# Stock Assessment using a Cash Equivalent Based on Sourcing Management 

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#### Abstract

The current research aims to use the Merrett and Newbould stock equivalent cash model which was developed 1982 to evaluate the shares of listed companies in the stock market. It developed based on the source management by measuring the real value of the shares and using the equivalent cashshare model of the EPS per share instead of the profit dividend for one side that is taking the retained earnings into consideration. The data analysis relied on a set of statistical methods to achieve its objectives and test the validity of its hypotheses, including the standard deviation, the simple linear regression model, the selection coefficient (R2) and T-test for testing research hypotheses. Data have been analysed to extract results using the statistical software called SPSS program, while the Iraq Stock Exchange was selected as a population of the study, and the banking sector was selected as a research sample because it is the most active as compare to other sectors during the period of study (2014-2017) according to the data published in the directory of the Iraqi stock exchange. The present research reached a number of conclusions, and concluded that it is not possible to apply the equivalent monetary model in the Iraqi financial market, and this is what the real values of the shares calculated according to the model used for current study.


Keywords - Cash equivalent of the share, Real value of the share, desired rate of return, Source management, Beta coefficient.

## 1. Introduction

Financial market dealers and portfolio managers are interested in the market values of equities because they include an important part of the dividend earned by the customer in the form of capital gains, which may take greater interest than the profit dividend of the shares because their value often exceeds the profit dividend for those shares. Therefore, researchers are always interested in the market value of equities as well as the internal and external factors that affect them. Moreover, the stock markets are also a source of information that enables investors to identify the investment opportunities available to employ their surplus
funds. Subsequently, the regular shares are considered to be the most suitable tools that are exchanged for sale and purchase in stock markets, but these shares may not be valued in real terms, especially in the absence of efficient markets. Therefore, it do not reflect the real conditions of the companies listed in stock market immediately, which makes investors and shareholders not to trust in the stock Markets, which reduces the funds invested in them, in light of aforementioned discussion, this research will try analyze one of the real value measurement models of the stock shares, which is the equivalent cash-share model in which the earnings per share of ESP instead of the profit dividend per share, i.e. that took the retained earnings in consideration. In addition to the profit dividend in order to provide accurate measurements in the scientific analysis of the investment in provided through the model.

The stock market is one of the most important economic pillars in achieving economic development, and it represents the link through which the savings of individuals and the performance of economic strategies to be employed in the enhancement of goods and services and the economic and financial benefits. The success of the stock markets is based on the efficiency of the overall economic conditions. In terms of the accuracy of the information available to the investor, the companies and the state at the same time for provision of well-informed economic decisions.

The stock market in its information system feeds on the availability of economic information about companies in order to assist the investor in making the equity investment decisions. Stock make also plays an important role in reducing the limited resources between various investment projects. It also play important role in distributing securities among investors after processing with mathematical and statistical models to measure the risks of securities management and to evaluate the real prices of shares.

The rest of the paper is organized as, the next section will provide outlines about the research methodology used of the present study along with the research problem, research objectives followed by research hypothesis for the study are presented. Section four of the paper provides the mathematical and statistical models adopted for the present paper. Subsequent section share the details on the research community and sample for the investigation. Succeeding section provides the theoretical foundation of the study and last section concludes the paper

## 2. Research methodology

### 2.2. Research problem

The stock market in Iraq is confronted with its inability to determine the true value of ordinary shares due its weak efficiency, and therefore cannot reflect the financial information when it becomes available the value of the shares of the listed companies, thereby reducing investor confidence. The present study will try to explore the below mentioned research problems.
A. Can a monetary model of sourcing management be applied to measure the true value of the ordinary shares of banks listed in the Iraqi stock exchange?
B. Does the cash equivalents form contribute to the interpretation of the true value of the ordinary shares of banks listed in the Iraqi stock exchange?

## 3. Research objectives

The present research aims to achieve the following objectives;

- Presentation of the equivalent monetary model and analysis of the theoretical and mathematical factors of the models and its relationship to the model of traditional cash distribution.
- Testing the equivalent cash model in the Iraqi investment environment applied in the Iraq Stock Exchange.
- Estimate the real value of the shares of the company's research sample using the cash model of the stock.
- Determination of the relationship between market value and real value using the equivalent cash model.
- Interpret the real value of the bank shares of the lookup sample by comparing the value of the model.


