Abstract—This study aims to determine the effects of debt covenant and managerial ownership structure on accounting conservatism in manufacturing companies listed in the Indonesia Stock Exchange (IDX) period 2016-2018. The sample in this study is manufacturing companies listed in Indonesia Stock Exchange (IDX) period 2016-2018. The companies selected using purposive sampling amount to 112 companies for 3 consecutive years, or 336 companies in total. This study employed data panel regression with Eviews version 10.0. The findings of this study show that debt covenant and sales growth have a positive and significant effect while managerial ownership structure and firm size have a positive and insignificant effect on accounting conservatism in the manufacturing companies listed in Indonesia Stock Exchange (IDX) period 2016-2018.

Keywords: debt covenant, managerial ownership structure, firm size, sales growth, accounting conservatism

I. INTRODUCTION

The management of a company is obliged to carry out its duties and responsibilities with great caution, particularly in providing information concerning the financial statements. In order to achieve profitable financial statements, accounting principles are required to ensure that the financial statements presented have relevant, reliable, and accountable figures [1].

A company can also choose an accounting method in accordance with its economic conditions. One of the methods or principles of accounting to apply is conservatism.

A reason to apply accounting conservatism is to prevent the managers from overstating profits. An example of scandalous management practice that overstates profits is that of PT. Toshiba Corporation in 2015. It is evident that the top leaders involved systematically overstate the profit by $1.2 billion over several years.

The independent team led by former prosecutor of Tokyo revealed that Toshiba has a corporate culture in which management decisions cannot be opposed. The case began when the security regulator discovered irregularities following the investigation into the balance sheet of the company. The employees were charged with inappropriate accounting such as delaying reporting the loss or transfer of certain costs to the following year [2].

Until now, the application of the principle of conservatism remains a matter of controversy. The application of conservatism in the financial statements may be biased [3]. Despite the criticism, the principle of conservatism is still widely applied by accountants. Accounting conservatism is beneficial to prevent the opportunistic attitude of the manager related to contracts, in which financial statements are used as the media of the contracts [4].

Debt covenant may assist in determining the pricing of loans by providing new information to the creditor [5]. It also can improve the efficiency of debt contract by providing the options for creditor to impose restrictions in the contract.

In terms of managerial ownership structure, should the share owned by the manager is lower than that of other parties, the accounting method applied tends to be less conservative, and vice versa.

A study conducted by Saputra discovers that debt covenant has an effect on accounting conservatism [6]. Another study conducted by Fatmariani states that managerial ownership structure significantly influences accounting conservatism [7].

Based on the aforementioned description, the problems in this study are formulated as follows:

- Does debt covenant influence accounting conservatism over the period 2016-2018?
- Does managerial ownership structure influence accounting conservatism over the period 2016-2018?

II. LITERATURE REVIEW

A. Review of the Findings of Previous Studies

Andreas et al in a study entitled “Accounting Conservatism in Indonesia” used the population of manufacturing companies listed in Indonesia Stock Exchange period 2012-2013 [8]. The findings show that the growth of a company as measured by sales growth, profitability as measured by ROE, and IOS have a positive effect on accounting conservatism.

Dewi and Suryanawa examine the effect of managerial ownership structure, leverage, and financial distress on accounting conservatism [9]. The population in this study is all manufacturing companies listed and publishing financial reports.
statements in Indonesia Stock Exchange period 2009-2011. The findings demonstrate a positive and significant effect of managerial ownership structure on accounting conservatism. Leverage has a positive and significant effect while financial distress has a negative and significant effect on accounting conservatism.

B. Theoretical Basis

1) Theory of agency: Jensen and Meckling describe the agency relationship as a contract stating that one party (principal) requests another party (agent) to perform certain services in the interest of the principal and delegates its authority to the agent [10]. Both the shareholders (principal) and the management (agent) desire to accomplish utility maximization, hence the divergence or conflict of interests between stockholders (principal) and management (agent) referred to as agency problem.

