FINAL PROJECT

Financial Management

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Selected Companies:

Pakistan Petroleum Limited (PPL)

Oil and Gas Development Company Limited (OGDCL)

The two public listed companies for this project are Pakistan Petroleum Limited (PPL) and Oil and Gas Development Company Limited (OGDCL). We will going to discuss financial structure and decisions of these petroleum firms, their debt and equity ratio and which one is better for investment perspective keeping in view of the risk and return factors.

Why I have selected them?

The petroleum industry presents compelling justifications for finance study. Firstly, the sector is a critical component of the global economy, with vast financial implications. Understanding the intricate financial operations and dynamics of petroleum companies enables comprehensive analysis of capital investment, risk management, and financial decision-making, contributing to sound investment strategies. Secondly, the petroleum industry's inherent complexity necessitates advanced financial models and methodologies, fostering the development of innovative financial techniques. By studying this industry, finance professionals can enhance their skills in areas such as commodity pricing, hedging strategies, project financing, and valuation, honing their expertise in specialized financial domains. Furthermore, the petroleum industry's volatility and susceptibility to external factors, such as geopolitical events and regulatory changes, offer an opportunity for comprehensive risk assessment and mitigation strategies, making it an ideal sector for finance study. Ultimately, delving into the intricacies of petroleum finance provides an avenue for valuable insights, practical applications, and expertise development in a globally significant industry.

Pakistan Petroleum Limited (PPL)

Pakistan Petroleum Limited (PPL) is a Pakistani state-owned petroleum company. It was incorporated on 5 June 1950, when it inherited the assets and liabilities of the Burmah Oil Company Ltd. which initially holds 70% of the share with the rest mostly held by the government of Pakistan (GoP). As of June 2011, Government of Pakistan held 70.66% of the shares.

Pakistan Petroleum Limited (PPL) is a leading exploration and production company operating in Pakistan's upstream oil and gas sector. PPL has played a pivotal role in the country's energy industry and has emerged as one of the largest exploration and production companies in Pakistan. The company's primary focus is on the exploration, development, and production of hydrocarbon resources, including natural gas, crude oil, and liquefied petroleum gas (LPG).

PPL holds a diversified portfolio of assets, both onshore and offshore, across various provinces of Pakistan. The company actively engages in exploration activities to identify and exploit new reserves, contributing to the country's energy security. With its extensive technical expertise and advanced exploration techniques, PPL has made significant discoveries and continues to undertake exploration ventures in collaboration with local and international partners.

In addition to exploration and production activities, PPL has a robust infrastructure and a well-established network of pipelines and processing facilities. The company operates gas fields, production plants, and processing facilities that contribute to the efficient extraction, processing, and transportation of hydrocarbons, facilitating the reliable supply of energy to industries, businesses, and households across Pakistan.

Oil and Gas Development Company Limited (OGDCL)

Oil and Gas Development Company Limited (OGDCL), was incorporated on 23 October 1997 under the Companies Ordinance, 1984 (now the Companies Act, 2017). The Company was established to undertake exploration and development of oil and gas resources, including production and sale of oil and gas and related activities formerly carried on by Oil and Gas Development Corporation, which was established in 1961.

As a state-owned enterprise, OGDCL is entrusted with the responsibility of exploring, developing, and producing oil and gas reserves in Pakistan. The company holds a diverse portfolio of assets, including onshore and offshore fields, spread across different provinces of the country. OGDCL employs advanced exploration technologies and practices to identify and exploit hydrocarbon reserves, thereby supporting Pakistan's energy security and reducing dependence on imports.

OGDCL has a rich history of successful exploration and production activities, with numerous discoveries and development projects to its credit. The company has made significant contributions to the country's hydrocarbon reserves through the discovery of major oil and gas fields, including Sui, Dhurnal, and Nashpa, among others. These discoveries have not only added to Pakistan's energy resources but have also spurred economic growth and employment opportunities in the regions where the fields are located.

Financially, OGDCL has consistently performed well and generated substantial revenue and profits. Its strong financial position allows the company to invest in new exploration ventures, technology upgrades, and research and development, contributing to the growth and sustainability of Pakistan's oil and gas industry.

