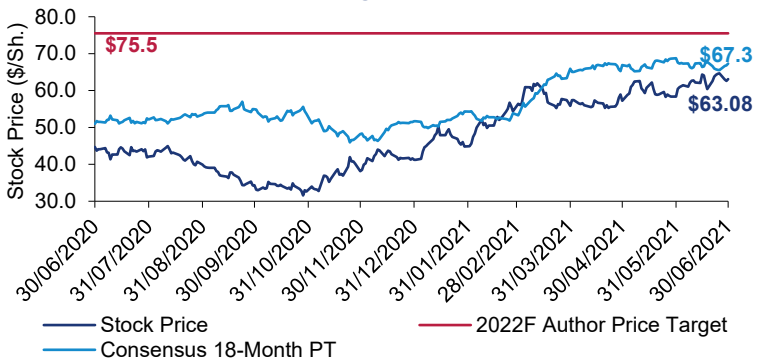
Consensus Price Target ($/Share)

Contributor	1-Year PT	Annualized Return	2022F adjusted PT
Consensus			
Consensus	65.9	4%	67.3
Major Players			
Morgan Stanley	84.0	33%	96.9
J.P. Morgan	76.0	20%	83.4
Credit Suisse	72.0	14%	76.9
Barclays	70.0	11%	73.7
Goldman Sachs	68.0	8%	70.6

Consensus Recomendations

Recommendation	#	%
Buy / Strong Buy	10	34%
Hold	17	59%
Sell / Reduce	2	7%
Total	**29**	**100%**

Historical Consensus Price Target vs. XOM Stock Price



Source: Author Analysis based on Company data

Appendix 6 – Valuation

Appendix 6.1 – Macroeconomic, Industry and Operational Data

Macroeconomic, Industry and Operational data - ExxonMobil															
Caption	Unit	Historical								Forecasted					CAGR
		2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2020-25F
Macroeconomic Data															
Global Real GDP growth	%	2.5%	2.8%	2.8%	2.3%	3.1%	3.0%	2.3%	-3.8%	5.5%	4.1%	3.0%	2.8%	2.7%	
Global Inflation rate	%	3.4%	3.3%	3.1%	3.4%	4.2%	8.7%	5.9%	4.5%	5.5%	4.7%	3.7%	3.2%	2.9%	
Operational data															
Oil & Gas Industry															
Commodity Prices															
Brent (average)	**$/Bbl.**	**108.6**	**99.0**	**52.3**	**43.6**	**54.1**	**71.3**	**64.3**	**42.0**	**66.0**	**71.0**	**65.0**	**55.0**	**55.0**	5.6%
	YoY	*-2.7%*	*-8.8%*	*-47.1%*	*-16.6%*	*24.0%*	*31.8%*	*-9.9%*	*-34.7%*	*57.3%*	*7.6%*	*-8.5%*	*-15.4%*	-	
WTI (average)	**$/Bbl.**	**98.0**	**93.2**	**48.7**	**43.3**	**50.8**	**65.2**	**57.0**	**39.2**	**58.5**	**63.0**	**57.6**	**48.8**	**48.8**	4.5%
	YoY	*4.2%*	*-4.9%*	*-47.8%*	*-11.0%*	*17.3%*	*28.4%*	*-12.6%*	*-31.3%*	*49.5%*	*7.6%*	*-8.5%*	*-15.4%*	-	
Henry Hub (average)	**$/Mcf**	**3.7**	**4.4**	**2.6**	**2.5**	**3.0**	**3.1**	**2.6**	**2.0**	**2.6**	**2.8**	**2.6**	**2.2**	**2.2**	1.6%
	YoY	*35.5%*	*17.2%*	*-40.0%*	*-4.1%*	*18.8%*	*5.1%*	*-18.4%*	*-20.7%*	*30.0%*	*7.6%*	*-8.5%*	*-15.4%*	-	
Industry Demand & Supply															
Global oil demand	MMBoe/d	91.9	93.0	95.0	96.2	98.0	99.4	99.7	91.0	96.9	99.9	101.2	102.3	103.2	2.5%
	YoY	*1.5%*	*1.2%*	*2.2%*	*1.2%*	*1.9%*	*1.4%*	*0.3%*	*-8.7%*	*6.4%*	*3.1%*	*1.4%*	*1.1%*	*0.9%*	
Global oil production	MMBoe/d	91.4	93.8	96.6	97.0	97.4	100.3	100.6	94.0	96.0	99.4	101.2	102.3	103.2	1.9%
Global natural gas demand	Tcf	121.4	121.3	124.8	127.4	128.6	135.3	137.9	135.8	141.4	144.9	148.5	151.0	153.2	2.4%
	MMBoe/d	55.5	55.4	57.0	58.0	58.7	61.8	63.0	61.8	64.6	66.2	67.8	69.0	70.0	2.5%
	YoY	*1.5%*	*-0.1%*	*2.8%*	*2.1%*	*0.9%*	*5.2%*	*2.0%*	*-1.5%*	*4.4%*	*2.5%*	*2.5%*	*1.7%*	*1.4%*	
Global natural gas production	Tcf	124.9	126.9	128.8	129.8	129.0	135.6	140.5	137.4	141.9	145.5	148.5	151.0	153.2	2.2%
	MMBoe/d	57.0	58.0	58.8	59.1	58.9	61.9	64.1	62.6	64.8	66.4	67.8	69.0	70.0	2.3%
ExxonMobil's Upstream															
Production															
Oil	MBbls/d	2,202	2,111	2,345	2,365	2,283	2,266	2,386	2,349	2,277	2,390	2,382	2,603	2,827	3.8%
Gas	MMcf/d	11,836	11,145	10,515	10,127	10,211	9,405	9,394	8,471	8,373	8,005	7,770	7,588	7,868	-1.5%
Total Production	**MBoe/d**	**4,175**	**3,969**	**4,098**	**4,053**	**3,985**	**3,834**	**3,952**	**3,761**	**3,673**	**3,724**	**3,677**	**3,867**	**4,138**	1.9%
YoY Growth			*-4.9%*	*3.3%*	*-1.1%*	*-1.7%*	*-3.8%*	*3.1%*	*-4.8%*	*-2.3%*	*1.4%*	*-1.3%*	*5.2%*	*7.0%*	
Oil Mix (%)	**%**	53%	53%	57%	58%	57%	59%	60%	62%	62%	64%	65%	67%	68%	
Commodity Prices															
XOM's Global Oil Realization	$/Bbl.	95.2	85.1	42.0	35.3	46.6	57.8	53.3	33.0	55.2	59.4	54.4	46.0	46.0	6.9%
XOM's Global Gas Realization	$/Mcf	6.9	6.6	4.2	2.8	3.5	4.7	3.8	2.4	3.5	3.8	3.5	3.0	3.0	4.0%
Reserves															
Proved developed reserves															
Oil	MMBoe	8,533	8,578	10,527	6,713	7,060	10,441	9,574	5,642	4,811	3,939	3,069	2,117	1,085	-28.1%
Gas	MMBoe	8,139	7,935	7,444	7,037	6,896	5,981	5,192	4,600	4,090	3,603	3,131	2,668	2,189	-13.8%
Total	**MMBoe**	**16,672**	**16,513**	**17,971**	**13,750**	**13,956**	**16,422**	**14,766**	**10,242**	**8,901**	**7,542**	**6,200**	**4,785**	**3,274**	-20.4%
Total Proved reserves															
Oil	MMBoe	13,239	13,713	14,724	10,557	12,029	15,657	14,598	8,885	8,054	7,182	6,312	5,360	4,328	-13.4%
Gas	MMBoe	11,977	11,556	10,035	9,417	9,192	8,636	7,847	6,327	5,817	5,330	4,858	4,395	3,916	-9.1%
Total	**MMBoe**	**25,216**	**25,269**	**24,759**	**19,974**	**21,221**	**24,293**	**22,445**	**15,212**	**13,871**	**12,512**	**11,170**	**9,754**	**8,244**	-11.5%
ExxonMobil's Downstream															
Refinery															
Refinery throughput															
U.S.	MBbls/d	1,819	1,809	1,709	1,591	1,508	1,588	1,532	1,549	1,590	1,688	1,928	1,928	1,928	4.5%
International	MBbls/d	2,766	2,667	2,723	2,678	2,783	2,684	2,449	2,224	2,274	2,415	2,415	2,448	2,448	1.9%
Total	**MBbls/d**	**4,585**	**4,476**	**4,432**	**4,269**	**4,291**	**4,272**	**3,981**	**3,773**	**3,864**	**4,103**	**4,342**	**4,375**	**4,375**	3.0%
YoY Growth			*-2.4%*	*-1.0%*	*-3.7%*	*0.5%*	*-0.4%*	*-6.8%*	*-5.2%*	*2.4%*	*6.2%*	*5.8%*	*0.8%*	*0.0%*	
Refining capacity	**MBbls/d**	**5,341**	**5,144**	**5,111**	**4,971**	**4,914**	**4,905**	**4,732**	**4,755**	**4,770**	**4,770**	**5,020**	**5,058**	**5,058**	1.2%
Capacity utilization	%	86%	87%	87%	86%	87%	87%	84%	79%	81%	86%	86%	87%	87%	
Refining Margin															
U.S.	$/Bbl.	14.93	19.03	19.65	15.54	17.77	16.01	14.87	16.91	16.53	17.10	16.42	15.28	15.28	-2.0%
International	$/Bbl.	19.83	19.84	16.37	14.85	16.56	15.85	15.03	17.30	14.46	15.02	14.35	13.24	13.24	-5.2%
Marketing															
Petroleum product sales															
U.S.	MBbls/d	2,609	2,655	2,521	2,250	2,190	2,210	2,292	2,154	2,286	2,381	2,466	2,479	2,479	2.8%
International	MBbls/d	3,278	3,220	3,233	3,232	3,340	3,302	3,160	2,741	2,909	3,030	3,138	3,154	3,154	2.8%
Total	**MBbls/d**	**5,887**	**5,875**	**5,754**	**5,482**	**5,530**	**5,512**	**5,452**	**4,895**	**5,196**	**5,410**	**5,604**	**5,633**	**5,633**	2.8%
YoY Growth			*-0.2%*	*-2.1%*	*-4.7%*	*0.9%*	*-0.3%*	*-1.1%*	*-10.2%*	*6.1%*	*4.1%*	*3.6%*	*0.5%*	*0.0%*	
Marketing Margin															
U.S.	$/Bbl.	5.81	6.02	5.71	6.54	6.56	5.55	5.55	5.55	5.55	5.55	5.55	5.55	5.55	-
International	$/Bbl.	6.76	6.83	6.86	6.86	6.86	6.86	6.86	6.86	6.86	6.86	6.86	6.86	6.86	-
ExxonMobil's Chemicals															
Prime product sales															
U.S.	MT	9,679	9,528	9,664	9,576	9,307	9,824	9,127	9,010	8,188	9,465	10,415	13,290	13,290	8.1%
International	MT	14,384	14,707	15,049	15,349	16,113	17,045	17,389	16,439	15,054	17,401	17,540	21,465	21,465	5.5%
Total	**MT**	**24,063**	**24,235**	**24,713**	**24,925**	**25,420**	**26,869**	**26,516**	**25,449**	**23,242**	**26,867**	**27,955**	**34,756**	**34,756**	6.4%
YoY Growth		*-0.4%*	*0.7%*	*2.0%*	*0.9%*	*2.0%*	*5.7%*	*-1.3%*	*-4.0%*	*-8.7%*	*15.6%*	*4.0%*	*24.3%*	*0.0%*	
Capacity utilization	%	81.4%	83.7%	86.1%	89.6%	83.0%	84.9%	85.6%	85.4%	77.9%	90.8%	90.8%	90.6%	90.6%	

Appendix 6.2 – Forecasted Financial Statements, Rearranged Financial Statements, and complementary tables

Income Statement - ExxonMobil ($'Mn)

Caption	Historical								Forecasted					CAGR
	2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2020-25F
Revenue	420,836	394,105	239,854	200,628	237,162	279,332	255,583	178,574	255,985	287,241	277,345	253,666	254,795	7.4%
Cost of revenue	284,681	266,831	165,590	134,619	160,907	192,854	180,627	124,438	194,266	213,285	195,633	167,860	169,226	6.3%
Production and manufacturing expenses	*40,525*	*40,859*	*35,587*	*30,448*	*32,690*	*36,682*	*36,826*	*30,431*	*35,734*	*36,627*	*35,798*	*34,493*	*34,557*	*2.6%*
Crude oil and product purchases	*244,156*	*225,972*	*130,003*	*104,171*	*128,217*	*156,172*	*143,801*	*94,007*	*158,533*	*176,658*	*159,835*	*133,366*	*134,669*	*7.5%*
Sales Based Taxes	30,589	29,342	-	-	-	-	-	-	-	-	-	-	-	
Gross Margin	**105,566**	**97,932**	**74,264**	**66,009**	**76,255**	**86,478**	**74,956**	**54,136**	**61,718**	**73,955**	**81,712**	**85,807**	**85,568**	**9.6%**
Operating expenses														
General and administrative expenses	12,877	12,598	11,501	10,443	10,649	11,480	11,398	10,168	10,930	11,349	10,961	10,917	11,475	2.4%
Exploration expenses, including dry holes	1,976	1,669	1,523	1,467	1,790	1,466	1,269	1,285	1,142	1,263	1,383	1,580	1,641	5.0%
Other taxes and duties	33,230	32,286	30,309	29,020	30,104	32,663	30,525	26,122	29,225	29,954	29,159	29,378	30,812	3.4%
Other operating expense	-	-	-	1,835	1,745	1,285	1,235	1,205	-	-	-	-	-	-100.0%
Operating expenses	**48,083**	**46,553**	**43,333**	**42,765**	**44,288**	**46,894**	**44,427**	**38,780**	**41,298**	**42,566**	**41,502**	**41,875**	**43,928**	**2.5%**
Other income														
Income from equity affiliates	13,927	13,323	7,644	4,806	5,380	7,355	5,441	1,732	1,732	8,378	7,432	5,854	5,854	27.6%
Other Income	3,492	4,511	1,750	2,680	1,821	3,525	3,914	1,196	3,537	4,031	3,438	2,450	2,450	15.4%
Other income	**17,419**	**17,834**	**9,394**	**7,486**	**7,201**	**10,880**	**9,355**	**2,928**	**5,269**	**12,409**	**10,870**	**8,304**	**8,304**	**23.2%**
EBITDA	**74,902**	**69,213**	**40,325**	**30,730**	**39,168**	**50,464**	**39,884**	**18,284**	**25,689**	**43,799**	**51,079**	**52,235**	**49,944**	**22.3%**
Depreciation & depletion	17,182	17,297	18,048	22,308	19,893	18,745	18,998	46,009	19,384	19,946	20,566	21,246	22,069	-13.7%
EBIT	**57,720**	**51,916**	**22,277**	**8,422**	**19,275**	**31,719**	**20,886**	**(27,725)**	**6,305**	**23,853**	**30,513**	**30,990**	**27,875**	**-200.1%**
Interest expense, net	9	286	311	453	601	766	830	1,158	1,279	1,267	1,114	1,297	1,226	1.1%
Earning Before Taxes	**57,711**	**51,630**	**21,966**	**7,969**	**18,674**	**30,953**	**20,056**	**(28,883)**	**5,026**	**22,586**	**29,399**	**29,692**	**26,649**	**-198.4%**
Income Taxes	24,263	18,015	5,415	(406)	(1,174)	9,532	5,282	(5,632)	874	3,805	5,682	6,085	5,335	-198.9%
Net Income	**33,448**	**33,615**	**16,551**	**8,375**	**19,848**	**21,421**	**14,774**	**(23,251)**	**4,152**	**18,782**	**23,717**	**23,607**	**21,314**	**-198.3%**
N.I. attributable to noncontrolling interests	(868)	(1,095)	(401)	(535)	(138)	(581)	(434)	811	(145)	(655)	(827)	(823)	(743)	-198.3%
Net income attributable to ExxonMobil	**32,580**	**32,520**	**16,150**	**7,840**	**19,710**	**20,840**	**14,340**	**(22,440)**	**4,007**	**18,127**	**22,890**	**22,784**	**20,570**	**-198.3%**

Net operating Profit After Tax (NOPAT) - ExxonMobil ($'Mn)

