ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

# THE RELATIONSHIP BETWEEN ECONOMIC UNCERTAINTY AND ACCOUNTING QUALITY

Milad Samimi\*; Seyedreza Ghafarianzadeh\*\*

\*Master of Accounting, East Azerbaijan Science and Research Branch, Islamic Azad University, Tabriz, IRAN Email id: samimi.iica@gmail.com

\*\*Master of Financial Risk Management,
Beedie School of Business,
Simon Fraser University,
Vancouver, BC, Canada,
Email id: ghafz.reza@gmail.com

DOI: 10.5958/2249-7307.2022.00065.2

### **ABSTRACT**

The efficiency of securities markets depends on the available public information, which includes information presented in financial statements and other information disclosed by the company, which is mainly the result of managers' analysis. The first factor that all investors should consider is uncertainty Investors buy assets with the hope that they will earn returns over the next several periods. With increasing economic policy uncertainty, many companies are making major changes to their financial reporting procedures. Accordingly, in this research, the effect of audit characteristics on the relationship between economic uncertainty and accounting quality was investigated. In this research, the number of 118 companies admitted to the Tehran Stock Exchange in the period of 2015-2020 has been examined. A panel regression model was used to test the hypotheses. The research findings show that economic uncertainty has a negative and significant effect on accounting quality. Also, size audit and audit opinion type has a negative and significant effect on the relationship between economic uncertainty and accounting quality.

**KEYWORDS**: Economic Uncertainty, Accounting Quality, Audit Size, Audit Opinion Type.

### 1. INTRODUCTION

In today's world, investors are considered engines of progress and development. And as a result, the information they use to make their decision is very important and fundamental. Investors use different information sources and make decisions through these sources. In general, the sources used by investors can be classified into two groups of information sources about the macroeconomic situation and the specific situation of the company. Information about the general state of the economy includes information that covers the entire economy and affects all companies; But the information about the specific situation of the company includes information such as the change of managers, the financial situation of the company, etc. (Basu et al., 2019). Therefore, investors pay attention to both sources of information. But the issue that is very important at this time is that the general state of the economy can affect the performance of companies. For example, when the economy is booming, the demand for the company's products increases, this shows that the general state

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

of the economy also affects the companies. As a result, it is expected that both investors and company managers pay attention to this issue and make decisions based on it. Therefore, it is better to pay attention to this issue in study approaches due to its high importance (Johnson, 1999).

The expansion of privatization and the progress of the economy have led to the importance of financial markets. The participation of more people in the market depends on the expansion of financial markets; on the other hand, the efficiency of financial markets is also influenced by how information is distributed among market participants. In other words, it can be said that the level of people's participation in the market is affected by the way information is distributed among them (Bhattacharya and et al, 2012). In this regard, uncertainty is actually one of the signs and symptoms of lack of confidence in the economy or politics or any other field. In this case, people or activists in any field cannot have correct information about the future and predict it. In the conditions of uncertainty, the process of planning and decisionmaking as well as policy-making in all economic sectors, including the financial market, is disrupted. Because the possibility of prediction decreases and it becomes difficult for economic agents to realize future visions. In such a situation, economic agents are faced with uncertainty regarding decisions related to consumption, savings or investment (Bali and et al,2017). Based on this, in order to clarify the issue, statement of the problem, necessity, assumptions, research model, how to measure variables, statistical analysis, conclusions and research proposals are discussed.

### 2. Institutional Background, Prior Literature, and Hypothesis Development

Accounting earnings one of the most comprehensive information that investors always pay attention to. But the main issue is that financial and earnings reporting are influenced by factors inside the company and factors outside the company. Being aware of these effects can help people make appropriate decisions (Abramova and et al., 2019). During the period of prosperity, when the economic situation is growing, Investors are looking for information that has a future perspective.

And the feature of relevance is more important for them. Therefore, the attribute of reliability is less important for them and they give less weight to it (Jenkins and et al., 2009). One of the most important items included in the financial statements of companies is earnings. Investors and other users can take advantage of the company's earnings for investment decisions and predict future cash flows and earnings correctly, which is based on the actual financial performance of the company and not on the application of the management's opinion in the use of accounting methods have been reported (Habib, 2004).

Accounting standards allow managers to have a wide range of options in choosing different accounting methods for calculating earnings. Of course, managers may not use all these powers to achieve the company's goals. In fact, the management of a commercial enterprise can manage earnings for its own purposes by using these permitted flexible methods (Samai and ShariatPanahi, 2013). The goal of management is to show a dynamic and stable company in the eyes of investors and the capital market; Because most investors and managers believe that companies that have a good profitability trend. And their Earningdoes not undergo major changes compared to similar companies, they have more value and more predictability and comparison (Lim and et al., 2008).

Earnings management increases the uncertainty of the firm's future cash flows for shareholders. This issue leads to information asymmetry between shareholders and managers (Bhattacharya and et al, 2012). High risk environmental uncertainty increases the accurate

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

estimation of future earnings by shareholders and it makes it a complicated issue for them. If the management does not take appropriate measures to reduce this volatility, the information asymmetry between the management and the shareholders will become more acute. Environmental uncertainty creates serious limitations for the company and affects the strategy and decisions of company managers. In such a situation, managers will have strategic opportunities to deal with this situation. One of these opportunities is earnings management (Cormier and et al, 2013).

