Analysis of Capital and its Structure at the Enterprises of the Oil and Gas Industry of Uzbekistan

Bekmukhamedova Malika Iskandarbekovna

Economist of the 1st category, JSC "O 'ZLITINEFTGAZ", 2, st. Taras Shevchenko, Tashkent 100029, Uzbekistan

ABSTRACT

This article discusses the terminology of capital and its structure. This facilitates the decision-making of manufacturing firms in Uzbekistan. The firm's capital structure consists of a specific combination of debt and equity issues to reduce potential pressure on its long-term funding. Many theories have been developed in the literature to explore such questions, and they tend to focus on what determinants might influence firms' decisions to leverage. In addition, the main determinants of capital structure in firms identified in various studies are tangibility, size, growth opportunities, profitability, and non-debt tax shields. In addition to this, issues such as corruption, the political climate, the nature of financial markets have also been identified as having a major impact on the capital structure of companies around the world. The article also highlights issues such as financial distress, threats of bankruptcy, solvency issues, and the risk of default due to an unstable economic and political situation, as possible dangers that may plague firms whose capital structure may be more inclined towards debt financing

Keywords: Capital, Capital Structure,Terminology,Manufacturing Companies, Determinants,Debt,Equity

Introduction

There is a great need for research on capital and capital structure that involves smaller entrepreneurial firms [1]. Compared to Fortune 500 firms, the outlook for small corporations differs greatly in terms of bankruptcy costs, the principal-agent problem, and information asymmetry [2]. Empirical research in finance usually involves large firms; previous research in value creation and entrepreneurship has often focused on venture capital-backed firms, initial public offerings (IPOs), or corporate venture capital businesses [2].

The capital structure describes the proportional relationship between debt and equity capital [3]. While debt primarily consists of long-term borrowings such as debentures, equity includes paid-in equity, share premium, reserves, and surpluses or retained earnings [4]. Therefore, a company can finance its investments with debt and/or equity.

Both theoretical and empirical studies of capital structure have yielded many results attempting to explain the determinants of capital structure. As a result of these studies, some broad categories of capital structure determinants have emerged. However, the choice of appropriate explanatory variables can be controversial [5, 6]. In other words, what may be applicable in one area does not necessarily determine what will work in other areas or regions.

The corporate sector in Uzbekistan is characterized by a large number of firms operating in a largely deregulated and increasingly competitive environment. There are only a limited number of studies examining the factors that influence the capital structure of Uzbek firms. Although the problem of capital structure is given considerable attention in developed countries, it is still neglected in the developing countries of the EU [7]. Until recently, development economics did not emphasize the role of firms in economic development. Secondly, until the 1980s, the corporate sector in many less developed countries (LDCs) faced a number of restrictions in the choice of sources of financing [8]. Access to stock markets was either regulated or limited due to the underdevelopment of the stock market [8].

It is clear that the capital structure is an important management decision as it strongly affects the return on equity of the owner, the risks of the owners, as well as the market value of the shares. In other words, how a firm is financed is very important not only to the managers of the firm, but also to the providers of finance. This is because the wrong mix of finances can seriously affect the efficiency and survival of an enterprise. However, firms' funding decisions involve a wide range of policy issues that may be beyond the direct control of the firm's management. At the macro level, they influence the development of the capital market, the determination of interest rates and securities prices, and regulation. At the micro level, such decisions affect the capital structure, corporate governance and company development [9]. Therefore, the management of the company is obliged to determine the appropriate capital structure that will ensure the continuity of their business. A prosperous business environment will not only serve as a source of income for households only, but will also help generate tax revenue for the government and greatly facilitate poverty reduction through fiscal transfers [10].

With all of the above in mind, the purpose of this article is to review and analyze the terms of capital and capital structure through an intensive study of the literature.