Annual Report of Pakistan Petroleum Limited (PPL) for the year 2021 and 2022

	2020-21	2021-22
Rs. million		
Sales - Gross (including Government Levies)		
	172,507	235,240
Sales - Net (Excluding Government Levies)	148,429	202,199
Profit-before -tax	68,582	98,131
Profit-after-tax	52,431	53,546
Share Capital	27,210	27,210
Reserves	363,318	407,665
Current Assets	382,035	446,840
Current Liabilities	86,515	125,312
Long-term Investments	7,992	5,976
Trade Debts	282,285	365,792
Short-term Investments	85,012	66,407
Cash and Bank Balances	4,243	3,723
Cash Dividend Yield (percent)	4.03	2.96
Cash Dividend per Share (Rs.)	3.50	2.00
Bonus Issue (percent)	-	-
Current Ratio	4.42	3.57
Return on Equity (percent)	13	12
Breakup Value per Share - Restated (Rs.)		
	143.53	159.82
Earnings per Share - Restated (Rs.)	19.27	19.68
Price Earnings (P/E) Ratio	4.51	3.43

<u>Investment Decisions:</u>

The investment decision is the most important of the firm’s three major decisions when it comes to value creation. It begins with a determination of the total amount of assets needed to be held by the firm.

<u>Asset Allocation:</u> Determining which investments to prioritize based on their potential return on investment, risk profile, and strategic fit with the company's goals

	Note	June 30 2022	June 30 2021
		(Rupees in thousand)	
ASSETS			
NON-CURRENT ASSETS			
Fixed assets			
Property, plant and equipment	4	**137,840,377**	146,583,654
Intangible assets	5	**113,116**	211,183
		137,953,493	146,794,837
Long-term investments	6	**5,975,953**	7,992,419
Deposit with GoP for equity stake in Reko Diq	7	**34,106,250**	-
Long-term loans	8	**61,689**	53,159
Long-term deposits	9	**7,676**	7,676
		178,105,061	154,848,091
CURRENT ASSETS			
Stores and spares	11	**5,495,842**	4,568,484
Trade debts	12	**365,791,716**	282,284,931
Loans and advances	13	**558,389**	698,991
Trade deposits and short-term prepayments	14	**287,196**	258,088
Interest accrued	15	**264,349**	514,133
Current maturity of long-term loans	8	**27,929**	22,714
Current maturity of long-term deposits	9	**1,505,250**	1,205,357
Current maturity of long-term receivables	10	**122,051**	138,560
Other receivables	16	**2,656,717**	3,089,298
Short-term investments	17	**66,407,345**	85,012,018
Cash and bank balances	18	**3,723,282**	4,242,627
		446,840,066	382,035,201
TOTAL ASSETS		**624,945,127**	536,883,292

Capital Budgeting: Budget & Planning (B&P) department plays an instrumental role in the performance management of the Company. It also acts as a controlling function and keeps a check over actual spending and performance against the budget. Major responsibilities of the department include preparation of the budget for which a detailed exercise is carried out each year in coordination with all departments and Assets of the Company.

B&P also manages the fixed assets accounting and associated controls. Finance Functions initiatives relating to automation, efficiency and internal controls are also being supervised and supported by this department.

Financing Decisions:

Here the financial manager is concerned with the makeup of the right-hand side of the balance sheet. The following financial decisions PPL managers are taking in a firm.

- Deciding whether to issue bonds or take out a bank loan to finance a new project.
- Analyzing the benefits and costs of issuing new equity to fund the company's growth.
- Deciding whether to use retained earnings or pay dividends to shareholders.

EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Share capital	19	27,209,836	27,209,836
Reserves	20	407,664,863	363,317,888
		434,874,699	390,527,724
NON-CURRENT LIABILITIES			
Provision for decommissioning obligation	21	32,650,443	26,928,206
Deferred liabilities	23	3,328,024	3,082,550
Deferred taxation - net	24	28,780,165	29,830,059
		64,758,632	59,840,815
CURRENT LIABILITIES			
Trade and other payables	25	87,026,658	65,962,634
Unclaimed dividends		1,001,150	521,910
Current maturity of lease liabilities	22	1,434,170	433
Taxation - net		35,849,818	20,029,776
		125,311,796	86,514,753
TOTAL LIABILITIES		190,070,428	146,355,568
TOTAL EQUITY AND LIABILITIES		624,945,127	536,883,292
CONTINGENCIES AND COMMITMENTS	26		

The annexed notes 1 to 47 form an integral part of these unconsolidated financial statements.

