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Empirical Evidence of Relationship between Contingent Liability and Market Capitalization

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ABSTRACT

In this paper an attempt is made to analyze and quantify the relationship between contingent liability and market capitalization of a listed company. For this a sample of 915 companies listed on NSE was studied over a period of five years (April 2013 – March 2018) and variables used were contingent liability, sales turnover, market capitalization and PAT. Descriptive analysis, correlation, regression, and panel data regression were used for analysis. A positive significant relationship was observed between PAT and Market Capitalisation and between CL and Market Capitalisation. An increase in CL/ST ratio resulted in a fall in market capitalization in majority of the cases of analysis, however the converse was not observed.For both year-on-year regressions and panel regressions adding contingent liability to list of predictors improved the percentage variation explained by model. However contrary to expectations, tests do not validate a negative causal relationship between contingent liability and market capitalization.

Keywords: Contingent liability, Market capitalisation.

INTRODUCTION:

The financial statements of a company play a very important role in its success. The users of the information take these things seriously, and look after the details very carefully, because the movement of their investment depends on the details mentioned in the statements. Everything about a company is known since its inception. The assets it owns, the liabilities it has, it's expenses, the revenue it earns. Something noticeable is that users generally ignore the footnotes that are mentioned along with the balance sheets and profit and loss statements. Contingent Liability is one such term that is mentioned there.

Liabilities can be classified into balance sheet liabilities and contingent liabilities. Balance sheet liabilities include long-term borrowings, trade payables (creditors) and short-term loans for working capital requirements. On the other hand, contingent liabilities are those that may occur in the future and are subject to the outcome of an uncertain event—pending lawsuits, tax disputes or patent infringements. These liabilities are not included in the balance sheet due to their uncertain nature. These are mentioned in the footnotes or notes to the financial statements section.

However, it is imperative to understand the nature of contingent liabilities as such liabilities may help some companies in the long run. For example, some automobile companies offer customers repair and replacements of auto parts within a specified period. Such liabilities may prove costly for the companies in the short run but they

help them build the brand image and boost consumer confidence over a period of time. The notes to financial statements clearly mention the source of such liabilities and investors should look at the quantum and time period of such liabilities while analyzing stocks.
The rising NPA's of bank further complicated the situation as Loans which were an asset for the banks have now become a liability. This has severe implications on banks financial performance.
With the rising contingent liabilities in many huge multi-million and multi-billion companies and banks, it is important that relationship between contingent liability and market capitalization be studied. This paper talks about what kind of relationship does the contingent liability and market capitalization share.

OBJECTIVE:

This paper intends to test and establish whether there is a causal relationship between Change in Contingent Liability and Market Capitalization of the company. We make a hypothesis that a fall in contingent liability will lead to an increase in market capitalization whereas an increase in contingent liability shall lead to a decrease in market capitalization. The rationale behind this hypothesis is that the market factors in the increased expectation of performance resulting from decrease in risk, increased cash (with less need for reserves), and decreased liabilities, as a result of fall in contingent liability, will attract higher Market Capitalization and vice-versa.

LITERATURE REVIEW:

According to GMT Research that companies with high and/or rising contingent liabilities relative to their industry peers are penalized. A company's capital commitments are expected to rise when contingent liabilities occur. Accordingly, the financial statements take a blow, and become weaker over time. Almost three-fifth of the industry reveals that they have some sort of contingent liability. Certain industries generally have a higher level of contingent liabilities than others. For example, the GMT research showed food and retail sector's median average contingent liability is 40-65% of equity, as opposed to only 4-5% in Pharmaceutical and Real Estate Investment Trusts.
Burnside (2004) in his research works discussed how contingent liabilities will create several state commitments. The article also discussed the process of government guarantees and their method of financing, the probability of financial crisis.
Darabi and Fighani (2012) found that disclosure of contingent liabilities and the type of contingent liability are important and required for decision making.
Millicent Chang et. al. (2008) used some checklists to evaluate a firm's internet-based investor-relations practices to find the relation between quality of information disclosure and asymmetry in information. They found that firms with higher quality information have higher analyst followings, institutional active trading and higher market capitalization.
Healy Hutton & Palepu (1999) found that increased disclosure leads to investors to revise valuations upwards, increased stocks liquidity and analyst interest.
Brown & Hillegeist (2007) discussed how quality of disclosure affects information asymmetry. High quality of disclosure in financial statements dampens the incentives to search for costly private information asymmetry.
Bhardwaj, (2018) in an article in economic times titled "7 stocks with declining contingent liabilities and highest upside potential" observes that "Companies with falling contingent liabilities have outperformed the market by more than five times over the past five years". In an another article titled "Does contingent liability affect the stock price?" he finds that companies with consistently rising contingent liability to total liabilities ratio underperformed the market and gave a negative average return whereas the companies with a consistently falling contingent liability to liabilities ratio outperformed the market gave a positive average return higher than he market return.