Caption	Historical								Forecasted					CAGR
	2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2020-25F
NOPAT														
(+) Revenue	420,836	394,105	239,854	200,628	237,162	279,332	255,583	178,574	255,985	287,241	277,345	253,666	254,795	7.4%
(-) Cost of revenue	284,681	266,831	165,590	134,619	160,907	192,854	180,627	124,438	194,266	213,285	195,633	167,860	169,226	6.3%
(-) Sales Based Taxes	30,589	29,342	-	-	-	-	-	-	-	-	-	-	-	
Gross Margin	**105,566**	**97,932**	**74,264**	**66,009**	**76,255**	**86,478**	**74,956**	**54,136**	**61,718**	**73,955**	**81,712**	**85,807**	**85,568**	**9.6%**
(-) Operating expenses	48,083	46,553	43,333	42,765	44,288	46,894	44,427	38,780	41,298	42,566	41,502	41,875	43,928	2.5%
(+) Other operating Income	3,492	4,511	1,750	2,680	1,821	3,525	3,914	1,196	3,537	4,031	3,438	2,450	2,450	15.4%
(-) Depreciation & depletion	17,182	17,297	18,048	22,308	19,893	18,745	18,998	20,098	19,384	19,946	20,566	21,246	22,069	1.9%
Operating Result (Adj. EBIT)	**43,793**	**38,593**	**14,633**	**3,616**	**13,895**	**24,364**	**15,445**	**(3,546)**	**4,573**	**15,475**	**23,082**	**25,135**	**22,021**	**-244.1%**
Operating Taxes														
Operating. CETR (Over adj EBIT)	42%	33%	41%	40%	83%	35%	30%	-6%	17%	15%	19%	20%	20%	
Operating taxes	18,516	12,843	5,942	1,438	11,594	8,406	4,677	221	779	2,311	4,355	5,128	4,363	81.6%
NOPAT	**25,277**	**25,750**	**8,691**	**2,178**	**2,301**	**15,958**	**10,768**	**(3,767)**	**3,794**	**13,164**	**18,727**	**20,007**	**17,657**	**-236.2%**
Other non-operating items														
(+) Income from equity affiliates	13,927	13,323	7,644	4,806	5,380	7,355	5,441	1,732	1,732	8,378	7,432	5,854	5,854	27.6%
(+) Impairment	-	-	-	-	-	-	-	(25,911)	-	-	-	-	-	-100.0%
(+) Non-operating taxes	(5,747)	(5,172)	527	1,844	12,768	(1,126)	(605)	5,853	(95)	(1,493)	(1,327)	(957)	(972)	-169.8%
Income available to Investors	**33,457**	**33,901**	**16,862**	**8,828**	**20,449**	**22,187**	**15,604**	**(22,093)**	**5,431**	**20,049**	**24,832**	**24,904**	**22,539**	**-200.4%**
Reconciliation with net income														
Net income, inc. NCI	33,448	33,615	16,551	8,375	19,848	21,421	14,774	(23,251)	4,152	18,782	23,717	23,607	21,314	-198.3%
Interest expense	9	286	311	453	601	766	830	1,158	1,279	1,267	1,114	1,297	1,226	1.1%
Income available to Investors	**33,457**	**33,901**	**16,862**	**8,828**	**20,449**	**22,187**	**15,604**	**(22,093)**	**5,431**	**20,049**	**24,832**	**24,904**	**22,539**	**-200.4%**

Cash effective tax rates determination ($'Mn)

Description	Historical								Forecasted					CAGR
	2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2020-25F
Reported Taxes	24,263	18,015	5,415	(406)	(1,174)	9,532	5,282	(5,632)	874	3,805	5,682	6,085	5,335	-198.9%
Non-Operating Items	1,590	835	1,013	931	7,675	49	360	809	-	-	-	-	-	-100.0%
Reported Taxes (operating only)	**25,853**	**18,850**	**6,428**	**525**	**6,501**	**9,581**	**5,642**	**(4,823)**	**874**	**3,805**	**5,682**	**6,085**	**5,335**	**(2)**
(-) tax on Equity affiliates income	4,874	4,663	2,675	1,682	1,883	1,545	1,143	364	364	1,759	1,561	1,229	1,229	27.6%
(-) Net change in net deferred tax Liabilities	2,466	1,444	(2,081)	(2,437)	(6,766)	(209)	(3)	(6,777)	-	-	-	-	-	-100.0%
Cash Taxes	**18,513**	**12,743**	**5,834**	**1,280**	**11,384**	**8,245**	**4,502**	**1,590**	**511**	**2,045**	**4,121**	**4,856**	**4,106**	**20.9%**
Cash effective Tax Rate (Over EBT)	**42.3%**	**33.3%**	**40.7%**	**40.5%**	**85.6%**	**34.9%**	**30.8%**	**-5.2%**	**15.5%**	**14.4%**	**18.8%**	**20.4%**	**19.7%**	
(+) Interest Tax Shield	3	100	109	159	210	161	174	243	269	266	234	272	257	1.1%
Operating Cash Taxes, including D&A Tax Shield	**18,516**	**12,843**	**5,942**	**1,438**	**11,594**	**8,406**	**4,677**	**1,833**	**779**	**2,311**	**4,355**	**5,128**	**4,363**	**18.9%**
Operating Cash effective Tax Rate (Over EBIT)	**42.3%**	**33.3%**	**40.6%**	**39.8%**	**83.4%**	**34.5%**	**30.3%**	**-6.2%**	**17.0%**	**14.9%**	**18.9%**	**20.4%**	**19.8%**	

Income Statement per Segment - ExxonMobil ($'Mn)

Caption	Historical								Forecasted					CAGR		% of Total Revenues		
	2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2020-25F	2013-20F	2020	2022F	2025F
Revenue	420,836	394,105	239,854	200,628	237,162	279,332	255,583	178,574	255,985	287,241	277,345	253,666	254,795	7.4%	-11.5%	100.0%	100.0%	100.0%
Upstream	106,152	92,612	51,899	41,079	51,940	63,840	59,532	35,911	56,755	62,994	57,203	52,061	55,994	9.3%	-14.3%	20.1%	21.9%	22.0%
Downstream	416,111	380,259	223,362	185,957	221,696	273,176	252,174	168,316	242,639	270,943	262,545	230,646	230,016	6.4%	-12.1%	94.3%	94.3%	90.3%
Chemicals	59,273	56,393	40,013	36,006	41,514	48,704	41,185	33,071	40,091	47,972	47,881	55,318	55,318	10.8%	-8.0%	18.5%	16.7%	21.7%
Corporate and Financing	21	18	8	21	35	38	41	38	28	28	28	28	28	-6.3%	8.8%	0.0%	0.0%	0.0%
Eliminations	(160,721)	(135,177)	(75,428)	(62,435)	(78,023)	(106,426)	(97,349)	(58,762)	(83,528)	(94,696)	(90,312)	(84,387)	(86,561)	8.1%	-13.4%	-32.9%	-33.0%	-34.0%
Cost of revenue	284,681	266,831	165,590	134,619	160,907	192,854	180,627	124,438	194,266	213,285	195,633	167,860	169,226	6.3%	-11.2%	69.7%	74.3%	66.4%
Production and manufacturing expenses	*40,525*	*40,859*	*35,587*	*30,448*	*32,690*	*36,682*	*36,826*	*30,431*	*35,734*	*36,627*	*35,798*	*34,493*	*34,557*	*2.6%*	*-4.0%*	*17.0%*	*12.8%*	*13.6%*
Upstream	*16,783*	*17,246*	*15,621*	*14,660*	*14,630*	*15,410*	*16,169*	*14,826*	*16,001*	*16,401*	*16,030*	*15,446*	*15,475*	*0.9%*	*-1.8%*	*8.3%*	*5.7%*	*6.1%*
Downstream	*20,064*	*19,653*	*16,621*	*12,929*	*15,093*	*17,552*	*17,311*	*13,686*	*16,934*	*17,183*	*16,719*	*15,363*	*15,383*	*2.4%*	*-5.3%*	*7.7%*	*6.0%*	*6.0%*
Chemicals	*2,769*	*2,784*	*2,897*	*2,244*	*2,802*	*3,066*	*2,821*	*2,611*	*2,798*	*3,042*	*3,049*	*3,685*	*3,700*	*7.2%*	*-0.8%*	*1.5%*	*1.1%*	*1.5%*
Eliminations	*909*	*1,175*	*449*	*615*	*164*	*653*	*525*	*(692)*	-	-	-	-	-	*-100.0%*	*-196.2%*	*-0.4%*	*0.0%*	*0.0%*
Crude oil and product purchases	*244,156*	*225,972*	*130,003*	*104,171*	*128,217*	*156,172*	*143,801*	*94,007*	*158,533*	*176,658*	*159,835*	*133,366*	*134,669*	*7.5%*	*-12.7%*	*52.6%*	*61.5%*	*52.9%*
Downstream	*373,871*	*335,132*	*172,268*	*141,562*	*173,230*	*221,705*	*204,822*	*127,870*	*206,678*	*231,879*	*214,923*	*178,459*	*180,070*	*7.1%*	*-14.2%*	*71.6%*	*80.7%*	*70.7%*
Chemicals	*53,309*	*48,329*	*27,917*	*21,841*	*27,151*	*36,131*	*31,216*	*21,063*	*35,383*	*39,475*	*35,223*	*39,295*	*41,160*	*14.3%*	*-12.4%*	*11.8%*	*13.7%*	*16.2%*
Eliminations	*(183,024)*	*(157,489)*	*(70,182)*	*(59,232)*	*(72,164)*	*(101,664)*	*(92,237)*	*(54,926)*	*(83,528)*	*(94,696)*	*(90,312)*	*(84,387)*	*(86,561)*	*9.5%*	*-15.8%*	*-30.8%*	*-33.0%*	*-34.0%*
Sales Based Taxes	30,589	29,342	-	-	-	-	-	-	-	-	-	-	-	0.0%	-100.0%	0.0%	0.0%	0.0%
Eliminations	*30,589*	*29,342*	-	-	-	-	-	-	-	-	-	-	-	*0.0%*	*-100.0%*	*0.0%*	*0.0%*	*0.0%*
Gross Margin	**105,566**	**97,932**	**74,264**	**66,009**	**76,255**	**86,478**	**74,956**	**54,136**	**61,718**	**73,955**	**81,712**	**85,807**	**85,568**	**9.6%**	**-9.1%**	**30.3%**	**25.7%**	**33.6%**
Upstream	58,780	46,024	36,278	26,419	37,310	48,430	43,363	21,085	40,754	46,592	41,173	36,616	40,520	14.0%	-13.6%	11.8%	16.2%	15.9%
Downstream	22,176	25,475	34,473	31,466	33,373	33,918	30,041	26,760	19,027	21,881	30,903	36,825	34,563	5.3%	2.7%	15.0%	7.6%	13.6%
Chemicals	3,195	5,279	9,199	11,921	11,561	9,508	7,148	9,397	1,910	5,455	9,609	12,339	10,458	2.2%	16.7%	5.3%	1.9%	4.1%
Corporate and Financing	21	18	8	21	35	38	41	38	28	28	28	28	28	-6.3%	8.8%	0.0%	0.0%	0.0%
Eliminations	21,394	21,137	(5,695)	(3,818)	(6,023)	(5,415)	(5,637)	(3,144)	-	-	-	-	-	-100.0%	-176.0%	-1.8%	0.0%	0.0%
Operating expenses																		
General and administrative expenses	12,877	12,598	11,501	10,443	10,649	11,480	11,398	10,168	10,930	11,349	10,961	10,917	11,475	2.4%	-3.3%	5.7%	4.0%	4.5%
Downstream	11,271	10,971	9,754	8,749	8,969	9,743	9,798	8,498	9,380	9,642	9,270	8,805	9,250	1.7%	-4.0%	4.8%	3.4%	3.6%
Chemicals	1,606	1,627	1,747	1,694	1,680	1,737	1,600	1,670	1,550	1,707	1,691	2,112	2,225	5.9%	0.6%	0.9%	0.6%	0.9%
Exploration expenses, including dry holes	1,976	1,669	1,523	1,467	1,790	1,466	1,269	1,285	1,142	1,263	1,383	1,580	1,641	5.0%	-6.0%	0.7%	0.4%	0.6%
Upstream	2,436	1,971	1,574	1,524	2,682	1,476	1,274	1,287	1,142	1,263	1,383	1,580	1,641	5.0%	-8.7%	0.7%	0.4%	0.6%
Eliminations	(460)	(302)	(51)	(57)	(892)	(10)	(5)	(2)	-	-	-	-	-	-100.0%	-54.0%	0.0%	0.0%	0.0%
Other taxes and duties	33,230	32,286	30,309	29,020	30,104	32,663	30,525	26,122	29,225	29,954	29,159	29,378	30,812	3.4%	-3.4%	14.6%	10.4%	12.1%
Upstream	17,333	13,059	7,054	5,535	6,317	7,701	7,089	4,317	4,968	6,889	6,707	6,757	7,087	10.4%	-18.0%	2.4%	2.4%	2.8%
Downstream	13,915	16,744	19,722	19,675	20,035	21,185	20,146	18,224	20,817	19,595	18,989	18,245	19,126	1.0%	3.9%	10.2%	6.8%	7.5%
Chemicals	1,982	2,483	3,533	3,810	3,752	3,777	3,290	3,581	3,440	3,469	3,463	4,376	4,600	5.1%	8.8%	2.0%	1.2%	1.8%
Other operating expense	-	-	-	1,835	1,745	1,285	1,235	1,205	-	-	-	-	-	-100.0%	0.0%	0.7%	0.0%	0.0%
Chemicals	-	-	-	1,835	1,745	1,285	1,235	1,205	-	-	-	-	-	-100.0%	0.0%	0.7%	0.0%	0.0%
Corporate and Financing	3,003	2,947	2,792	2,285	2,482	2,674	2,834	2,767	-	-	-	-	-	-100.0%	-1.2%	1.5%	0.0%	0.0%
Eliminations	(3,003)	(2,947)	(2,792)	(2,285)	(2,482)	(2,674)	(2,834)	(2,767)	-	-	-	-	-	-100.0%	-1.2%	-1.5%	0.0%	0.0%
Operating expenses	**48,083**	**46,553**	**43,333**	**42,765**	**44,288**	**46,894**	**44,427**	**38,780**	**41,298**	**42,566**	**41,502**	**41,875**	**43,928**	**2.5%**	**-3.0%**	**21.7%**	**14.8%**	**17.2%**
Other income																		
Income from Equity Affiliates	13,927	13,323	7,644	4,806	5,380	7,355	5,441	1,732	1,732	8,378	7,432	5,854	5,854	27.6%	-25.8%	1.0%	2.9%	2.3%
Upstream	942	3,280	884	765	1,518	1,592	3,590	419	1,386	6,702	5,945	4,683	4,683	62.1%	-10.9%	0.2%	2.3%	1.8%
Downstream	6,735	4,929	4,108	2,074	2,156	3,737	1,273	326	191	922	817	644	644	14.6%	-35.1%	0.2%	0.3%	0.3%
Chemicals	6,250	5,114	2,652	1,967	1,706	2,026	578	987	156	754	669	527	527	-11.8%	-23.2%	0.6%	0.3%	0.2%
Other Income	3,492	4,511	1,750	2,680	1,821	3,525	3,914	1,196	3,537	4,031	3,438	2,450	2,450	15.4%	-14.2%	0.7%	1.4%	1.0%
Upstream	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
Downstream	3,057	3,928	1,484	2,245	1,534	2,992	3,365	1,000	3,036	3,425	2,908	1,976	1,975	14.6%	-14.8%	0.6%	1.2%	0.8%
Chemicals	435	583	266	435	287	533	549	196	502	606	530	474	475	19.3%	-10.7%	0.1%	0.2%	0.2%
Other income	**17,419**	**17,834**	**9,394**	**7,486**	**7,201**	**10,880**	**9,355**	**2,928**	**5,269**	**12,409**	**10,870**	**8,304**	**8,304**	**23.2%**	**-22.5%**	**1.6%**	**4.3%**	**3.3%**
EBITDA	**74,902**	**69,213**	**40,325**	**30,730**	**39,168**	**50,464**	**39,884**	**18,284**	**25,689**	**43,799**	**51,079**	**52,235**	**49,944**	**22.3%**	**-18.2%**	**10.2%**	**15.2%**	**19.6%**
Upstream	70,542	63,616	28,534	20,125	29,829	40,845	38,590	15,900	36,029	45,143	39,029	32,963	36,476	18.1%	-19.2%	8.9%	15.7%	14.3%
Downstream	6,781	6,618	10,590	7,360	8,057	9,720	4,735	1,363	(7,945)	(3,010)	6,369	12,394	8,805	45.2%	-20.5%	0.8%	-1.0%	3.5%
Chemicals	6,293	6,865	6,837	6,984	6,379	5,267	2,150	4,125	(2,422)	1,638	5,654	6,852	4,636	2.4%	-5.9%	2.3%	0.6%	1.8%
Corporate and Financing	(2,982)	(2,929)	(2,784)	(2,264)	(2,447)	(2,636)	(2,793)	(2,729)	28	27	28	28	28	-139.9%	-1.3%	-1.5%	0.0%	0.0%
Eliminations	(5,732)	(4,956)	(2,852)	(1,476)	(2,649)	(2,731)	(2,798)	(375)	(0)	(0)	-	(0)	(0)	-99.8%	-32.3%	-0.2%	0.0%	0.0%
Depreciation & depletion	17,182	17,297	18,048	22,308	19,893	18,745	18,998	46,009	19,384	19,946	20,566	21,246	22,069	-13.7%	15.1%	25.8%	6.9%	8.7%
Upstream	14,410	13,913	14,719	19,212	16,364	14,810	15,616	40,454	15,465	15,867	16,311	16,798	17,470	-15.5%	15.9%	22.7%	5.5%	6.9%
Downstream	2,023	1,882	1,667	1,517	1,541	1,574	1,506	2,388	1,738	1,834	1,942	2,059	2,121	-2.3%	2.4%	1.3%	0.6%	0.8%
Chemicals	1,010	1,015	1,029	752	803	1,011	1,176	1,379	1,286	1,348	1,417	1,493	1,537	2.2%	4.5%	0.8%	0.5%	0.6%
Corporate and Financing	702	738	824	863	845	879	849	892	896	896	896	897	941	1.1%	3.5%	0.5%	0.3%	0.4%
Eliminations	(963)	(251)	(191)	(36)	340	471	(149)	896	-	-	-	-	-	-100.0%	-199.0%	0.5%	0.0%	0.0%
EBIT	**57,720**	**51,916**	**22,277**	**8,422**	**19,275**	**31,719**	**20,886**	**(27,725)**	**6,305**	**23,853**	**30,513**	**30,990**	**27,875**	**-200.1%**	**-190.1%**	**-15.5%**	**8.3%**	**10.9%**
Upstream	56,132	49,703	13,815	913	13,465	26,035	22,974	(24,554)	20,564	29,276	22,718	16,165	19,006	-195.0%	-188.9%	-13.7%	10.2%	7.5%
Downstream	4,758	4,736	8,923	5,843	6,516	8,146	3,229	(1,025)	(9,683)	(4,844)	4,427	10,335	6,685	-245.5%	-180.3%	-0.6%	-1.7%	2.6%
Chemicals	5,283	5,850	5,808	6,232	5,576	4,256	974	2,746	(3,708)	290	4,237	5,359	3,098	2.4%	-8.9%	1.5%	0.1%	1.2%
Corporate and Financing	(3,684)	(3,667)	(3,608)	(3,127)	(3,292)	(3,515)	(3,642)	(3,621)	(868)	(869)	(869)	(869)	(914)	-24.1%	-0.2%	-2.0%	-0.3%	-0.4%
Eliminations	(4,769)	(4,705)	(2,661)	(1,440)	(2,989)	(3,202)	(2,649)	(1,271)	(0)	(0)	-	(0)	(0)	-99.8%	-17.2%	-0.7%	0.0%	0.0%
Interest expense, net	9	286	311	453	601	766	830	1,158	1,279	1,267	1,114	1,297	1,226	1.1%	100.1%	0.6%	0.4%	0.5%
Upstream	56	57	53	46	116	108	88	145	160	159	140	162	153	1.1%	14.6%	0.1%	0.1%	0.1%
Downstream	15	10	12	9	7	14	10	22	24	24	21	25	23	1.1%	5.6%	0.0%	0.0%	0.0%
Chemicals	1	-	1	-	-	1	1	-	-	-	-	-	-	0.0%	-100.0%	0.0%	0.0%	0.0%
Corporate and Financing	(63)	219	245	398	478	643	731	991	1,095	1,084	953	1,110	1,049	1.1%	-248.2%	0.6%	0.4%	0.4%
Eliminations	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
Earning Before Taxes	**57,711**	**51,630**	**21,966**	**7,969**	**18,674**	**30,953**	**20,056**	**(28,883)**	**5,026**	**22,586**	**29,399**	**29,692**	**26,649**	**-198.4%**	**-190.6%**	**-16.2%**	**7.9%**	**10.5%**
Income Taxes	24,263	18,015	5,415	(406)	(1,174)	9,532	5,282	(5,632)	874	3,805	5,682	6,085	5,335	-198.9%	-181.2%	-3.2%	1.3%	2.1%
Upstream	28,520	21,170	6,485	658	(100)	11,455	8,007	(3,945)	3,550	4,905	4,363	3,279	3,774	-199.1%	-175.4%	-2.2%	1.7%	1.5%
Downstream	1,202	1,578	2,191	1,347	873	1,954	826	69	(1,689)	(820)	851	2,113	1,334	80.8%	-33.5%	0.0%	-0.3%	0.5%
Chemicals	1,352	1,390	1,279	1,302	1,026	811	363	712	(645)	49	819	1,098	620	-2.7%	-8.8%	0.4%	0.0%	0.2%
Corporate and Financing	(2,042)	(1,418)	(1,879)	(2,273)	16	(1,486)	(1,265)	(1,197)	(342)	(329)	(352)	(406)	(393)	-20.0%	-7.3%	-0.7%	-0.1%	-0.2%
Eliminations	(4,769)	(4,705)	(2,661)	(1,440)	(2,989)	(3,202)	(2,649)	(1,271)	-	-	-	-	-	-100.0%	-17.2%	-0.7%	0.0%	0.0%
Net Income	**33,448**	**33,615**	**16,551**	**8,375**	**19,848**	**21,421**	**14,774**	**(23,251)**	**4,152**	**18,782**	**23,717**	**23,607**	**21,314**	**-198.3%**	**-194.9%**	**-13.0%**	**6.5%**	**8.4%**
Upstream	27,556	28,476	7,277	209	13,449	14,472	14,879	(20,754)	16,854	24,213	18,215	12,723	15,078	-193.8%	-196.0%	-11.6%	8.4%	5.9%
Downstream	3,541	3,148	6,720	4,487	5,636	6,178	2,393	(1,116)	(8,018)	(4,048)	3,554	8,197	5,328	-236.7%	-184.8%	-0.6%	-1.4%	2.1%
Chemicals	3,930	4,460	4,528	4,930	4,550	3,444	610	2,034	(3,063)	241	3,418	4,261	2,478	4.0%	-9.0%	1.1%	0.1%	1.0%
Corporate and Financing	(1,579)	(2,468)	(1,974)	(1,252)	(3,786)	(2,672)	(3,108)	(3,415)	(1,622)	(1,624)	(1,470)	(1,574)	(1,570)	-14.4%	11.7%	-1.9%	-0.6%	-0.6%
N.I. attributable to noncontrolling interests	(868)	(1,095)	(401)	(535)	(138)	(581)	(434)	811	(145)	(655)	(827)	(823)	(743)	-198.3%	-199.0%	0.5%	-0.2%	-0.3%
Upstream	(715)	(928)	(176)	(13)	(94)	(393)	(437)	724	(129)	(585)	(738)	(735)	(664)	-198.3%	-200.2%	0.4%	-0.2%	-0.3%
Downstream	(92)	(103)	(163)	(287)	(39)	(168)	(70)	39	(7)	(31)	(40)	(40)	(36)	-198.3%	-188.5%	0.0%	0.0%	0.0%
Chemicals	(102)	(145)	(110)	(315)	(32)	(93)	(18)	(71)	13	57	72	72	65	-198.3%	-5.1%	0.0%	0.0%	0.0%
Corporate and Financing	41	80	48	80	26	72	91	119	(21)	(96)	(122)	(121)	(109)	-198.3%	16.5%	0.1%	0.0%	0.0%
Net income attributable to ExxonMobil	**32,580**	**32,520**	**16,150**	**7,840**	**19,710**	**20,840**	**14,340**	**(22,440)**	**4,007**	**18,127**	**22,890**	**22,784**	**20,570**	**-198.3%**	**-194.8%**	**-12.6%**	**6.3%**	**8.1%**
Upstream	26,841	27,548	7,101	196	13,355	14,079	14,442	(20,030)	16,725	23,628	17,476	11,988	14,414	-193.6%	-195.9%	-11.2%	8.2%	5.7%
Downstream	3,449	3,045	6,557	4,201	5,597	6,010	2,323	(1,077)	(8,025)	(4,080)	3,515	8,158	5,292	-237.5%	-184.7%	-0.6%	-1.4%	2.1%
Chemicals	3,828	4,315	4,418	4,615	4,518	3,351	592	1,963	(3,050)	298	3,491	4,333	2,543	5.3%	-9.1%	1.1%	0.1%	1.0%
Corporate and Financing	(1,538)	(2,388)	(1,926)	(1,172)	(3,760)	(2,600)	(3,017)	(3,296)	(1,643)	(1,720)	(1,592)	(1,695)	(1,679)	-12.6%	11.5%	-1.8%	-0.6%	-0.7%