Some studies have shown that in an environment with high uncertainty, shareholders face difficulty in recognizing earnings management. Therefore, it is expected that the earnings that are managed in this environmental complexity will not be recognized by the capital market (Lim and et al., 2008). As mentioned; investors consider accounting earnings as an important source of information and make decisions based on it. Therefore, earnings management has always been considered as an important factor (Baliand et al., 2017).

A growing literature documents the economic consequences of policy-induced economic uncertainty. At the macro level, policy uncertainty hinders economic recovery (Bloom 2014); at the industry level, it affects return volatility (Boutchkova, Doshi, Durnev, and Molchanov 2012). At the firm level, policy uncertainty is associated with a higher cost of debt capital (Kaviani, Kryzanowski, Maleki, and Savor 2020), lower stock prices (Pástor and Veronesi 2012), and reduced investment-cost of capital sensitivity (Drobetz, El Ghoul, Guedhami, and Janzen 2018). In response to these negative consequences, economic agents make more cautious decisions during periods of heightened uncertainty. For example, managers reduce investment expenditures and increase cash holdings (Julio and Yook 2012), decrease capital investment (Gulen and Ion 2016), avoid mergers and acquisitions (Bonaime et al. 2018), and cut back on hiring (Ilut and Schneider 2014). Similarly, consumers increase their precautionary savings during periods of increased uncertainty (Bansal and Yaron 2004), while investors rely more on analysts and analysts exert more effort (Loh and Stulz 2018).

Uncertainty may also lead market participants to evaluate firms' disclosure quality and performance more closely. Andrei et al. (2019) show analytically and empirically that higher economic uncertainty leads investors to be more attentive to firm-specific information. As the literature on limited attention suggests (e.g., Hirshleifer and Teoh 2003; Hirshleifer et al. 2011), paying attention to information is a costly activity, which leads only a fraction of investors to observe information signals.

For an uninformed investor who does not pay attention to firm-specific information, stock prices may still reveal some firm-specific information at no cost? In short, while investors decide to become informed or uninformed, uninformed investors are still able to infer firm-specific information from the equilibrium price (Andrei et al. 2019). The stock price informativeness (the extent to which price eveals firm-specific information), however, decreases when the variance of future returns is high (Andrei et al. 2019). As the variance of future returns increases in economy-wide uncertainty, price informativeness decreases with economic uncertainty (Drobetz et al. 2018). Because uninformed investors cannot easily infer information from the equilibrium price under high uncertainty, the value of firm-specific information increases, leading to a greater incentive to collect firm-specific information.

Although high uncertainty also reduces the quality of informed investors' information, Andrei et al (2019) argue that the information value effect likely dominates the information quality effect, resulting in greater investor attention to firm-specific information during periods of higher uncertainty. Investors' attention to and acquisition of firm-specific information will limit earnings management opportunities. Prior studies show that limited

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

investor attention often provides earnings management opportunities. Teoh et al (1998a, 1998b), for example, show that managers use their accounting discretion to exploit investors' neglect of accruals information. Kempf et al. (2017), Garel et al (2019), Abramova et al. (2019), and Basu et al. (2019) find evidence that investor inattention leads to a loosening of monitoring constraints on corporate action. In addition, Liu et al. (2020) show that investor inattention weakens corporate governance (board oversight). To the extent that limited investor attention leads to earnings management opportunities (Teoh et al. 1998a, 1998b), and better alignment of managerial incentives with shareholder interests can improve accounting quality.

According to the mentioned topics, this research seeks to investigate the impact of audit characteristics on the relationship between economic uncertainty and accounting quality. Therefore, based on the theoretical foundations presented, the following hypotheses are proposed:

**Hypothesis 1-** Economic uncertainty affects accounting quality.

**Hypothesis 2-** The audit firm size affects on the relationship between economic uncertainty and accounting quality.

**Hypothesis 3**- The audit opinion type affects on the relationship between economic uncertainty and accounting quality;

### 3- Research method

This research is applied in terms of correlation method and purpose. Also, because this article describes what is or describes the existing conditions without interference (and not to the specific requirement and recommendation) and due to the fact that value judgments in this study are low, the present study is in the category of descriptive accounting research are. In addition, due to the fact that historical information will be used to test its hypotheses, it is classified in a quasi-experimental research group. It should be noted that SPSS software (version 21) and Eviews (version 9) were used for statistical analysis.

### 4- Models and how to measure variables

Considering that in this research, the impact of audit characteristics on the relationship between economic uncertainty and accounting quality has been investigated. Therefore, the hypothesis test model based on the research of Sadok and et al. (2021) is presented as follows:

### First hypothesis test model

$$AQ_{it} = \beta_0 + \beta_1 MII_{it} + \beta_2 Inshold_{it} + \beta_3 LOSS_{it} + \beta_4 SPV_{it} + \beta_5 Lev_{it} + \beta_6 SIZE_{it} + \beta_7 AGE_{it} + \beta_8 SALES\_GR_{it} + \beta_9 CFD_{it} + e_{it}$$

### Second hypothesis test model

$$AQ_{it} = \beta_0 + \beta_1 MII_{it} + \beta_2 Bigaudit_{it} + \beta_3 MII^* Bigaudit_{it} + \beta_4 Inshold_{it} + \beta_5 LOSS_{it} + \beta_6 SPV_{it} + \beta_7 Lev_{it} + \beta_8 SIZE_{it} + \beta_9 AGE_{it} + \beta_{10} SALES\_GR_{it} + \beta_{11} CFD_{it} + e_{it}$$

