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USE MODEL, OJ (OHISON AND JUETTNER-NAUROTH) TO ESTIMATE THE COST OF UNDERLYING CAPITAL AND ENHANCE PREDICTABILITY IN ACCOUNTING INFORMATION

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Keywords: cost of capital, implicit cost, Ohison and Juettner-Nauroth, OJ, predictive power of accounting information

ABSTRACT

The research aims to estimate the cost of capital implied by using (Ohison and Juettner-Nauroth, OJ) model, which is based on actual data of a group of banks whose shares that are listed on the Iraq Stock Exchange .In view of a set of banking-related factors, which previous foreign studies have proven their ability to influence the implicit cost of capital, and enhancing the predictive power of accounting information, and introducing the concept of legal cost and cost of capital. The research was based on the premise that the use of the (OJ) model contributes to determining the implicit cost of capital through which it can enhance the predictive power of accounting information. In order to examine the model for estimating the implicit cost of capital, the Iraq Stock Exchange was chosen as the research sample, where (10) banks have been selected for a period of (11) years from 2006 to 2016, and the model was tested in terms of the extent of the model's ability to enhance predictive power. For the accounting information, as the results of the study proved that it is possible to apply the methods of calculating the cost of capital implicit in the Iraq Stock Exchange and the (OJ) model which used one of the models that have the ability to measure the implicit cost of capital and enhance the predictive power of accounting information in the Iraqi market, the market will achieve a qualitative leap between global markets in the event that the implicit capital cost index is added to the Iraqi Stock Exchange.

Key words: - (cost of capital, implicit cost, (Ohison and Juettner-Nauroth, OJ, predictive power of accounting information)

Introduction

The implicit capital costs arise when other investment opportunities are available concerned funds in addition to the current investment opportunity in competition for money, borrowers must pay as much as the equal investment opportunity in risk available to the lender. Thus, the implicit costs of capital are opportunity costs: rates of return on other investments available to the company or investor in addition to those currently being considered (2011: 67, Porras).

The same applies to the cost of shares, which can be defined as the expected return on the common stock of the company in the capital markets, which represents the compensation that shareholders request to provide capital and bear the risk of waiting for this return. This means that the cost of equity reflects the opportunity cost of investing in the company's shares versus other potential investments with similar risks, since this return is uncertain the cost of equity includes a premium over equity risk -It is the additional bonus resulting from holding risky securities rather than collateral(eg. a financial instrument) risk-free(Witmer & Zorn, 2007: 1).

The use of implicit cost of capital is a very beneficial innovation that may generate insights unavailable to traditional asset pricing tests. It is also a very useful tool that should be exploited in capital market studies (Hughes et al, 2009, p 257).

The implicit cost of capital has been used widely in forecasting returns in accounting and finance research because it depends on future projections as it has a high ability to predict future market returns along with implicit cost evaluation indicators such as the ratio of equity to market value and book value to Market value, beta, volume and other valuation indicators (Li, et al., 2013: 12). Hou and others are of the opinion that the implicit cost of capital capacity based on estimation models has greater ability and reliability to predict market returns than those based on analysts 'expectations, and they proved this in their study that compared profit forecasts according to the implicit cost of capital estimation models with analysts' expectations in the US market ((Hou, et al, 2012:523).

The importance of this study has emerged in that it is an applied accounting research that seeks to determine the fair value of the shares of the sample companies and the evaluation of the current and new available investment opportunities by supporting the proper dealing and trading of shares in the market in a way that enhances its efficiency and activates the movement of shares circulation and the volume of trading in it.

The study showed that the implicit cost of capital is one of the main focal points in the success of the company at the present time.

As the company that seeks to calculate the implicit cost of its capital will be able to estimate the expected return on investment in the future . This leads to them gaining a competitive advantage that distinguishes them from other companies in attracting investors and lenders, which makes them avoid intense competition and maximize their own strengths.

In order to achieve the objectives of the study and prove its hypotheses, the study was divided into five parts, between the first part, the introduction to the study, the presentation of the second part, the methodology of the study, the third dealt with the theoretical framework of the study, the fourth presented the practical framework of the study, and the fifth to the conclusion of the study.

