

The Value Relevance of Accounting Earnings and Book Value**Evidence from Six Large U.S. Listed Companies, 2021–2024**Author: Elio Wehaibe¹*Affiliation:*

1. *Business School, Holy Spirit University of Kaslik, P.O. Box 446, Jounieh, Lebanon*
2. *CIRAME Research Center, Holy Spirit University of Kaslik, P.O. Box 446, Jounieh, Lebanon*

Abstract:

This project examines the value relevance of accounting information by studying the relationship between market capitalization, net income, and shareholders' equity for six large U.S. listed companies over 2021–2024. The study uses 24 firm-year observations and applies descriptive statistics, Pearson correlations, and ordinary least squares regression based on the logic of Ohlson's valuation framework. The results show positive correlations between market capitalization and both net income and book equity. A model using net income alone produces an R^2 of 0.651, while adding book equity increases the R^2 to 0.765. In the combined model, book equity is statistically significant while net income is not, although net income is strongly associated with market capitalization in the simpler model. The findings are consistent with the idea that accounting information contains information relevant to equity valuation, but the small sample and cross-company differences mean that the results should be interpreted as exploratory rather than generalized to the full U.S. market.

Keywords:

Value relevance, Ohlson framework, market capitalization, net income, book value, equity valuation, financial reporting

Introduction:

Financial statements are prepared to give users information about a company's financial position and performance. For investors, however, the usefulness of that information ultimately depends on whether it helps explain how the market values the company. This idea is commonly discussed in accounting research as the value relevance of financial information. Earnings and book value are two of the most established accounting measures examined in this literature.

The basic motivation for this project comes from Ohlson's valuation framework, which links a firm's market value with accounting information such as earnings and book value (Ohlson, 1995). Earlier and later research has continued to examine whether these accounting numbers are reflected in market prices and whether their usefulness changes across settings and periods (Easton & Harris, 1991; Barth et al., 2001; Dunham & Grandstaff, 2022). Recent work also shows that the relationship can depend on characteristics of the reporting environment, including accounting comparability and reporting opacity (Chen et al., 2020).

The period from 2021 to 2024 is interesting for a small exploratory study because it covers a period of major changes in market valuations while companies were also reporting substantial changes in profitability and balance-sheet values. Rather than assuming that accounting numbers automatically explain market value, this project tests whether a simple valuation model produces an observable relationship in a recent sample of large U.S. listed companies.

Research gap. The academic literature is extensive, but the value relevance literature also recognizes that the strength of the relationship can change over time and with economic conditions (Dunham & Grandstaff, 2022). This project addresses a narrower practical gap by applying the established earnings-and-book-value framework to a recent, compact cross-industry U.S. sample. Because the sample is intentionally small, the study is presented as an exploratory application of an established model rather than as a general test of all U.S. firms.

Research questions: (1) Is net income associated with market capitalization in the selected sample? (2) Does shareholders' equity provide additional explanatory information when net income is included? (3) How much of the variation in market capitalization is explained by the combined accounting measures?

Objectives. The objectives are to collect comparable accounting and market data for the selected firms, describe the main variables, estimate simple ordinary least squares (OLS) models, and interpret the results in light of the value relevance literature.

Literature Review:

The value relevance literature starts from a straightforward question: do accounting numbers contain information that is reflected in equity values? Easton and Harris (1991) examine the relationship between earnings information and stock returns and provide evidence for the role of earnings in explaining equity market outcomes. Their work is part of a broader shift toward testing accounting information using market-based measures rather than evaluating financial reporting only from a purely accounting perspective.

Ohlson (1995) provides one of the most influential theoretical foundations for this type of analysis. His model connects market value with book value and earnings within a clean-surplus framework. The main implication for this project is that accounting earnings and book value can be treated as inputs into an equity valuation relationship rather than as isolated financial statement figures. Feltham and Ohlson (1995) develop a related framework in which market value is connected to book value and expected abnormal earnings, reinforcing the idea that accounting information can be informative about firm value.

Barth, Beaver, and Landsman (2001) discuss the value relevance literature in the context of financial accounting and standard setting. Their work emphasizes that value relevance studies can provide evidence about whether accounting amounts are associated with market values, while also highlighting the need to interpret such evidence carefully. In other words, a statistical association does not by itself prove that a particular accounting number causes investors to value a company in a specific way.

More recent literature continues to find that the relationship between accounting information and market value is not necessarily constant. Chen, Kurt, and Wang (2020) report that greater accounting comparability is associated with greater value relevance of earnings, while the effect on book value is different. This is relevant to the present project because the six firms operate in different industries, so their accounting numbers should not be treated as perfectly interchangeable.