# Third hypothesis test model

$$AQ_{it} = \beta_0 + \beta_1 MII_{it} + \beta_2 Opinion_{it} + \beta_3 MII^*Opinion_{it} + \beta_4 Inshold_{it} + \beta_5 LOSS_{it} + \beta_6 SPV_{it} + \beta_7 Lev_{it} + \beta_8 SIZE_{it} + \beta_9 AGE_{it} + \beta_{10} SALES\_GR_{it} + \beta_{11} CFD_{it} + e_{it}$$

### **4-1- Dependent variable**

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

In this research, the accounting quality using the McNichols (2002) model, which is a modified model of Dechau and Dichau (2002), this model is created with the assumption that the time of realization and occurrence of revenues and the bearing of the company's expenses is often different from the time of cash receipts and payments. Accrual items are created and reported as a result of this difference. This model focuses on the two figures of accrual items of working capital and operational cash flows due to their ease of tracking; because these accrual items are settled within a maximum of one year. The absolute value of the remaining amount resulting from the regression of the capital accrual items in the current year and the cash flows from the operational activities of the last year, the current year and the next year is used as a measure of the quality of the accrual items. The bigger (smaller) this criterion is, it indicates less (more) accounting quality:

$$\frac{\Delta WC_{i,t}}{Assets_{i,t}} = \beta_{0,i} + \beta_{I,i} \frac{CFO_{i,t-1}}{Assets_{i,t}} + \beta_{2,i} \frac{CFO_{i,t}}{Assets_{i,t}} + \beta_{3,i} \frac{CFO_{i,t+1}}{Assets_{i,t}} + \beta_{4,i} \frac{\Delta Sales_{i,t}}{Assets_{i,t}} + \beta_{5,i} \frac{PPE_{i,t}}{Assets_{i,t}} + \varepsilon_{it}$$

### In the above model:

 $\Delta WC_{i,t}$ : Change in the company's working capital per year,

 $CFO_{i,t-1}$ : Operating cash flow of company i in year 1-t,

CFO<sub>i,t</sub>:Operating cash flow of company i in year t,

 $CFO_{i,t+1}$ :Operating cash flow of company i in year t+1,

 $\Delta Sales_{i,t}$ : The change ratio in the sales of company i in year t,

 $PPE_{i,t}$ : The gross amount of property and machinery and equipment of company i in year t,

Assets<sub>i,t</sub>: Average total assets of company i in the time interval 1-t to t,

 $\varepsilon_{it}$ : The residual error of the model for company i in year t

Considering that the remaining values of the model can be positive or negative. Accordingly, first the absolute value is taken from these values, then it is multiplied by -1 so that the variable is aligned with other variables. In other words, the closer the accounting quality index (which is a negative number) to zero, This indicates that the company had a more favorable situation in terms of accounting quality in that year (Choi, 2010).

### 4-2- Modifier Variables

The auditing firm size: if the company in question has a large auditing firm (auditing organization and mofidrahbar). Virtual variable 1 and otherwise virtual variable 0 are used in company i and period t.

Audit opinion: If the company in question has an acceptable statement, virtual variable 1 is used, otherwise virtual variable 0 is used in company i and period t.

### 4-3-Independent Variable

In this study, using Jaramillo and Sancak (2007) method, the index of uncertainty or economic instability, as a weighted sum of the percentage change in the general level of prices (CPI), the percentage change in the unofficial exchange rate (EX) and the percentage change it is defined in the volume of liquidity (M2).

The weight of each variable is the inverse of the standard deviation.

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

$$MII_{t} = \frac{(\frac{CPI_{t} - CPI_{t-1}}{CPI_{t-1}})}{\mathcal{S}_{CPI}} + \frac{Ln(\frac{EX - EX_{t-1}}{EX_{t-1}})}{\mathcal{S}_{EX}} + \frac{(\frac{M \ 2_{t} - M \ 2_{t-1}}{M \ 2_{t-1}})}{\mathcal{S}_{M \ 2}}$$

A higher value of this index means greater uncertainty or economic instability.

### **4-4-Control Variables**

According to the research of Habib (2004) and Haib and et al (2011), the control variables are as follows:

**Ownership percentage of institutional shareholders**: This variable is obtained from the natural logarithm of the ownership percentage of institutional shareholders of company i in period t.

**Unprofitability**: If the company has reported a loss in the year under review, the virtual variable 1 (one) is used, otherwise, the virtual variable 0 (zero) is used.

**Volatility of Stock Returns**: To measure this variable, the standard deviation of monthly stock returns is used in each year.

Financial Leverage: It is obtained from the ratio of total liabilities to total assets.

**Company Size**: obtained from the natural logarithm of the company's assets.

**Company Age**: It is obtained from the logarithm of the age or life of the company in the year under review.

**Sales Growth**: This variable is obtained from sales changes compared to last year.

**Deviation of Cash Flows**: This variable is obtained from the standard deviation of 5-year cash flows.

### 5- Research Findings

### 5-1-Descriptive Statistics of Research Variables

The results of descriptive analysis of research variables are presented in Table (1) and (2).