It shows the financial decision and position of PPL at 2021 and 2022.

Asset Management Decisions:

Asset management is the practice of increasing total wealth over time by acquiring, maintaining, and trading investments that have the potential to grow in value.

Assets Operations provides direct support to assets regarding finance and business-related matters. The department is responsible for attending and presenting Operating Committee Meetings (OCM)/ Technical Committee Meetings (TCM) and supporting assets in preparation of budgets and performance monitoring. The department also fulfills Assets' finance related compliance as laid down in the respective Petroleum Concessions Agreement (PCA). Moreover, the department also deals with special assignments including, but not limited to, financial due diligence, evaluation of vendor contracts and internal commercial review of projects.

Financial assets covered under IFRS 9 - 'Financial Instruments' (IFRS 9)

The Company uses default rates based on credit rating of customers from which receivable are due, probability weighted cash flow projection for customers for which credit rating is not available and provision matrix for large portfolio of customer which have similar characteristics to calculate expected credit losses (ECL) for trade debts and other receivables.

The default rates are benchmarked and adjusted for forward looking information, cash flow projections are discounted using original effective interest rates, and the rates in provision matrix are based on days past due for various customer segments that have similar loss patterns. The provision matrix is initially based on the Company's historical observed default rates which is then adjusted for forward looking information.

Property, plant and equipment

a) Owned assets

Property, plant and equipment, except freehold land, leasehold land and capital work-in-progress, are stated at cost less accumulated depreciation and accumulated impairment losses, if any. Freehold land and leasehold land are stated at cost. Capital work-in-progress is stated at cost less accumulated impairment losses, if any, and is transferred to the respective item of property, plant and equipment when available for intended use.

b) Lease liability and Right-of-use asset (ROUA)

At the inception of a contract, the Company assesses whether a contract is, or contains, a lease based on whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease, or if that rate cannot be readily determined, the Company's incremental borrowing rate.

Annual Report of Oil and Gas Development Company Limited (OGDCL) for the year 2021 and 2022

Investment Decisions:

The investment decision relates to the selection of assets in which funds will be invested by a firm. The assets as per their duration of benefits can be categorized into two groups:

- Long term assets which yield a return over a period of time in future.
- Short term assets which in the normal course of business are convertible into cash usually within a year.
- The investment in a long-term asset is popularly known as capital budgeting
- In short term assets, working capital management

	Note	2022	2021
		(Rupees '000)	
NON CURRENT ASSETS			
Property, plant and equipment	12	92,685,118	95,745,594
Development and production assets	13	118,283,976	100,415,134
Exploration and evaluation assets	14	13,239,465	16,732,676
		224,208,559	212,893,404
Long term investments	15	41,938,930	45,525,871
Deposit with the Government of Pakistan for equity stake in Reko Diq project	16	34,462,500	-
Long term loans	17	9,811,981	8,783,849
Long term prepayments		908,609	861,430
Lease receivables	18	40,114,848	37,259,605
		351,445,427	305,324,159
CURRENT ASSETS			
Stores, spare parts and loose tools	19	19,958,215	19,169,273
Stock in trade		560,679	404,339
Trade debts	20	456,594,833	358,821,853
Loans and advances	21	16,603,490	15,916,922
Deposits and short term prepayments	22	1,207,668	1,262,865
Other receivables	23	1,009,932	822,149
Income tax- advance	24	31,914,172	45,751,659
Current portion of long term investments	15.3	140,694,637	122,465,116
Current portion of lease receivables	18	29,822,984	22,253,115
Other financial assets	25	48,539,965	56,358,320
Cash and bank balances	26	31,631,051	7,444,044
		778,537,626	650,669,655
		1,129,983,053	955,993,814

Capital Budgeting: Deciding whether to invest in new projects, ventures, or research and development initiatives.

Dividend Policy: Deciding on the appropriate allocation of the firm's capital across various investment opportunities.