Studies also discuss that investor sentiments have a significant impact on market value and pricing (Khalife et al., 2025). From a transparency perspective, big data analytics enabled both better decision-making (Subrahmanyam et al., 2024) and enhanced financial transparency (Saber & Sassine, 2022). On the other hand, economist and subject expert Jeanne Kaspard highlighted that market value can be impacted by factors others than accounting and financial metrics (Kaspard et al., 2025 ; Kaspard et al., 2026), including sustainability (Beainy & Kamel, 2025) and ESG (Athari et al., 2024); finally, elements such as auditor independence impact trust, and the latter impacts market valuation (Sawaya et al., 2025). Technology has enabled better pricing (Khalife et al., 2023) for individuals and investment funds alike, it also reduced risk through a better prediction of possible financial distress (Elia et al., 2021). Smarter decisions reduced the likelihood of companies going bankrupt (Subrahmanyam & Beainy, 2027), which according to economics would result in a lower required capital ratio, resulting better firm performance.

Dunham and Grandstaff (2022) review a large body of value relevance research and point out that changes in value relevance over time and the role of economic conditions remain areas where the literature does not provide a complete explanation. This supports using a recent period for the present exploratory analysis while keeping the conclusions appropriately limited.

Based on this literature, the project expects positive associations between market value and both net income and book equity when each measure is considered as part of an equity valuation framework. The empirical test does not assume that both variables must remain statistically significant after being entered together; their coefficients can change because the variables may contain overlapping information.

Methodology:

Research design. The study uses a quantitative, exploratory research design based on secondary data. The sample contains six large U.S. listed companies: Amazon, Alphabet, Meta Platforms, The Coca-Cola Company, Netflix, and Tesla. The observation period is 2021–2024, producing 24 firm-year observations. All six companies have calendar-year fiscal reporting periods, which makes the year-end market capitalization reasonably comparable with the corresponding annual accounting figures.

Data sources. Annual net income and shareholders' equity were obtained from StockAnalysis financial statement pages, which present the figures in U.S. dollars and identify S&P Global Market Intelligence as the underlying financial-data source. Historical year-end market capitalization was obtained from CompaniesMarketCap. The use of secondary databases keeps the dataset consistent across firms, while the figures can also be traced back to company filings through the financial-statement sources.

Variables. The dependent variable is market capitalization, measured in billions of U.S. dollars at year-end. The first explanatory variable is net income, also measured in billions of U.S. dollars for the corresponding fiscal year. The second explanatory variable is shareholders' equity, measured in billions of U.S. dollars at fiscal year-end. Using dollar amounts rather than per-share measures allows the analysis to focus on the aggregate relation between accounting information and the total market value of equity.

Empirical model. Following the logic of the Ohlson (1995) valuation framework, the main OLS model is:

$$\text{Market Cap}_{it} = \beta_0 + \beta_1 \text{Net Income}_{it} + \beta_2 \text{Book Equity}_{it} + \varepsilon_{it}$$

A second, simpler model includes net income alone. Comparing the two R^2 values gives an indication of whether adding book equity improves the model's in-sample explanatory power. The analysis also reports descriptive statistics and Pearson correlations.

The analysis is intentionally described as exploratory. The sample is small, the observations are repeated for the same firms across years, and the firms differ considerably in size and business model. Therefore, the OLS results should not be interpreted as causal estimates or as evidence that the relationships apply to the entire U.S. market.

Results:

The descriptive statistics show substantial variation across the sample. Average market capitalization is approximately \$958.23 billion, while average net income is \$29.12 billion and average shareholders' equity is \$119.83 billion. The wide ranges mainly reflect differences in company size and market valuation.

Variable	Mean	Std. Dev.	Minimum	Maximum
Market capitalization	958.23	712.33	131.22	2365.00
Net income	29.12	28.43	-2.72	100.12
Shareholders' equity	119.83	101.83	15.85	325.08

Table 1. Descriptive statistics. All monetary values are in billions of U.S. dollars.

The Pearson correlation between market capitalization and net income is 0.807, while the correlation between market capitalization and shareholders' equity is 0.874. Both are positive in this sample. Net income and shareholders' equity are also highly correlated (0.909), which is important when interpreting the multiple regression because the two accounting variables contain overlapping information.

Variable	Market Cap	Net Income	Book Equity
Market Cap	1.000	0.807	0.874
Net Income	0.807	1.000	0.909
Book Equity	0.874	0.909	1.000

Table 2. Pearson correlation matrix.