Study methodology

The implicit cost of capital is one of the main issues in the accounting and finance literature that is concerned with making decisions and selecting optimal strategies for investing funds and capital structure to enhance the overall value of the economic unit, and as a result, the research problem centers on the lack of interest in estimating the cost of capital implicit in the Iraqi market for securities for the banking sector as a basis for evaluating investment alternatives, and take the appropriate decision or use mathematical models in this area by the users both market management is reflected in the weakness of the accounting information's ability to predict the future, and according to this basis, the following two questions can be asked: -

A- Is an efficient model used to estimate the implied cost of capital in the Iraq Stock Exchange?

B- How can Ohison and Juettner-Nauroth (OJ) model {enhance the predictive power of accounting information?

The study was based on the hypothesis that the use of the model (OJ), Ohison and Juettner-Nauroth contributes to determining the cost of capital, through which it can enhance the predictive power of accounting information.

The study relied on both deductive and inductive approaches in collecting and analyzing the study data and on the financial data published in the Iraq Stock Exchange for the banking sector and for the years (2006-2016)

The study population is represented by a sample of the banks whose shares are listed in the Iraq Stock Exchange, totaling (10) banks until the end of (2016).

Theoretical framework of the study

Cost of capital

The cost of capital is essentially, for a variety of decisions for companies, from determining the return on investment projects, to making appropriate decisions, to influencing the composition of the company's capital structure, and affecting the company's operations, and its subsequent profitability (Easley&O'Hara,2004:1553) can define the cost of anything, as the price one has to pay, to get that thing, the cost of capital is the return that the company must prepare. In order to obtain capital from the market, either debt or equity (Leuz & Verrecchia, 2005:1). The company does not set its own capital cost; (However, meeting this cost is the only basic criterion for the financial market to determine whether the company's performance is appropriate or not, most of the information to estimate the cost of capital, for any company, securities or project, comes from the investment markets and the cost of capital is always a projected (or forward-looking) return, and therefore, analysts and potential investors never notice it. (Roger and Grabowskl,2008:3) The cost of capital is a measure of the returns required, by the capital providers, and its main use as a profit

target instrument, which must be achieved on the company's assets, in order to satisfy shareholders and bonds (Exley and Smith, 2006:229).

The refore, the cost of the various sources of financing in the institution must be determined, as well as the cost of capital required to be estimated by calculating the weighted average cost of capital, in order to obtain the final financing cost (2009,P:151, Khemici Chiha). The cost of capital is related to the goal of increasing the wealth of shareholders, i.e. companies will accept only investment projects, which promise a higher rate of return, and reject projects with a lower rate of return, and therefore arise from the acceptance of the project, whose expected profit ability is higher than the minimum required, by investors, an increase in the market value of the stock, and thus an increase in the wealth of shareholders. On the contrary, shareholder wealth will decline, with the acceptance of projects, which offer a lower rate of return than the cost of capital (Djibrilla , 2015,p:64). The cost of capital is the cornerstone of financial theory, being the basis of any financial analysis.

(Leuz and Veerecchia,2005: 1),was defined , as "the cost of capital, as the rate of return in which market participants participate, discounting the company's future cash flows."

Lambert and others identified the cost of capital as the expected return on the share of the economic unit " (Lambert et al,2007,p:1), and Eva R. Porras defined it as the rate of return required by the market, in order to allocate capital for investment, and therefore the cost of capital is linked to the risk of the investment project" (Porras,2011:1) .

The researchers defined the cost of capital as "the rate of return that investors demand to invest in shares in the company, This represents the opportunity costs that could have been made from alternative investments, at a similar level of risk. As investment looks to the future, the cost of capital represents investors' expectations, about (the previous return), rather than the historically realized returns of a particular project. The projected returns reflect expected inflation, the time value of funds and risk compensation for a particular investment.

Implicit cost

Pastor and others have defined the implied cost of equity, "as the discount rate equal to the current value, to expectant future dividends for the current share price" (Pastor, et. al.al.,2006,p:7). The implied capital cost of a particular asset can also be defined as a discount rate (or internal rate of return) equal to the market value of the asset, to date the expected future cash flow value (Lee & et al). , 2010, p3) . The researchers (Kitagawa and Gotoh) had another opinion on the definition of the implicit cost of capital, which they defined as "the cost needed to consolidate the company's shareholders' equity (from the company's point of view) and the expected returns on capital investment (from the shareholders' point of view). (Kitagawa and Gotoh,2011, 72).