## 4. research hypotheses

The present study will try to test the below mentioned hypothesis.

H1: "The application of the cash equivalent model form contributes to the interpretation of the true value of the ordinary shares of banks listed in the Iraq Stock Exchange."

## 5. Methods used in the study:

The cash equivalent of the share (traditional model) will be used for the assessment of the stocks, it is calculated through the following:

As the
$\mathrm{P}=\frac{\mathrm{CEPS} \mathrm{t}+1}{\mathrm{~K}+\mathrm{g} \text { CEPS }}$
$\mathrm{P}=$ Real value of the share.
CEPS $\mathrm{T}+1=$ Cash equivalent of the expected single share
$\mathrm{K}=$ Rate of return required, calculated according to the asset pricing model of capitalism
$\mathrm{K}=\mathrm{RF}+\mathrm{Bi}$ (Rm-Rf)
As the $\mathrm{P}=$ Real value of the share.
CEPS $\mathrm{T}+1=$ Cash equivalent of the expected single share; $K=$ Rate of return required, calculated according to the asset pricing model of capitalism $\mathrm{K}=\mathrm{RF}+\mathrm{Bi}(\mathrm{Rm}-\mathrm{Rf})$.
As; $\mathrm{Rf}=$ Risk free rate of return calculated through the rate of interest on government deposits for the same period of research which is (6\%).
$\mathrm{Bi}=$ Beta coefficient and calculated according to the following
$\mathrm{R} m=$ is the yield coefficient for the market portfolio and is calculated as follows:

## $\sum \mathrm{RJ} * \mathrm{Rm} / \mathrm{n}$

$\mathrm{RJ}=$ Total monthly revenue for companies during study
$\mathrm{n}=$ Number of Companies
$\mathrm{Ri}=$ Returns of the company I the monthly return, calculated according to the following equation:
Dit + Pit - Pio $) /$ Pio $=($ Rig $=$ Growth rate in the cash equivalent of the share, and $G$ is calculated according to the following formulas


### 5.1. Statistical methods

Present research study relied on a set of statistical methods for data analysis to achieve its objectives and test the validity of its hypotheses. The methods used, including standard deviation methods, the simple linear regression model, the identification coefficient (2R) and the T test to examine hypotheses. The data was processed and analyzed using statistical program called SPSS.

## 6. Research community and sample

The Iraq Stock Exchange was selected as a research community, and the banking sector was selected as a research sample because it was the most active of other sectors during the period of study (20142017). According to the data published in the directory of the Iraqi stock exchange, and its financial accounts are also available for the years covered Research (2014-2017).

The following banks were included in the present study for data analysis:

1. Iraqi investment Bank
2. Bank of economy and Investment
3. Basrah International Investment Bank
4. Al-Ahli Bank of Iraq
5. Iraqi Credit Bank
6. Al Khaleej Commercial Bank
7. Al-Mosul Bank for Development \& Investment
8. Bank of Al-Shamal
9. Bank of Iraq
10. Bank of Baghdad
11. Bank of Babylon
12. Bank Middle East Investment Bank of Dar es Salaam
13. Warka Investment \& Finance Bank
14. Iraqi Federation for Investment Bank
15. Iraqi Commercial Bank
16. Iraqi Islamic Bank

The next section of the paper will be sharing the theoretical foundation for the present study along with the support from the previous studies conducted on the similar paradigms.

## 7. Theoretical aspect <br> 7.1. $\quad$ First: empirical studies

The concept of normal stock assessment process is to estimate the real value of the normal share value, and in real terms it is meant by the economic and financial aspects of the value of the company's assets. The expected profits, dividends, and the
growth rates of those profits are difficult to evaluate. The difficulty of the evaluation process comes from the volatility of stock prices. In the financial market that are subject to investors ' expectations regarding market activity and the company concerned, which is reflected in investment decisions [18].

Several studies have tested the real value of shares, including the Myers (1999) study, which tested four models for future profit forecasting and used the result of each model to estimate the real value of the share. The explanatory power of the real value of each model was tested with the explanatory power of both the book value and the profit value. It relied on non-accounting information available on the market and assumed that non-accounting information, production development. The economic information affect future profits and the nature of the information, and if the impact of this information on expected profits is isolated under the accounting information helps in measuring other information. The results showed that the explanatory power of the model was based on the real value established according to the model.