RESEARCH METHODOLOGY:

This paper employs a descriptive approach.We have collected a sample of last five years' (2013- 2018) financial data of 915 companies listed on NSE from Capitaline database. Variables included are Contingent Liability (CL), Sales Turnover (ST), Market Capitalization and PAT. To analyze the data, Descriptive Analysis, Correlation and Linear Regression (Year-on-Year and Panel Linear Regression) is used.
First, the CL/ST (Contingent Liability/Sales Turnover) is calculated. Then a Year-on-Year change in CL/ST is noted and the Change in Market Capitalization of companies in the corresponding years is observed. From this the impact of change in CL/ST on Market Capitalization of the companies is noted. Further, to avoid bias in Data

Specification, the data is segregated into top 20% and bottom 20% on the basis of CL/ST ratio. The same process is repeated and their respective impacts are noted.
Then, to further understand the nature of relationship, Correlation Analysis and Cross-Sectional Regression is used. Linear Regression is applied on both year-on-year data and panel data. Here also the data is segregated into top 20% and bottom 20% and results noted.

RESULTS AND INTERPRETATION:

Descriptive:

We observe from the following table that the percentage of companies that experience a fall in market capitalization corresponding to the year in which its CL/ST rise is more than the companies not experiencing the fall in market capitalization for the corresponding years, while for the years in which CL/ST decreases (in the consecutive year except for change in 3rd to 4th years), we do not observe a majority of the companies experiencing a rise in market capitalization. We observe a similar pattern for Top 20% and Bottom 20% companies segregated on the basis of CL/PAT ratio in Year 1(2013). Thus, based on this observation we may conclude that the fall in CL/ST may not necessarily increase in the market capitalization but a rise in CL/ST in most of the cases has resulted into a fall in market capitalization.

	Market Capitalisation			
	Rise (1-2)	**Rise (2-3)**	**Rise (3-4)**	**Rise (4-5)**
Fall in CL/ST	45%	24%	44%	23%
	Fall (1-2)	**Fall (2-3)**	**Fall (3-4)**	**Fall (4-5)**
Rise in CL/ST	57%	76%	41%	69%

Correlation:

Pearsons correlation was used to study the relationship between Market Capitalization and PAT.

		CAP_1	CAP_2	CAP_3	CAP_4	CAP_5
PAT _1	Pearson Correlation	.771**	.794**	.757**	.720**	.706**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	915	915	915	915	915
PAT 2	Pearson Correlation	.808**	.847**	.823**	.808**	.790**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	915	915	915	915	915
PAT_3	Pearson Correlation	.476**	.515**	.436**	.423**	.406**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	915	915	915	915	915
PAT 4	Pearson Correlation	.823**	.861**	.885**	.899	.892**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	915	915	915	915	915
PAT _5	Pearson Correlation	.799**	.841	.859**	.883**	.888**
	Sig. (2-tailed)	.000	.000	.000	.000	.000

In the above table, we observe that there is Significant Positive Correlation between PAT and Market Capitalisation for all the years.