Statement of Financial Position - ExxonMobil ($'Mn)														
Account	Historical								Forecasted					CAGR
	2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2020-25F
Assets														
Non-current assets														
Net Property and equipment	243,650	252,668	251,605	244,224	252,630	247,101	253,018	227,553	223,531	220,565	218,596	218,596	218,596	-0.8%
Investments	19,734	20,543	20,611	20,964	24,528	26,592	29,481	29,915	33,588	37,426	41,190	48,226	55,196	13.0%
Long-term receivables	6,118	4,878	4,524	4,695	5,520	5,590	5,141	4,788	4,788	4,788	4,788	4,788	4,788	-
Other long-term assets	17,998	18,494	17,395	19,015	18,879	18,940	24,905	25,601	25,601	25,601	25,601	25,601	25,601	-
Non-current assets	**287,500**	**296,583**	**294,135**	**288,898**	**301,557**	**298,223**	**312,545**	**287,857**	**287,509**	**288,380**	**290,175**	**297,211**	**304,181**	**1.1%**
Current assets														
Inventories	16,135	16,678	16,245	15,080	16,992	18,958	18,528	18,850	23,552	22,795	18,501	16,921	16,997	-2.0%
Accounts Receivables	33,152	28,009	19,875	21,394	25,597	24,701	26,966	20,581	25,148	28,857	28,692	27,690	27,815	6.2%
Other Current Assets	5,377	3,607	2,798	1,285	1,368	1,272	1,469	1,098	1,098	1,098	1,098	1,098	1,098	-
Cash and cash equivalents	4,644	4,616	3,705	3,657	3,177	3,042	3,089	4,364	8,747	7,163	3,784	3,012	3,038	-7.0%
Current assets	**59,308**	**52,910**	**42,623**	**41,416**	**47,134**	**47,973**	**50,052**	**44,893**	**58,545**	**59,913**	**52,075**	**48,722**	**48,948**	**1.7%**
Total Assets	**346,808**	**349,493**	**336,758**	**330,314**	**348,691**	**346,196**	**362,597**	**332,750**	**346,054**	**348,294**	**342,250**	**345,933**	**353,129**	**1.2%**
Equity														
Common stock	10,077	10,792	11,612	12,157	14,656	15,258	15,637	15,688	15,688	15,688	15,688	15,688	15,688	-
Common stock held in treasury	(212,781)	(225,820)	(229,734)	(230,424)	(225,246)	(225,553)	(225,835)	(225,776)	(225,776)	(225,776)	(225,776)	(225,776)	(225,776)	-
Retained earning & other	354,852	375,864	396,294	399,991	394,830	400,813	407,001	406,383	369,078	358,220	361,481	368,615	374,759	-1.6%
Net Income	32,580	32,520	16,150	7,840	19,710	20,840	14,340	(22,440)	4,007	18,127	22,890	22,784	20,570	-198.3%
Other comprehensive income	(10,725)	(18,957)	(23,511)	(22,239)	(16,262)	(19,564)	(19,493)	(16,705)	(16,705)	(16,705)	(16,705)	(16,705)	(16,705)	-
ExxonMobil Shareholder's equity	**174,003**	**174,399**	**170,811**	**167,325**	**187,688**	**191,794**	**191,650**	**157,150**	**146,292**	**149,553**	**157,579**	**164,605**	**168,536**	**1.4%**
Noncontrolling interests	6,492	6,665	5,999	6,505	6,812	6,734	7,288	6,980	6,588	6,705	6,995	7,249	7,392	1.2%
Total equity	**180,495**	**181,064**	**176,810**	**173,830**	**194,500**	**198,528**	**198,938**	**164,130**	**152,879**	**156,259**	**164,574**	**171,855**	**175,928**	**1.4%**
Liabilities														
Non-Current Liabilities														
Long Term Debt	6,891	11,653	19,925	28,932	24,406	20,538	26,342	47,182	57,123	55,720	49,072	50,209	51,932	1.9%
Deferred income tax liabilities	40,530	39,230	36,818	34,041	26,893	27,244	25,620	18,165	18,165	18,165	18,165	18,165	18,165	-
Postretirement benefits reserves	20,646	25,802	22,647	20,680	21,132	20,272	22,304	22,415	22,415	22,415	22,415	22,415	22,415	-
Other long-term obligations	26,522	27,111	26,582	25,193	23,989	22,476	25,404	24,495	24,495	24,495	24,495	24,495	24,495	-
Non-current liabilities	**94,589**	**103,796**	**105,972**	**108,846**	**96,420**	**90,530**	**99,670**	**112,257**	**122,198**	**120,795**	**114,147**	**115,284**	**117,007**	**0.8%**
Current Liabilities														
Trade Payables	30,920	25,286	18,074	17,801	21,701	21,063	24,694	17,499	30,309	30,819	26,325	21,134	21,306	4.0%
Accrued Expenses	10,578	10,352	9,699	8,644	9,642	9,342	10,312	11,246	9,424	9,785	9,450	9,413	9,893	-2.5%
Notes and loans payable	15,808	17,468	18,762	13,830	17,930	17,258	20,578	20,458	24,768	24,160	21,278	21,771	22,518	1.9%
Other Current liabilities	14,418	11,527	7,441	7,363	8,498	9,475	8,405	7,160	6,476	6,476	6,476	6,476	6,476	-2.0%
Current liabilities	**71,724**	**64,633**	**53,976**	**47,638**	**57,771**	**57,138**	**63,989**	**56,363**	**70,977**	**71,240**	**63,529**	**58,794**	**60,194**	**1.3%**
Total liabilities	**166,313**	**168,429**	**159,948**	**156,484**	**154,191**	**147,668**	**163,659**	**168,620**	**193,175**	**192,035**	**177,676**	**174,078**	**177,201**	**1.0%**
Total Liabilities & Equity	**346,808**	**349,493**	**336,758**	**330,314**	**348,691**	**346,196**	**362,597**	**332,750**	**346,054**	**348,294**	**342,250**	**345,933**	**353,129**	**1.2%**

Managerial Balance Sheet - Invested Capital Rearrangement - ExxonMobil ($'Mn)														
Account	Historical								Forecasted					CAGR
	2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2020-25F
Total funds invested: uses														
Net Working Capital														
Inventories	16,135	16,678	16,245	15,080	16,992	18,958	18,528	18,850	23,552	22,795	18,501	16,921	16,997	-2.0%
Accounts Receivables	33,152	28,009	19,875	21,394	25,597	24,701	26,966	20,581	25,148	28,857	28,692	27,690	27,815	6.2%
Other Current Assets	5,377	3,607	2,798	1,285	1,368	1,272	1,469	1,098	1,098	1,098	1,098	1,098	1,098	-
Operating Current Assets	**54,664**	**48,294**	**38,918**	**37,759**	**43,957**	**44,931**	**46,963**	**40,529**	**49,798**	**52,750**	**48,291**	**45,709**	**45,910**	**2.5%**
Trade Payables	30,920	25,286	18,074	17,801	21,701	21,063	24,694	17,499	30,309	30,819	26,325	21,134	21,306	4.0%
Accrued Expenses	10,578	10,352	9,699	8,644	9,642	9,342	10,312	11,246	9,424	9,785	9,450	9,413	9,893	-2.5%
Other Current liabilities	14,418	11,527	7,441	7,363	8,498	9,475	8,405	7,160	6,476	6,476	6,476	6,476	6,476	-2.0%
Operating Current liabilities	**55,916**	**47,165**	**35,214**	**33,808**	**39,841**	**39,880**	**43,411**	**35,905**	**46,209**	**47,080**	**42,251**	**37,023**	**37,676**	**1.0%**
Net Operating Working Capital	**(1,252)**	**1,129**	**3,704**	**3,951**	**4,116**	**5,051**	**3,552**	**4,624**	**3,590**	**5,670**	**6,040**	**8,686**	**8,234**	**12.2%**
Other operating assets														
Net PP&E	243,650	252,668	251,605	244,224	252,630	247,101	253,018	227,553	223,531	220,565	218,596	218,596	218,596	-0.8%
Long-term receivables	6,118	4,878	4,524	4,695	5,520	5,590	5,141	4,788	4,788	4,788	4,788	4,788	4,788	-
Other operating assets, net of other liabilities	(14,500)	(14,122)	(13,391)	(10,298)	(8,428)	(6,745)	(3,767)	(3,053)	(3,053)	(3,053)	(3,053)	(3,053)	(3,053)	-
Operating Cash	1,252	-	-	-	-	-	-	-	-	-	-	-	-	-
Invested Capital	**235,268**	**244,553**	**246,442**	**242,572**	**253,838**	**250,997**	**257,944**	**233,912**	**228,856**	**227,970**	**226,371**	**229,017**	**228,565**	**-0.5%**
Non-operating assets														
Investments	19,734	20,543	20,611	20,964	24,528	26,592	29,481	29,915	33,588	37,426	41,190	48,226	55,196	13.0%
Tax loss carryforw ards	3,393	4,099	4,983	5,472	6,767	6,321	7,404	8,982	8,982	8,982	8,982	8,982	8,982	-
Excess Cash	3,392	4,616	3,705	3,657	3,177	3,042	3,089	4,364	8,747	7,163	3,784	3,012	3,038	-7.0%
Total Funds Invested	**261,787**	**273,811**	**275,741**	**272,665**	**288,310**	**286,952**	**297,918**	**277,173**	**280,173**	**281,542**	**280,327**	**289,238**	**295,781**	**1.3%**
Total funds invested: sources														
Debt and Debt equivalents														
Short-term debt	15,808	17,468	18,762	13,830	17,930	17,258	20,578	20,458	24,768	24,160	21,278	21,771	22,518	1.9%
Long-Term Debt	6,891	11,653	19,925	28,932	24,406	20,538	26,342	47,182	57,123	55,720	49,072	50,209	51,932	1.9%
Postretirement benefits reserves	20,646	25,802	22,647	20,680	21,132	20,272	22,304	22,415	22,415	22,415	22,415	22,415	22,415	-
Debt and Debt equivalents	**43,345**	**54,923**	**61,334**	**63,442**	**63,468**	**58,068**	**69,224**	**90,055**	**104,306**	**102,295**	**92,765**	**94,395**	**96,865**	**1.5%**
Equity and Equity equivalents														
Deferred income tax liabilities, operating	44,520	45,964	43,883	41,446	34,680	34,471	34,468	27,691	27,691	27,691	27,691	27,691	27,691	-
Deferred income tax liabilities, non-operating	(6,573)	(8,140)	(6,286)	(6,053)	(4,338)	(4,115)	(4,712)	(4,703)	(4,703)	(4,703)	(4,703)	(4,703)	(4,703)	-
ExxonMobil Shareholder's equity	174,003	174,399	170,811	167,325	187,688	191,794	191,650	157,150	146,292	149,553	157,579	164,605	168,536	1.4%
Noncontrolling interests	6,492	6,665	5,999	6,505	6,812	6,734	7,288	6,980	6,588	6,705	6,995	7,249	7,392	1.2%
Equity and Equity equivalents	**218,442**	**218,888**	**214,407**	**209,223**	**224,842**	**228,884**	**228,694**	**187,118**	**175,867**	**179,247**	**187,562**	**194,843**	**198,916**	**1.2%**
Total Funds Invested	**261,787**	**273,811**	**275,741**	**272,665**	**288,310**	**286,952**	**297,918**	**277,173**	**280,173**	**281,542**	**280,327**	**289,238**	**295,781**	**1.3%**

Note: Managerial Balance Sheet prepared according to Koller, Tim *et al* in "*Valuation - Measuring and managing the value of companies*" Mckinsey & Company.