2) Positive accounting theory: There are three hypotheses of positive accounting theory by Watts and Zimmerman [11], including:

   a) Bonus plan hypothesis: This hypothesis predicts that the manager tends to increase profits by shifting the reported earnings from future periods to the current period to maximize the increase in bonuses.

   b) Debt covenant hypothesis: This hypothesis predicts that the company tends to reduce the ratio of debt and equity by reducing the costs incurred to increase current earnings and display a good performance by applying accounting methods able to increase profits.

   c) Political cost hypothesis: This hypothesis predicts that the manager tends to save reported earnings in the current period to be reported at future periods to minimize the political costs and avoid political pressure by showing modest corporate profits.

3) Accounting conservatism: The official definition of conservatism is contained in the Glossary of Concepts Statement 2 by FASB (Financial Accounting Standards Board) submitted by Givoly and Hayn, namely, a cautious reaction against uncertainty and risks inherent in business to ensure that such uncertainty and risks can be considered sufficient [12]. The reasons for applying accounting conservatism [13,14], among others:

   • The tendency for pessimism is deemed necessary to balance the possibly excessive optimism of the manager and the owner of the company.

   • Earnings and ratings that are declared too high (overstatement) shall be more harmful to the company and its owner than the presentation of modest financial statements (understatement).

   • Accountants are in fact able to obtain and communicate information to users.

4) Debt covenant: A debt covenant is an agreement utilized to protect creditor from the behavior of manager that deviates from the interests of the creditor [15].

The selection of accounting method is inseparable from the positive accounting theory, one of which is debt covenant hypothesis [16]. Debt covenant hypothesis predicts the desire of manager to increase the profits and assets of the company to reduce the costs of debt renegotiation contract when the company attempts to select a possibly favored policy that leads to low application of the principles of conservatism. The creditor has limited authority over the company, thus they shall be protected by the principles of accounting conservatism.

5) Managerial ownership structure: Managerial ownership structure is the proportionate ownership of shares by the management of the total shares of the company. According to Risdiyani and Kusmuriyanto, should the proportion of managerial ownership is higher compared to other investors, the management tends to apply conservative accounting principles due to a larger sense of belonging that causes the management does not want to exaggerate profits [17].

C. Intergovernmental Relations as a Variable of the Study

1) The effect of debt covenant on accounting conservatism: Debt covenant has a role in the application of conservative accounting principles. First, bondholders can explicitly utilize the principles of accounting conservatism. Second, the manager can consistently utilize the principles of accounting conservatism as a framework to build a reputation for conservative financial reporting [15]. Based on the debt covenant hypothesis, when a company nearly violates the debt covenant, the manager shall attempt to avoid a debt renegotiation contract by selecting an accounting method capable of improving corporate profits, thereby decreasing the application of conservative accounting principles. Therefore, the creditor shall require to increase the application of the principles of accounting conservatism. Observed from the perspective of creditor, understated financial statements are better compared to overstated financial statements.

   H1 = Debt covenant has a significant effect on accounting conservatism.

2) The effect of managerial ownership structure on accounting conservatism: The ownership of shares by the management of a company can serve as a medium to monitor the financial reporting process. Should the management performs the function of monitoring properly, it shall encourage high utilization of the principles of accounting conservatism [18]. Larger ownership of shares by the management shall reduce the agency problem since the management has similar interests as other investors, providing a strong motivation for the manager to work to increase the value of company’s shares and report the earnings of the company conservatively [10].

   H2 = Managerial ownership structure has a positive effect on accounting conservatism.
D. Conceptual Framework

![Conceptual Framework](image)

Fig. 1. Conceptual framework.

III. METHODS

A. The Strategy of the Study

This study is a descriptive study employing a quantitative method. A descriptive study aims to determine the existence of independent variables, either at one or more variables without formulating a comparison of the variables and searching for the relationships with other variables [19]. A quantitative study is a method based on the philosophy of positivism, employed to examine particular population or sample [19].

B. Population and Sample

Population as an area of generalization consists of the objects or subjects with certain qualities and characteristics later defined by the authors to be learned and drawn conclusions from Sugiyono [19]. The population in this study is the manufacturing companies listed in the Indonesia Stock Exchange period 2016-2018, amounting to 141 companies.

Sample is part of the number and characteristics owned by the population [19]. The number of samples in this study is 112 companies for 3 consecutive years, thus the total number of samples is 336 samples.