The implied cost of equity is also known as the internal rate of return that is equivalent to the company's share price at the present value of expected future cash flows. The underlying capital cost of a particular company is "the internal rate of

return that is equivalent to the company's share price in the present value of expected future cash flows (usually measured by analysts' earnings forecasts). In other words, it is the discount rate that the market uses to deduct the company's expected cash flow." (Hou. & Zhang,2012,506).

The researchers believe that the importance of the implicit cost of capital lies in rationalizing management decisions, the main duty of managers is to maximize the value of the company to its owners, meaning that they must look for a structure that reduces the total cost of financial resources. Wealth is maximized because the valuation of the future cash flows of a company or shareholder requires the deduction of those cash flows, and the smaller the divider, the greater the present value. In addition, the wealth maximization standard meets the goal of ignoring individual preferences, where shareholders can adjust their income flows according to their consumption options.

Model (Ohison and Juettner-Nauroth,2005)," OJ" The expected

distributions for next year are calculated according to the following equation

OJ model, earnings per share, and earnings growth per share, as shown in Ohlson and Juettner-Nauroth (2005). Similar to MPEG, the OJ model can be described, as an abnormal profit growth model.

Use the following OJ adaptation: (Gode and Mohanram 2003: 403)

$$r_1 = A + \sqrt{A^2 + \frac{eps_{t+1}}{p_t}\left[\frac{(eps_{t+2} - eps_{t+1})}{eps_{t+1}} - (Y-1)\right]}$$

Where:- $A = \frac{1}{2}\left[Y - 1 + \frac{dps_{t+1}}{p_t}\right]$

Variable	Clarification
r_1	The implicit cost of capital
eps_{t+2}	Earnings per share at t+2 time
eps_{t+1}	Earnings per share at the time t+1
$(Y-1)$	Risk-free interest rate
p_t	Share price at t time
A	$A = \frac{1}{2}\left[Y - 1 + \frac{dps_{t+1}}{p_t}\right]$
dps_{t+1}	Dividends at t+1 time The expected distributions for next year are calculated according to the following equation $D1 = D0(1+ g)$

Predictability of accounting information

The prediction can be expressed in general, as a set of actions, subjective methods, and objectivity, which are designed primarily for the purpose of predicting possible future events, and knowing the results that will be achieved, hence, can be predicting the great role, by helping to provide the necessary results, on which the evaluation process is carried out, and making appropriate decisions, and in a way that reduces the possibility of deviation, between what is actual and expected (Bear & Curly Curly) , 1979: 275) . The provision of appropriate information, one of the general objectives of accounting, can be used in the process of predicting events, related to companies .

Forecasting is a term for anticipated future events, in order to determine their value for planning purposes (Davis & Boczko, 2005:742), many decisions made by investors, lenders and other creditors are based on implicit or explicit predictions about the amount and timing of return on equity investment, loans, or other credit instruments. Thus, the information, is able to make a difference in one of those decisions only, if it will help users make new predictions, confirm or correct previous predictions, or both (the definition of predictive or confirmed value).

Predictability is one of the determinants of the appropriateness of accounting profit information, which users need, which has given the order to the financial markets, because investment decisions are based on investors' expectations, as well as their perceptions of the future performance of the facility (Anandarajan and Hasan 2010:270). (Yusuf, 2012) stressed that the importance of predictability lies in determining the appropriate decision, as investment decisions are based on investors' expectations and perceptions, for the future performance of the enterprise, so predictability is one of the most important determinants of accounting profit information, for the needs of users in the financial market, as there are many other parties, such as financial analysts, relying on forecasting future profits, on the figures of financial statements, and specifically accounting earnings accounting profits. (Yusuf, 2012: 233).

It can be said that future cash flows are a measure of the appropriateness of information.Accounting, in order to measure profitability, and help investors to take it, as a basis for building their investment expectations, the conceptual framework for financial reporting has indicated information, which is characterized by predictive value, if it can be used to predict future results , (Yusuf and Samiya, 2017:20), and the information that enables its users to anticipate, estimate the future, and form a picture of the possibility of it. It is predictive, it is useful information that enables the user to make predictions, about future results, and based on that, the researchers in accounting accounting profit information discuss the appropriateness of accounting profit information, in forecasting future cash flows (Venkatachalam and Subramanyam, 2007: 462). And help them to predict honestly, as predictive information, contributes to the preparation of plans and future policy making (Attar and others, 2018: 147).