Excess cash ($'Mn)

Description	Historical								Forecasted					CAGR
	2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2020-25F
Cash and Cash equivalents	4,644	4,616	3,705	3,657	3,177	3,042	3,089	4,364	8,747	7,163	3,784	3,012	3,038	-7.0%
(+) Net Working Capital	(1,252)	1,129	3,704	3,951	4,116	5,051	3,552	4,624	3,590	5,670	6,040	8,686	8,234	12.2%
Excess Cash estimation	**3,392**	**4,616**	**3,705**	**3,657**	**3,177**	**3,042**	**3,089**	**4,364**	**8,747**	**7,163**	**3,784**	**3,012**	**3,038**	**-7.0%**

Cash Flow Statement ($'Mn)

Caption	Historical								Forecasted					CAGR
	2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2020-25F
Operating Activities														
Net income including noncontrolling interests	33,448	33,615	16,551	8,375	19,848	21,421	14,774	(23,251)	4,152	18,782	23,717	23,607	21,314	-198.3%
Depreciation/Depletion	17,182	17,297	18,048	22,308	19,893	18,745	18,998	46,009	19,384	19,946	20,566	21,246	22,069	-13.7%
Deferred Taxes	754	1,540	(1,832)	(4,386)	(8,577)	(60)	(944)	(8,856)	-	-	-	-	-	-100.0%
Postretirement benefits expense in excess of/(less than) net payments	2,291	524	2,153	(329)	1,135	1,070	109	498	-	-	-	-	-	-100.0%
Other long-term obligation provisions in excess of/(less than) payments	(2,566)	1,404	(380)	(19)	(610)	(68)	(3,038)	(1,269)	-	-	-	-	-	-100.0%
Dividends received greater than/(less than) equity in current earnings of equity companies	3	(358)	(691)	(579)	131	(1,684)	(936)	979	(173)	(838)	(743)	(585)	(585)	-190.2%
Changes in Working Capital	(4,720)	(4,932)	(3,113)	(1,392)	(649)	(1,356)	923	(1,653)	1,034	(2,080)	(370)	(2,646)	452	-177.2%
Net (gain) on asset sales	(1,828)	(3,151)	(226)	(1,682)	(334)	(1,993)	(1,710)	4	-	-	-	-	-	-100.0%
All other items - net	350	(823)	(166)	(214)	(771)	(61)	1,540	2,207	-	-	-	-	-	-100.0%
Operating Activities (CFO)	**44,914**	**45,116**	**30,344**	**22,082**	**30,066**	**36,014**	**29,716**	**14,668**	**24,397**	**35,809**	**43,170**	**41,622**	**43,250**	**24.1%**
Investment Activities														
Capex - Additions to PP&E	(33,669)	(32,952)	(26,490)	(16,163)	(15,402)	(19,574)	(24,361)	(17,282)	(15,362)	(16,980)	(18,597)	(21,246)	(22,069)	5.0%
Proceeds of sales of subsidiaries, PP&E and sales and returns of investments	2,707	4,035	2,389	4,275	3,103	4,123	3,692	999	-	-	-	-	-	-100.0%
Decrease/(increase) in restricted cash and cash equivalents	72	227	42	-	-	-	-	-	-	-	-	-	-	-
Additional investments and advances	(4,435)	(1,631)	(607)	(1,417)	(5,507)	(1,981)	(3,905)	(4,857)	(3,500)	(3,000)	(3,021)	(6,451)	(6,385)	5.6%
Other investing activities including collection of advances	1,124	3,346	842	902	2,076	986	1,490	2,681	-	-	-	-	-	-100.0%
Investment Activities (CFI)	**(34,201)**	**(26,975)**	**(23,824)**	**(12,403)**	**(15,730)**	**(16,446)**	**(23,084)**	**(18,459)**	**(18,862)**	**(19,980)**	**(21,618)**	**(27,697)**	**(28,454)**	**9.0%**
Financing Activities														
Issuance (Retirement) of Debt, Net	11,604	6,966	9,255	4,293	(1,048)	(4,925)	8,662	20,141	14,251	(2,011)	(9,530)	1,630	2,470	-34.3%
Long-term debt	*332*	*5,662*	*8,002*	*12,066*	*60*	*46*	*7,051*	*23,178*	*9,941*	*(1,403)*	*(6,647)*	*1,137*	*1,723*	*-40.5%*
Short term	*11,272*	*1,304*	*1,253*	*(7,773)*	*(1,108)*	*(4,971)*	*1,611*	*(3,037)*	*4,310*	*(608)*	*(2,882)*	*493*	*747*	*-175.5%*
Cash Dividends Paid	(11,179)	(11,816)	(12,260)	(12,615)	(13,185)	(14,041)	(14,844)	(15,053)	(15,402)	(15,402)	(15,402)	(16,326)	(17,241)	2.8%
Cash dividends to ExxonMobil shareholders	*(10,875)*	*(11,568)*	*(12,090)*	*(12,453)*	*(13,001)*	*(13,798)*	*(14,652)*	*(14,865)*	*(14,865)*	*(14,865)*	*(14,865)*	*(15,757)*	*(16,639)*	*2.3%*
Cash dividends to NonControlling Interests	*(304)*	*(248)*	*(170)*	*(162)*	*(184)*	*(243)*	*(192)*	*(188)*	*(537)*	*(537)*	*(537)*	*(569)*	*(601)*	*26.2%*
Issuance (Retirement) of Stock, Net	(15,948)	(13,153)	(4,034)	(971)	(747)	(626)	(594)	(405)	-	-	-	-	-	-100.0%
Common stock acquired	*(15,998)*	*(13,183)*	*(4,039)*	*(977)*	*(747)*	*(626)*	*(594)*	*(405)*	-	-	-	-	-	*-100.0%*
Common stock sold	*50*	*30*	*5*	*6*	-	-	-	-	-	-	-	-	-	-
Other Financing Cash Flow	47	115	2	-	(150)	146	158	602	-	-	-	-	-	-100.0%
Changes in noncontrolling interests	*(1)*	-	-	-	*(150)*	*146*	*158*	*623*	-	-	-	-	-	*-100.0%*
Contingent consideration payments	-	-	-	-	-	-	-	*(21)*	-	-	-	-	-	
Tax benefits related to stock-based awards	*48*	*115*	*2*	-	-	-	-	-	-	-	-	-	-	-
Financing Activities (CFF)	**(15,476)**	**(17,888)**	**(7,037)**	**(9,293)**	**(15,130)**	**(19,446)**	**(6,618)**	**5,285**	**(1,151)**	**(17,413)**	**(24,932)**	**(14,696)**	**(14,771)**	**-222.8%**
Other Cash Flows														
Foreign Exchange Effects	(175.0)	(281.0)	(394.0)	(434.0)	314.0	(257.0)	33.0	(219.0)	-	-	-	-	-	-100.0%
Change in Cash	**(4,938.0)**	**(28.0)**	**(911.0)**	**(48.0)**	**(480.0)**	**(135.0)**	**47.0**	**1,275.0**	**4,383.0**	**(1,583.7)**	**(3,379.2)**	**(771.6)**	**25.2**	**-54.4%**
Begining	**9,582.0**	**4,644.0**	**4,616.0**	**3,705.0**	**3,657.0**	**3,177.0**	**3,042.0**	**3,089.0**	**4,364.0**	**8,747.0**	**7,163.3**	**3,784.1**	**3,012.5**	**-0.5%**
End	**4,644.0**	**4,616.0**	**3,705.0**	**3,657.0**	**3,177.0**	**3,042.0**	**3,089.0**	**4,364.0**	**8,747.0**	**7,163.3**	**3,784.1**	**3,012.5**	**3,037.706**	**-7.0%**

Cash Flow Breakdown ($'Mn)

Caption	Historical								Forecasted					CAGR
	2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2020-25F
Cash Flows														
Cash Flow from Operations (CFO)	44,914	45,116	30,344	22,082	30,066	36,014	29,716	14,668	24,397	35,809	43,170	41,622	43,250	24.1%
Cash Flow from Investment (CFI)	(34,201)	(26,975)	(23,824)	(12,403)	(15,730)	(16,446)	(23,084)	(18,459)	(18,862)	(19,980)	(21,618)	(27,697)	(28,454)	9.0%
Total FCF (Management Definition)	**10,713**	**18,141**	**6,520**	**9,679**	**14,336**	**19,568**	**6,632**	**(3,791)**	**5,534**	**15,830**	**21,553**	**13,925**	**14,796**	**-231.3%**
Cash Flow from Financing Activities (CFF)	(15,476)	(17,888)	(7,037)	(9,293)	(15,130)	(19,446)	(6,618)	5,285	(1,151)	(17,413)	(24,932)	(14,696)	(14,771)	-222.8%
Organic FCF (CFO - Organic Capex)	**7,934**	**13,879**	**4,089**	**5,404**	**11,233**	**15,445**	**2,940**	**(4,790)**	**6,539**	**16,072**	**21,553**	**16,925**	**17,596**	**-229.7%**
Free Cash Flow to Equity	**21,154**	**13,950**	**7,037**	**11,856**	**5,810**	**9,049**	**15,373**	**43,693**	**22,090**	**11,038**	**9,916**	**17,966**	**19,611**	**-14.8%**
Capital Expenditures														
Capex (Management Definition)	**42,489**	**38,537**	**31,051**	**19,304**	**23,080**	**25,923**	**31,148**	**21,374**	**19,000**	**21,000**	**23,000**	**26,277**	**27,295**	**5.0%**
(-) Exploration costs charged to expense	1,976	1,669	1,523	1,467	1,790	1,466	1,269	1,285	1,142	1,263	1,383	1,580	1,641	5.0%
(-) Affiliate Share of Capex	6,844	3,916	3,038	1,674	5,888	4,883	5,518	2,807	2,495	2,758	3,021	3,451	3,585	5.0%
Cash Capex (Reported Capex - CFS)	**33,669**	**32,952**	**26,490**	**16,163**	**15,402**	**19,574**	**24,361**	**17,282**	**15,362**	**16,980**	**18,597**	**21,246**	**22,069**	**5.0%**
(+) Net Advances and Affiliates	3,311	(1,715)	(235)	515	3,431	995	2,415	2,176	2,495	2,758	3,021	3,451	3,585	10.5%
Organic Capex	**36,980**	**31,237**	**26,255**	**16,678**	**18,833**	**20,569**	**26,776**	**19,458**	**17,858**	**19,737**	**21,617**	**24,697**	**25,654**	**5.7%**
% of CFO	82%	*69.2%*	*86.5%*	*75.5%*	*62.6%*	*57.1%*	*90.1%*	*132.7%*	*73.2%*	*55.1%*	*50.1%*	*59.3%*	*59.3%*	
Shareholder Cash Flows														
Dividends	10,875	11,568	12,090	12,453	13,001	13,798	14,652	14,865	14,865	14,865	14,865	15,757	16,639	2.3%
Share Buy Backs	15,998	13,183	4,039	977	747	626	594	405	-	-	-	-	-	-100.0%
Cash flows to shareholders	**26,873**	**24,751**	**16,129**	**13,430**	**13,748**	**14,424**	**15,246**	**15,270**	**14,865**	**14,865**	**14,865**	**15,757**	**16,639**	**1.7%**
% of Organic FCF	339%	*178%*	*394%*	*249%*	*122%*	*93%*	*519%*	*-319%*	*227%*	*92%*	*69%*	*93%*	*95%*	
% of FCFE	127%	*177%*	*229%*	*113%*	*237%*	*159%*	*99%*	*35%*	*67%*	*135%*	*150%*	*88%*	*85%*	
Dividend Coverage Ratio (organic FCF)	0.73 x	*1.20 x*	*0.34 x*	*0.43 x*	*0.86 x*	*1.12 x*	*0.20 x*	*(0.32) x*	*0.44 x*	*1.08 x*	*1.45 x*	*1.07 x*	*1.06 x*	
Dividend % of CFO	24%	*26%*	*40%*	*56%*	*43%*	*38%*	*49%*	*101%*	*61%*	*42%*	*34%*	*38%*	*38%*	

Appendix 6.3 – Common-size Financial Statements

Common-size Income Statement - ExxonMobil ($'Mn)

Caption	Historical								Forecasted				
	2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F
Revenue	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of revenue	67.6%	67.7%	69.0%	67.1%	67.8%	69.0%	70.7%	69.7%	75.9%	74.3%	70.5%	66.2%	66.4%
Production and manufacturing expenses	*9.6%*	*10.4%*	*14.8%*	*15.2%*	*13.8%*	*13.1%*	*14.4%*	*17.0%*	*14.0%*	*12.8%*	*12.9%*	*13.6%*	*13.6%*
Crude oil and product purchases	*58.0%*	*57.3%*	*54.2%*	*51.9%*	*54.1%*	*55.9%*	*56.3%*	*52.6%*	*61.9%*	*61.5%*	*57.6%*	*52.6%*	*52.9%*
Sales Based Taxes	7.3%	7.4%	-	-	-	-	-	-	-	-	-	-	-
Gross Margin	**25.1%**	**24.8%**	**31.0%**	**32.9%**	**32.2%**	**31.0%**	**29.3%**	**30.3%**	**24.1%**	**25.7%**	**29.5%**	**33.8%**	**33.6%**
Operating expenses													
General and administrative expenses	3.1%	3.2%	4.8%	5.2%	4.5%	4.1%	4.5%	5.7%	4.3%	4.0%	4.0%	4.3%	4.5%
Exploration expenses, including dry holes	0.5%	0.4%	0.6%	0.7%	0.8%	0.5%	0.5%	0.7%	0.4%	0.4%	0.5%	0.6%	0.6%
Other taxes and duties	7.9%	8.2%	12.6%	14.5%	12.7%	11.7%	11.9%	14.6%	11.4%	10.4%	10.5%	11.6%	12.1%
Other operating expense	-	-	-	0.9%	0.7%	0.5%	0.5%	0.7%	-	-	-	-	-
Operating expenses	**11.4%**	**11.8%**	**18.1%**	**21.3%**	**18.7%**	**16.8%**	**17.4%**	**21.7%**	**16.1%**	**14.8%**	**15.0%**	**16.5%**	**17.2%**
Other income													
Income from equity affiliates	3.3%	3.4%	3.2%	2.4%	2.3%	2.6%	2.1%	1.0%	0.7%	2.9%	2.7%	2.3%	2.3%
Other Income	0.8%	1.1%	0.7%	1.3%	0.8%	1.3%	1.5%	0.7%	1.4%	1.4%	1.2%	1.0%	1.0%
Other income	**4.1%**	**4.5%**	**3.9%**	**3.7%**	**3.0%**	**3.9%**	**3.7%**	**1.6%**	**2.1%**	**4.3%**	**3.9%**	**3.3%**	**3.3%**
EBITDA	**17.8%**	**17.6%**	**16.8%**	**15.3%**	**16.5%**	**18.1%**	**15.6%**	**10.2%**	**10.0%**	**15.2%**	**18.4%**	**20.6%**	**19.6%**
Depreciation & depletion	4.1%	4.4%	7.5%	11.1%	8.4%	6.7%	7.4%	25.8%	7.6%	6.9%	7.4%	8.4%	8.7%
EBIT	**13.7%**	**13.2%**	**9.3%**	**4.2%**	**8.1%**	**11.4%**	**8.2%**	**-15.5%**	**2.5%**	**8.3%**	**11.0%**	**12.2%**	**10.9%**
Interest expense, net	0.0%	0.1%	0.1%	0.2%	0.3%	0.3%	0.3%	0.6%	0.5%	0.4%	0.4%	0.5%	0.5%
Earning Before Taxes	**13.7%**	**13.1%**	**9.2%**	**4.0%**	**7.9%**	**11.1%**	**7.8%**	**-16.2%**	**2.0%**	**7.9%**	**10.6%**	**11.7%**	**10.5%**
Income Taxes	5.8%	4.6%	2.3%	-0.2%	-0.5%	3.4%	2.1%	-3.2%	0.3%	1.3%	2.0%	2.4%	2.1%
Net Income	**7.9%**	**8.5%**	**6.9%**	**4.2%**	**8.4%**	**7.7%**	**5.8%**	**-13.0%**	**1.6%**	**6.5%**	**8.6%**	**9.3%**	**8.4%**
N.I. attributable to noncontrolling interests	-0.2%	-0.3%	-0.2%	-0.3%	-0.1%	-0.2%	-0.2%	0.5%	-0.1%	-0.2%	-0.3%	-0.3%	-0.3%
Net income attributable to ExxonMobil	**7.7%**	**8.3%**	**6.7%**	**3.9%**	**8.3%**	**7.5%**	**5.6%**	**-12.6%**	**1.6%**	**6.3%**	**8.3%**	**9.0%**	**8.1%**