The [17] study explored on linking profits, dividend, and book value to the real value of the share, in order to reach the suitability of the model to explain changes in stock prices. The results of the study resulted in better financial information reflected in the real value of equities than other non-accounting information. Moreover, the analysis demonstrated the high explanatory power of the model based on the book value of the share. [17] model is one of the remaining income models to understand the relationship between the financial information and the value of the company.

The Weal (2004) study addressed the role of financial information for that information through the rapid response of stock prices by comparing earnings per share and the number of financial analysts covering any profit comparison per share. The present study classified the events of profits to three types of news are good, not good and nonexistent according to analysts expectations of profits. The study found that the rapid response to prices reflected as good news and the non-rapid response reflected as not good news.
[5] Aimed to determine the real value of the shares according to the cash flow deduction model. The formation of an investment portfolio through the ability of the model to identify the shares of the stock below their real value. The ability of the model to be tested between the shares of the lowest and highest value. The real model was applied to corporate data to be listed on the New York Stock

Exchange (1993-2002), and the study concluded that the cash flow deduction model was suitable for investment and that the lowest-valued portfolios achieved a higher return than the resident portfolios.

According to Cheng's (2005) study titled (How to determine the remaining profit the value of the company is a function of the book value of the right of ownership (invested capital) and the present value of the expected remaining income and according to the following formula:
$\mathrm{Vt}=\mathrm{Bvt}+\mathrm{Pv}(\mathrm{RI}) \mathrm{As}$;
$\mathrm{V}=$ company value for the period t
$\mathrm{BVT}=$ Book value of property right for the period t $\mathrm{Pv}(\mathrm{RI})=$ current value of residual income
The study found that the proposed model for evaluation was a preferred model for previous models but was mainstreamed in other environments.

### 7.2. Second: the cash equivalent of the share

Merrett \& Newbould introduced in 1982 a cash equivalent of the share that used the EPS instead of the profit dividend per share, taking the retained earnings into consideration. In addition to the profit dividend in order to provide accurate measurements in statistical analysis of investment or the retained earnings represent a source of lowcost funding compared to other sources of funding. Which is equivalent to the opportunity cost of investing those funds in other areas as well as not having a costing version. Their use increases the profitability of the capital and increases the return on per share, and provides a ready source of cash and calculates the real value of the share according to the equivalent per share cash model through the following formula [22].

$$
P_{0}=\frac{\text { CEPS }_{\mathrm{t}+1}}{\mathrm{~K}_{\mathrm{g} \mathrm{~g} \text { CEPS }}}
$$

As the; $\mathrm{P}=$ real value of the share CEPS $\mathrm{T}+1=$ cash equivalent to one share expected (represents profitability per share)
$\mathrm{K}=$ Rate of return required
G CEPS = growth rate in cash equivalent to one share

The use of the equivalent cash model is one of the primary method of the asset valuation that uses the concept of time value of money. All cash flows are deducted to determine their current value, and the model needs to estimate a number of variables to calculate the true value for the share. That is difficult to pinpoint especially when companies
manipulate their final accounts and audited numbers. This model does not fit short-term investments because it is based on long-term value analysis and therefore short-term investments do not achieve the expected profits [13].

Cash flows are deducted according to this model at a discount rate that represents the rate of return required, which is the confirmed rate. It does not carry any degree of non-verification, or is the amount that the investor requires for the systematic risk he expects as a result of his choice of this or that particular investment. T value or is the additional return on the risk-free rate of return versus sacrificing financial consumption.

The rate of return required is thus a function of the risk-free rate of return, risk premium and represents the risk-free return on Treasury bonds. The risk premium is the additional compensation required by the investor for the purchase of risk assets [9]. It is used for capital asset pricing model to calculate the rate of return required according to the requirement [21].
$r(K)=R t+\beta(R-R f)$
As the; $R(K)=$ rate of return required per share
$\mathrm{Rf}=$ risk-free rate of return
$\mathrm{R}-\mathrm{M}=$ Portfolio return rate
The rate of return on investment in ordinary equities in accordance with the capital asset pricing model is required to determine the risk-free rate of return. Moreover, the financial market risk premium and the regular stock (beta) risk factor and the risk-free rate of return is measured for the rate of return on government investments or rate of return on savings deposits [17].
The beta coefficient represents the common variation between the earnings of the normal share. The return of the market portfolio divided by the variance of the market portfolio return according to the following formula: [12].