TABLE (1) DESCRIPTIVE STATISTICS OF RESEARCH VARIABLES

Variable	Mean	Media	Maxim	Minimu	Std.	Skewne	Kurtosi
variable	Mean	n	um	m	Dev.	SS	S
Accounting Quality (AQ)	- 0.0899	- 0.0681	-0.0002	-0.8172	0.0903	-0.0512	3.8731
Economic uncertainty (MII)	0.0629	0.0514	0.3162	-0.1796	0.1447	0.1095	2.8880
Ownership							
percentage of institutional shareholders (Inshold)	0.7657	0.8172	0.9945	0.0000	0.1850	-1.5771	5.5823
Volatility of monthly stock return (SPV)	1.3793	1.2052	5.3313	0.0090	0.8288	1.2806	5.1258

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

financial	leverage	0.6256	0.6108	4.0027	0.0001	0.2020	3.4780	35.272
	(Lev)	0.0230	0.0108	4.0027	0.0901	0.2830	3.4760	33.212
Company	size	14 170	14.022	10.240	10.401	1 4070	0.6004	4.220.4
	(SIZE)	14.179	14.032	19.249	10.491	1.4079	0.6904	4.3294
Company	Age	2.7252	2.0066	4 02 41	2 (200	0.2221	0.6020	2.7022
	(AGE)	3.7252	3.8066	4.2341	2.6390	0.3221	-0.6928	2.7922
Sales	growth	0.1155	0.0060	1 0205	1 0275	0.2729	0.4051	£ 1700
(SA	LES_GR)	0.1155	0.0860	1.2325	-1.0375	0.2728	0.4251	5.1792
Cash	Flow	0.0010	0.0702	0.2710	0.0075	0.0525	1 2000	5 2615
Diverger	nce (CFD)	0.0910	0.0792	0.3710	0.0075	0.0525	1.2880	5.2615

TABLE (2) DESCRIPTIVE STATISTICS OF RESEARCH VARIABLES FREQUENCY

Variable	Mean			
The auditing firm size	Year of companies without large auditor type: 527			
(Bigaudit) Year of companies with large auditor				
Type of audit opinion	Year of companies without acceptable statement: 374			
(Opinion)	Year of companies with acceptable statement: 334			
The loss of the Year of companies without loss:				
company (LOSS)	Year of loss-making companies: 110			

According to table (1) and (2), the number of company-year observations based on balanced composite data, 708 observations was equal to 118 companies in 6 years. According to descriptive statistics, the above indices can be divided into central indices, dispersion and other indices, which central indices include Mean and median, dispersion indices are standard deviation index and other indices are maximum, minimum, skewness and kurtosis indices. In short, it shows the leverage ratio variable the average of the sample is 54.7% therefore, it can be said that the companies of statistical society use more debt to secure their capital structure therefore, they are in a favorable position in terms of securing credit. Also, the audit Firm size shows that the year of the companies without the type of large auditor is 527 observations and the year of the companies with the type of large auditor is 181 observations. Indicates the type of audit opinion that the year of companies lacking acceptable statement 374 observations and the year of companies with acceptable statements is 334 observations. In the continuation of loss, it shows that there were 110 observations of loss-making companies and 598 observations of profitable companies. Regarding the negative skewness coefficient of some variables, it can be said that this indicates the existence of skewness to the right and the tendency of these variables to have smaller values. Also, positive skewness coefficients indicate that the normal distribution is longer and the data is concentrated around the mean.

### 5-2- Test of normality of distribution of research dependent variable

Since in this research, in order to estimate the model parameters, the ordinary least squares method is used and this method is based on the assumption that the dependent variable of the research has a normal distribution, so it is necessary to test the normality of the distribution of dependent variables.

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

TABLE (3) RESULTS OF THE STUDY OF THE NORMALITY OF THE DISTRIBUTION OF DEPENDENT VARIABLE

		K-S test results (normality)							
Variable	Mean	Std. Dev.	Maximum	Minimum	Kolmogorov- Smirnov Z	Sig. (2-tailed)			
(AQ)	0.0899	0.0903	-0.0002	-0.8172	1.066	0.103			

According to table (3), after the normality test, the significance level of the Z statistic of the KS test for the dependent variable (accounting quality) has increased to above 0.05Therefore, the H0 hypothesis that the distribution of the dependent variable is normal is accepted and it is telling that the dependent variable of the research has a normal distribution. Therefore, parametric statistical methods are used to test hypotheses.

### 5-3- Examining the correlation between research variables

In this section, using Pearson's correlation coefficient, the relationship between the research variables and the existing correlation between them is investigated. The matrix of correlation coefficients between research variables is presented in table (4).

TABLE (4) PEARSON CORRELATION COEFFICIENT RESULTS

Correlati			INSHOL					SALEG	
on	AQ	MII	D	SPV	LEV	SIZE	AGE	R	CFD
AQ	1.000000	)							_
MII	 - 0.162200 0.0000	1.00000 00 							
INICIIOI		-							
INSHOL D									
D		0.0724	1.000000						
SPV	- 0.047124	0.15414	-0.096713						
LEV		43	0.060616 0.1071	3	0				
SIZE		20	0.054406 0.1481	7	6				
AGE	-	0.05579	-0.138728	80.01293	0.06699	0.15850	1.000000	0	

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

	0.048717 0.1954	0.0002	8 0.7311	0 0.0749	5 0.0000			
SALEGR	0.350861 0.0000	0.002947 0.9376	4	4	- 0.03300 1 0.3806	- 0.031008 0.4101	1.00000 0	
CFD	- 0.115166 0.0021	0.026936 0.4742	7	0.05594 0 0.1370	- 0.03888 5 0.3015	0.114964	- 0.06271 6 0.0954	1.000

### 5-4-The results of the test of research hypotheses

Considering that this research has six hypotheses. Therefore, the results of the regression default test and finally the hypothesis test are presented for each main hypothesis.