Common-size Statement of Financial Position - ExxonMobil ($'Mn)

Account	Historical								Forecasted				
	2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F
Assets													
Non-current assets													
Net Property and equipment	70.3%	72.3%	74.7%	73.9%	72.5%	71.4%	69.8%	68.4%	64.6%	63.3%	63.9%	63.2%	61.9%
Investments	5.7%	5.9%	6.1%	6.3%	7.0%	7.7%	8.1%	9.0%	9.7%	10.7%	12.0%	13.9%	15.6%
Long-term receivables	1.8%	1.4%	1.3%	1.4%	1.6%	1.6%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
Other long-term assets	5.2%	5.3%	5.2%	5.8%	5.4%	5.5%	6.9%	7.7%	7.4%	7.4%	7.5%	7.4%	7.2%
Non-current assets	**82.9%**	**84.9%**	**87.3%**	**87.5%**	**86.5%**	**86.1%**	**86.2%**	**86.5%**	**83.1%**	**82.8%**	**84.8%**	**85.9%**	**86.1%**
Current assets													
Inventories	4.7%	4.8%	4.8%	4.6%	4.9%	5.5%	5.1%	5.7%	6.8%	6.5%	5.4%	4.9%	4.8%
Accounts Receivables	9.6%	8.0%	5.9%	6.5%	7.3%	7.1%	7.4%	6.2%	7.3%	8.3%	8.4%	8.0%	7.9%
Other Current Assets	1.6%	1.0%	0.8%	0.4%	0.4%	0.4%	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Cash and cash equivalents	1.3%	1.3%	1.1%	1.1%	0.9%	0.9%	0.9%	1.3%	2.5%	2.1%	1.1%	0.9%	0.9%
Current assets	**17.1%**	**15.1%**	**12.7%**	**12.5%**	**13.5%**	**13.9%**	**13.8%**	**13.5%**	**16.9%**	**17.2%**	**15.2%**	**14.1%**	**13.9%**
Total Assets	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Equity													
Common stock	2.9%	3.1%	3.4%	3.7%	4.2%	4.4%	4.3%	4.7%	4.5%	4.5%	4.6%	4.5%	4.4%
Common stock held in treasury	-61.4%	-64.6%	-68.2%	-69.8%	-64.6%	-65.2%	-62.3%	-67.9%	-65.2%	-64.8%	-66.0%	-65.3%	-63.9%
Retained earning & other	102.3%	107.5%	117.7%	121.1%	113.2%	115.8%	112.2%	122.1%	106.7%	102.8%	105.6%	106.6%	106.1%
Net Income	9.4%	9.3%	4.8%	2.4%	5.7%	6.0%	4.0%	-6.7%	1.2%	5.2%	6.7%	6.6%	5.8%
Other comprehensive income	-3.1%	-5.4%	-7.0%	-6.7%	-4.7%	-5.7%	-5.4%	-5.0%	-4.8%	-4.8%	-4.9%	-4.8%	-4.7%
ExxonMobil Shareholder's equity	**50.2%**	**49.9%**	**50.7%**	**50.7%**	**53.8%**	**55.4%**	**52.9%**	**47.2%**	**42.3%**	**42.9%**	**46.0%**	**47.6%**	**47.7%**
Noncontrolling interests	1.9%	1.9%	1.8%	2.0%	2.0%	1.9%	2.0%	2.1%	1.9%	1.9%	2.0%	2.1%	2.1%
Total equity	**52.0%**	**51.8%**	**52.5%**	**52.6%**	**55.8%**	**57.3%**	**54.9%**	**49.3%**	**44.2%**	**44.9%**	**48.1%**	**49.7%**	**49.8%**
Liabilities													
Non-Current Liabilities													
Long Term Debt	2.0%	3.3%	5.9%	8.8%	7.0%	5.9%	7.3%	14.2%	16.5%	16.0%	14.3%	14.5%	14.7%
Deferred income tax liabilities	11.7%	11.2%	10.9%	10.3%	7.7%	7.9%	7.1%	5.5%	5.2%	5.2%	5.3%	5.3%	5.1%
Postretirement benefits reserves	6.0%	7.4%	6.7%	6.3%	6.1%	5.9%	6.2%	6.7%	6.5%	6.4%	6.5%	6.5%	6.3%
Other long-term obligations	7.6%	7.8%	7.9%	7.6%	6.9%	6.5%	7.0%	7.4%	7.1%	7.0%	7.2%	7.1%	6.9%
Non-current liabilities	**27.3%**	**29.7%**	**31.5%**	**33.0%**	**27.7%**	**26.1%**	**27.5%**	**33.7%**	**35.3%**	**34.7%**	**33.4%**	**33.3%**	**33.1%**
Current Liabilities													
Trade Payables	8.9%	7.2%	5.4%	5.4%	6.2%	6.1%	6.8%	5.3%	8.8%	8.8%	7.7%	6.1%	6.0%
Accrued Expenses	3.1%	3.0%	2.9%	2.6%	2.8%	2.7%	2.8%	3.4%	2.7%	2.8%	2.8%	2.7%	2.8%
Notes and loans payable	4.6%	5.0%	5.6%	4.2%	5.1%	5.0%	5.7%	6.1%	7.2%	6.9%	6.2%	6.3%	6.4%
Other Current liabilities	4.2%	3.3%	2.2%	2.2%	2.4%	2.7%	2.3%	2.2%	1.9%	1.9%	1.9%	1.9%	1.8%
Current liabilities	**20.7%**	**18.5%**	**16.0%**	**14.4%**	**16.6%**	**16.5%**	**17.6%**	**16.9%**	**20.5%**	**20.5%**	**18.6%**	**17.0%**	**17.0%**
Total liabilities	**48.0%**	**48.2%**	**47.5%**	**47.4%**	**44.2%**	**42.7%**	**45.1%**	**50.7%**	**55.8%**	**55.1%**	**51.9%**	**50.3%**	**50.2%**
Total Liabilities + Equity	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Appendix 6.4 – High Level rationale of assumptions

High level Rationale of Author's Assumptions	
Variable	**Rationale**
Macroeconomic assumptions	
Real GDP Growth	Projections of Real GDP Growth were based on EIU provided Forecasts. Several risks might require reassessment of base case projections: i) slow pace of global vaccine distribution, which make possible to emerge new COVID-19 variants; ii) worsening U.S.-China diplomatic relations, including Inter-state cyberwar and the rising conflicts between China and Taiwan, which might force US to intervene; iii) severe droughts that prompt a famine; iv) the Afghanistan conflicts and tension.
Inflation rate	Assumptions were based on EIU Forecasts. Significant changes might impact GDP growth and, consequently, projections of Brent & WTI.
World Population	Long-term projections were based on ONU forecasts. World population growth is a major driver for oil & gas demand.
Industry assumptions	
Global Oil & Gas Demand / Production	Global oil & gas supply and demand forecasts were based on EIU and IEA projections. Long-term projections were based on IEA STEPS.
Brent crude oil price index	Author projections were based on EIU Forecasts, except for 2024F, in which the Author was slightly more conservative. Besides the global GDP growth risk referred above, a breakdown in the OPEC+ quota deals could lead to another crude oil price crash.
WTI crude oil price index	Assumptions are aligned with IHS Markit. It was determined based on historical correlation between Brent and WTI.
Henry Hub	Assumptions are aligned with EIU forecasts. It was determined based on historical correlation between Brent and Henry Hub.
XOM's Operational assumptions	
XOM's Global Commodities Realization	XOM's realizations were determined based on the historical relation with respective market proxies, i.e., Brent, WTI and Henry Hub. It was used quarterly data, to extend the number of observations (above 30 observations).
XOM's Upstream Production	Author analysis, where it was analyzed each upstream segment project. It was determined the pipelines production for each project, based on ExxonMobil's historical guidance, considering that XOM never accomplished the global target productions goals. Delays were estimated for several key projects.
XOM's Reserves	Author analysis, based on XOM's production projected. No data for Probable and Possible Reserves is provided by XOM. It was assumed no additions to Proved Reserves. A potential prolonged crash in oil prices might lead to several upstream projects to become uneconomical, which might require an impairment expense charge of these assets and reassessment of XOM's Proved Preserves.
XOM's Refining Capacity	Author analysis, where it was analyzed each downstream segment site capacity. It was projected based XOM's guidance over expansions in these sites, also considering several delays, due to reduction of capital expenditure.
XOM's Refining Throughput	Author analysis, based on projected XOM's Refining capacity and utilization rate. Industry's Refining utilization rates expected to grow .
XOM's Refining Margins	Based on the first semester of the evolution of Major Crack spreads in the first semester of 2021, it is expected an increase in the refining margins. Projections over economic activity corroborate these forecasts. The amounts determined, were based on the historical relation between XOM's refining margins and XOM's commodities realizations, using quarterly data, to extend observations to above 30.
XOM's Marketing Margins	Author analysis, based on XOM's historical flat marketing margins.
XOM's Chemicals Prime product Sales	Chemicals products were less impacted by pandemic, compared to Petroleum products. Nevertheless, recovery in the global economy will lead to a growth in sales. Chemicals sales, were determined based on project by project Chemical site capacity analysis (considering XOM guidance and probable delays due to lower capital expenditures) as well as to estimations to utilizations rates.
XOM's Chemicals Margins	It is expected that the recovery in the global economy will also lead to Chemicals margins growth. Chemicals margins and sales were based on historical relationship with oil & gas commodities, which has economical reasonability. It was used quarterly data, to perform this analysis (above 30 observations).
XOM's financial assumptions	
Income Statement	
Upstream segment revenue	Author analysis, based on XOM's upstream production and oil & gas realizations projections. Revenue and other Income is practically alined with consensus (please see "*Consensus estimates and recommendation summary*" appendix)
Other income	Author analysis, based on historical relationship with Brent oil price index.
Downstream segment revenue	Author analysis, based on XOM's Refining Throughput and Refining/Marketing margins projections.
Chemicals segment revenue	Author analysis, based on XOM's Chemicals implied margins and Prime product sales projections.
Crude Oil and Product Purchases	Author analysis, based on the historical relationship with XOM's upstream production and oil & gas realizations projections. It was determined based on quarterly data and adapted for annual projections.
Production and Manufacturing expenses	
General and administrative expenses	
Exploration expenses, including dry holes	XOM's guidance in 2021 Investors Day, over Capital Expenditures (Management definition over capex includes this caption).
Income from equity affiliates	Author analysis, based on historical relations with Brent oil price index, since XOM's equity affiliates are E&P companies.
Other taxes and duties	Author analysis, based on historical relationship with XOM's upstream production and oil & gas realizations. It was used quarterly data (above 30 observations), and then adapted to annualization.
Depreciation & depletion	Author analysis, based on XOM's guidance over Capital expenditures and historical depreciation & depletion rates.
Interest expense	Author analysis, based on detailed debt schedule developed, with historical interest rates over past loans. Interest of new loans were determined based on Cost of Debt determined.
Income Tax	Author analysis. It was applied the Operating Cash Effective Tax rates. Please refer to Tax rates determination tables.
Statement of Financial Position	
Capital Expenditures	XOM's guidance in 2021 Investors Day, over Capital Expenditures.
Investments	Author analysis, based on projections of Income from equity affiliates. Additional investments on affiliates performed based on guidance over Capex. Other investments performed as well, considering the long-term investment policy regarding the excess cash obtained.
Inventories, Acc. Rec., Other Curr. Assets	Author analysis, based on historical XOM's DSO and DIO, which are aligned with the industry figures (provided by Damodaran).
Interest bearing Debt & Debt equivalents	Postretirement benefits reserves (debt equivalent) projected to be stable. Interest bearing debt to be aligned with Target Debt-to-Equity, based on XOM's guidance.
Trade Payables / Accrued Expenses	Author analysis, based on historical XOM's DPO, which are aligned with the industry figures (provided by Damodaran).
Market Data	
Cost of Capital	
Discount Factor Model	Capital Asset Pricing Model (CAPM)..
Cost of Equity (R_e)	Cost of Equity was determined using CAPM (either integrated and segments). Upstream cost of equity is aligned with the PV10 SEC's standard (i.e. 10%).
Risk-free rate (RFR)	Based on 10 Year US Treasury Bond Yield to Maturity. It was also computed RFR with Typical Default Spread methodology and it was researched Fernandez (2021) survey, but results were less reasonable, as at June 2021.
Beta (β_e) - Integrated approach	Top Down Aproach, based on a regression over S&P500 Index. It was adjusted with Blume's methodology.
Beta (β_e) - SoP (for each segment)	Pure-Play Method, based on Damodaran's data.
Market Risk Premium (MRP)	Based on Fernandez (2021) Survey and adapted using the Author's determined RFR.
Cost of Debt (R_d)	Based on Default Risk Model / Credit Spread. It was also computed the cost of debt using: i) Real YTM (effective cost); ii) Synthetic interest rate; and iii) historical average interest expense. However, results were less reasonable.
Terminal Period	
Long-run sustainable growth rate (g)	For DCF models, it was based on IEA's expected oil & gas growth (IEA STEPS), adjusted with expected inflation rate. It was also determined the stable growth model (i.e. reinvesment rate x ROE), but results were not reasonable.
Free Cash Flow determination methodology	Stable growth model, assuming the normalization of the FCFF, for 7-9 years, i.e., a business cycle.

Appendix 6.5 – Free Cash Flow to the Firm – Sum of the Parts and Integrated approach valuations

Free Cash Flow to the Firm - Sum of the Parts

Cash-flow ($'Mn)	Year			
	2023F	2024F	2025F	Terminal
FCFF				
NOPAT	**18,727**	**20,007**	**17,657**	**17,158**
Upstream	13,608	9,139	11,484	11,965
Dow nstream	2,929	7,714	4,844	3,227
Chemicals	2,895	3,846	2,062	2,265
Corp.& Fin	(705)	(692)	(733)	(300)
(+) Amort. & Dep.	**20,566**	**21,246**	**22,069**	**22,069**
Upstream	16,311	16,798	17,470	17,470
Dow nstream	1,942	2,059	2,121	2,121
Chemicals	1,417	1,493	1,537	1,537
Corp.& Fin	896	897	941	941
(-) Net change in NWC	**370**	**2,646**	**(452)**	**(452)**
Upstream	1	226	11	11
Dow nstream	304	1,840	(391)	(391)
Chemicals	65	580	(73)	(73)
Corp.& Fin	0	0	(0)	(0)
(-) Capex	**18,597**	**21,246**	**22,069**	**22,069**
Upstream	12,169	16,798	17,470	17,470
Dow nstream	3,907	2,059	2,121	2,121
Chemicals	2,514	1,493	1,537	1,537
Corp.& Fin	6	897	941	941
FCFF	**20,326**	**17,361**	**18,109**	**17,610**
Upstream	17,749	8,912	11,473	11,954
Dow nstream	659	5,874	5,235	3,618
Chemicals	1,733	3,266	2,134	2,338
Corp.& Fin	186	(692)	(733)	(300)

FCFF (WACC), Integrated Aproach

Cash-flow ($'Mn)	Year			
	2023F	2024F	2025F	Terminal
FCFF				
NOPAT				
NOPAT	18,727	20,007	17,657	17,661
% YoY	*42.3%*	*6.8%*	*-11.7%*	
(+) Non Cash Charges				
Amortizations & Depreciations	20,566	21,246	22,069	22,069
% YoY	*3.1%*	*3.3%*	*3.9%*	
(-) Net Working Capital				
Change Total Current Assets	(4,459)	(2,582)	201	201
Change Total Current Liabilities	(4,829)	(5,228)	653	653
(-) Change in Net Working Capital	**370**	**2,646**	**(452)**	**(452)**
% YoY	*-82.2%*	*615.0%*	*-117.1%*	
(-) Capital Expenditures				
Capex - Additions do PP&E	18,597	21,246	22,069	22,069
% YoY	*10%*	*14%*	*4%*	
(=) FCFF	**20,326**	**17,361**	**18,109**	**18,113**
% YoY	*10%*	*14%*	*4%*	

Enterprise Value determination - FCFF - SoP

Cash-flow ($'Mn)	Year				
	2022F	2023F	2024F	2025F	Terminal
Free Cash Flow to the Firm					
FCFF- SoP		**20,326**	**17,361**	**18,109**	**17,610**
Upstream		17,749	8,912	11,473	11,954
Dow nstream		659	5,874	5,235	3,618
Chemicals		1,733	3,266	2,134	2,338
Corp.& Fin		186	(692)	(733)	(300)
Weighted Average Cost of Capital					
Upstream		7.9%	7.9%	7.9%	7.9%
Dow nstream		6.8%	6.8%	6.8%	6.8%
Chemicals		6.8%	6.8%	6.8%	6.8%
Corp.& Fin		7.2%	7.2%	7.2%	7.2%
Enterprise Value					
EV - SoP	**343,867**	**369,638**	**375,336**	**384,718**	**366,609**
Upstream	215,996	233,078	232,288	240,997	229,524
Dow nstream	81,739	87,309	92,530	92,545	87,311
Chemicals	52,559	56,141	58,100	58,560	56,426
Corp.& Fin	(6,428)	(6,890)	(7,582)	(7,384)	(6,652)