As the accounting information convenience, has a retrospective value, through which it can change, or correct current or future expectations, and help the user of information to assess the validity of his previous expectations, and this property is no

less important than the characteristic of the predictive value of the information, and therefore the information is used to evaluate the results of decisions based on these expectations, (Mahdi and Bashar, 2018: 373), thus began research operations at the international level. Its focus is on examining the ability of accounting information to predict and analyze future cash flows, as the role of the valuation of future cash flows of the enterprise is one of the most important issues in the pricing of securities, because of the ability of the enterprise to generate future cash flows affecting the value of its securities (Malacrida et.al.2010, 562).

The concept and predictive capacity of accounting information is derived from investment valuation models, expressed by the FINANCIAL ACCOUNTing BOARD (FASB) in statement No. (02) of 1980 as follows, "Is the information feature in helping users, increasing the likelihood of correcting predictions of past events, or present events" (Western, 2015:31). The most important objective of capital cost calculation is to predict future profits, and because of the adoption of traditional models , (the capital asset valuation model and the model of three factors) on the historical cost, the underlying capital cost models have prevailed in this area, as they depend on the expectations of future analysts. Besides, the historical cost of equities is not required to assess the future and investment opportunities, but the expected cost outweighs in this area, (Tischenko,2007:38). Accounting information affects the cost of capital, information affects the required returns, and therefore the cost of capital, because investors familiar with the private sector, are more able to benefit from renewable information, while uninformed investors face some form of information methodology, requiring returns on the impact of the required returns, both through the amount of private information and the accuracy of public and private information, accurate accounting information plays an important role in reducing the cost of capital by reducing the methodology (based on information) for uninformed investors (information-based) equities (Francis et al,2004:300).

The practical side

Estimate the implied cost of corporate capital, research sample, oj model. The applied aspect of the research, based on the financial reports published, on the Iraqi stock market, for the Iraqi banking sector, it is worth noting, that all reports are devoid of reference, the cost of capital implicit, as well as the reports of the Central Bank, as they were used in determining interest rates free of risk, and was based on the model (Ohison and Juettner-Nauroth ,2005) to measure the cost of the underlying capital and as in the equation following:-

$$r_1 = A + \sqrt{A^2 + \frac{eps_{t+1}}{p_t}\left[\frac{(eps_{t+2} - eps_{t+1})}{eps_{t+1}} - (Y-1)\right]}$$

Where $A = \frac{1}{2}\left[Y - 1 + \frac{dps_{t+1}}{p_t}\right]$

Variable	Clarification
r_1	The implicit cost of capital

eps_{t+2}	Earnings per share at t+2 time
eps_{t+1}	Earnings per share at the time t+1
$(Y-1)$	Risk-free interest rate
p_t	Share price at t time
A	$A = \frac{1}{2}\left[Y - 1 + \frac{dps_{t+1}}{p_t}\right]$
dps_{t+1}	Dividends at t+1 time The expected distributions for next year are calculated according to the following equation $D1 = D0(1+ g)$

The implicit cost of the capital of the research sample companies is calculated using the OJ model according to the following tables:-

Table No. (1) the implicit cost of the North Bank capital, the research sample calculated according to the OJ form

The bank	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
North											
A	0.08	0.105	0.087	0.085	0.032	0.036	0.026	0.027	0.025	0.024	0.049
A^2	0.006	0.011	0.008	0.007	0.001	0.001	0.001	0.001	0.001	0.001	0.001
epst+1	0.227	0.127	0.13	0.157	0.19	0.21	0.24	0.207	0.161	0.071	0.116
epst+2	0.343	0.252	0.275	0.317	0.405	0.435	0.475	0.417	0.267	0.102	0.184
Pt	1	3.85	2.8	2	2	2.01	2.54	2.07	1.05	0.26	0.655
(y-1)	0.16	0.21	0.174	0.078	0.064	0.071	0.051	0.053	0.05	0.047	0.048
Rt	0.373	0.296	0.313	0.37	0.352	0.361	0.323	0.338	0.331	0.351	0.341

Table No. (2) the implicit cost of the capital of Al-Mansour Bank, the research sample calculated according to the OJ form