# 5-4-1- The results of F-Limer statistics for research hypotheses

In order to determine which method (consolidated or panel data) should be used to fit the model, we should test the F-test of Limer. Considering that the significance level of F-limer statistic is lower than the accepted error level (5 percent), therefore, the panel data method is preferable to the pooled data method.

TABLE (5) RESULTS OF F-LIMER STATISTICS FOR RESEARCH HYPOTHESES

Research	Statistic	Prob.	Research	Statistic	Prob.
hypotheses	value	1100.	hypotheses	value	1100.
Hypothesis 1	7.082	Prob. 0.000	Hypothesis 3	7.312	Prob. 0.000
Hypothesis 2	6.985	Prob. 0.000	Hypothesis 5	7.312	P100. 0.000

### 5-4-2- The results of H-hausman statistics for research hypotheses

There are two methods for estimating the model using panel data, which are fixed effects and random effects. Determining which of these two methods should be used for a sample of data is done through the Hausman test. Since the significance level of the H-hausman statistic is lower than the accepted error level (5 percent), therefore, the regression method with fixed effects is preferable to the regression method with random effects.

TABLE (6) HUSMANSTATISTIC RESULTS FOR RESEARCH HYPOTHESES

	esearch potheses	Statistic value	Prob.	Research hypotheses	Statistic value	Prob.
H	ypothesis 1	45.934	Prob. 0.000	Hymothosis 2	48.759	Prob. 0.000
H	ypothesis 2	45.946	Prob. 0.000	Hypothesis 3	40.739	P100. 0.000

### 5-4-3- The results of White Statistics for Research Hypotheses

One of the important issues that we deal with in econometrics is the issue of heterogeneity of variance. Variance heterogeneity means that in estimating the regression model, the values of the error sentences have unequal variances. If the significance level of White statistic is higher than the acceptable error level, we are not faced with heterogeneity of variance. But if the significance level of White statistic is lower than the acceptable error level We are faced with the problem of heterogeneity of variance, on this basis, the problem of heterogeneity of variance is solved by the adjusted least squares method.

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

### TABLE (7) WHITESTATISTIC RESULTS FOR RESEARCH HYPOTHESES

Research hypotheses	Statistic value	Prob.	Research hypotheses	Statistic value	Prob.
Hypothesis 1	5.738	Prob. 0.000	Hypothesis 3	4.792	Prob. 0.000
Hypothesis 2	4.598	Prob. 0.000	Hypothesis 5	4.192	F100. 0.000

## **5.4.4.** The results of Godfrey test for research hypotheses

One of the important issues we deal with in econometrics is autocorrelation. In the science of statistics, autocorrelation describes a stochastic process of correlation between process values at different time points as a function of two times or time differences. Considering that the significance level of Godfrey statistic is higher than the acceptable error level, the regression does not have the problem of autocorrelation.

TABLE (8) GODFREY TEST RESULTS FOR RESEARCH HYPOTHESES

Research hypotheses	Statistic value	Prob.	Research hypotheses	Statistic value	Prob.
Hypothesis 1	3.636	Prob. 0.089	Hypothesis 3	2 201	Prob. 0.134
Hypothesis 2	2.768	Prob. 0.121	Hypothesis 5	2.201	F100. 0.134

## 5.4.5. The results of the first main hypothesis test

**Hypothesis 1**- Economic uncertainty affects accounting quality.

 $AQ_{it} = \beta_0 + \beta_1 MII_{it} + \beta_2 Inshold_{it} + \beta_3 LOSS_{it} + \beta_4 SPV_{it} + \beta_5 Lev_{it} + \beta_6 SIZE_{it} + \beta_7 AGE_{it} + \beta_8 SALES\_GR_{it} + \beta_9 CFD_{it} + e_{it}$ 

TABLE (9) MODEL ESTIMATION RESULTS FOR THE FIRST RESEARCH HYPOTHESIS

Variable	Coefficient	t-Statistic	Prob.	Centered VIF
(MII)	-0.052193	4.691825	0.0000	1.102328
(Inshold)	0.016606	0.692273	0.4890	1.065334
(LOSS)	-0.054270	8.709081	0.0000	1.371232
(SPV)	-0.001057	0.579467	0.5625	1.099074
(Lev)	-0.081082	4.872875	0.0000	1.302386
(SIZE)	0.039905	6.127847	0.0000	1.063738
(AGE)	-0.028057	0.583337	0.5599	1.068460
(SALES_GR)	-0.066723	9.683083	0.0000	1.162351
(CFD)	-0.134627	2.668071	0.0078	1.029125
С	-0.480130	3.203344	0.0014	-
	F-statistic	9.950	Durbin-Watson	1.962

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

Prob (F-statistic)	0.000	stat	
R-squared	0.683	Jarque-Bera Probability	

Based on the results of the first hypothesis test (Table 9), given that the F statistic (0.000) has a significance level below (5%), therefore, the regression has explanatory power. The coefficient of determination of the model also showed that 68.3 percent of the changes in the accounting quality variable are explained by the variables inserted in the model. Also, in examining the assumptions of classical regression, the results of the Jarque-Bera test showed that the residuals obtained from the estimation of the model have a normal distribution at the 95% confidence level, so that the significance level of this test was greater than 0.05 (0.105). Also, due to the fact that the value of Durbin-Watson model was between 1.5 and 2.5 (1.962), it can be said that there is no problem of autocorrelation of the residuals in the model. Finally, according to the significance level of economic uncertainty variable (independent variable) which is below 0.05 (0.000). Therefore, there is a negative and significant relationship between economic uncertainty and accounting quality. Among the control variables, losses, financial leverage, sales growth and cash flow deviation have a significant negative impact on accounting quality. And company size has a positive and significant effect on accounting quality. Finally, with the collinearity test between the research variables, the value of the VIF statistic (variance inflation factor) for all variables was smaller than 5, indicating the absence of an extreme collinearity problem of the research variables.