FCFF (WACC) - Price Target Determination ($'Mn), Integrated Approach

Forecast Year	Free cash flow	WACC	Discount Factor	Present Value of FCFF
(+) Enterprise Value				
2023F	20,326	7.2%	0.933	18,963
2024F	17,361	7.2%	0.871	15,114
2025F	18,109	7.2%	0.812	14,710
Terminal Value	401,648	7.2%	0.812	326,266
Enterprise Value				**375,053**
(+) Non Operating Assets				
Investments				37,426
Tax loss carryforw ards				8,982
Excess Cash				7,163
Total Non Operating Assets				**53,571**
Firm Value value				**428,625**
(-) Debt and Debt equivalents				
Short-term debt				24,160
Long-Term Debt				55,720
Postretirement benefits reserves				22,415
Total Debt and Debt equivalents				**102,295**
(-) Non controlling assets				
Noncontrolling interests				6,705
Equity Value				**319,624**
Outstanding Shares (Mn)				4,233
Price Target ($/Share)				**$75.5**

FCFF - Sum of the Parts Valuation ($'Mn)

Caption	Upstream	Downstream	Chemicals	Corp.&Fin.	Synergies	Total	$/ Sh.	% FV	% Eq. V
Enterprise Value	215,996	81,739	52,559	(6,428)	31,187	375,053	88.6	88%	117%
Non Operating Assets						53,571	12.7	12%	17%
Firm Value						428,625	101.3	100%	134%
Debt and Debt equivalents						(102,295)	(24.2)	-24%	-32%
Non controlling interests						(6,705)	(1.6)	-2%	-2%
Equity Value						319,624	75.5	75%	100%
Out. Shares (Mn)						4,233			
Price Target ($/Share)						$ 75.5			

Appendix 6.6 – WACC Breakdown

WACC Determination

Cash-flow ($'Mn)	Year			
	2023F	2024F	2025F	Terminal
Cost of Equity				
Risk-free Rate	1.3%	1.3%	1.3%	1.3%
Unlevered Beta (βu) - Integrated	1.02	1.02	1.02	1.02
Upstream	*1.14*	*1.14*	*1.14*	*1.14*
Downstream	*0.95*	*0.95*	*0.95*	*0.95*
Chemicals	*0.95*	*0.95*	*0.95*	*0.95*
Corp.& Fin	*1.02*	*1.02*	*1.02*	*1.02*
Tax Rate	18.8%	20.4%	19.7%	19.7%
Beta (βe) - Integrated	1.26	1.26	1.26	1.26
Upstream	*1.42*	*1.41*	*1.41*	*1.41*
Downstream	*1.18*	*1.18*	*1.18*	*1.18*
Chemicals	*1.18*	*1.18*	*1.18*	*1.18*
Corp.& Fin	*1.26*	*1.26*	*1.26*	*1.26*
Market Risk Premium	6.0%	6.0%	6.0%	6.0%
Cost of Equity - Integrated	**8.9%**	**8.9%**	**8.9%**	**8.9%**
Upstream	9.8%	9.8%	9.8%	9.8%
Downstream	8.4%	8.4%	8.4%	8.4%
Chemicals	8.4%	8.4%	8.4%	8.4%
Corp.& Fin	8.9%	8.9%	8.9%	8.9%
Cost of Debt				
Cost of Debt	1.9%	1.9%	1.9%	1.9%
Tax Rate	18.8%	20.4%	19.7%	19.7%
After-tax cost of debt	**1.6%**	**1.5%**	**1.5%**	**1.5%**
WACC	**7.2%**	**7.2%**	**7.2%**	**7.2%**

Target Weights

Description	Year					
	2021F	2022F	2023F	2024F	2025F	Terminal
Debt weight	*29.8%*	*27.3%*	*23.1%*	*23.1%*	*23.1%*	23.1%
Equity weight	*70.2%*	*72.7%*	*76.9%*	*76.9%*	*76.9%*	76.9%
Debt-to-Equity	42.5%	37.5%	30.0%	30.0%	30.0%	30.0%

Market Risk Premium

Description	Value
Market Return - Fernandez (2021)	7.30%
Risk-Free	1.3%
Market Risk Premium	**6.0%**
Sovereign Default Risk Spread	-
Equity Risk Premium	**6.0%**

Risk-Free Rate

Description	Value
U.S. Treasury Bond 10Y YTM	1.28%
Excess CDS spread	-
Country Default Spread	-
Risk-Free Rate	**1.28%**

Beta unlevered, Pure-Play Method

Description	Industry	
	Oil & Gas (Upstream)	Chemicals (Diversified)
β_u, corrected for Cash	**1.14**	**1.18**

Source: Damodaran (2021)

Beta (Integrated) Top-Down aproach (Regression)

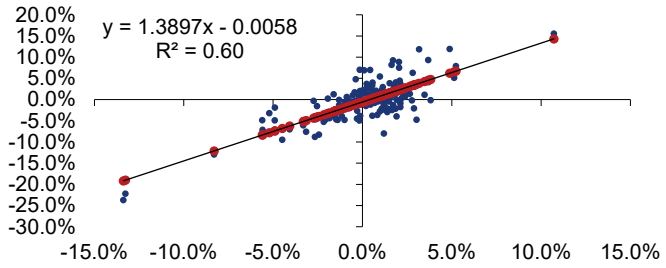
Regression Statistics

Multiple R	0.78
R Square	0.60
Adjusted R Square	0.60
Standard Error	3%
Observations	157

Regression

Regression Beta	1.39
Blume adjustment	1.26

XOM Beta (Weekly, SP&500)



Source: Author Analysis

Cost of Debt

Company Default Spread estimation

Ratios	Amount
Interest Coverage Ratio - 2019	
Interest Coverage Ratio	25.16
Company Default spread - 2019	**0.63%**
Interest Coverage Ratio - 2020	
Interest Coverage Ratio	(23.94)
Company Default spread - 2020	**15.12%**
Interest Coverage Ratio - 2025F	
Interest Coverage Ratio	22.74
Company Default spread - 2025F	**0.63%**

Source: Author Analysis

Cost of Debt Estimation (Default Risk Model)

Indicator	CDS 2019	CDS 2020	CDS 2025F
Risk-free Rate	1.28%	1.28%	1.28%
Country Default Spread	0.00%	0.00%	0.00%
Company Default Spread	0.63%	15.12%	0.63%
Cost of Debt (DRM)	**1.91%**	**16.40%**	**1.91%**

Source: Author analysis

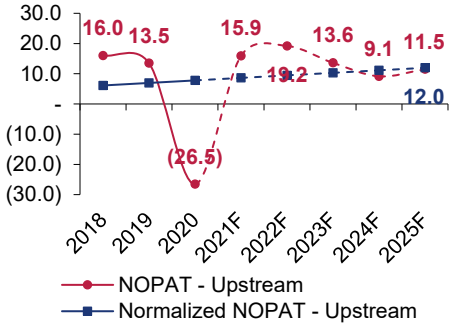
Default Spread Table

Interest Coverage Ratio		Rating	Rating Fitch & S&P	Default Spread
Greater than	Less than	Moody's		
(100,000.00)	0.20	D2	D	15.12%
0.20	0.65	C2	C	11.34%
0.65	0.80	Ca2	CC	8.64%
0.80	1.25	Caa	CCC	8.20%
1.25	1.50	B3	B-	5.15%
1.50	1.75	B2	B	4.21%
1.75	2.00	B1	B+	3.51%
2.00	2.25	Ba2	BB	2.40%
2.25	2.50	Ba1	BB+	2.00%
2.50	3.00	Baa2	BBB	1.56%
3.00	4.25	A3	A-	1.22%
4.25	5.50	A2	A	1.08%
5.50	6.50	A1	A+	0.98%
6.50	8.50	Aa2	AA	0.78%
8.50	100,000.00	Aaa	AAA	0.63%

Source: Damodaran (2021)

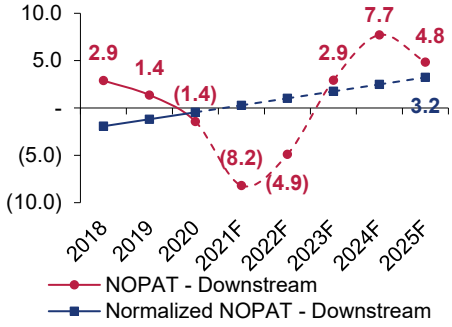
Appendix 6.7 – Terminal Value

NOPAT Normalized - Upstream (Bn'$)



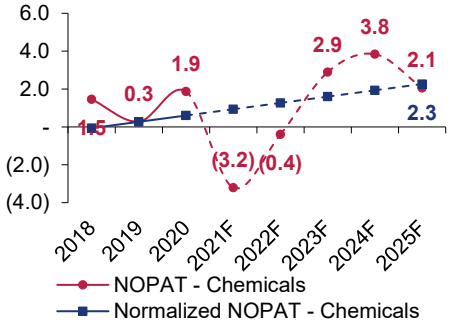
Source: Author analysis

Norm. NOPAT - Downstream (Bn'$)



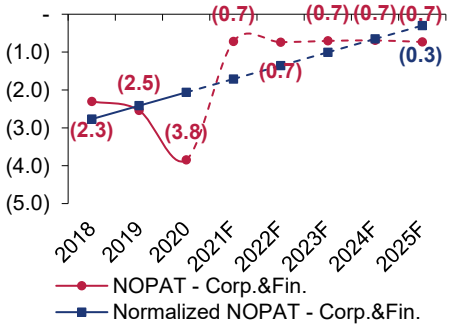
Source: Author analysis

Norm. NOPAT - Chemicals (Bn'$)



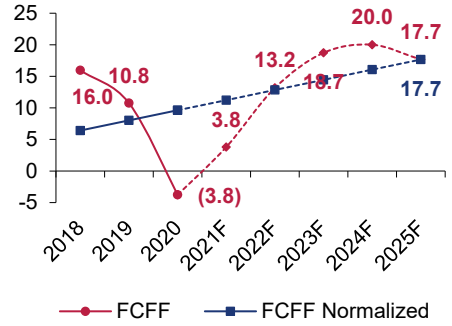
Source: Author analysis

Norm. NOPAT - Corp.&Fin. (Bn'$)



Source: Author analysis

Normalized NOPAT - Integrated (Bn'$)



Source: Author's analysis

Terminal Value ($'Mn) - Segments				
Item	**Upstream**	**Downstream**	**Chemicals**	**Corp.&Fin**
FCFF (norm.)	11,954	3,618	2,338	(300)
WACC (%)	7.9%	6.8%	6.8%	7.2%
Exp. growth rate	2.5%	2.5%	2.5%	2.5%
Terminal Value	**229,524**	**87,311**	**56,426**	**(6,652)**

TV ($'Mn) - Integrated	
Item	**Amount**
FCFF (norm.)	18,113
WACC (%)	7.2%
Exp. growth rate	2.5%
Terminal Value	**401,648**

$$TV_T = \text{Terminal Value} = \frac{FCF_{T+1}}{k_{wacc\,\infty} - g_\infty}$$

Appendix 6.8 – Flow-to-Equity model breakdown

Flow-to-Equity Valuation ($'Mn)				
Forecast Year	**Free cash flow to Equity**	**Cost of Equity**	**Discount Factor**	**Present Value of FCFE**
Free Cash Flow to Equity				
2023F	9,916	8.9%	0.918	9,107
2024F	17,966	8.9%	0.844	15,159
2025F	19,611	8.9%	0.775	15,199
Terminal Value	318,450	8.9%	0.775	246,810
Present Value of FCFE				**286,275**
(+) Non Operating Assets				
Investments				37,426
Tax loss carryforwards				8,982
Excess Cash				7,163
Total Non Operating Assets				**53,571**
(-) Non controlling assets				
Noncontrolling interests				6,705
Equity Value				**333,140**
Outstanding Shares (Mn)				4,233
Price Target ($/Share)				**78.7**

FCFE Determination ($'Mn)					
Cash-flow	**Year**				
	2022F	**2023F**	**2024F**	**2025F**	**Terminal**
FCFF		**20,326**	**17,361**	**18,109**	**18,113**
(-) Interest Expense (1-T)		880	1,025	968	968
(+) Net borrowing		(9,530)	1,630	2,470	2,470
FCFE		**9,916**	**17,966**	**19,611**	**19,615**

Terminal Value ($'Mn)	
Item	**Amount**
FCFE (normalized)	19,615
Exp. growth rate	2.5%
Cost of Equity (%)	8.9%
Terminal Value	**318,450**

Appendix 6.9 – Capital Cash Flow model breakdown

Price Target Determination - Capital Cash Flow ($'Mn)				
Forecast Year	Free cash flow	Unlevered Cost of Capital	Discount Factor	PV of FCF
(+) Free Cash Flow				
2023F	20,326	6.1%	0.942	19,153
2024F	17,361	6.1%	0.888	15,418
2025F	18,109	6.1%	0.837	15,154
Terminal Value	383,396	6.1%	0.837	320,835
Present Value of FCF				**370,560**
(+) Interest Tax Shield				
2023F	234	6.1%	0.942	220
2024F	272	6.1%	0.888	242
2025F	257	6.1%	0.837	215
Terminal Value	4,201	6.1%	0.837	3,515
Present Value ITS				**4,193**
Enterprise value				**374,753**
(+) Non Operating Assets				
Investments				37,426
Tax loss carryforwards				8,982
Excess Cash				7,163
Total Non Operating Assets				**53,571**
Firm value				**428,325**
(-) Debt and Debt equivalents				
Short-term debt				24,160
Long-Term Debt				55,720
Postretirement benefits reserves				22,415
Total Debt and Debt equivalents				**102,295**
(-) Non controlling assets				
Noncontrolling interests				6,705
Equity Value				**319,324**
Outstanding Shares (Mn)				4,233
Price Target ($/Share)				**75.4**

Interest Tax Shield Determination ($'Mn)								
Description	Historical			Forecasted				
	2018	2019	2020	2021F	2022F	2023F	2024F	2025F
Interest Expense	766	830	1,158	1,279	1,267	1,114	1,297	1,226
Marginal Tax Rate (%)	21%	21%	21%	21%	21%	21%	21%	21%
Interest Tax Shield	**161**	**174**	**243**	**269**	**266**	**234**	**272**	**257**

Terminal Value ($'Mn)	
Item	Amount
FCFF (norm.)	18,113
Ru (%)	7.4%
Exp. growth rate	2.5%
Terminal Value	**383,396**

Appendix 6.10 – Dividend Discount Model breakdown

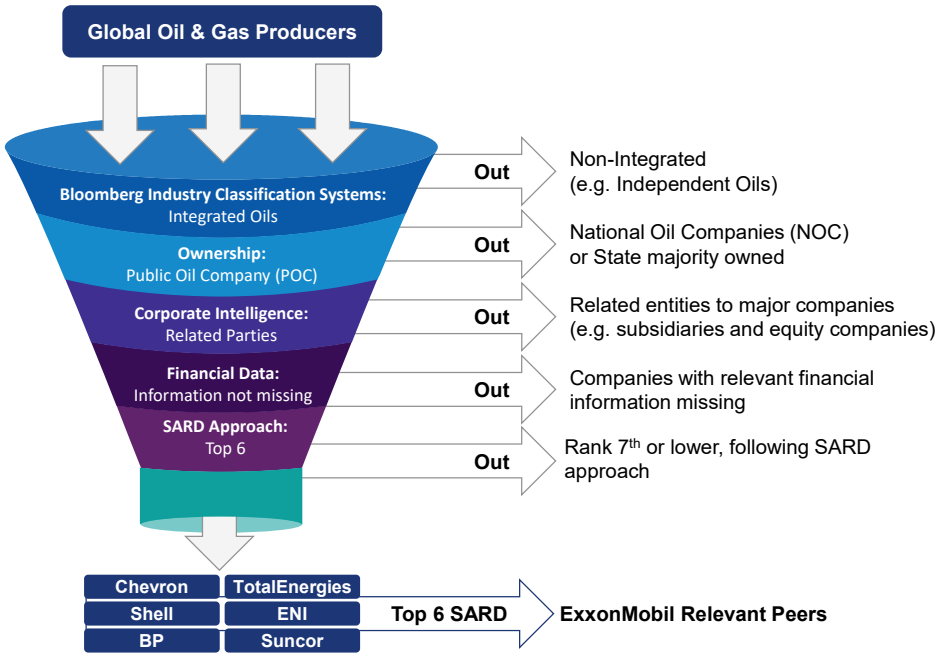
Divident Discount Model ($'Mn)				
Forecast Year	Shareholders Dividends	Cost of Equity	Discount Factor	PV of Dividends
Present Value of Dividends				
2023F	14,865	8.9%	0.918	13,652
2024F	15,757	8.9%	0.844	13,295
2025F	16,639	8.9%	0.775	12,896
Terminal Value	361,582	8.9%	0.775	280,238
Equity Value - PV of dividends				**320,081**
Terminal Value				
Terminal Period dividend				17,654
Short Period Growth (g_S)				6.1%
Long Period Growth (g_L)				2.5%
High growth period (H)				8
Terminal Period Cost of Equity				8.9%
Terminal Value				**361,582**
Equity Value				**320,081**
Outstanding Shares (Mn)				4,233
Price Target ($/Share)				**75.6**