The bank	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016

Al-Mansour											
A	0.080	0.105	0.087	0.039	0.032	0.089	0.026	0.061	0.089	0.089	0.081
A^2	0.006	0.011	0.008	0.002	0.001	0.008	0.001	0.004	0.008	0.008	0.007
epst+1	0.020	0.067	0.131	0.135	0.101	0.062	0.059	0.076	0.072	0.082	0.077
epst+2	0.044	0.166	0.305	0.262	0.154	0.126	0.123	0.151	0.156	0.156	0.149
Pt	1.350	1.350	1.300	1.300	1.400	1.290	1.230	1.740	0.840	0.870	0.855
(y-1)	0.160	0.210	0.174	0.078	0.064	0.071	0.051	0.053	0.050	0.047	0.048
Rt	0.228	0.378	0.438	0.340	0.218	0.322	0.250	0.271	0.411	0.385	0.098

Table No. (3) the implicit cost of the investment bank's capital, the research sample calculated according to the OJ model

The bank	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
investment											
A	0.080	0.105	0.087	0.039	0.032	0.036	0.026	0.135	0.122	0.115	0.118
A^2	0.006	0.011	0.008	0.002	0.001	0.001	0.001	0.018	0.015	0.013	0.014
epst+1	0.122	0.155	0.163	0.193	0.142	0.103	0.078	0.096	0.101	0.120	0.11
epst+2	0.217	0.292	0.408	0.347	0.247	0.213	0.135	0.189	0.246	0.213	0.229
Pt	1.300	1.300	1.050	1.600	1.240	0.950	1.010	0.970	1.000	0.680	0.84
(y-1)	0.160	0.210	0.174	0.078	0.064	0.071	0.051	0.053	0.050	0.047	0.048
Rt	0.335	0.407	0.549	0.336	0.312	0.365	0.256	0.465	0.515	0.492	0.503

Table No. (4) the implicit cost of the capital of Babylon Bank, the research sample calculated according to the OJ model

The bank	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Babylon											
A	0.080	0.232	0.087	0.039	0.032	0.036	0.026	0.027	0.025	0.024	0.024
A^2	0.006	0.054	0.008	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
epst+1	0.064	0.099	0.140	0.131	0.116	0.070	0.062	0.041	0.034	0.022	0.28
epst+2	0.146	0.217	0.300	0.260	0.197	0.139	0.111	0.078	0.059	0.043	0.051
Pt	1.000	1.250	1.150	1.750	0.870	0.810	0.780	0.700	0.390	0.290	0.34
(y-1)	0.160	0.210	0.174	0.078	0.064	0.071	0.051	0.053	0.050	0.047	0.048
Rt	0.359	0.594	0.441	0.302	0.325	0.318	0.269	0.251	0.273	0.287	0.28

Table No. (5) the implicit cost of the capital of the credit bank, the research sample calculated according to the OJ form

The bank	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Credit											
A	0.080	0.105	0.100	0.039	0.032	0.036	0.026	0.027	0.025	0.024	0.0245
A^2	0.006	0.011	0.010	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
epst+1	0.386	0.374	0.373	0.240	0.140	0.109	0.155	0.154	0.120	0.060	0.09
epst+2	0.758	0.809	0.688	0.410	0.225	0.228	0.348	0.307	0.186	0.112	0.149
Pt	10.500	3.600	2.850	3.400	2.450	3.600	2.350	2.410	1.050	0.590	0.82
(y-1)	0.160	0.210	0.174	0.078	0.064	0.071	0.051	0.053	0.050	0.047	0.0485
Rt	0.269	0.437	0.412	0.254	0.211	0.214	0.307	0.273	0.264	0.313	0.2885

Table No. (6) the implicit cost of the capital of the Gulf Bank, the research sample calculated according to the OJ form

The bank	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gulf											
A	0.080	0.087	0.087	0.039	0.032	0.036	0.026	0.027	0.132	0.024	0.078
A^2	0.006	0.008	0.008	0.002	0.001	0.001	0.001	0.001	0.018	0.001	0.0095
epst+1	0.372	0.258	0.258	0.275	0.240	0.126	0.173	0.200	0.203	0.114	0.1585
epst+2	0.489	0.591	0.591	0.581	0.374	0.235	0.378	0.445	0.358	0.191	0.2745
Pt	1.350	1.450	1.450	1.800	0.900	1.010	1.090	1.150	0.900	0.510	0.705
(y-1)	0.160	0.174	0.174	0.078	0.064	0.071	0.051	0.053	0.050	0.047	0.0485
Rt	0.302	0.541	0.541	0.439	0.397	0.352	0.451	0.479	0.555	0.398	0.4765