### 5.4.6. The results of the second main hypothesis test

**Hypothesis 2-** The audit firm size affects on the relationship between economic uncertainty and accounting quality.

 $AQ_{it} = \beta_0 + \beta_1 MII_{it} + \beta_2 Bigaudit_{it} + \beta_3 MII^* Bigaudit_{it} + \beta_4 Inshold_{it} + \beta_5 LOSS_{it} + \beta_6 SPV_{it} + \beta_7 Lev_{it} + \beta_8 SIZE_{it} + \beta_9 AGE_{it} + \beta_{10} SALES\_GR_{it} + \beta_{11} CFD_{it} + e_{it}$ 

TABLE (10) MODEL ESTIMATION RESULTS FOR THE SECOND RESEARCH HYPOTHESIS

Variable	Coefficient	t-Statistic	Prob.	Centered VIF
(MII)	-0.041947	3.355733	0.0008	1.447606
(Bigaudit)	0.028437	2.759216	0.0060	1.373127
(MII <sup>*</sup> Bigaudit)	-0.039779	1.967275	0.0496	1.561535
(Inshold)	0.014919	0.620482	0.5352	1.076811
(LOSS)	-0.054328	- 8.708608	0.0000	1.373749
(SPV)	-0.001611	0.872875	0.3831	1.112828
(Lev)	-0.080082	- 4.766419	0.0000	1.328816
(SIZE)	0.039260	6.225704	0.0000	1.160077
(AGE)	-0.035066	0.759698	0.4477	1.079844
(SALES_GR)	-0.065495	9.571867	0.0000	1.163222

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

(CFD)	-0.141453	2.970243	0.0031	1.032897
С	-0.450202	3.145774	0.0017	-
F-statistic		9.939	Durbin-Watson	1.994
Prob (F-statistic)		0.000	stat	
R-squared		0.687	Jarque-Bera	8.325
			Probability	0.105

Based on the results of the second hypothesis test (Table 10), given that the F statistic (0.000) has a significance level below (5%), therefore, the regression has explanatory power. The coefficient of determination of the model also showed that 68.7 percent of the changes in the Accounting quality variable are explained by the variables inserted in the model. Also, in examining the assumptions of classical regression, the results of the Jarque-Bera test showed that the residuals obtained from the estimation of the model have a normal distribution at the 95% confidence level, so that the significance level of this test was greater than 0.05 (0.105). Also, due to the fact that the value of Durbin-Watson model was between 1.5 and 2.5 (1.994), it can be said that there is no problem of autocorrelation of the residuals in the model. Finally, according to the significance level of the audit firm size variable and economic uncertainty (independent variable) which is below 0.05 (0.000). Therefore, the auditing firm size has a negative and significant effect on the relationship between economic uncertainty and accounting quality. Among the control variables, losses, financial leverage, sales growth and cash flow deviation have a significant negative impact on accounting quality. The company size has a positive and significant effect on accounting quality. Finally, with the collinearity test between the research variables, the value of the VIF statistic (variance inflation factor) for all variables was smaller than 5, indicating the absence of an extreme collinearity problem of the research variables.

### 5.4.7. The results of the third main hypothesis test

**Hypothesis 3**- The audit opinion type affects on the relationship between economic uncertainty and accounting quality.

 $AQ_{it} = \beta_0 + \beta_1 MII_{it} + \beta_2 Opinion_{it} + \beta_3 MII^* Opinion_{it} + \beta_4 Inshold_{it} + \beta_5 LOOSS_{it} + \beta_6 SPV_{it} + \beta_7 Lev_{it} + \beta_8 SIZE_{it} + \beta_9 AGE_{it} + \beta_{10} SALES\_GR_{it} + \beta_{11} CFD_{it} + e_{it}$ 

TABLE (11) MODEL ESTIMATION RESULTS FOR THE THIRD RESEARCH HYPOTHESIS

Variable	Coefficient	t-Statistic	Prob.	Centered VIF
(MII)	-0.061453	4.289350	0.0000	1.914697
(Opinion)	0.011384	2.782489	0.0056	1.325055
(MII*Opinion)	-0.020080	2.225671	0.0163	2.009798
(Inshold)	0.015835	0.676093	0.4993	1.116461
(LOSS)	-0.054943	- 8.976255	0.0000	1.389186
(SPV)	-0.000732	0.415661	0.6778	1.104807
(Lev)	-0.085429	-	0.0000	1.307200

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

		5.118626		
(SIZE)	0.036980	5.735610	0.0000	1.103081
(AGE)	-0.003041	0.062731	0.9500	1.069889
(SALES_GR)	-0.064944	9.558177	0.0000	1.167591
(CFD)	-0.129581	2.640022	0.0085	1.033443
С	-0.524192	3.526514	0.0005	-
F-statistic		10.018	Durbin-Watson	1.992
Prob (F-statistic)		0.000	stat	1.774
R-squared		0.688	Jarque-Bera	8.325
			Probability	0.105