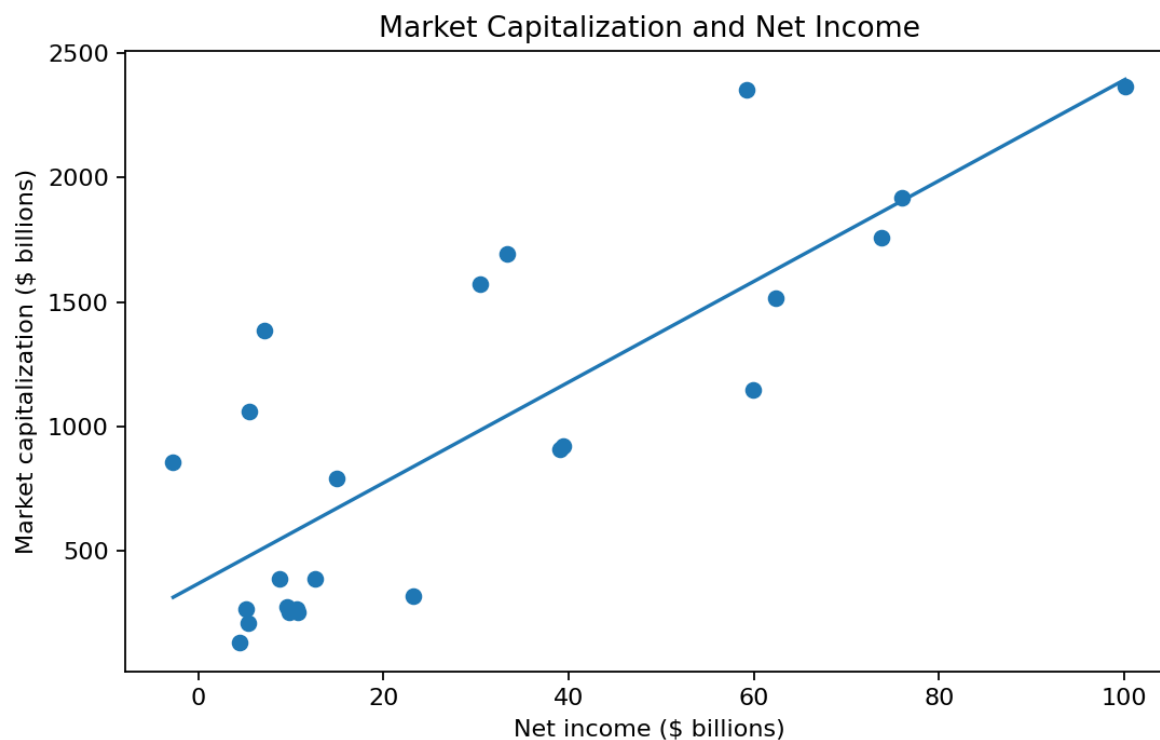


Figure 1. Market capitalization and net income.