Table No. (7) the implicit cost of the capital of the Union Bank, the research sample calculated according to the OJ form

Table No. (8) the implicit cost of the capital of the National Bank of the research sample

The bank	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
the Union											
A	0.080	0.105	0.087	0.131	0.032	0.239	0.059	0.027	0.025	0.024	0.024
A^2	0.006	0.011	0.008	0.017	0.001	0.057	0.003	0.001	0.001	0.001	0.001
epst+1	0.013	0.037	0.056	0.061	0.086	0.089	0.130	0.175	0.173	0.113	0.143
epst+2	0.033	0.092	0.119	0.118	0.187	0.194	0.251	0.406	0.343	0.142	0.242
Pt	1.000	1.000	0.650	1.050	0.900	1.050	1.030	1.350	0.930	0.690	0.81
(y-1)	0.160	0.210	0.174	0.078	0.064	0.071	0.051	0.053	0.050	0.047	0.048
Rt	0.236	0.346	0.387	0.388	0.359	0.628	0.398	0.433	0.442	0.208	0.325

calculated according to the OJ form

The bank	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Al-Ahly											
A	0.080	0.105	0.087	0.039	0.032	0.036	0.026	0.085	0.043	0.024	0.033
A^2	0.006	0.011	0.008	0.002	0.001	0.001	0.001	0.007	0.002	0.001	0.001
epst+1	0.164	0.041	0.063	0.067	0.053	0.017	0.063	0.087	0.090	0.043	0.066
epst+2	0.196	0.071	0.158	0.137	0.068	0.037	0.148	0.207	0.150	0.063	0.106
Pt	1.050	1.050	0.900	0.870	0.810	0.850	0.840	0.820	0.900	0.550	0.725
(y-1)	0.160	0.210	0.174	0.078	0.064	0.071	0.051	0.053	0.050	0.047	0.048
Rt	0.187	0.282	0.404	0.315	0.156	0.188	0.339	0.469	0.295	0.206	0.250

Table No. (9) the implicit cost of the capital of the United Bank, the research sample calculated according to the OJ model

The bank	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
The united											
A	0.080	0.105	0.087	0.039	0.032	0.036	0.026	0.098	0.048	0.024	0.036
A^2	0.006	0.011	0.008	0.002	0.001	0.001	0.001	0.010	0.002	0.001	0.001
epst+1	0.192	0.158	0.015	0.061	0.120	0.193	0.217	0.177	0.127	0.079	0.103
epst+2	0.407	0.180	0.037	0.131	0.300	0.413	0.432	0.332	0.213	0.148	0.180
Pt	2.000	2.000	1.850	1.850	1.760	2.690	1.840	1.180	0.710	0.370	0.54
(y-1)	0.160	0.210	0.174	0.078	0.064	0.071	0.051	0.053	0.050	0.047	0.048
Rt	0.394	0.179	0.221	0.231	0.347	0.315	0.359	0.463	0.387	0.444	0.415

Table No. (10) the implicit cost of the commercial bank's capital, the research sample calculated according to the OJ form

The bank	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Commercial											
A	0.080	0.105	0.087	0.039	0.075	0.058	0.026	0.069	0.066	0.024	0.045
A^2	0.006	0.011	0.008	0.002	0.006	0.003	0.001	0.005	0.004	0.001	0.025
epst+1	0.058	0.025	0.027	0.040	0.103	0.117	0.140	0.087	0.076	0.042	0.059
epst+2	0.080	0.050	0.057	0.085	0.243	0.262	0.240	0.182	0.124	0.075	0.099
Pt	1.300	1.350	1.150	1.450	1.390	1.270	1.270	0.920	0.660	0.410	0.535
(y-1)	0.160	0.210	0.174	0.078	0.064	0.071	0.051	0.053	0.050	0.047	0.048
Rt	0.207	0.265	0.259	0.213	0.393	0.391	0.297	0.390	0.334	0.300	0.317

Measuring the predictive power of accounting information before taking the implicit cost of capital into consideration

This will be done according to the following regression equation: $X_{it+1} = B_0 + B_1 X_{it} + \partial_{it}$

Whereas:-

X_{it}=Earnings per share for the current period.