Financing Decisions:

This represents bonus shares issued by former wholly owned subsidiary- Pirkoh Gas Company (Private) Limited (PGCL) prior to merger. Accordingly, this reserve is not available for distribution to shareholders.

This represents accumulated balance of translation effect of a foreign operation in Rupees as per the Company's accounting policy.

This represents statutory reserve created by the associated company for redemption of redeemable preference shares in the form of cash to the preference shareholders.

	Note	2022	2021
		(Rupees '000)	
SHARE CAPITAL AND RESERVES			
Share capital	4	43,009,284	43,009,284
Reserves	5	20,874,189	18,824,000
Unappropriated profit		811,509,093	707,810,761
		875,392,566	769,644,045
NON CURRENT LIABILITIES			
Deferred taxation	6	39,364,380	27,667,937
Deferred employee benefits	7	33,039,060	28,010,167
Provision for decommissioning cost	8	43,121,524	28,992,057
		115,524,964	84,670,161
CURRENT LIABILITIES			
Trade and other payables	9	105,121,439	72,357,460
Unpaid dividend	10	33,736,527	29,112,645
Unclaimed dividend		207,557	209,503
		139,065,523	101,679,608
TOTAL LIABILITIES		254,590,487	186,349,769
		1,129,983,053	955,993,814

Asset Management Decisions:

The Company has set aside a specific capital reserve for self-insurance of rigs, buildings, wells, plants, pipelines, workmen compensation, inventory, terrorism, vehicle repair and losses for petroleum products in transit. Refer note 12.3 for investments against this reserve. Accordingly, this reserve is not available for distribution to shareholders.

Investment Selection: Deciding on the appropriate level of inventory to maintain to ensure adequate supply without tying up too much capital.

Risk Management: Deciding on the best way to manage accounts receivable to ensure timely payment and minimize bad debt.

Asset Allocation: Deciding on the best way to manage fixed assets, such as property, plant, and equipment, to ensure they are being used efficiently and are properly maintained.

Share price of Pakistan Petroleum Limited (PPL)

Year	Share price	x	(x - x̄)	(x - x̄)²
2020	138.28	-	-	-
2021	97.07	- 0.298	- 0.105	0.011
2022	79.94	- 0.176	0.017	0.000289
2023	71.37	- 0.107	0.086	0.000636
		∑X= -0.581		**∑(x - x̄)²=0.011925**

X = Ending value ⁄ Beginning value – 1

x̄=∑X ⁄ n

=-0.581/3

=-0.193

Variance

$$\sigma^2 = \frac{\sum (X - \bar{X})^2}{n}$$

= 0.011925 / 3

= 0.003975

Standard Derivation

$$\sigma = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$$

$$\sigma = \sqrt{\frac{0.011925}{3}}$$

σ = 0.0630

σ = 0.630 x 100

σ = 6.304%

Co-efficient of variation

$$CV = \frac{\sigma}{\bar{x}}$$

CV = 0.0630/-0.193

CV= - 0.3264

Share price of Oil and Gas Development Company Limited (OGDCL)

Year	Share Price	Y	$Y-\bar{Y}$	$(Y-\bar{Y})^2$
2020	147.16	-	-	-
2021	110.10	-0.251	-0.068	0.00462
2022	86.84	-0.211	-0.028	0.000784
2023	79.22	-0.087	0.096	0.00922
		∑Y= -0.549		**$\sum(Y-\bar{Y})^2$ = 0.0146**

Y = Ending value ⁄ Beginning value – 1

$\bar{Y}$ =∑Y ⁄ n

= -0.549/3

= -0.183

Variance

$$\sigma^2 = \frac{\sum(Y-\bar{Y})^2}{n}$$

$= 0.0146/3$

$= 0.00487$

Standard Derivation

$$\sigma = \sqrt{\frac{\sum (Y-\bar{Y})^2}{n}}$$

$$\sigma = \sqrt{\frac{0.00487}{3}}$$

$\sigma = 0.069 \times 100$

$\sigma = 6.98\%$

Co-efficient of variation

$$CV = \frac{\sigma}{\bar{Y}}$$

CV = 0.069/-0.183

CV = - 0.382

COVARIANCE

$X-\bar{X}$	$Y-\bar{Y}$	$(X-\bar{X})(Y-\bar{Y})$
-	-	-
- 0.105	-0.068	0.00714
0.017	-0.028	- 0.000476
0.086	0.096	0.008256
		$\sum(X-\bar{X})(Y-\bar{Y})=0.01492$