Literature review

The term capital and capital structure refers to the percentage of capital (money) in operation in a business by type. It is the combination of a company's long-term debt, specific short-term debt, common and preferred stock, and how the firm finances its overall operations and growth using various sources of funds. Generally speaking, there are two forms of capital [11, 12]: equity capital and debt capital. Each has its own advantages and disadvantages, and much of the wise corporate management is trying to find the optimal capital structure in terms of risk/reward for shareholders. Thus, the capital structure of a firm is the composition or structure of its liabilities. Thus, the ratio of the firm's debt to total funding of 70% is called the firm's leverage, which can also be described as the leverage ratio—the proportion of capital used by the firm that comes from outside the business.

The capital structure of a firm, or more specifically, the debt-to-equity ratio of a firm, gives an idea of how risky a company is [13]. Typically, a company that is more debt-financed presents more risk because the firm is relatively leveraged [14]. Thus, the concept and understanding of a firm's capital structure is extremely important, as it can affect not only the profits a firm earns for its shareholders, but also whether the firm survives a recession or depression. Capital structure decisions are very difficult to make in fragile economies. Particularly in developing countries, the presence of macroeconomic factors, such as high and soaring interest rates, as well as economic and political instability, are important determinants of the capital structure of firms. The presence of the above factors leads to a significant increase in financial decisions; in addition, uncertainty also causes a contraction or curtailment of economic activity. Knowledge about capital was mainly obtained from data on developed countries, which have many institutional similarities [15]. Since there are different institutional arrangements in different countries, mainly in relation to the tax and bankruptcy codes, the existing market for corporate control, and the role of banks and securities markets, it may not be adequate to draw conclusions about what happens in developed countries or what determines their capital. . In addition, there are differences in social and cultural issues and levels of economic development, so the determinants of capital structure for firms in developing countries need to be studied differently.

According to [15], most studies of capital and capital structure to date are based on data from developed countries. The few studies conducted in developing countries hardly agree with each other [16]. For example, some studies used data on the largest companies in selected developing countries and found that firms in developing countries are much more likely to use external financing to finance their growth than is usually the case in industrialized countries [16, 17]. A subsequent study again found that firms in developing countries rely more on equity financing (domestic financing) than on debt financing [18]. An Indian study [19] using a sample of larger firms found that Indian firms use significantly less external and equity financing. Meanwhile, a study of large companies in ten developing countries [14] also found that debt ratios vary significantly across developing countries, but generally do not go beyond comparable data for industrialized countries.

These differences highlight the importance of examining the underlying factors that determine the capital structure for firms operating in an emerging environment. As a result of numerous studies, several broad categories of determinants of the capital structure can be distinguished [19-21]. These identified factors are likely to influence the firm's decision to leverage. However, the choice of appropriate explanatory variables can be controversial. These selected explanatory variables are tangibility, size, profitability, and level of growth opportunities. In the case of SMEs, other unorthodox factors such as industry, firm location, education and gender of the entrepreneur, form of business, and export status of the firm may explain their capital structure.

Terms and determinants of capital and capital structure

Capital is an ambiguous term used as a characteristic of some resource (political, economic, financial, etc.). The word "capital" itself comes from rannelat. caput - “the head (cut off)”, “the center in the city (in Rome on the Capitoline Hill they sacrificed bulls, and the severed head of the sacrificial bull was dedicated to Jupiter)”, and then the “city (capital of the country)” itself. It is no coincidence that in English one of the meanings of the word capital is “capital” [7-11].

The economic term "capital" has long been widely used [9]. It is used both in economic theory and in such special areas of economic knowledge as, for example, accounting. However, the concept (interpretation) of capital in modern economic literature does not have an unambiguous definition [16]. Such terminological leapfrog does not give an accurate understanding of the essence of capital, and therefore impoverishes the semantic content of economic sciences.

In order not to be unfounded, we will give the most common definitions of capital in the domestic economic literature (see the table below).