COV (X1, Xm) $=$ Common variation of share revenue and market portfolio return
M 2 = Variance of market portfolio return
Xi $t=$ Normal share rate of return per year $t$
$\mathrm{X} M T=$ Market return rate per year

### 7.3. Third discourse/applied side

### 7.4. Analysis of cash equivalent to the expected single share of the research sample companies

Cash equivalent to a single share represents the expected cash flows for investment in a single share securities. Therefore, Table No. 1 refers to
the results of the cash account equivalent to the shares of the companies in the field of study:

Table 1. Single-share cash equivalent for company's research sample 2014-2017

| No. | Companies | $\mathbf{2 0 1 4}$ | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7}$ | Average | Standard <br> deviation |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | Iraqi investment Bank | 0.014 | 0.011 | 0.004 | 0.013 | 0.011 | 0.004 |
| 2 | Economy and Investment Bank | 0.004 | 0.402 | 0.113 | 0.244 | 0.191 | 0.149 |
| 3 | Basrah International Investment Bank | 0.012 | 0.013 | 0.008 | 0.011 | 0.011 | 0.002 |
| 4 | National Bank of Iraq | 0.012 | 0.003 | 0.012 | 0.006 | 0.008 | 0.004 |
| 5 | Iraqi Credit Bank | 0.236 | 0.486 | 0.35 | 0.731 | 0.451 | 0.184 |
| 6 | Gulf Commercial Bank | 2.145 | 0.026 | 0.035 | 0.068 | 0.569 | 0.91 |
| 7 | Mosul Bank for Development <br> investment | 0.004 | 0.002 | 0.021 | 0.022 | 0.012 | 0.009 |
| 8 | North bank | 0.001 | 0.003 | 0.022 | 0.002 | 0.007 | 0.009 |
| 9 | Sumer Commercial Bank | 0.004 | 0.004 | 0.021 | 0.008 | 0.009 | 0.007 |
| 10 | Bank of Baghdad | 0.063 | 0.022 | 0.034 | 0.082 | 0.05 | 0.023 |
| 11 | Taking Babylon | 0.011 | 0.004 | 0.008 | 0.014 | 0.009 | 0.004 |
| 12 | Iraqi Middle East Investment bank | 0.04 | 0.034 | 0.017 | 0.02 | 0.028 | 0.01 |
| 13 | Dar es Salaam Investment Bank | -0.008 | 0.003 | 0.007 | 0.006 | 0.002 | 0.006 |
| 14 | Warka Bank for investment and finance | 0.664 | 0.064 | 0.028 | 0.009 | 0.191 | 0.274 |
| 15 | Iraqi Commercial Bank | 0.03 | 0.13 | 0.003 | 0.01 | 0.043 | 0.051 |
| 16 | Iraqi Islamic Bank | 0.002 | 0.01 | 0.003 | 0.009 | 0.006 | 0.003 |
|  | Average | 0.202 | 0.076 | 0.043 | 0.078 | 0.1 | 0.061 |

It is found that the equivalent cash per share of the average market amounted to (0.100) dinars and that the highest cash equivalent to the share is achieved in the commercial Gulf Bank and the average is ( 0.569 ) dinars. The cash equivalent to the bank between the highest value in 2014 and amounted to (2.145) dinars and the lowest cash equivalent to the
share in 2015 (0.026) has reached JD. Also the high average cash equivalent of the share in this bank was the result of its rise in 2014 only, while in the years $(2015,2016,2017)$ was very low amounted to $(0.024,0.035,0.068)$ dinars respectively. These figures indicates the intensity of the cash dispersion equivalent to the one share of the bank which is measured by the standard deviation, the variable standard deviation appeared to be very high relative to the average and reached (0.910). While the average deviation (0.061) was the highest deviation of this variable between the sample banks.

The lowest cash equivalent of the share was achieved at Dar es Salaam Investment bank and
reached an average of (0.002) dinars. The cash equivalent to the share between the highest value in 2016 and amounted to (0.007) dinars. The lowest value in 2014 and the return was negative and reached (-0.008). It indicates a decline in share prices this year for the year SAPs. It is noted that the cash equivalent per share in this bank was low in the length of the search so its dispersion decreased and measured by the standard deviation as it reached (0.006) and is very low compared to the overall average.