$$COV = \sum (X-\bar{X})(Y-\bar{Y}) / n$$

$=0.01492/3$

$=0.00497$

Correlation Co-efficient

$$r = \frac{COVxy}{(\sigma X)(\sigma y)}$$

$= 0.00497 / (0.0630)(0.069)$

$r = 1.143$

Debts-to-equity ratio of Pakistan Petroleum Limited (PPL)

The debt-to-equity ratio is a financial metric that compares a company's total debt to its total equity. It is used to assess the company's capital structure and financial leverage. A higher debt-to-equity ratio indicates that a company has more debt relative to its equity, while a lower ratio suggests a lower level of debt and potentially more stable financial position. Debts-to-equity ratio of PPL for the year 2022 is:

Total debts = Current Liabilities + Long term debts

Debts-to-equity ratio = Total debt / Net worth

Debts-to-equity ratio = 190070428/434874699

(Amounts are in Thousands of Rupees)

Debts-to-equity ratio = 0.43

Debts-to-equity ratio of Oil and Gas Development Company Limited (OGDCL)

The debt-to-equity ratio is a financial metric that compares a company's total debt to its total equity. It is used to assess the company's capital structure and financial leverage. A higher debt-to-equity ratio indicates that a company has more debt relative to its equity, while a lower ratio suggests a lower level of debt and potentially more stable financial position. Debts-to-equity ratio of OGDCL for the year 2022 is:

Total debts = Current Liabilities + Long term debts

Debts-to-equity ratio = Total debt / Net worth

Debts-to-equity ratio = 254.59/875.39

(Amounts are in Billions of Rupees)

Debts-to-equity ratio =0.29

Interpretation

A debt equity ratio of 1 or less indicates that a company has more equity than debt, while a ratio greater than 1 indicates that a company has more debt than equity. In both cases, companies are having ratio less than 1 which means both PPL and OGDCL have more equity than debts.

Summarizing and Comparing both Companies

Financials of PPL

All numbers in thousands (000's) except EPS

	2022	2021	2020	2019
Sales	202,199,183	148,428,824	157,593,092	163,889,602
Profit after Taxation	53,546,164	52,431,400	50,256,270	61,632,364
EPS	19.68	19.27	18.47	22.65

Financials of OGDCL

All numbers in thousands (000's) except EPS

	2022	2021	2020	2019
Sales	335,463,725	239,103,553	232,925,243	261,481,188
Profit after Taxation	133,783,747	91,534,424	100,937,893	118,385,788
EPS	31.11	21.28	23.47	27.53

A lower debt-to-equity ratio generally indicates a more stable financial position and lower financial risk for a company. Comparing the two ratios, OGDCL having debt-to-equity ratio of 0.29 is considered to have a lower level of debt relative to its equity, making it potentially less risky and more financially stable than PPL with a ratio of 0.43.

The company with a debt-to-equity ratio of 0.29 has a larger proportion of equity funding its operations compared to debt. This suggests that the company relies less on borrowed funds and has a stronger financial foundation, as it has a higher level of ownership or shareholders' equity relative to its debt obligations.

On the other hand, PPL having a debt-to-equity ratio of 0.43 has a higher level of debt in relation to its equity. This implies that the company has a larger proportion of its operations funded through debt financing, which may increase its financial risk. Higher debt levels can make a company more vulnerable to economic downturns, interest rate fluctuations, and difficulty in meeting debt obligations.

A company with higher earnings per share (EPS) i.e. OGDCL is generally considered better because it indicates that the company is generating more profit on a per-share basis. Higher EPS implies that the company is efficiently utilizing its resources to generate earnings, which can lead to increased shareholder value and potential returns on investment. A higher EPS may be an indication of strong financial performance, profitability, and effective management of costs and operations. Investors often view companies with higher EPS favorably, as it demonstrates the company's ability to generate earnings and potentially distribute dividends or reinvest in growth opportunities.