Appendix 6.11 – Net Asset Value model breakdown

Net Asset Value Operating Model - Upstream, High Level Approach															
Caption	Unit	Year													
		2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F	2034F
Operational Data															
Oil															
Proved Reserves, Beginning	MMBbls	8,885	8,054	7,182	6,312	5,360	4,328	3,296	2,264	1,232	222	-	-	-	-
Annual Production	MMBbls	831	872	869	953	1,032	1,032	1,032	1,032	1,010	222	-	-	-	-
Proved Reserves, Ending	MMBbls	8,054	7,182	6,312	5,360	4,328	3,296	2,264	1,232	222	-	-	-	-	-
Avg. Price	$/Bls	55.2	59.4	54.4	46.0	46.0	46.0	46.0	46.0	46.0	46.0	-	-	-	-
Natural Gas															
Proved Reserves, Beginning	MMBoe	6,327	5,817	5,330	4,858	4,395	3,916	3,437	2,959	2,480	2,012	1,561	1,128	713	313
Annual Production	MMBoe	509	487	473	463	479	479	479	479	469	450	433	416	400	313
Proved Reserves, Ending	MMBoe	5,817	5,330	4,858	4,395	3,916	3,437	2,959	2,480	2,012	1,561	1,128	713	313	-
Avg. Price	$/Mcf	3.5	3.8	3.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Cash-Fows															
Revenue															
Oil	$'Mn			47,299	43,855	47,508	47,508	47,508	47,508	46,513	10,222	-	-	-	-
Natural Gas	$'Mn			9,904	8,207	8,486	8,486	8,486	8,486	8,308	7,984	7,673	7,373	7,086	5,548
Total	**$'Mn**			**57,203**	**52,061**	**55,994**	**55,994**	**55,994**	**55,994**	**54,821**	**18,206**	**7,673**	**7,373**	**7,086**	**5,548**
Production and Development Expenses															
Exploration & Production Expenses	$'Mn			1,383	1,580	1,641	1,686	1,686	1,686	1,651	750	483	464	446	349
Other Taxes and duties	$'Mn			6,889	6,707	6,757	7,087	7,157	7,157	7,007	3,186	2,051	1,971	1,894	1,483
Pre-Tax Cash-Flows, before Dev. Costs	**$'Mn**			**48,931**	**43,775**	**47,597**	**47,222**	**47,151**	**47,151**	**46,163**	**14,270**	**5,139**	**4,939**	**4,746**	**3,716**
Income Taxes	$'Mn			10,117	8,934	9,714	9,637	9,623	9,623	9,421	2,912	1,049	1,008	969	758
Development Costs	$'Mn			12,024	13,737	14,269	14,269	14,269	14,269	6,601	-	-	-	-	-
After-Tax Cash Flows from Proved Reserves	**$'Mn**			**26,790**	**21,104**	**23,613**	**23,315**	**23,259**	**23,259**	**30,141**	**11,358**	**4,090**	**3,931**	**3,778**	**2,958**
Discount Rate - Cost of Equity	%			9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%
PV Cash Flows from Proved Reserves	**$'Mn**			**24,403**	**17,507**	**17,841**	**16,044**	**14,577**	**13,277**	**15,670**	**5,378**	**1,764**	**1,544**	**1,351**	**964**
Total Present Value of Cash Flows	**$'Mn**	**200,079**													
Value of properties - Undeveloped acres	**$'Mn**	**13,929**													
Enterprise Value - Upstream	**$'Mn**	**214,008**													

SoP (NAV & FCFF SoP Model) ($'Mn)									
Caption	Upstream	Downstream	Chemicals	Corp.&Fin.	Synergies	Total	$/ Sh.	% FV	% Eq. V
Enterprise Value	214,008	81,739	52,559	(6,428)	31,187	373,065	88.1	87%	117%
Non Operating Assets						53,571	12.7	13%	17%
Firm Value						426,636	100.8	100%	134%
Debt and Debt equivalents						(102,295)	(24.2)	-24%	-32%
Non controlling assets						(6,705)	(1.6)	-2%	-2%
Equity Value						317,636	75.0	74%	100%
Out. Shares (Mn)						4,233			
Price Target ($/Share)						$ 75.0			

Appendix 6.12 – Multiple Based Valuation peer selection Methodology



Appendix 6.13 – Top 6 Peers - SARD Approach

SARD Peers determination approach												
Entity Details		SARD Variables					Rankings					SARD Result
#	Name	ROE	Debt / EBIT	Market Cap. ($'Bn)	EPS Growth	EBIT Margin	ROE	Debt / EBIT	Market Cap.	EPS Growth	EBIT Margin	
Potencial Peers												
1	CVX	(4.0%)	(108.4) x	196,426	15.2%	12.9%	47	53	2	10	15	**18**
2	BP	(23.9%)	(7.6) x	85,934	30.0%	9.3%	62	48	7	4	22	**22**
3	RDSA	(12.7%)	20.7 x	160,154	14.3%	9.6%	55	7	3	11	21	**46**
4	TTE	(6.9%)	6.6 x	117,967	6.3%	10.6%	49	19	5	19	18	**47**
5	ENI	(20.3%)	7.7 x	43,485	28.6%	13.2%	61	17	13	6	13	**55**
6	SUNCOR	(11.1%)	12.4 x	29,766	18.0%	14.6%	53	13	15	9	11	**58**

Source: Author Analysis

Appendix 6.14 – Multiple Based Valuation (Trailing Twelve Months and 2022F Forecast)

Peer Group Multiples - TTM MBV										
Company Name	Price Multiples			Enterprise Value Multiples						
	PER	P / B	Price / Sales	EV / EBIT	EV / EBITDA	EV / EBITDAX	EV / Sales	EV / DACF	EV / Proved Res.	EV / Daily Prod.
Peer Group Selected										
CVX	(1,437.2) x	1.5 x	1.7 x	(466.2) x	14.7 x	14.2 x	2.1 x	14.1 x	22.2 x	80.2 x
BP	711.2 x	81.6 x	0.4 x	(13.0) x	12.8 x	7.0 x	1.1 x	7.5 x	8.7 x	44.8 x
RDSA	2,086.2 x	68.8 x	0.6 x	40.6 x	6.5 x	6.2 x	1.2 x	6.6 x	26.5 x	71.1 x
TTE	15.5 x	0.9 x	0.7 x	13.4 x	6.2 x	6.0 x	1.2 x	6.6 x	13.2 x	56.6 x
ENI	(212.6) x	0.8 x	0.6 x	12.3 x	4.8 x	4.6 x	1.0 x	7.5 x	9.2 x	36.7 x
SUNCOR	22.9 x	1.3 x	1.5 x	32.7 x	6.7 x	6.6 x	1.9 x	8.0 x	9.7 x	64.5 x
ExxonMobil Multiples										
ExxonMobil	17.8 x	2.2 x	1.1 x	17.8 x	9.7 x	9.4 x	1.5 x	11.5 x	33.9 x	113.9 x
Multiples										
Maximum	2,086.2 x	81.6 x	1.7 x	40.6 x	14.7 x	14.2 x	2.1 x	14.1 x	26.5 x	80.2 x
75th Percentile	539.1 x	52.0 x	1.3 x	27.9 x	11.3 x	6.9 x	1.7 x	7.9 x	19.9 x	69.5 x
Median	**19.2 x**	**1.4 x**	**0.6 x**	**12.8 x**	**6.6 x**	**6.4 x**	**1.2 x**	**7.5 x**	**11.4 x**	**60.5 x**
25th Percentile	(155.6) x	1.0 x	0.6 x	(6.7) x	6.2 x	6.1 x	1.1 x	6.8 x	9.3 x	47.7 x
Minimum	(1,437.2) x	0.8 x	0.4 x	(466.2) x	4.8 x	4.6 x	1.0 x	6.6 x	8.7 x	36.7 x
Valuation - Price Target ($/Share)										
Maximum	8,934	2,882	115	215	139	138	131	110	82	57
75th Percentile	2,309	1,837	91	144	104	60	102	56	59	48
Median	**82.2**	**48.6**	**43.8**	**59.2**	**54.8**	**55.4**	**66.3**	**52.2**	**27.9**	**40.2**
25th Percentile	(666)	36	39	(51)	51	51	62	46	20	29
Minimum	(6,154)	27	29	(2,640)	37	36	56	44	18	19

Peer Group Multiples - Forecast 2022F MBV					
Company Name	Price Multiples		Enterprise Value Multiples		
	PER	Price / Sales	EV / EBIT	EV / EBITDA	EV / Sales
Peer Group Selected					
CVX	13.5 x	1.3 x	12.5 x	6.2 x	1.6 x
BP	350.5 x	0.2 x	5.7 x	3.3 x	0.5 x
RDSA	389.6 x	0.3 x	5.8 x	3.1 x	0.6 x
TTE	7.1 x	0.5 x	7.8 x	4.7 x	0.8 x
ENI	8.3 x	0.5 x	6.2 x	3.4 x	0.8 x
SUNCOR	9.1 x	1.1 x	9.3 x	4.0 x	1.4 x
ExxonMobil					
ExxonMobil	17.8 x	1.1 x	17.8 x	9.7 x	1.5 x
Multiples					
Median	**11.3 x**	**0.5 x**	**7.0 x**	**3.7 x**	**0.8 x**
Valuation - Price Target ($/Share)					
Median	**48.4**	**33.1**	**26.4**	**25.4**	**42.7**

Source: Author's analysis, Bloomberg

Note: Althought it is not visible, EV Multiples have been adjusted with the Non-Operating Assets, Debt and debt equivalents and Non-Controling Interests, i.e., It was determined the Enterprise Value and performed adjustments to reach Equity Value.

Appendix 7 – Financial analysis

Projected Financial Ratios - ExxonMobil

Key Financial Ratios	Historical								Forecasted				
	2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F
Industry Specific Ratios													
Mix oil % - Production	53%	53%	57%	58%	57%	59%	60%	62%	62%	64%	65%	67%	68%
Mix oil % - Reserves	53%	54%	59%	53%	57%	64%	65%	58%	58%	57%	57%	55%	52%
Reserves life ratio (x)	16.5 x	17.4 x	16.6 x	13.5 x	14.6 x	17.4 x	15.6 x	11.1 x	10.3 x	9.2 x	8.3 x	6.9 x	5.5 x
PD / PR (%)	66%	65%	73%	69%	66%	68%	66%	67%	64%	60%	56%	49%	40%
Liquidity Ratios													
Current Ratio (%)	82.7%	81.9%	79.0%	86.9%	81.6%	84.0%	78.2%	79.6%	82.5%	84.1%	82.0%	82.9%	81.3%
Quick Ratio (%)	14.0%	12.7%	12.0%	10.4%	7.9%	7.6%	7.1%	9.7%	13.9%	11.6%	7.7%	7.0%	6.9%
Cash Ratio (%)	6.5%	7.1%	6.9%	7.7%	5.5%	5.3%	4.8%	7.7%	12.3%	10.1%	6.0%	5.1%	5.0%
Efficiency Ratios													
Total Assets Turnover (x)	1.24 x	1.13 x	0.70 x	0.60 x	0.70 x	0.80 x	0.72 x	0.51 x	0.75 x	0.83 x	0.80 x	0.74 x	0.73 x
Trades Receivables Turnover (x)	15.4 x	17.6 x	15.0 x	13.6 x	12.7 x	13.6 x	12.5 x	9.5 x	13.7 x	12.9 x	12.1 x	11.3 x	11.3 x
DSO (days)	24	20.7	24.4	26.8	28.8	26.8	29.2	38.4	26.6	28.2	30.1	32.2	32.2
Other Receivables Turnover (x)	60.8 x	47.2 x	29.7 x	31.8 x	43.7 x	54.4 x	43.9 x	32.9 x	36.6 x	40.3 x	44.0 x	44.0 x	44.0 x
DSO - Other (days)	6	7.7	12.3	11.5	8.3	6.7	8.3	11.1	10.0	9.1	8.3	8.3	8.3
Inventory Turnover (x)	27.4 x	24.0 x	14.6 x	12.8 x	14.8 x	15.5 x	13.6 x	9.6 x	10.9 x	12.6 x	15.0 x	15.0 x	15.0 x
DIO (days)	13	15.2	25.1	28.5	24.7	23.5	26.8	38.2	33.6	29.0	24.3	24.3	24.3
Payables Turnover (x)	8.8 x	9.5 x	7.6 x	7.5 x	8.1 x	9.0 x	7.9 x	5.9 x	6.4 x	6.9 x	7.4 x	7.9 x	7.9 x
DPO (days)	41	38.4	47.8	48.6	44.8	40.5	46.2	61.9	56.9	52.7	49.1	46.0	46.0
Operating Cash Cycle (days)	(5)	(2.5)	1.6	6.7	8.7	9.8	9.7	14.7	3.2	4.4	5.3	10.6	10.6
Profitability Ratios													
Gross Profit Margin (%)	25.1%	24.8%	31.0%	32.9%	32.2%	31.0%	29.3%	30.3%	24.1%	25.7%	29.5%	33.8%	33.6%
EBITDA Margin (%)	17.8%	17.6%	16.8%	15.3%	16.5%	18.1%	15.6%	10.2%	10.0%	15.2%	18.4%	20.6%	19.6%
EBITDAX Margin (%)	18.4%	18.1%	17.5%	16.1%	17.6%	18.6%	16.1%	11.0%	10.5%	15.7%	18.9%	21.2%	20.2%
EBIT Margin (%)	13.7%	13.2%	9.3%	4.2%	8.1%	11.4%	8.2%	-15.5%	2.5%	8.3%	11.0%	12.2%	10.9%
Net Profit Margin (%)	7.7%	8.3%	6.7%	3.9%	8.3%	7.5%	5.6%	-12.6%	1.6%	6.3%	8.3%	9.0%	8.1%
ROA (%)	9.4%	9.3%	4.7%	2.4%	5.8%	6.0%	4.0%	-6.5%	1.2%	5.2%	6.6%	6.6%	5.9%
ROIC (%)	11.2%	10.7%	3.5%	0.9%	0.9%	6.3%	4.2%	-1.5%	1.6%	5.8%	8.2%	8.8%	7.7%
ROCE (%)	19.4%	16.1%	6.0%	1.5%	5.6%	9.7%	6.1%	-1.4%	2.0%	6.8%	10.2%	11.0%	9.6%
Operating Margin	10.4%	9.8%	6.1%	1.8%	5.9%	8.7%	6.0%	-2.0%	1.8%	5.4%	8.3%	9.9%	8.6%
Capital Turnover	186.3%	164.3%	97.7%	82.1%	95.6%	110.7%	100.4%	72.6%	110.6%	125.8%	122.1%	111.4%	111.4%
ROE (%)	19.2%	18.7%	9.4%	4.6%	11.1%	11.0%	7.5%	-12.9%	2.6%	12.3%	14.9%	14.1%	12.3%
DuPont Analysis													
Net Profit Margin (%)	7.7%	8.3%	6.7%	3.9%	8.3%	7.5%	5.6%	-12.6%	1.6%	6.3%	8.3%	9.0%	8.1%
Asset Turnover (%)	186.3%	164.3%	97.7%	82.1%	95.6%	110.7%	100.4%	72.6%	110.6%	125.8%	122.1%	111.4%	111.4%
Equity Multiplier (X)	133.0%	137.7%	142.2%	144.6%	139.8%	133.0%	132.7%	141.0%	152.5%	154.4%	147.9%	141.3%	137.4%
EPS	7.37	7.59	3.85	1.88	4.63	4.88	3.36	(5.25)	0.94	4.24	5.36	5.33	4.82
DPS	2.46	2.70	2.88	2.98	3.05	3.23	3.43	3.48	3.48	3.48	3.48	3.69	3.90
Payout Ratio (%)	33.4%	35.6%	74.9%	158.8%	66.0%	66.2%	102.2%	-66.2%	371.0%	82.0%	64.9%	69.2%	80.9%
Dividend Coverage Ratio (Organic FCF)	0.73 x	1.20 x	0.34 x	0.43 x	0.86 x	1.12 x	0.20 x	(0.32) x	0.44 x	1.08 x	1.45 x	1.07 x	1.06 x
SG&A/Sale (%)	3.1%	3.2%	4.8%	5.2%	4.5%	4.1%	4.5%	5.7%	4.3%	4.0%	4.0%	4.3%	4.5%
Solvency Ratios													
Total interest bearing Debt Ratio (%)	6.55%	8.33%	11.49%	12.95%	12.14%	10.92%	12.94%	20.33%	42.47%	41.62%	39.57%	39.62%	39.51%
Long-term interest bearing Debt Ratio (%)	12.50%	15.72%	18.21%	19.21%	18.20%	16.77%	19.09%	27.06%	35.31%	34.68%	33.35%	33.33%	33.13%
Total Debt and debt equivalents Ratio (%)	1.99%	3.33%	5.92%	8.76%	7.00%	5.93%	7.26%	14.18%	16.51%	16.00%	14.34%	14.51%	14.71%
Long-term Debt and debt equivalents Ratio (%)	7.94%	10.72%	12.64%	15.02%	13.06%	11.79%	13.42%	20.92%	22.98%	22.43%	20.89%	20.99%	21.05%
Short-term Debt Ratio (%)	4.56%	5.00%	5.57%	4.19%	5.14%	4.99%	5.68%	6.15%	7.16%	6.94%	6.22%	6.29%	6.38%
Interest bearing Debt to Shareholder's Equity Ratio (%)	13.0%	16.7%	22.6%	25.6%	22.6%	19.7%	24.5%	43.0%	56.0%	53.4%	44.6%	43.7%	44.2%
Total Debt to Shareholder's Equity Ratio (%)	24.9%	31.5%	35.9%	37.9%	33.8%	30.3%	36.1%	57.3%	71.3%	68.4%	58.9%	57.3%	57.5%
Equity Multiplier (x)	1.33 x	1.38 x	1.42 x	1.45 x	1.40 x	1.33 x	1.33 x	1.41 x	1.53 x	1.54 x	1.48 x	1.41 x	1.37 x
Interest bearing Debt to EBITDA (x)	1.47 x	1.75 x	3.09 x	3.99 x	2.92 x	2.14 x	3.01 x	0.20 x	5.72 x	3.31 x	2.65 x	2.62 x	2.79 x
Total Debt and debt equivalents to EBITDA (x)	0.12 x	0.16 x	0.18 x	0.19 x	0.18 x	0.17 x	0.19 x	0.27 x	0.30 x	0.29 x	0.27 x	0.27 x	0.27 x
Interest Coverage Ratio (x)	6,413	181.52	71.63	18.59	32.07	41.41	25.16	(23.94)	4.93	18.83	27.39	23.89	22.74
Cash Flow Ratios													
Interest bearing Debt Coverage (%)	147.4%	115.4%	42.8%	19.6%	46.9%	56.7%	31.5%	-34.4%	5.1%	23.5%	33.7%	32.8%	28.6%
Debt and debt equivalent Coverage (%)	77.2%	61.2%	27.0%	13.2%	31.3%	36.9%	21.3%	-25.8%	4.0%	18.4%	25.6%	25.0%	22.0%
Dividend Coverage Ratio (x)	0.73 x	1.20 x	0.34 x	0.43 x	0.86 x	1.12 x	0.20 x	(0.32) x	0.44 x	1.08 x	1.45 x	1.07 x	1.06 x
Operational Cash to Operating Income (x)	0.78 x	0.87 x	1.36 x	2.62 x	1.56 x	1.14 x	1.42 x	(0.53) x	3.87 x	1.50 x	1.41 x	1.34 x	1.55 x
DACF to NOPAT (x)	1.78 x	1.76 x	3.51 x	10.27 x	13.11 x	2.29 x	2.81 x	(4.22) x	6.71 x	2.80 x	2.35 x	2.13 x	2.51 x
Segment Information													
EBITDA Margin (%)	**17.8%**	**17.6%**	**16.8%**	**15.3%**	**16.5%**	**18.1%**	**15.6%**	**10.2%**	**10.0%**	**15.2%**	**18.4%**	**20.6%**	**19.6%**
Upstream	*69.6%*	*70.1%*	*52.6%*	*44.7%*	*51.7%*	*59.7%*	*55.1%*	*36.4%*	*63.5%*	*71.7%*	*68.2%*	*63.3%*	*65.1%*
Downstream	*1.6%*	*1.7%*	*4.7%*	*4.0%*	*3.6%*	*3.6%*	*1.9%*	*0.8%*	*-3.3%*	*-1.1%*	*2.4%*	*5.4%*	*3.8%*
Chemicals	*10.6%*	*12.2%*	*17.1%*	*19.4%*	*15.4%*	*10.8%*	*5.2%*	*12.5%*	*-6.0%*	*3.4%*	*11.8%*	*12.4%*	*8.4%*
EBIT Margin (%)	**13.7%**	**13.2%**	**9.3%**	**4.2%**	**8.1%**	**11.4%**	**8.2%**	**-15.5%**	**2.5%**	**8.3%**	**11.0%**	**12.2%**	**10.9%**
Upstream	*55.1%*	*53.7%*	*22.8%*	*-1.3%*	*19.9%*	*35.8%*	*31.3%*	*-60.5%*	*36.2%*	*46.5%*	*39.7%*	*31.0%*	*33.9%*
Downstream	*1.1%*	*1.2%*	*4.0%*	*3.1%*	*2.9%*	*3.0%*	*1.3%*	*-0.6%*	*-4.0%*	*-1.8%*	*1.7%*	*4.5%*	*2.9%*
Chemicals	*8.9%*	*10.4%*	*14.5%*	*17.3%*	*13.4%*	*8.7%*	*2.4%*	*8.3%*	*-9.2%*	*0.6%*	*8.8%*	*9.7%*	*5.6%*