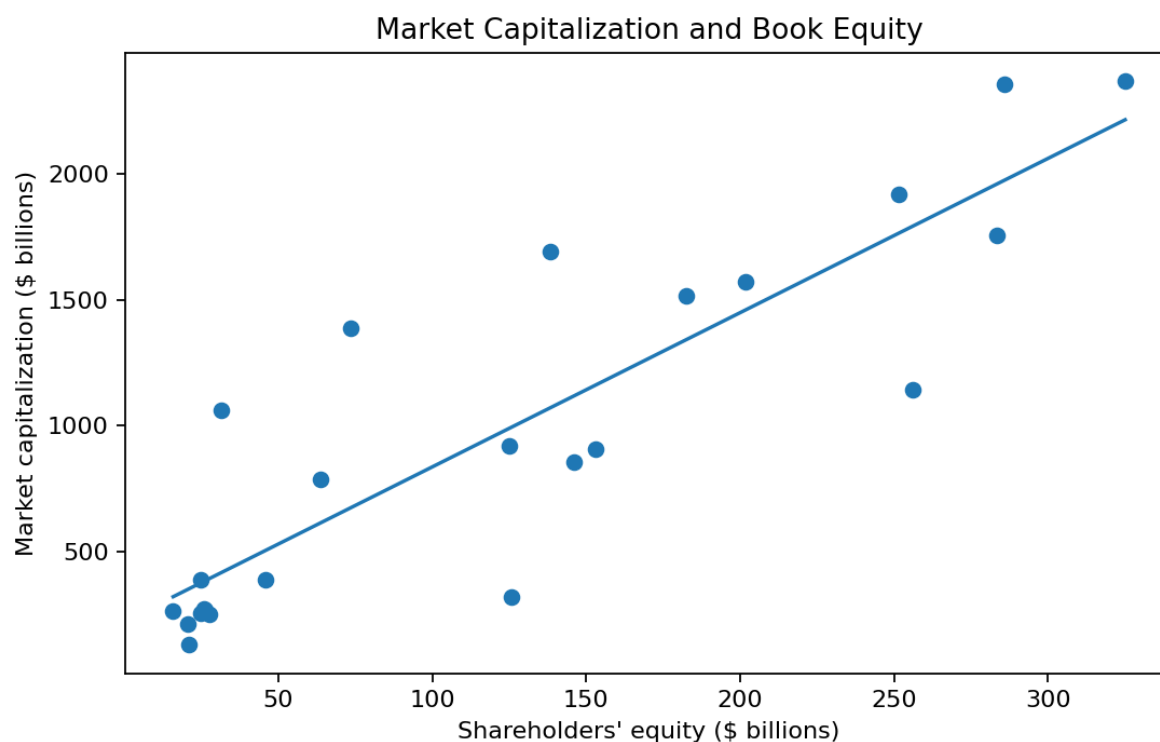


Figure 2. Market capitalization and shareholders' equity.

The first regression model uses net income as the only accounting explanatory variable. The estimated coefficient on net income is 20.21, with a p-value below 0.001, and the model has an R^2

of 0.651. This means that, within this particular sample, net income by itself is strongly associated with differences in market capitalization.

The main regression includes both net income and shareholders' equity. The model is statistically significant overall ($F = 34.12$, $p < 0.001$) and has an R^2 of 0.765, with an adjusted R^2 of 0.742. Book equity has a positive coefficient of 5.66 and is statistically significant ($p = 0.0044$). Net income has a coefficient of 1.77, but it is not statistically significant after book equity is included ($p = 0.783$).

Variable	Coefficient	Std. Error	t-stat	p-value
Constant	227.8858	115.7215	1.9693	0.0623
Net income	1.7744	6.3582	0.2791	0.7829
Book equity	5.6634	1.7751	3.1905	0.0044

Table 3. Multiple OLS regression. $R^2 = 0.765$; adjusted $R^2 = 0.742$; $F = 34.12$; model p -value < 0.001 .

The increase in R^2 from 0.651 in the net-income-only model to 0.765 in the combined model indicates that book equity adds in-sample explanatory information. At the same time, the loss of statistical significance for net income in the combined model should not be interpreted as evidence that earnings are irrelevant. The high correlation between net income and book equity means that the two variables overlap considerably in this sample, making it harder for the regression to separate their individual contributions.