		CL_1	CL_2	CL_3	CL_4	CL_5
CAP_1	Pearson Correlation	.456**	.463**	.490**	.508**	.475**
	Sig. (1-tailed)	.000	.000	.000	.000	.000
	N	915	915	915	915	915
CAP_2	Pearson Correlation	.435**	.440**	.463**	.478**	.452**
	Sig. (1-tailed)	.000	.000	.000	.000	.000
	N	915	915	915	915	915
CAP_3	Pearson Correlation	.408**	.412**	.432**	.447**	.426**
	Sig. (1-tailed)	.000	.000	.000	.000	.000
	N	915	915	915	915	915
CAP_4	Pearson Correlation	.430**	.435**	.449**	.465**	.453**
	Sig. (1-tailed)	.000	.000	.000	.000	.000
	N	915	915	915	915	915
CAP_5	Pearson Correlation	.389**	.391**	.404**	.422**	.412**
	Sig. (1-tailed)	.000	.000	.000	.000	.000

Here, we can observe that there is Significant Positive Correlation between Contingent liability and Market Capitalisation. Now we test this relationship with a Linear Regression Model.

Regression:

To understand the effect of change in Contingent Liability on Market Liability,firstly, we regress Profit after Tax (PAT) with Market Capitalisation (CAP); and Contingent Liability (CL) with Market Capitalisation (CAP); and then regress both Profit after Tax (PAT) and Contingent Liability (CL) with Market Capitalisation (CAP) and see if there is an improvement in the model. We do this for both Year-on-Year basis, as well as Panel Data.

Here we have the following Regression Equations:

CAP (Dependent Variable) and PAT (Independent Variable)

$$\mathbf{C = \alpha + \beta 1 * PAT}$$

CAP (Dependent Variable) and CL (Independent Variable)

$$\mathbf{C = \alpha + \beta 1 * CL}$$

CAP (Dependent Variable) and PAT, CL (Independent Variables)

$$\mathbf{C = \alpha + \beta 1 * PAT + \beta 2 * CL}$$

First, we have the result of year-on-year regressions:

		Year 1 April 2013 – March 2014	**Year 2 April 2014 – March 2015**	**Year 3 April 2015 – March 2016**	**Year 4 April 2016 – March 2017**	**Year 5 April 2017 – March**
β(of Pat)	CAP & PAT	16.159	16.823	0.638	19.373	15.959
	CAP & CL	-	-	-	-	-
	CAP & (PAT & CL)	14.861	15.671	0.510	19.423	16.308
Significance	CAP & PAT	0.000	0.000	0.000	0.000	0.000
	CAP & CL	-	-	-	-	-
	CAP & (PAT & CL)	0.000	0.000	0.000	0.000	0.000
β (of CL)	CAP & PAT	-	-	-	-	-
	CAP & CL	0.216	0.208	0.187	0.215	0.170
	CAP & (PAT & CL)	0.151	0.080	0.148	(0.002)	(0.016)

		Year 1 April 2013 – March 2014	**Year 2 April 2014 – March 2015**	**Year 3 April 2015 – March 2016**	**Year 4 April 2016 – March 2017**	**Year 5 April 2017 – March**
Significance	CAP & PAT	-	-	-	-	-
	CAP & CL	0.000	0.000	0.000	0.000	0.000
	CAP & (PAT & CL)	0.000	0.000	0.000	0.791	0.026
Adjusted R^2	CAP & PAT	0.593	0.718	0.190	0.808	0.788
	CAP & CL	0.207	0.193	0.186	0.215	0.169
	CAP & (PAT & CL)	0.691	0.743	0.299	0.808	0.789
Significance of Regression	CAP & PAT	0.000	0.000	0.000	0.000	0.000
	CAP & CL	0.000	0.000	0.000	0.000	0.000
	CAP & (PAT & CL)	0.000	0.000	0.000	0.000	0.000
Durbin - Watson	CAP & PAT	1.758	1.932	2.108	1.978	1.899
	CAP & CL	1.858	1.848	1.906	1.852	1.892
	CAP & (PAT & CL)	1.972	1.990	2.073	1.980	1.905
Tolerance	CAP & PAT	-	-	-	-	-
	CAP & CL	-	-	-	-	-
	CAP & (PAT & CL)	0.962	0.882	0.935	0.729	0.753
VIF	CAP & PAT	-	-	-	-	-
	CAP & CL	-	-	-	-	-
	CAP & (PAT & CL)	1.039	1.134	1.069	1.372	1.329

Inferences:

Year 1:

- **CAP & PAT:**
  - Adjusted R^2 is 59.3%
  - DB Statistic is close to 2, showing near absence of auto-correlation.
  - PAT is statistically significant.
  - A strong β of 16.159
- **CAP & CL:**
  - Adjusted R^2 is 20.7%
  - DB Statistic is close to 2, showing near absence of auto-correlation.
  - CL is statistically significant.
  - β is weak at 0.216
- **CAP & (PAT & CL):**
  - Adjusted R^2 is 69.1%
  - DB Statistic is close to 2, showing near absence of auto-correlation.
  - PAT & CL are statistically significant.
  - β of PAT is strong at 14.861 whereas β of CL is weak at 0.151

Year 2:

- **CAP & PAT:**
  - Adjusted R^2 is 71.8%
  - DB Statistic is close to 2, showing near absence of auto-correlation.
  - PAT is statistically significant.
  - A strong β of 16.823
- **CAP & CL:**
  - Adjusted R^2 is 19.3%

- DB Statistic is close to 2, showing near absence of auto-correlation.
- CL statistically significant.
- β is weak at 0.208

➢ **CAP & (PAT & CL):**

- Adjusted R^2 is 74.3%
- DB Statistic is close to 2, showing near absence of auto-correlation.
- PAT & CL are statistically significant.
- β of PAT is strong at 15.671 whereas β of CL is weak at 0.080

Year 3:

➢ **CAP & PAT:**

- Adjusted R^2 is 19.0%
- DB Statistic is close to 2, showing near absence of auto-correlation.
- PAT is statistically significant.
- A weak β of 0.638

➢ **CAP & CL:**

- Adjusted R^2 is 18.6%
- DB Statistic is close to 2, showing near absence of auto-correlation.
- CL is statistically significant.
- β is weak at 0.187

➢ **CAP & (PAT & CL):**

- Adjusted R^2 is 29.9%
- DB Statistic is close to 2, showing near absence of auto-correlation.
- PAT & CL are statistically significant.
- β of PAT is weak at 0.510and β of CL is weak at 0.148

Year 4:

➢ **CAP & PAT:**

- Adjusted R^2 is 80.8%
- DB Statistic is close to 2, showing near absence of auto-correlation.
- PAT is statistically significant.
- A strong β of 19.373

➢ **CAP & CL:**

- Adjusted R^2 is 21.5%
- DB Statistic is close to 2, showing near absence of auto-correlation.
- CL is statistically significant.
- β is weak at 0.215

➢ **CAP & (PAT & CL):**

- Adjusted R^2 is 80.8%
- DB Statistic is close to 2, showing near absence of auto-correlation.
- PAT & CL are statistically significant.
- β of PAT is strong at 16.308 whereas β of CL is negative at 0.002. Value of β (CL) is insignificant as Sig. 0.791 > 0.050

Year 5:

➢ **CAP & PAT:**

- Adjusted R^2 is 78.8%
- DB Statistic is close to 2, showing near absence of auto-correlation.
- PAT is statistically significant.
- A strong β of 15.959

➢ **CAP & CL:**

- Adjusted R^2 is 16.9%
- DB Statistic is close to 2, showing near absence of auto-correlation.

- CL is statistically significant.
- β is weak at 0.170

➢ **CAP & (PAT & CL):**

- Adjusted R^2 is 78.9%
- DB Statistic is close to 2, showing near absence of auto-correlation.
- PAT & CL are statistically significant.
- β of PAT is strong at 16.308 whereas β of CL is weak at 0.016

Here, we observe that both PAT has been statistically significant for all years and CL has been a statistically significant for four out of five years. Both PAT and CL have positive beta suggesting a positive relaionship between CL and Market Capitalisation which is contrary to our hypothesis. Also, while PAT has strong beta over the years, CL has a weak Beta suggesting that Relationship is not strong. Also the DW statistics showed near absense of autocorrelation for the various years and data did not present multi-collinearity.
Now we consider the results of Panel Regression:

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.497[2]	.247	.247	22266.78707	1.895

a. Predictors: (Constant), **PAT,** Contingent_liability
b. Dependent Variable: Market_capitalisation

ANOVA[2]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.430E+11	2 4572	3.715E+11	749.266	.000[b]
	Residual	2.267E+12	4574	495809806.6		
	Total	3.010E+12				

a. Dependent Variable: Market_capitalisation
b. Predictors: (Constant), PAT, Contingent_liability

Coeflicientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4757.671	332.864		1 4.293	.000		
	Contingent_liability:	.187	.006	.409	31.477	.000	.976	1.025
	PAT	.796	.046	.226	1 7.363	.000	.976	1.025

a. Dependent Variable: tylarket_capitalisation

Here, we observe that VIF is less than 5 for both the variables, thus the data does not have multi-collinearairity and R square is 49.7% withDB Statistic is close to 2, showing near absence of auto-correlation. The beta cofficient of PAT is a positive 0.796 which suggest that market capitalisation increases with an increase in PAT. Interestingly we observe that beta for contingent liability is also positive 0.187 which is contarty to our hypothesis of a negative relationship. Also, adjusted R sqaure is 24.7% which suggest that impact of various other variables shall be taken into consideration alsong with PAT and CL while taking a decision on the stock. To further understand, we segregate the data into top 20% and bottom 20% based on the CL/PAT ratio of Year 1. Following is the result of Regression of CAP (dependent) and PAT(Independent) of bottom 20%.

Model Summary'

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.349[a]	.122	.120	15428.01738	1.785

a. Predictors: (Constant), PAT
b. Dependent Variable: CAP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21333898346	1	21333898346	89.629	.000[b]
	Residual	1.542E+11	648	238023720.3		
	Total	1.756E+11	649			

a. Dependent Variable: CAP
b. Predictors: (Constant), PAT

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3593.363	608.743		5.903	.000
	PAT	.334	.035	.349	9.467	.000

a. Dependent Variable: CAP

- We see that theDB Statistic is close to 2, showing near absence of auto-correlation.
- The PAT is significant with a beta (ß) of .334 and R square of 12%.

CAP (Dependent Variable) and PAT, CL (Independent Variables)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.521[a]	.271	.269	14063.26027	1.786

a. Predictors: (Constant), CL, PAT
b. Dependent Variable: CAP

ANOVA[2]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47612656953	2	23806328477	120.371	.000[b]
	Residual	1.280E+11	647	197775289.3		
	Total	1.756E+11	649			

a. Dependent Variable: CAP
b. Predictors: (Constant), CL, **PAT**

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	2235.807	567.254		3.941	.000		
PAT	.212	.034	.221	6.268	.000	.903	1.108
CL	1.554	.135	.407	11.527	.000	.903	1.108

a. Dependent Variable: CAP

- We see that DB Statistic is close to 2, showing near absence of auto-correlation.
- VIF is less than 5 which means that there is no multi-collinearity.
- Both PAT and CL are significant with betas (β) of .212 and 1.554.
- Adjusted R square has increased from 12% to 26.9%. Thus, the model improves by adding CL to the list of predictors.

Following is the result of Regression of CAP (dependent) and PAT(Independent) of top 20%

Model Summary[b]

Model	R	R Square	.A.djusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.528[a]	.278	.278	29242.09651	1.870

a. Predictors: (Constant), P..T
b. Dependent Variable: CAP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.011E+11	1	3.011E+11	352.088	.000[b]
	Residual	7.807E+11	913	855100208.5		
	Total	1.082E+12	914			

a. Dependent Variable: CAP
b. Predictors: (Constant), PAT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4970.633	987.072		5.036	.000
	PAT	3.857	.206	.528	18.764	.000

a. Dependent Variable: CAP

- We see that DB Statistic is close to 2, showing near absence of auto-correlation
- The PAT is significant with a beta of 3.857 and R square of 27.8%.

CAP (Dependent Variable) and CL,PAT (Independent Variables)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.791[a]	.626	.625	21072.04506	1.906

a. Predictors: (Constant), CL, PAT
b. Dependent Variable: CAP

ANOVA[2]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.768E+11	2	3.384E+11	762.132	.000[b]
	Residual	4.050E+11	912	444031083.2		
	Total	1.082E+12	914			

a. Dependent Variable: CAP
b. Predictors: (Constant), CL, PAT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIE
1	(Constant)	3395.511	713.349		4.760	.000		
	PAT	1.640	.167	.224	9.844	.000	.791	1.265
	CL	.198	.007	.663	29.090	.000	.791	1.265

a. Dependent Variable: CAP

- DB Statistic is close to 2, showing near absence of auto-correlation.
- VIF is less than 5,implying that there is no multi-collinearity.
- Both PAT and CL are significant with betas (ß) of 1.640 and .198.
- Adjusted R square has increased from 27.8% to 62.5%.