Source	**Definition**
Garifullin, K. M. (2013). Capital: the concept and problems of accounting. Everything for the accountant, (6), 18-20.	Capital is value that brings surplus value, or self-increasing value.
Vasilyeva, A. N. (2009). The specificity and structure of the human capital of the organization. Bulletin of the Baikal State University, (6).	Views on capital are diverse, but they all have one thing in common: capital is associated with the ability to generate income. Capital could be defined as investment resources used in the production of goods and services and their delivery to the consumer.
Kovalev, V. V. (2010). On the concepts of capital. Economics and Management, (7), 73-80.	Capital - resources created as a result of production activities and used to produce goods and services
Endovitsky, D. A., & Mokshina, K. N. (2013). The essence of fixed assets as an object of accounting in the context of problems of	The total value of a person's assets less its liabilities. Money invested by their owners in an organization to get it going

capital accounting. Financial Analytics: Problems and Solutions, (24), 2-9.	
Shchetinin, V. P. (2003). Human and material capital: commonality and difference. World Economy and International Relations, (8), 55-61.	Equity is the share of the company remaining after deducting all of its liabilities.
Sharapova, V. M., & Golendukhina, E. V. (2018). The essence of the working capital of an enterprise: analysis of its evolution in the interpretation of modern researchers. Topical issues of modern economics, (1), 256-261.	Under the capital of the organization in accounting is understood the total amount of investments of the founders and the profit accumulated by the organization. The amount of capital is calculated as the difference between the assets and liabilities of the organization
Lemeshko, E. Yu. (2014). The question of the essence of working capital is debatable. Bulletin of the Khabarovsk State Academy of Economics and Law, (3), 25-29.	Capital in the broadest sense is anything that can generate income.
Buzgalin, A. V., & Vasina, L. L. (2016). A pretentious game of innovation (about a failed attempt at a new translation of a number of terms "Capital") (Karl Marx. Capital. Critique of political economy. Vol. 1. Book 1. The process of capital production. Edited by VYa Chekhovsky. Moscow: ROSSPEN, 2015. 661 pp. ISBN 978-5-8243-2000-8). Alternatives, (3), 155-167.	Equity is the net worth of an organization's assets, which is defined as the difference between the value of its assets (the amount of assets) and its liabilities (the amount of accounts payable)
Vasina, L. L. (2016). Regarding one unsuccessful edition of the Russian translation of the first volume of Capital by Karl Marx. Questions of political economy, (2), 119.	…only profit can make an entrepreneur risk his capital…
Ermilina, D. A. (2016). Category "working capital" in economics. Journal of Economic Theory, (4), 214-223.	Capital is an economic category of the capitalist mode of production

As can be seen from the table, some authors define capital as a value that brings surplus value or income, others as investment resources, and still others as their own assets or property.

Based on various theories of capital structure, a number of empirical studies have identified firm-level characteristics that affect the capital structure of firms. Among these characteristics are firm age, firm size, asset structure, profitability, growth, firm risk, taxes, and ownership structure [22]. In our case, JCS «Uzbekneftegaz» could be a potential and suitable firm from Uzbekistan. In the case of SMEs, other unorthodox factors such as industry, firm location, education and gender of the entrepreneur, form of business, and export status of the firm may explain their capital structure.

Company age

This serves as a standard measure of reputation in capital structure models. As the firm continues to operate longer, it has established itself as a going concern and therefore increases its ability to take on more debt; therefore, age is positively associated with debt. Before granting a loan, banks usually assess the creditworthiness of entrepreneurs, as they are believed to have high hopes for very risky projects that promise high returns.

Company size

Larger firms are more diversified and therefore have lower income dispersion, allowing them to tolerate high debt ratios [20-22]. On the other hand, smaller firms may find it relatively more costly to address information asymmetries with creditors, which can lead to lower debt ratios. Lenders of larger firms are more likely to be reimbursed than lenders of smaller firms, reducing debt-related agency costs. Consequently, larger firms will have higher debts. Empirical evidence of the relationship between capital size and structure confirms the positive relationship. Several studies have shown a positive relationship between firm size and leverage [4-6, 11-15]. Their results show that smaller firms are more likely to use equity financing, while larger firms are more likely to issue debt rather than equity. Their results showed that the percentage of successful applications for bank loans by large firms was higher than that of smaller firms. In a study of six Asian countries, about 64% of micro-firms, 42% of small firms and 21% of medium-sized firms appear limited, while for large firms the figure is only 10%.