Appendix 8 – Investment Risks

Appendix 8.1 – Minor risks description and characterization

Other Market Risks (M4)

ExxonMobil's business is also exposed to changes in interest rates, inflation, currency exchange rates, and other local or regional market conditions, although with potential lower financial impacts.

Regulatory and Litigation Risks (P3)

ExxonMobil is exposed to changes in laws or interpretation of settled laws, even in well-developed legal systems, that might affect adversely the Company operations. These changes might include: i) increases in taxes, duties, or government royalty rates; ii) price controls; iii) actions by political actors or regulators to delay/deny necessary licenses and permits; iv) adoption of regulations mandating efficiency standards, v) adoption of government payment transparency regulations that can require disclose of competitive and sensitive commercial information; and, vi) government actions to cancel contracts, re-denominate the official currency, renounce or default on obligations, renegotiate terms unilaterally, or expropriate assets.

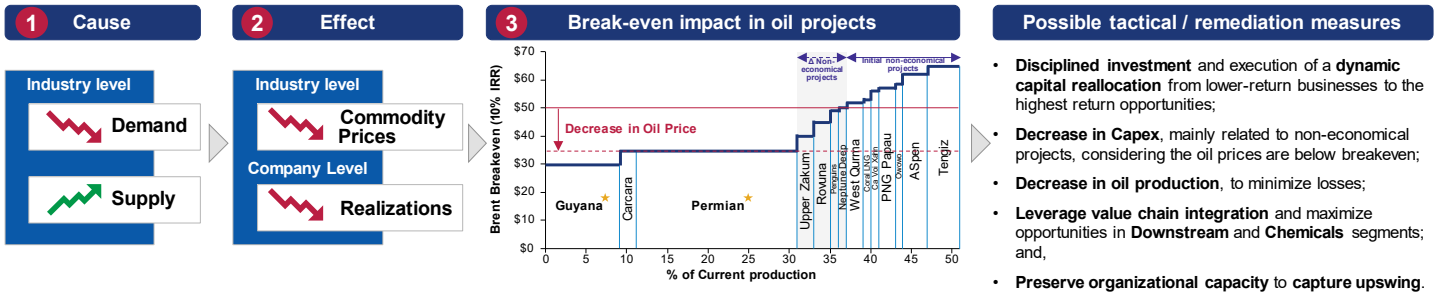
International Sanctions Compliance (P4)

ExxonMobil is required to comply with U.S. sanctions or other laws imposed by local jurisdictions, which can impact adversely the Company's operations in certain regions.

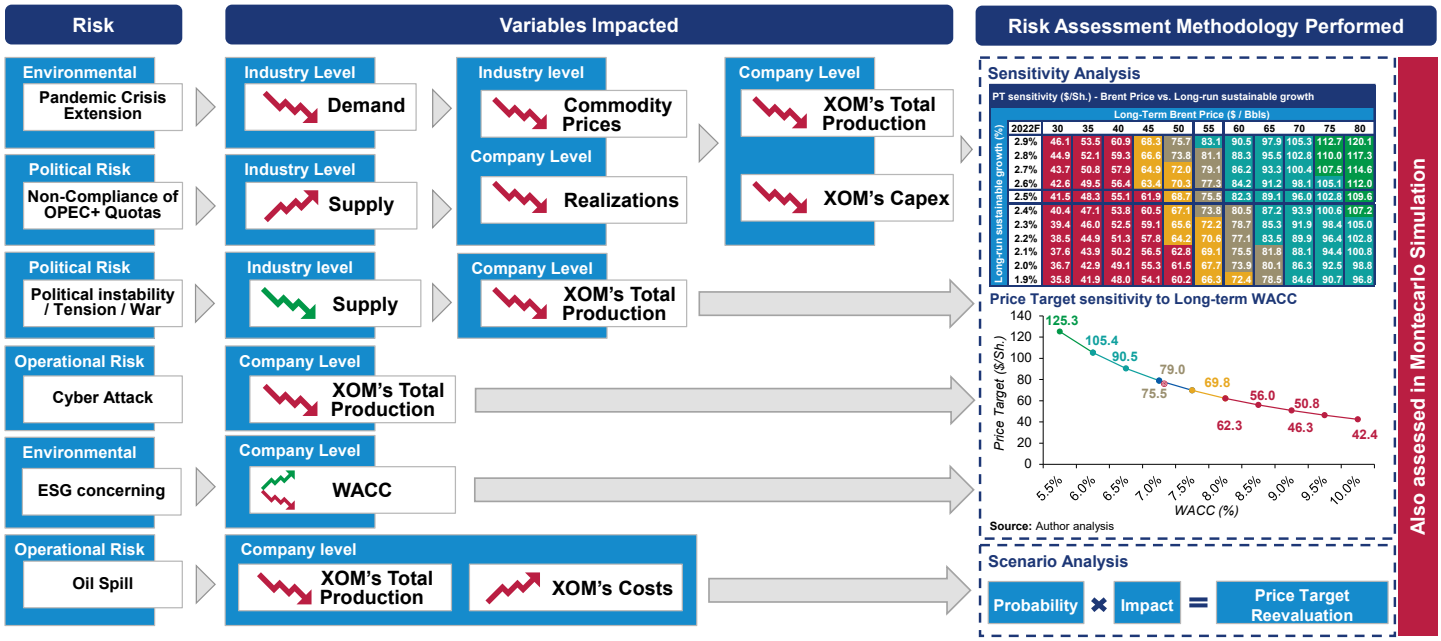
Cybersecurity (O2)

ExxonMobil has been regularly been subject to attempted cybersecurity disruptions, which might lead to industrial hazards or productions disruptions, damage or destruction of assets; or, compromise business systems; or, sensitive data disclosure. **Significant costs** might be incurred **in the remediation of a major cybersecurity disruption**, in addition to **regulatory, litigation or reputational costs**.

Appendix 8.2 – High level representation of the changes in commodities demand and supply



Appendix 8.3 – High level risks impacts on ExxonMobil's key value drivers



Source: Author analysis

Appendix 8.4 – Sensitivity Analysis

FTE Sensitivity Analysis - Brent Price vs. Terminal Period Growth

Terminal Period Growth \ Long-Term Brent Price	30	35	40	45	50	55	60	65	70	75	80
2021F	54.9	60.6	66.3	71.9	77.6	83.2	88.8	94.4	100.0	105.6	111.2
2.9%	54.1	59.7	65.3	70.9	76.5	82.0	87.5	93.1	98.6	104.1	109.6
2.8%	53.3	58.9	64.4	69.9	75.4	80.9	86.3	91.8	97.2	102.6	108.1
2.7%	52.6	58.1	63.5	69.0	74.4	79.8	85.1	90.5	95.9	101.2	106.6
2.6%	51.9	57.3	62.7	68.0	73.4	78.7	84.0	89.3	94.6	99.9	105.2
2.55%	51.2	56.5	61.9	67.2	72.4	77.7	82.9	88.1	93.3	98.6	103.8
2.4%	50.5	55.8	61.1	66.3	71.5	76.7	81.8	87.0	92.1	97.3	102.4
2.3%	49.8	55.1	60.3	65.4	70.6	75.7	80.8	85.9	91.0	96.0	101.1
2.2%	49.2	54.4	59.5	64.6	69.7	74.7	79.8	84.8	89.8	94.8	99.8
2.1%	48.6	53.7	58.8	63.8	68.8	73.8	78.8	83.8	88.7	93.7	98.6
2.0%	48.0	53.0	58.1	63.1	68.0	72.9	77.8	82.8	87.6	92.5	97.4
1.9%											

CCF Sensitivity Analysis - Brent Price vs. Terminal Period Growth

Terminal Period Growth \ Long-Term Brent Price	30	35	40	45	50	55	60	65	70	75	80
2021F	45.8	53.1	60.4	67.8	75.1	82.5	89.8	97.2	104.5	111.9	119.2
2.9%	44.6	51.8	59.0	66.2	73.4	80.6	87.8	95.0	102.2	109.4	116.6
2.8%	43.5	50.6	57.6	64.7	71.8	78.8	85.9	92.9	100.0	107.0	114.1
2.7%	42.5	49.4	56.3	63.3	70.2	77.1	84.0	90.9	97.8	104.8	111.7
2.6%	41.5	48.3	55.1	61.9	68.6	75.4	82.2	89.0	95.8	102.6	109.4
2.55%	40.6	47.2	53.9	60.5	67.2	73.9	80.5	87.2	93.8	100.5	107.2
2.4%	39.6	46.2	52.7	59.2	65.8	72.3	78.9	85.4	92.0	98.5	105.0
2.3%	38.8	45.2	51.6	58.0	64.4	70.9	77.3	83.7	90.1	96.6	103.0
2.2%	37.9	44.2	50.5	56.8	63.1	69.5	75.8	82.1	88.4	94.7	101.0
2.1%	37.1	43.3	49.5	55.7	61.9	68.1	74.3	80.5	86.7	92.9	99.1
2.0%	36.3	42.4	48.5	54.6	60.7	66.8	72.9	79.0	85.1	91.2	97.3
1.9%											

Appendix 8.5 – Oil Spill scenario breakdown

Annual Probability of at least 1 Blowout for offshore Operations in Europe

Operation		Blowout Probability / Unit	Unit
Drilling	Exploration Drilling, deep (normal wells)	3.1×10^{-4}	Per drilled well
	Exploration Drilling, deep (HPHT wells)	1.9×10^{-3}	Per drilled well
	Development Drilling, deep (normal wells)	6.0×10^{-5}	Per drilled well
	Development Drilling, deep (HPHT wells)	3.7×10^{-4}	Per drilled well
Well Intervention	Completion	9.7×10^{-5}	Per operation
	Wirelining	6.5×10^{-6}	Per operation
	Coiled Tubing	1.4×10^{-4}	Per operation
	Snubbing	3.4×10^{-4}	Per operation
	Workover	1.8×10^{-4}	Per operation
Producing Wells (excluding external causes)		9.7×10^{-6}	Per well year
Producing Wells (external causes)		3.9×10^{-5}	Per well year

Source: Author analysis based on European Commission (2011), Table 6

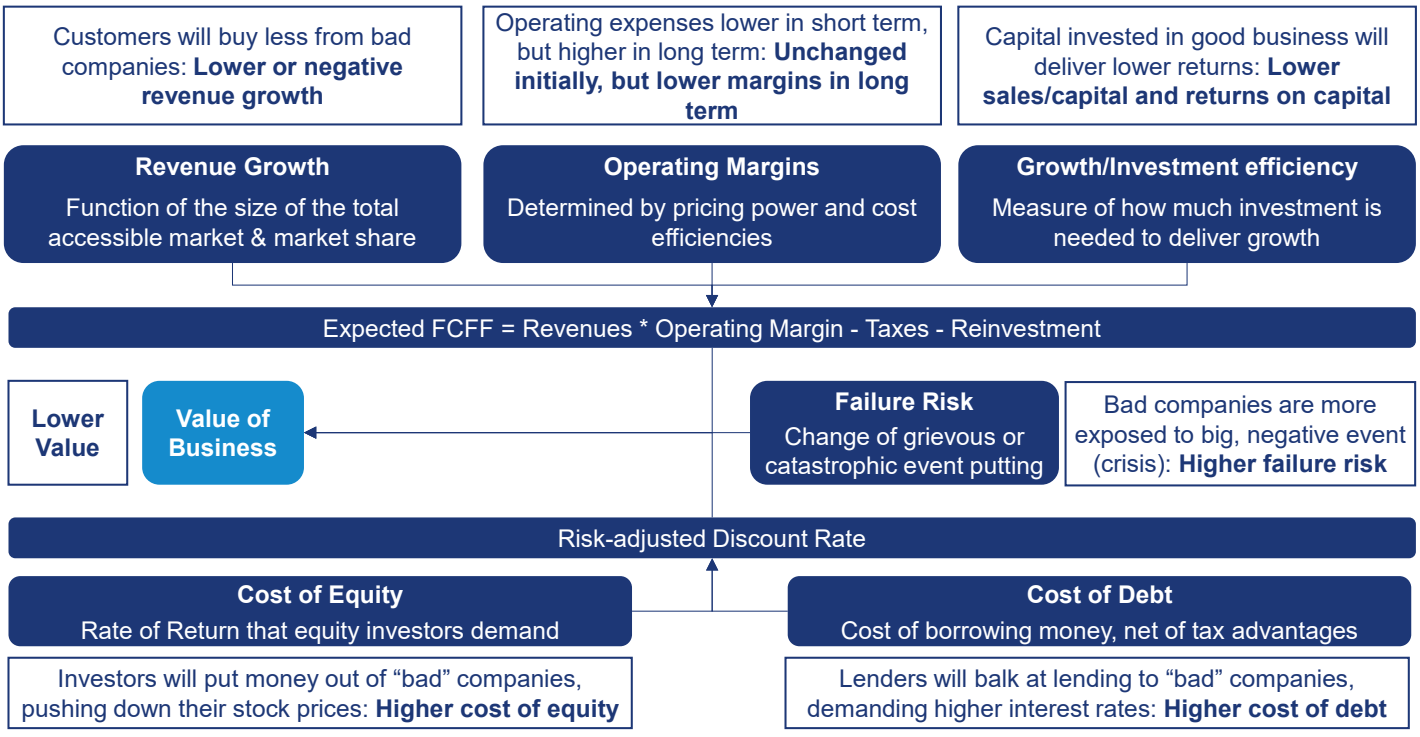
XOM's probability of Blowout

Type of well	Volume	Blowout Probabilit	XOM's probability
Drilling wells	1,285	6.0×10^{-5}	0.77%
Producing Wells	471	3.9×10^{-5}	0.18%
Total			**0.95%**

Oil spill estimated Impact ($'Mn)

Historical event	Payment period (years)	Financial Costs (Mn'$)	Discount Rate	PV Costs
BP horizon Impact	8	65,000	7.2%	37,347
Exxon Valdez Impact	15	5,000	7.2%	1,769

Appendix 8.6 – Damodaran and Cornell's ESG Punitive Vision



Source: Damodaran & Cornell (2020), adapted by Author.

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