Based on the results of the third hypothesis test (Table 11), given that the F statistic (0.000) has a significance level below (5%), therefore, the regression has explanatory power. The coefficient of determination of the model also showed that 68.8 percent of the changes in the Accounting quality variable are explained by the variables inserted in the model. Also, in examining the assumptions of classical regression, the results of the jarque-bera test showed that the residuals obtained from the estimation of the model have a normal distribution at the 95% confidence level, so that the significance level of this test was greater than 0.05 (0.105). Also, due to the fact that the value of Durbin-Watson model was between 1.5 and 2.5 (1.992), it can be said that there is no problem of autocorrelation of the residuals in the model. Finally, according to the significance level of the variable of audit opinion type and economic uncertainty (independent variable) which is below 0.05 (0.000). Therefore, the type of audit opinion has a negative and significant effect on the relationship between economic uncertainty and accounting quality. Among the control variables, losses, financial leverage, sales growth and cash flow deviation have a significant negative impact on accounting quality. And company size has a positive and significant effect on accounting quality. Finally, with the collinearity test between the research variables, the value of the VIF statistic (variance inflation factor) for all variables was smaller than 5, indicating the absence of an extreme collinearity problem of the research variables.

### 6- CONCLUSIONS AND RESEARCH SUGGESTIONS

The efficiency of securities markets depends on the available public information, which includes the information presented in the financial statements and other information disclosed by the company, which is mainly the result of the managers' analysis. The first factor that all investors should consider is uncertainty. Investors buy assets with the hope that they will earn returns over the next several periods. With increasing economic policy uncertainty, many companies are making major changes to their financial reporting procedures. Therefore, this research examines the effect of audit characteristics on the relationship between economic uncertainty and accounting quality of Tehran Stock Exchange companies. The research findings show that economic uncertainty has a negative and significant effect on accounting quality. Also, size audit and audit opinion type has a negative and significant effect on the relationship between economic uncertainty and accounting quality.

In relation to the analysis of the results, it can be said that economic policy uncertainty will have an impact on information asymmetry (directly). In these market conditions, many decisions of investors are taken with doubts. Accordingly, in response to the asymmetry of

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

information, managers neglect the quality of information and reduce the quality of accounting. In this regard, two points of view can be mentioned. Pessimistic point of view: In this point of view, managers probably use agency influence and create agency costs for the economic unit due to their retention and reward. Optimistic point of view: In this point of view, the managers probably see less stability in the market due to the unfavorable economic situation caused by the policies and decisions of the government. This issue can cause many problems for the economic unit and even lead to loss and decrease in the value of the economic unit. Accordingly, in this case, managers reduce the accounting quality in order to prevent the sale of shares by investors and the crash risk of stock price.

But considering that the research sample companies have trusted audit institutions. Therefore, when the economic unit has a large audit institute. Audit institutions are a limiting factor due to the risk of filing lawsuits against themselves (in relation to audit quality) and lead to a reduction in the severity of the adverse effect of economic uncertainty on accounting quality. Also, considering that companies with acceptable statements have a more favorable status than other companies in terms of reporting. Therefore, probably the management of the company has been looking for the importance of increasing the quality of accounting and information disclosure so that they can reduce the adverse effect of economic policy uncertainty on the behavior of investors so that investors have a better understanding of the company. Next, because the results of this research can be used in the decision-making process, this research is applied in terms of purpose. Therefore, suggestions for each of the beneficiaries of the research are briefly stated.

According to the results, users of financial statements should always pay attention to variables such as economic policy uncertainty when analyzing. Because this variable leads to a decrease in accounting quality. Considering that the managers are looking for the trust of the beneficiaries, it is suggested to them accordingly. Always have accounting quality in times of economic uncertainty and seek to obtain an acceptable opinion from the auditor. Because this important has become a positive sign in the market in the era of economic policy uncertainty and represents the optimal performance of the economic unit. This can lead to the attraction of investors in order to deal with the economic uncertainty. Considering the role of the size of the auditing firm, it is suggested that the members of the board of directors seek to use large auditing firms due to the quality and skill of such institutions. Considering the negative impact of economic policy uncertainty on the quality of accounting, governments are suggested to be very careful to apply more stability in their policies and decisions. Because their financial and capital markets are weaker and less orderly than developed countries. And instability and changes in government policies cause many problems in the stock market and companies, including the increase in information asymmetry and the subsequent decrease in the value of the company. It is suggested to the stock exchange organization to seek to create informational content for the capital market in the era of economic uncertainty. And, if the accounting quality of the companies decreases during the mentioned period, they should use legal tools to force the companies.

### REFERENCES

- **1-** Abramova, I., J. E. Core, and A. Sutherland. 2019. Institutional Investor Attention and Firm Disclosure. Available at: <a href="http://dx.doi.org/10.2139/ssrn.3066136">http://dx.doi.org/10.2139/ssrn.3066136</a>.
- **2-** Andrei, D., H. Friedman, and N. B. Ozel. 2019. Economic Uncertainty and Investor Attention. Available at: <a href="http://dx.doi.org/10.2139/ssrn.3128673">http://dx.doi.org/10.2139/ssrn.3128673</a>.

