

Unlocking Success: Treasury Leadership and Shareholder Value

Treasury leadership supports company performance. In this article, we use data from our Citi Treasury Diagnostics survey to show how.

Citi Treasury Diagnostics aims at providing benchmarking and analysis of a company's treasury performance across six pillars:

- Policy and Governance
- Liquidity
- · Working Capital
- Subsidiary Funding and Repatriation
- Risk Management
- System and Technology

Using the survey results gathered through Citi Treasury Diagnostics, we examined the fundamental characteristics and the return profiles of companies that fall under the top 25%, middle 50% (25%-75%) and bottom 25% categories.

Treasurers face rising expectations from executive leadership as firms navigate geopolitical and macroeconomic challenges, adopt new digital business models, and deploy emerging new technologies. Yet, as treasurers deploy strategies to create value for their firms, they are challenged to justify their investments.

The recent Citi GPS study, <u>Treasury Leadership: Does it Matter?</u>, authored by Citi Client Advisory, defines top performing treasuries from the rest.

- Efficiently fund working capital, deploy liquidity and identify and mitigate risks
- Emphasize fundamental building blocks to achieve high performance and resilience
- Move from people-dependency to well-defined processes
- Apply technology to digitize and automate repeatable processes
- Develop strategies and invest to ensure timely, complete and accurate data

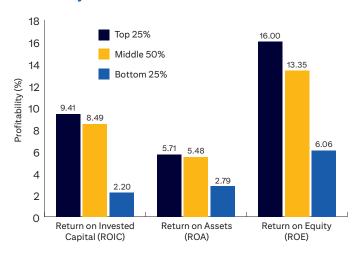


Understanding the drivers of market pricing has long been a key focus area of academic research and for the financial industry. The seminal paper by Fama and French (1993)¹ identifies three factors that affect asset pricing to be the market return, valuation/growth and size. Subsequent evidence found by other studies, such as Novy-Marx (2012)², shows the three-factor model is incomplete in capturing the market pricing effect. Specifically, Novy-Marx's paper highlights the power of profitability is similar to that of valuation metrics, e.g., price-to-book, in determining stock returns. Another paper by Aharoni, Grundy, and Zeng (2013)³ finds a relation, although not as strong, between investment and average return. Further work by Fama and French formalizes the extended five-factor model, published on *Journal of Financial Economics* in 2015,⁴ to include two additional factors: profitability and investment patterns.

With these known drivers in mind, we analyze the characteristics of the companies⁵ captured in the three categories of the Citi Treasury Diagnostics survey along the following dimensions:

- Profitability Return on invested capital, return on asset and return on equity
- 2. Growth Current net profit margin and two-year forward earnings per share growth
- 3. Valuation Price to earnings and price-to-book on both current and forward-looking basis

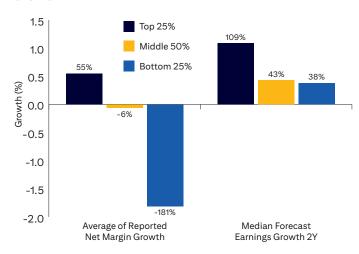
Profitability



Source: Citi Treasury and Trade Solutions, Citi Global Data Insights, Factset

Based on these three profitability measures, we can see that the top 25% companies based on Citi Treasury Diagnostics consistently achieve higher ratios than the other two categories. The monotonic decreasing pattern from the top, the middle and to the bottom categories across the three measures examined suggest that Citi Treasury Diagnostics has a positive correlation with companies' profitability and the relationship holds regardless of the measures used.

Growth



Source: Citi Treasury and Trade Solutions, Citi Global Data Insights, Factset

For the growth aspect, we deploy net margin growth over the last 12 months and the forward-looking two-year earnings growth median as the metrics to analyze the three Citi Treasury Diagnostic categories. As exhibited on the chart above, there is quite a large divergence between the top and the bottom 25%, particularly based on the past 12-month measure. Like profitability, we also observe the monotonic decreasing pattern which demonstrates a positive correlation between Citi Treasury Diagnostics ranking and growth potentials of companies.

¹ Fama, E., French, K.,1993. <u>Common risk factors in the returns on stocks and bonds - ScienceDirect</u>

² Novy-Marx, R., 2012. The other side of value: The gross profitability premium

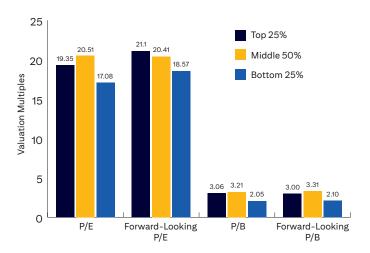
³ Aharoni, Grundy, and Zeng, 2013. Stock returns and the Miller Modigliani valuation formula: Revisiting the Fama French analysis

⁴ Fama, E., French, K., 2015. A five-factor asset pricing model

⁵ Only publicly listed companies are in scope due to data availability.



Valuation



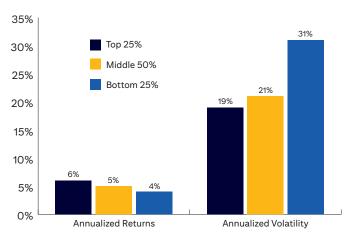
Source: Citi Treasury and Trade Solutions, Citi Global Data Insights, Factset

For valuation, we consider not only the current average price to earnings and price to book ratios but also forward-looking ones for the next 12 months. The above figure shows that the companies in the top 25% and middle 50% have similar ratios while the bottom 25% consistently attracts the lowest valuation. This is in line with the fact that the bottom 25% category is perceived to have the lowest expected growth as highlighted earlier.

Market Returns

From the analysis, it is clear that the top 25% of the companies based on the Citi Treasury Diagnostics results tend to be more profitable, attracting higher valuation which reflects the higher growth expectations, than the bottom 25% category. But did these characteristics lead to more favorable company performance in terms of market pricing?

To answer this question, we calculate the annualized average returns and volatility of the three categories from the Citi Treasury Diagnostics and the figure below summarizes our findings:



Source: Citi Treasury and Trade Solutions, Citi Global Data Insights, Factset

Over the past three years, the top 25% category not only achieved the highest annualized return of 6% but also had the lowest annualized volatility of 19%. On a risk-adjusted basis, which is a common measure called Sharpe ratio, it suggests an average of 0.35 unit of returns per unit of risk taken. In contrast, the bottom 25% category attracted 4% return per annum but with substantially higher volatility of 31%, yielding a Sharpe ratio of 0.14, which is less than half of the top category. In other words, the top 25% companies had the lowest risk while achieving the highest returns.

Summary

Our analysis shows that firms with top performing treasuries tend to have higher profitability, stronger expected growth, and higher market valuation. The opposite is true, empirically, for firms with lesser performing treasuries. This underscores the importance of treasury's contribution to company performance.



Authors



Helen Krause Head of Global Data Insights, Citi

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Dr. Duncan Cole Digital and Partnerships, Client Advisory, Citi Treasury and Trade Solutions

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