The sample in this study is selected using purposive sampling approach. The following are the criteria of the sample in this study:

- Manufacturing companies that publish the complete annual financial statements during the observation period of 2016-2018.

C. Data Collection

The data used are secondary data obtained through intermediary media to be examined and processed first-hand.

The data are obtained from the annual financial statements published by the respective companies listed in Indonesia Stock Exchange (IDX), accessible through the official website of Indonesia Stock Exchange (IDX).

D. Operationalization Variable

1) Dependent variable: Accounting conservatism

\[ KSV = \frac{NI + DEP - CFO}{TA} \times (-1) \]  

2) Independent variable: Debt Covenant leverages \[ = \frac{total\ debt}{total\ assets} \]

Managerial ownership structure:

\[ SKM = \frac{Managerial\ Share\ Ownership}{Total\ shares\ of\ the\ Company} \]

3) Control variable: Firm size

Size = Log n (Total assets)

Sales growth:

Growth = \[ \frac{Sales_{t} - Sales_{t-1}}{Sales_{t-1}} \]

E. Data Analysis

Data analysis is an activity performed following data collection from all respondents or other data [20]. Data analysis used in this study is panel data regression analysis with three models of approach: Common Effect Model (CEM), Fixed Effects Model (FEM), and Random Effects Model (REM). The three models are selected through Chow test and Hausman test. The tests are conducted using descriptive statistics by testing the coefficient of determination and hypothesis of the predetermined variables, assisted by Microsoft Excel and Econometric Views (EViews) version 10.

IV. RESULTS AND DISCUSSION

A. Descriptive Statistical Analysis

TABLE II. THE RESULT OF DESCRIPTIVE STATISTICAL ANALYSIS

<table>
<thead>
<tr>
<th>Information</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSV</td>
<td>-0.388304</td>
</tr>
<tr>
<td>LEV</td>
<td>0.508065</td>
</tr>
<tr>
<td>SKM</td>
<td>0.066994</td>
</tr>
<tr>
<td>SIZE</td>
<td>28.57518</td>
</tr>
<tr>
<td>GROWTH</td>
<td>0.082887</td>
</tr>
<tr>
<td>N = 336</td>
<td></td>
</tr>
</tbody>
</table>

Source: www.atls.co.id (processed)
Description of Table II:

KSV, measured using the accrual size (Givoly and Hayn, 2000) in manufacturing companies in 2016-2018, LEV, measured by dividing total debt by total assets, SKM, Managerial share ownership, SIZE, the size of manufacturing companies in 2016-2018, measured by the natural logarithm of total assets, GROWTH, the growth rate of the company (sales t-1 / sales t-1).

Based on the previous table, debt covenant (X1), proxied by the leverage, has a minimum value of 0.050000, a maximum value of 3.590000, and a mean of 0.508065. Managerial ownership structure (X2) has a minimum value of 0.000000 (0%), a maximum value of 0.870000 (87%), and a mean of 0.066994. Firm size (Xk) has a minimum value of 0.000000 (0%), a maximum value of 0.870000 (87%), and a mean of 0.066994. Meanwhile, sales growth (Xk) has a minimum value of -0.990000, a maximum value of 3.480000, and a mean of 0.082887.

B. The Selection of Model for Panel Data Regression Analysis
1) Chow test

<table>
<thead>
<tr>
<th>Effects Test</th>
<th>statistics</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>18.722892</td>
<td>111</td>
<td>0.0000</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>788.34713</td>
<td>111</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Referring to the previous table, the value of prob. Cross-Section chi-square is 0.000 < 0.05, thus the model applied is Fixed Effect Model (FEM).

2) Hausman test

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. statistics</th>
<th>Chi-Sq. df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>15.944147</td>
<td>7</td>
<td>0.0256</td>
</tr>
</tbody>
</table>

Referring to the previous table, the value of prob. Cross Section Random is 0.0256 < 0.05, thus the model applied is Fixed Effect Model (FEM).

C. The Results of the Coefficient of Determination Test

<table>
<thead>
<tr>
<th></th>
<th>Adjusted R-squared</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.865890</td>
</tr>
</tbody>
</table>

Based on the aforementioned table, the value of Cross Section Random is 0.0256 < 0.05, thus the model applied is Fixed Effect Model (FEM).