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

- **3-** Bali, T.G., Brown, S.J and Tang, Y. 2017 Is Economics Uncertainty Priced in the Cross-Section of Stock Returns?, Journal of Financial Economics, Vol. 26(3), 471-489
- **4-** Bansal, R., and A. Yaron. 2004. Risks for the long run: A potential resolution of asset pricing puzzles. Journal of Finance 59: 1481–1509.
- **5-** Basu, R. S., S. Pierce, and A. Stephan. 2019. The Effect of Investor Inattention on Voluntary Disclosure. Available at: <a href="http://dx.doi.org/10.2139/ssrn.3071399">http://dx.doi.org/10.2139/ssrn.3071399</a>.
- 6- Bhattacharya, N., Desai, H, and Venkataraman, K. 2012. "Does Earnings Quality Affect Information Asymmetry? Evidences from Trading Costs". Contemporary Accounting Research, No. 191, 184-207.
- **7-** Bloom, N. 2014. Fluctuations in uncertainty. Journal of Economic Perspectives 28: 153–176.
- **8-** Bonaime, A. A., H. Gulen, and M. Ion. 2018. Does policy uncertainty affect mergers and acquisitions? Journal of Financial Economics 129 (3): 531–558.
- **9-** Boutchkova, M., H. Doshi, A. Durnev, and A. Molchanov. 2012. Precarious politics and return volatility. Review of Financial Studies 25: 1111–1154.
- **10-** Choi, H.M. 2010. When Good News is not so Good: Economy-Wide Uncertainty and Stock Returns, Journal of Business Finance & Accounting, Vol. 41(9), 1101-1123, 2014...
- **11-** Cormier, D, Houle, S and Ledoux, M . 2013, "The Incidence of Earnings Management on Information Asymmetry in an Uncertain Environment: Some Canadian Evidence". Journal of International Accounting, Auditing and Taxation. No. 22, 26–38.
- **12-**Drobetz, W., S. El Ghoul, O. Guedhami, and M. Janzen. 2018. Policy uncertainty, investment, and the cost of capital. Journal of Financial Stability 39: 28–45.
- **13-** Garel, A., J. M. Martin-Flores, A. Petit-Romec, and A. Scott. 2019. Institutional Investor Distraction and Earnings Management. Available at: http://dx.doi.org/10.2139/ssrn.3023754.
- **14-**Gulen, H., and M. Ion. 2016. Policy uncertainty and corporate investment. Review of Financial Studies 29: 523–564.
- **15-** Habib, A, Hossain, M, and Jiang, H. 2011. "Environmental Uncertainty and Market Pricingof Earnings Smoothness", Advances in International Accounting, No. 32,11-40.
- **16-** Habib, A. 2004. "Impact of Earnings Management on Value-Relevance of Accounting Information". Journal of Managerial Finance. No. 11, 1-15.
- **17-** Hirshleifer, D., and S. H. Teoh. 2003. Limited attention, information disclosure, and financial reporting. Journal of Accounting and Economics 36 (1-3): 337–386.
- **18-**Hirshleifer, D., S. S. Lim, and S. H. Teoh. 2011. Limited investor attention and stock market misreactions to accounting information. Review of Asset Pricing Studies 1 (1): 35–73.
- **19-** Ilut, C., and M. Schneider. 2014. Ambiguous business cycles. American Economic Review 104 (8): 2368–2399.
- **20-** Jenkins D.S., Kane, G.D. and Velury. U. 2009. Earnings Conservatism and Value Relevance Across the Business Cycle. Journal of Business Finance & Accounting, Vol.36 (9-10), 1041-1058.

ISSN: 2249-7307 Vol. 12, Issue 10, October 2022 SJIF 2022 = 8.529 A peer reviewed journal

- **21-** Johnson, Marilyn 1999, "Business Cycles and the Relation between SecurityReturns and Earnings", Review of Accounting Studies, Vol. 4, 93-117.
- **22-** Julio, B., and Y. Yook. 2012. Political uncertainty and corporate investment cycles. Journal of Finance 67: 45–83.
- **23-** Kaviani, M., L. Kryzanowski, H. Maleki, and P. G. Savor. 2020. Policy uncertainty and corporate credit spreads. Journal of Financial Economics, forthcoming.
- **24-**Kempf, E., A. Manconi, and O. Spalt. 2017. Distracted shareholders and corporate actions. Review of Financial Studies 30 (5): 1660–1695.
- **25-**Lim, C. Y., Ding, D. K., and Thong. T. Y. 2008. "Firm Diversification and Earnings Management: Evidence from Seasoned Equity Offerings". Review of Quantitative Finance and Accounting, No. 30, PP. 69–92.
- **26-**Liu, C., A. Low, R. W. Masulis, and L. Zhang. 2020. Monitoring the monitor: Distracted institutional investors and board governance. Review of Financial Studies, forthcoming.
- **27-**Loh, R. K., and R. M. Stulz. 2018. Is sell-side research more valuable in bad times? Journal of Finance 73: 959–1013.
- **28-** Sadok El Ghoul, OmraneGuedhami, Yongtae Kim. 2021. "Policy Uncertainty and Accounting Quality". Santa Clara University and Korea Advanced Institute of Science and Technology (KAIST)
- **29-** Samai, Hossein; ShariatPanahi, Majeed. 2013. "Smoothing profit and adjusted return based on risk". Tadbir monthly. No. 146. pp. 63-56
- **30-** Teoh, S. H., I. Welch, and T. J. Wong. 1998a. Earnings management and the long-run market performance of initial public offerings. Journal of Finance 53 (6): 1935–1974.
- **31-**Teoh, S. H., I. Welch, and T. J. Wong. 1998b. Earnings management and the underperformance of seasoned equity offerings. Journal of Financial Economics 50: 63–99.