Asset structure

The degree of materiality of the firm's assets should lead to the fact that the firm will have a large liquidation value [23]. Firms that invest heavily in intangible assets also have higher financial leverage because they borrow at lower interest rates if their debt is secured by such assets [23]. It is believed that debt can be used more readily if durable assets are used as collateral [21]. The relationship between tangible fixed assets and debt financing is related to the debt repayment structure. In such a situation, the level of tangible fixed assets may help firms obtain more long-term debt, but agency problems may become more severe with more tangible fixed assets because these firms have less information about future earnings. If so, then a negative relationship is likely to be found between tangible fixed assets and the debt ratio.

Profitability

The relationship between firm profitability and capital structure can be explained using the hierarchy theory discussed above, according to which firms prefer internal sources of funding to external sources. The order of preference is from least sensitive (and least risky) to most sensitive (and most risky), arising from asymmetric information between corporate insiders and less informed market participants [12]. Thus, profitable firms with access to retained earnings can rely on them rather than external sources (debt). Withholdings are the main source of funding. Firms with high profit margins, other things being equal, will maintain relatively lower debt ratios because they are able to generate such funds from domestic sources [15, 18].

Sustainable growth

Growth is likely to increase the demand for domestic funds and push the firm to borrow [11]. Firms with high growth rates will receive relatively higher debt ratios [17]. For smaller firms with a higher concentration of ownership, it is expected that fast-growing firms will need more external financing and should demonstrate higher leverage. Growing SMEs are more likely to use external financing, although it is difficult to determine whether financing stimulates growth or vice versa (or both). It is expected that as enterprises grow at different stages, i.e. micro, small, medium and large scale, they will also change sources of funding. First, they are expected to move from internal sources to external sources [21].

Corporate risk

The level of risk is considered to be one of the main factors determining the capital structure of a firm [3]. The theory of capital structure, based on tax shelter and the cost of bankruptcy, determines the optimal leverage of a firm depending on business risk [6]. Considering agency and bankruptcy costs, the firm has incentives not to take full advantage of the tax benefits of 100% debt under the static framework model. The more likely a firm is to incur such costs, the more incentive it will have to reduce the level of debt in its capital structure. One firm variable that affects this risk is the firm's operational risk; in the sense that the more volatile the firm's income stream, the more likely it is that the firm will default on its obligations and incur such costs. Firms with more volatile earnings growth may be more likely to run into situations where cash flows are too low to service debt.

Taxation

Numerous empirical studies have examined the impact of taxation on corporate finance decisions in large industrialized countries [22]. Some of them relate directly to tax policy. Studied the impact of taxes on corporate finance decisions and presented evidence of a significant impact of taxes on the choice between debt and equity [23]. Changes in the marginal tax rate for any firm should influence funding decisions. When a firm is already exhausted (with loss carry forward) or is highly likely to face a zero tax rate, a firm with a high tax shield is less likely to be financed by debt. The reason is that tax shields lower the effective marginal tax rate on the interest deduction. In general, taxes influence the financial decisions of corporations, but the magnitude of this effect is mostly “small” [23].

Management property

Insider managers (executives and directors) have a slightly different point of view, since many of them have invested a significant part of their personal wealth in the firm [10-13]. The personal wealth of insider managers invested in their employer consists primarily of their employer's common stock and the firm-specific human capital they have accumulated while working for their employer. Since these items tend to make up the majority of an insider's overall wealth, an employer's bankruptcy will have a major impact on their personal wealth. As a result, management insiders should be more sensitive to the risk of bankruptcy that debt financing poses, and more likely to minimize this risk by using less than shareholder wealth, maximizing the amount of debt in the firm's capital structure [19]. In addition, the more money an insider manager has invested in an employer, the more incentive he has to minimize the use of debt financing [24]. Studies have shown that the factors that determine the structure of capital differ from firm to firm and even from country to country [20-24].