The averages of banks (economy, credit, Hatra) rose from the overall average and averaged in each ( $0.191,0.451,0.191$ ) respectively. Although, the averages in banks (Iraqi investment, Basra International, Al-Ahli Iraq, Mosul, North, Sumer, Baghdad, Babil, Middle East, Iraqi Islamic trade (the average in each of them $(0.011,0.011,0.008$, $0.012,0.007,0.009,0.050,0.009,0.028,0.043$, $0.006)$ respectively.

It is also observed that the standard deviation in most banks was less than the standard deviation of the average market for cash equivalent to one share. This is reflecting the stability of these returns in these companies relative to the average market, except for banks (economy, credit, Commercial Bay, Hatra).

## 8. Rate of return required

The desired rate of return represents the lowest rate of return the investor is required to compensate for the systematic risk. It is expected as a result of the choice of the investment and his sacrifice of his money. It is calculated in accordance with the capital asset pricing model, which requires the determination of the risk-free rate of return expressed at the rate of interest on savings deposits in Iraqi banks. The average of the years under consideration ( $6 \%$ ) as identified by the Central

Bank of Iraq in Table No. 2 presents the results of the calculation of the rate of return required for the banks of the lookup sample.

Note from table No. 2 the rate of return required in all banks is lower than the average overall except the rate of return in the bank of Baghdad and reached (2.646) compared to the average of (1.146). This indicates the high risk of investment in this bank and this maaksh beta coefficient that measures the systemic risk and reached (5.963) is the highest coefficient between banking transactions compared to the average regular market risk (1.578). The lowest return required for investment was in the Iraqi Islamic Bank and the rate of return required (0.021). That may be the result of the bank's work of an Islamic nature in the investment, although the beta coefficient rose to the bank and reached (1.074).

Table 2. Rate of return required for banks research field

| No. | Companies | Beta Labs | Rate of Return Required |
| :--- | :--- | :--- | :--- |
| 1 | Iraqi investment Bank | 2.508 | 1.561 |
| 2 | Economy and Investment Bank | 0.828 | 1.033 |
| 3 | Basrah International Investment Bank | 0.987 | 1.083 |
| 4 | National Bank of Iraq | 0.156 | 0.821 |
| 5 | Iraqi Credit Bank | 0.205 | 0.838 |
| 6 | Gulf Commercial Bank | 0.808 | 1.027 |
| 7 | Mosul Bank for Development and investment | 1.049 | 1.103 |
| 8 | North bank | 1.92 | 1.376 |
| 9 | Sumer Commercial Bank | 3.512 | 1.877 |
| 10 | Bank of Baghdad | 5.963 | 2.646 |
| 11 | Taking Babylon | 1.527 | 1.253 |
| 12 | Iraqi Middle East Investment bank | 0.353 | 0.884 |
| 13 | Dar es Salaam Investment Bank | 1.161 | 1.138 |
| 14 | Warka Bank for investment and finance | 2.334 | 1.506 |
| 15 | Iraqi Commercial Bank | 0.866 | 0.168 |
| 16 | Iraqi Islamic Bank | 1.074 | 0.021 |
| Average | 1.578 | 1.146 |  |

### 8.1. Second: analysis of the search form

Table No. 3 shows the results of the real value analysis of bank shares in the sample of the cash equivalent of a single share and comparing. The value with the prevailing market value for each stock in order to determine the difference between the two values and to indicate whether the shares of these banks were priced inflated or discounted in the light of what travel results analysis. The table No. 3 also shows the discrepancy in the real value
of bank shares. That in turn is attributable to the discrepancy in the value of the equivalent cash per share and the required rate of return.

The analysis shows that the highest real value (17.605) in the Bank of Warka as a result of the increase in the share-equivalent cash analyzed in Table No. 3 and reflected the real value of the share ( $271 \%$ ) of the market value (6.486) is JD. Referring to the discounted pricing of the market value ( $171 \%$ ). The difference between the two values in this bank is also higher among banks, as the difference (11.119) is JD. The lowest real value
of the share is the value in the Bank of Dar es Salaam and amounted to (7.092). JD is lower than the market value by a difference of (11.764) dinars and by $(38 \%)$ of the market value, which amounted to JD (18.856) and is the only bank between banks in which the pricing was inflated by ( $62 \%$ ).