Thus, here also, the model improves by adding CL to the list of predictors.

CONCLUSION:

Although contingent liabilities form an important part of notes to accounts, there is not necessarily a linear causal relationship between contingent liability and market capitalization. The nature and composition of contingent liability affects how it is perceived by the investor. For example, when an automobile company creates a contingent liability for free customer service in future in case of any complaint it can lead to a positive impact on the company's market capitalization as this shall improve company's long term consumer relationship and loyalty. On the other when a tech firm such as google faces a law suit and it appears as a contingent liability, it negatively affects the company's market performance as it represents future outflows in form of legal expenses, goodwill loss, etc.

We have the following conclusion from the research:

1. We observe that there is a positive relationship between CL and Market Capitalisation.
2. An increase in CL/ST ratio resulted in a fall in market capitalization in majority of the cases of analysis, whereas a fall in CL/ST ratio does not necessarily lead to a rise in market capitalization.
3. We observe significant correlation between Market Capitalisation and PAT and between Market Capitalisation and Contingent Liabilities.
4. For both year-on-year regression and panel regression adding contingent liability to list of predictors improved the percentage variation explained by model. The pattern remains similar for both Top 20% and Bottom 20% Category (Based on CL/PAT ratio in Year 1)
5. Contingent liability was a significant variable having a positive beta in most cases. Thus, we cannot accept the negative relationship between contingent liability and market capitalization.

Thus we conclude that empirical evidence do not validate a negative relationship between contingent liability and market capitalisation and the investor should judge the effect of the change in contingent liability on stock prices on the merit of individual cases rather than on the basis of general theory.

REFERENCES:

Bhardwaj, S. (2012). Does Contingent Liability Affect the Stock Price?, *Economic Times,* September 24 2018, https://economictimes.indiatimes.com/does-contingent-liability-affect-the-stock-

price/articleshow/16503193.cms?from=mdr.

Bhardwaj, S. (2018). 7 Stocks wealth with Declining Contingent Liabilities and Highest Upside Potential, *Economic Times.* September 18 2018.

Brown S. and Hillegeist, S. A. (2007). How Disclosure Quality Affects the Level of Information Asymmetry, *Review of Accounting* Studies, vol. 12 No. (2-3) pp. 443–477.https://link.springer.com/article/10.1007/s11142-007-9032-5

Burnside Craig (2004). Currency Crisis and Contingent Liabilities, *Journal of International Economics,* 62. 25-52. https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/1901/Burnside_currency_crisis_and_contingent.pdf.

Chang M. D` Anna, G.Watson I. and Wee, M. (2008). Does Disclosure Quality via Investor Relations Affect Information Asymmetry?, *Australian Journal of Management*, vol. 33 NO. 2 PP 375-390. https://journals.sagepub.com/doi/abs/10.1177/031289620803300208

Healy P. Hutton, A. and Palepu, K. (1999). Stock Performance and Intermediation Changes Surrounding Sustained Increase in Disclosure, *Contemporary Accounting Research* vol. 16 pp. 485-520. https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1911-3846.1999.tb00592.x

Lacy J. Y. (2002). *Probability Expression and Ambiguity: An Experimental Study of Disclosure Perceptions for Contingent Liabilities,* PhD Thesis, George Washington University.

Main, D. and B, S. and M S A. (1990). Auditor *Decision Making Ander Ambiguity: A Test of the Einhorn and Hogarth Ambiguity Model*, Working paper School of the Ohio state University. https://etd.ohiolink.edu/!etd.send_file?accession=osu1265296896&disposition=inline

Raja DarabiI, Mehdi Fagani (2012). The Disclosure Effects of Contingent Liabilities and Ambiguities on Making Decisions by Users of Financial Statements, *International Journal of Business and Commerce*, 9 pp.https://www.ijbcnet.com/1-5/IJBC-12-1504.pdf

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