Analysis of capital and its structure at JCS «Uzbekneftegaz»

There is a direct relationship between the change in the ratio of own and borrowed funds with the financial risks of the organization. Thus, an increase in the presence of a significant part of borrowed funds in the capital structure leads to an increase in the financial risks of the organization. Consider in this aspect the capital structure of JCS «Uzbekneftegaz».

So, in 2013-2020, the capital of the company increased by more than 90 billion soums. The dynamics of changes in its structure is shown in Figure 1.

Figure 1. Dynamics of the share of own and borrowed funds in the capital of JSC "Uzbekneftegaz" (in % of the volume of capital).

As can be seen from the above data, borrowed funds prevail in the capital structure, and despite the fact that their share is decreasing, it remains quite high. At the same time, the share of own funds is reduced. In general, the capital structure of JCS «Uzbekneftegaz» is presented in Figure 2.

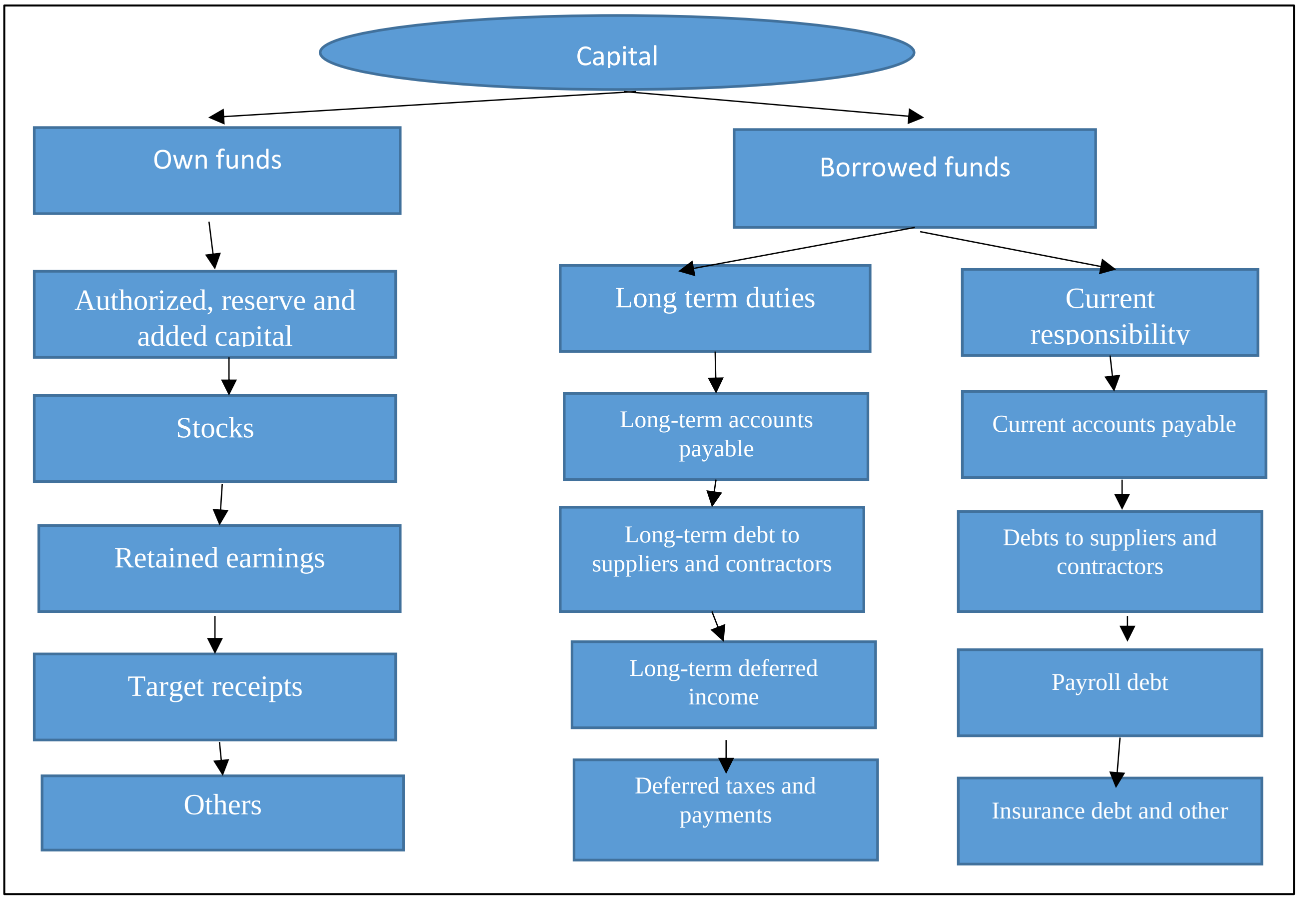

Figure 2. Scheme of the capital structure (compiled by the author according to the accounting reports of JCS «Uzbekneftegaz»)

Equity – equity in 2019 and 2020 slightly exceeded the share of borrowed funds (Figure 3).

Figure 3. Structure of own funds of JCS «Uzbekneftegaz» (% of the total)

From the above data, it can be seen that the basis for the formation of equity capital is the authorized and reserve capital, as well as targeted revenues. If before 2017, own funds increased due to retained earnings, then in subsequent years, due to a sharp decrease in profits, this source practically disappeared.

The borrowed capital (liabilities) of JCS «Uzbekneftegaz» is dominated by long-term liabilities (Figure 4), which in 2020 account for more than 80% of all borrowed funds. As part of current liabilities, most of them are accounts payable (93%), and in long-term liabilities - long-term loans and borrowings (95%).

Figure 4. Dynamics of the structure of borrowed funds for JCS «Uzbekneftegaz» (% of the total)

A firm's capital structure, or more specifically, its debt-to-equity ratio, gives an idea of how risky a company is. Typically, a company that is more debt-financed presents more risk because the firm is relatively leveraged [3]. Thus, a correct understanding of the capital structure is extremely important, since it can affect not only profits, but also survival in a recession or depression.

Consequences of financial leverage

Although manufacturing firms in Uzbekistan have two main components of capital, there is a risk of over-reliance on one particular external debt. In cases where financial leverage is not used properly and the continuity of the firm is unclear, borrowing can lead to the collapse of the firm for the following reasons:

1. Financial difficulties

Financial difficulties can take a business by surprise, and for a heavily indebted firm, it can ruin a business. Thus, it is dangerous for a firm to depend so heavily on debt financing.

2. Threats of bankruptcy

Bankruptcy is defined as the forced management of the property of an insolvent "person" by the court in the interests of its creditors. Threats of bankruptcy signify the potential inability of the firm to meet its external obligations. If a firm is facing bankruptcy and heavily indebted, the firm can easily be bankrupted and forced out of business.

3. Problem of solvency

Solvency describes the firm's ability to meet its financial obligations in both the long and short term. In fact, it depends on the income streams flowing into the firm, which can be influenced by many factors outside the firm's direct control. When a firm is suddenly affected by a factor that reduces its revenue inflow, the firm becomes unable to meet its projected financial obligations. Hence, it is always advised to use external finance with caution.

4. Default risk

This describes the potential inability of the firm to repay loans received. This may be due to many factors, such as economic fluctuations, unstable political conditions, and changes in public policy that prevent the firm from extracting the expected benefits from loans received.

Conclusions

This article analyzes the potential terms and determinants of capital and its structure. This article also argues that for manufacturing firms, factors such as corruption, the nature of financial markets, and the political environment can also be major determinants of capital and capital structure in Uzbekistan. In addition, the article also suggests that for firms with a large proportion of their capital structure made up of external debt, their inability to repay on time may be hampered by factors such as financial difficulties, the threat of bankruptcy, default risk, and solvency problems. This suggests that management should seek to determine the best combination of debt and equity that maximizes the firm's profits, because only then will shareholder wealth be maximized. It is clear that the capital structure is an important management decision as it strongly influences the return on equity of the owner, the risks of the owner, as well as the market value of the shares. Therefore, the management of the company is obliged to develop an appropriate capital structure. At the same time, all factors relevant to the decision on the capital of the company must be properly analyzed and balanced.

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