The results of the analysis also show that all banks' shares were discounted, i.e. their market
capitalization was lower than their real value, except for the pricing at the Dar es Salaam investment Bank. The pricing was inflated, with the lowest percentage reduction in the shares of the Iraqi Credit Bank (5\%). Only because of the convergence of real and market values and reached (12.847, 13.480) dinars, respectively, by a difference of JD (0.632).

Table 3. Results of real value analysis of bank shares sample search according to the equivalent cash per share model

| No | Companies | Average real value per share dinar | Average market value of the share | The difference between the two values | Ratio of real <br> value to <br> market value <br> (\%) | Amplification (reduction) ratio (\%) | Pricing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Iraqi investment Bank | 9.095 | 4.762 | -4.334 | 191 | -91 | Reduced |
| 2 | Economy and Investment Bank | 13.026 | 7.936 | -5.091 | 164 | -64 | Reduced |
| 3 | Basrah International Investment Bank | 8.198 | 2.388 | -5.81 | 343 | -243 | Reduced |
| 4 | National Bank of Iraq | 8.407 | 6.017 | -2.39 | 140 | -40 | Reduced |
| 5 | Iraqi Credit Bank | 12.847 | 13.48 | 0.632 | 95 | 5 | Amplified |
| 6 | Gulf <br> Bank Commercial <br>   | 9.23 | 4.789 | -4.441 | 193 | -93 | Reduced |
| 7 | Mosul Bank for Development and investment | 8.922 | 3.934 | -4.989 | 227 | -127 | Reduced |
| 8 | North bank | 8.348 | 2.788 | -5.56 | 299 | -199 | Reduced |
| 9 | Sumer Commercial Bank | 8.635 | 2.25 | -6.385 | 384 | -284 | Reduced |
| 10 | Bank of Baghdad | 9.523 | 7.673 | -1.85 | 124 | -24 | Reduced |
| 11 | Taking Babylon | 8.714 | 5.023 | -3.691 | 173 | -73 | Reduced |
| 12 | Iraqi Middle East Investment bank | 12.751 | 4.734 | -8.017 | 269 | -169 | Reduced |
| 13 | Dar es Salaam Investment Bank | 7.092 | 18.856 | 11.764 | 38 | 62 | Amplified |
| 14 | Warka Bank for investment and finance | 17.605 | 6.486 | -11.119 | 271 | -171 | Reduced |
| 15 | Iraqi Commercial <br> Bank  | 9.589 | 8.087 | -1.502 | 119 | -19 | Reduced |
| 16 | Iraqi Islamic Bank | 8.88 | 2.664 | -6.216 | 333 | -233 | Reduced |
|  | Average | 10.054 | 6.367 | -3.687 | 158 | -110 |  |

Table 4. Test of the bank-equivalent cash model for the 2014-2017 research sample

| No. | Companies |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Next section of the paper will conclude the paper.

## 9. Conclusions and recommendations

Based on the previous discussion on the results of the study there are some conclusions that can be drawn from the present study. These conclusions are based on the data and context of the present study. The same models can be applied in different context in order to assess of the results are consistent with the findings of the present study.
A. It was concluded that sourcing management by considering the optimal source and purchasing materials for the company, can be strongly effective in the market assessment in the Iraq markets.
B. The results of the analysis showed that the equivalent cash model could not be applied in the Iraqi financial market and this was demonstrated by the true values of the shares calculated according to this model.
C. From analysis of the equivalent cash rate per share that the variable was stable during the research period for most banks sample research and this maaksh decrease its standard deviation.
D. The results of the systematic risk analysis of bank shares, calculated according to the beta-
equity coefficient, indicate that this coefficient is higher than the market risk and is reflected in the higher rate of return required by investors for those shares.
E. The results of the analysis of the real value of the shares calculated according to the equivalent cash model, the variance of the real value, as a result of variations of the governing variables.
F. The results of the real value analysis of bank shares in the research area, calculated according to the one-share cash model, indicated that pricing was reduced in most banks as their real value was higher than their market value.
G. The rate of return required for some banks is lower than the risk-free rate due to low stock prices and this does not encourage the investor to invest in these banks.

The finding of the present study can be used as benchmark for the policy maker, investors and other stakeholder dealing in stocks.

Future studies, may be conducted by aimed at exploring the same phenomena for using the larger sample size or making the comparison of the
various mathematical and statistical models used for stock assessment.

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