X_{it+1}=Earning per share for the subsequent period

The predictive value of profits is measured, depending on the standard deviation of the estimation error, as the higher the value of the deviation indicates a decrease in the predictive power of profits, or in other words, the lower the standard deviation of the estimation error, this indicates a higher predictive value of the accounting information (accuracy of predictive value).

The following table shows the results of measuring the predictive value of the sample banks using the above regression equation:-

Table No. (11) measuring the predictive value

name bank	Standard deviation of estimation error (accuracy of predictive value(	Ranking in terms of predictive power
the Union	**0.0492**	**9**
Investment	**0.0346**	**6**
Al-Ahly	**0.0276**	**3**
Credit	**0.0730**	**14**
Commercial	**0.0321**	**5**
Gulf	**0.0821**	**16**
North	**0.0424**	**8**
The united	**0.0831**	**17**
Mansour	**0.0773**	**15**
Babylon	**0.0265**	**2**

The average standard deviation of the estimation error, which measures the predictive value of the information, was 0.048, and the above results showed that Sumer Bank has the highest predictive value for the information. Accounting, while the lowest bank in terms of predictive power is the United Bank.

Measuring and predicting accounting information before taking the implicit cost of capital into consideration

This will be done according to the following regression equation:

$$X_{it+1} = B_0 + B_1 X_{it} + PEG_{it} + \partial_{it}$$

whereas-:

X_{it}=Earnings per share for the current period

X_{it+1}=Earnings per share for the subsequent period

PEG_{it} =The implicit cost of capital calculated according to the PEG model

The following table shows the results of measuring the comparative predictive value before and after taking the implicit cost into consideration and the amount of enhancement in the predictive value resulting from the reflection of the implicit cost of capital:-

Table No. (12) Enhancement in the predictive value as a result of the implicit cost of capital

name bank	Standard deviation of estimation error before implicit cost (accuracy of predictive value)	Standard deviation of estimation error after implicit cost (predictive value accuracy)	The percentage of reinforcement in accuracy the value Predictive
the Union	0.0492	0.0271	0.4495
Investment	0.0346	0.0333	0.0397
Al-Ahly	0.0276	0.0250	0.0957
Credit	0.0730	0.0524	0.2823
Commercial	0.0321	0.0290	0.0969
Gulf	0.0821	0.0749	0.0880
North	0.0424	0.0446	-0.0526
The united	0.0831	0.0859	-0.0338
Mansour	0.0773	0.0332	0.5700
Babylon	0.0265	0.0258	0.0256
the average	0.5279	0.4312	1.5613

The above results indicate that taking the implicit cost of capital would enhance the accuracy of the predictive value of the accounting information, as the rate (average) improvement in the accuracy of the predictive value of all the bank of the study sample was about 15.613%, and the improvement rate for the top three banks, Al Mansour Bank, reached 57 %, Union Bank 44.95%, Trust Bank 28.23% Based on the results above, the research hypothesis is accepted, which states: “The use of (Ohison and Juettner-Nauroth, OJ) model contributes to determining the cost of capital, through which it can enhance the predictive power of the information. Accounting. "

Conclusion

The implicit cost of capital is one of the main points of focus in the success of the company at the present time, as the company that seeks to calculate the implicit cost of its capital is able to estimate the expected return on investment in the future, and this leads to its gaining a competitive advantage that distinguishes it from other companies In attracting investors and lenders, which makes them avoid intense competition, and maximize their own strengths. Using models for estimating the implicit capital cost, will help company managers to know the cost of capital, in order to evaluate new and existing investment projects, where the cost of capital is used. As a discount rate to arrive at the present value of the expected future cash flows for existing or new projects. Forecasting also helps in measuring the future value of the stockThus, the expected value of the company's profits in the future, and this also

affects the rationalization of investor decisions, because the increase in the company's profits is a reflection of the increase in the value of its shares, while the decline in the value of the share indicates the decline in the company's profits. The study also showed that the models for estimating the implicit cost of capital are applicable in the Iraqi market for securities, and these models have a clear effect in enhancing the predictive power of accounting information in a positive manner, and thus the possibility of predicting future profits more accurately, which is reflected in the decisions of management, investors and analysts. Both. Finally, the study, established in the Iraq Stock Exchange, concluded that the market lacked the use of mathematical models for the purpose of calculating the cost of capital, and thus not applying any of the study models for the purpose of calculating the cost of capital in this market, as well as not including this cost in order to measure the forecast.

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