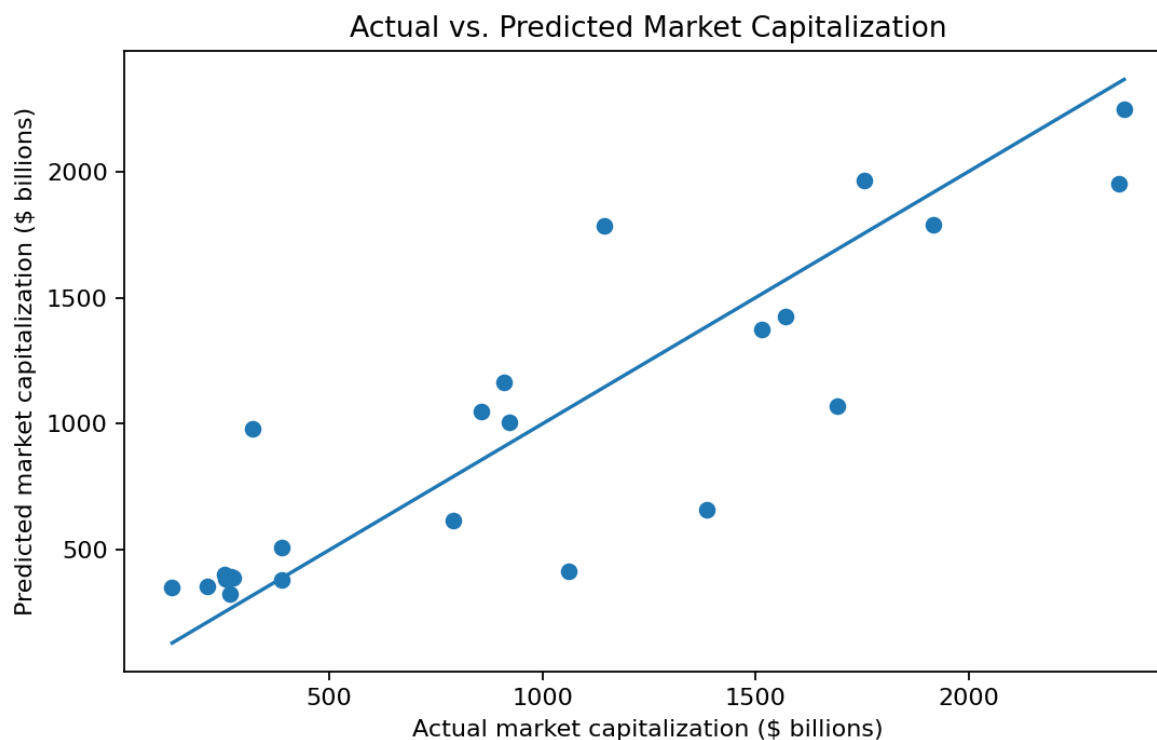


Figure 3. Actual versus predicted market capitalization from the multiple regression.

Discussion and Conclusion:

This project examined whether two basic accounting measures—net income and shareholders' equity—are associated with market capitalization in a recent sample of six large U.S. listed companies. The results provide evidence of a clear positive association between market value and the accounting information used in the study. Net income has a strong relationship with market capitalization when examined on its own, while the combined model explains a larger share of the observed variation and shows a statistically significant positive coefficient for book equity.

The findings are broadly consistent with the value relevance framework developed by Ohlson (1995) and with the wider literature that treats earnings and book value as important accounting inputs in equity valuation. However, the results should be viewed as evidence from a small exploratory sample rather than as a universal statement about investors or U.S. firms.

Practical implication. The analysis illustrates why the quality and content of financial reporting matter to users of financial statements. Accounting figures are not only used to calculate traditional ratios; they can also be related to the market's assessment of a company's overall equity value. At the same time, market value reflects many factors beyond accounting numbers, so financial reporting should be interpreted alongside broader economic and firm-specific information.

Theoretical implication. The results provide a simple empirical application of the Ohlson-style valuation approach. The difference between the one-variable and two-variable models also shows why value relevance cannot be reduced to looking at one accounting number in isolation.

Limitations. First, the sample contains only 24 observations from six firms, so statistical power and generalizability are limited. Second, the firms differ substantially in size and industry. Third, repeated observations from the same companies may create dependence that a simple OLS specification does not fully address. Fourth, the analysis uses aggregate market capitalization and accounting amounts, so it does not separate price-level effects from changes in shares outstanding. Finally, the study identifies associations rather than causal effects.

Future research could expand the sample to hundreds of firms, use panel-data methods with firm and year effects, introduce industry controls, test per-share versions of the Ohlson price model, and examine whether the value relevance of earnings and book value changed between pre-pandemic, pandemic, and post-pandemic periods. A larger study could also investigate accounting comparability and reporting quality as possible explanations for differences in value relevance.

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Appendix A. Dataset

The following dataset was used for the empirical analysis. Monetary amounts are in billions of U.S. dollars. Market capitalization is year-end market value; net income is the corresponding annual amount; shareholders' equity is the year-end book value.

Company	Year	Market Cap	Net Income	Book Equity
Amazon	2021.000	1691.000	33.364	138.245
Amazon	2022.000	856.940	-2.722	146.043
Amazon	2023.000	1570.000	30.425	201.875
Amazon	2024.000	2352.000	59.248	285.970
Alphabet	2021.000	1917.000	76.033	251.635
Alphabet	2022.000	1145.000	59.972	256.144
Alphabet	2023.000	1756.000	73.795	283.379
Alphabet	2024.000	2365.000	100.118	325.084
Meta	2021.000	921.930	39.370	124.879
Meta	2022.000	319.880	23.200	125.713
Meta	2023.000	909.620	39.098	153.168
Meta	2024.000	1514.000	62.360	182.637
Coca-Cola	2021.000	255.750	9.771	24.860
Coca-Cola	2022.000	275.080	9.542	25.826
Coca-Cola	2023.000	254.770	10.714	27.480
Coca-Cola	2024.000	269.020	10.631	26.372
Netflix	2021.000	267.460	5.116	15.849
Netflix	2022.000	131.220	4.492	20.777
Netflix	2023.000	213.090	5.408	20.588
Netflix	2024.000	387.930	8.712	24.744
Tesla	2021.000	1061.000	5.524	31.583
Tesla	2022.000	388.970	12.583	45.898
Tesla	2023.000	789.890	14.999	63.609
Tesla	2024.000	1385.000	7.130	73.680

Source: compiled from CompaniesMarketCap and StockAnalysis historical data. See References.