D. Hypothesis Test (t-Test)

<table>
<thead>
<tr>
<th>KSV</th>
<th>Prediction</th>
<th>Coefficient</th>
<th>Prob.</th>
<th>t-stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constanta</td>
<td>-2.339153</td>
<td>0.0540</td>
<td>-1.937114</td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>+</td>
<td>0.339092</td>
<td>0.0003</td>
<td>3.657619</td>
</tr>
<tr>
<td>SKM</td>
<td>+</td>
<td>0.227264</td>
<td>0.1123</td>
<td>1.594307</td>
</tr>
<tr>
<td>SIZE</td>
<td>+</td>
<td>0.061468</td>
<td>0.1524</td>
<td>1.436017</td>
</tr>
<tr>
<td>GROWTH</td>
<td>+</td>
<td>0.083166</td>
<td>0.0086</td>
<td>2.649849</td>
</tr>
</tbody>
</table>

N = 336

R-Square = 0.911928

Prob. F (stat) = 0.000000

The previous table indicates the first hypothesis, referring to debt covenant, is accepted since t-count (3.657619) > t-table (1.967179) and the probability value (0.0003) < 0.05. The second hypothesis, referring to managerial ownership structure, is rejected since t-count (1.594307) < t-table (1.967179) and the probability value (0.1123) > 0.05.

E. Discussion

1) The effect of debt covenant (LEV) on accounting conservatism: Based on the results of the tests, it is concluded that debt covenant has a significant influence on accounting conservatism with a positive regression coefficient in manufacturing companies listed in the Indonesia Stock Exchange period 2016-2018. The results of this study show that debt covenant, proxied by the leverage ratio, has a significant effect on accounting conservatism. The higher the leverage ratio is, the higher the implementation of the principles of accounting conservatism shall be. It is possibly since a debt covenant generally provides the requirements that must be met by the company. The company shall implement the principles of accounting conservatism, one of which by maintaining a financial ratio including leverage ratio, since the creditor perceives that understated financial statements are better compared to overstated financial statements. Should the company does not meet the requirements proposed by the creditors, the company shall assume the sanction or prohibition of obtaining additional loan. Thus, it affects the behaviour and decision of the manager concerning the application of accounting methods. Thus, the manager shall implement conservative methods to avoid greater risk.

2) The effect of managerial structure on accounting conservatism: Based on the results of the tests, it is concluded...
that managerial ownership structure has no significant effect on accounting conservatism with a positive in manufacturing companies listed in the Indonesia stock Exchange Period 2016-2018.

The results of this study prove that the structure of managerial ownership has no significant effect on the application of the principles of accounting conservatism, apparently because the low percentage of total share ownership by the management of manufacturing companies selected as the sample of the study in the period of 2016-2018. Furthermore, a great number of shares of the companies is owned by both local and foreign institutions.

V. CONCLUSION AND RECOMMENDATION

A. Conclusion

Based on the aforementioned hypotheses and discussion, the conclusions of the study are as follows:

- Debt Covenant has a significant effect on accounting conservatism with a positive regression coefficient in companies listed in Indonesia Stock Exchange (IDX) period 2016-2018.
- Managerial Ownership Structure has no significant effect on accounting conservatism with positive regression coefficient in companies listed in Indonesia Stock Exchange (IDX) period 2016-2018.

B. Recommendation

Referring to the aforementioned results, the suggestions offered in this study are as follows:

1) For further studies:
   - To utilize other samples aside from manufacturing companies.
   - To add other variables affecting accounting conservatism of a company, such as corporate governance and financial distress.
   - To extend the period of the study for better results.

2) For potential investors and creditors: To be more careful in observing the accounting principles used by the manager of the company and considering to invest and lend to the company appropriately.

3) The limitations of the study: The authors recognize several limitations to the study conducted, among others:
   - The sample used is limited to manufacturing companies listed in Indonesia Stock Exchange (IDX).
   - The independent variables are limited to debt covenant and managerial ownership structure while the control variables are limited to the size of the company and sales growth.
   - The period of observation is limited to 3 years only, namely from 2016 to 2018.

REFERENCES