IS THERE (A METHODOLOGY TO MEASURE) A CORPORATE GOVERNANCE RISK PREMIUM IN THE CORPORATE COST OF CAPITAL?

Giorgio Bertinetti [*], Guido Max Mantovani [*]

* Department of Management, Ca' Foscari University, Venice, Italy
** International University of Monaco, Monaco

OPEN ACCESS

Abstract

The research proposes to intend the firm as a nexus of stakeholder, each bearing return-to-risk expectations about the sharing of the corporate performance. All the stakeholders must achieve their own satisfaction through the bargaining of contracts that must be sustainable, i.e., keep both the firm and its stakeholders-network alive in the long term. Governance is intended as the mechanism that gives a solution to the above puzzle. When the market and contracts are complete, the optimal solution can be easily found. But when incompleteness emerges, governance can misallocate the firm performance among the stakeholders. In fact, in incomplete contests, the stakeholders will negotiate the visible-only arguments of contracts, but this way they bind even the invisible ones, i.e., those impacting anyway on their ex-post performance. This being the case, a governance risk premium (GRP) emerges in the medium-long run, incentivizing governance repackage. Such a GRP depends both on the actual grade of market completeness and the one of contracts as per the risk allocation made through time. Even incomplete governance can emerge. A methodology to detect GRP is proposed accordingly.

Think about the firm as a nexus of stakeholders carrying on transactions to be governed through agency contracts. The stakeholders have an economic incentive to keep contracts alive as long as they can benefit from the transactions carried on through the firm. When the incentives disappear, the contract is abandoned. The firm is said to be sustainable from an economic point of view (i.e., it is a long-term performer) if the abandon-decision of a specific stakeholder cannot compromise the nexus as a whole. Any decision of a single stakeholder about the contracts within the firms is based on the joint consideration of: 1) the economics of the specific (short-track) transaction and 2) those arising from the long-term survival of the nexus.

The nexus of contracts must be optimized as uniqueness, although this may conflict with the optimization of a single transaction: indeed, a benchmarking process between short and long-term benefits. From a financial point of view, such a trade-off might be soundly managed through the concept of present value that includes both the single transaction (i.e., short-term) return and the stream (i.e., long-term) of expected returns. However, present value computation can be misleading if financial markets are incomplete (Allen & Gale, 1994); in such a case, one stakeholder prefers to enter an incomplete contract (Zingales, 2002) to have the opportunity to opt out the contract in case of deployment of unexpected scenarios. The unfair valuation of the contract may arise from biases in expectations concerning: 1) cash flow discovery and levels; 2) discount rates computation (i.e., embedded risk); 3) time horizon estimations. Any transaction of the firm's stakeholders can be intended as a contingent claim over the previous three elements, while any governance framework refers to their mixture. Any mismatch of the above components makes the governance framework more risky and expensive. In this study, we propose a method to detect the governance risk premium (GRP) in the corporate cost of capital.

According to Bertinetti and Mantovani (2009), there are four possible different components contributing to the risk premium generated by incomplete governance:

1. The *basic component*, due to the ex-ante distortions of the negotiation processes carried out in incomplete (although efficient) markets. This component is usually positive since awareness of incompleteness generates further expected rewards;.

2. The *informative component*, due to the information asymmetries embedded anyway in the ex-ante negotiations, having no predictable algebraic sign (Mantovani, 2012).

3. The *managerial component*, due to the aim of an insider stakeholder to deal with its contracts by referring to the fair value or to the market value of the firm. No sign can be predicted.

4. The *behavioral component*, due to the existence of options given to some stakeholders to negotiate again their value share in an ex-post framework. No sign can be predicted.

The authors define as "incomplete" the governance framework that prevents splitting down analytically the determinants of the risk premium. In fact, the impossibility to determine the sources of governance misallocation prevents modifying the underlying agency agreements, thus keeping incomplete the governance mechanisms. In the case of a misallocating governance mechanism, the existence of excess returns generates no increase in the value of the firm, since a GRP emerges in order to protect the stakeholders from unfair value allocations.

The methodology here proposed applies to the relations between the different stakeholders of the firm. The portfolio of their agency contracts represents the nexus of the risk-sharing choices in the firm as in the value-risk-chain model by Mantovani, Daniotti, and Gurisatti (2013). We replace: 1) the financial assets composing the portfolio with the productive inputs as referred to each stakeholder; 2) the weights of the portfolio with those arising from the business decisions on the mix of the inputs. If an equilibrium exists, the linearity condition should let us compute the cost of equity capital through the portfolio and find the same figures that can be observed directly in the financial markets. Otherwise, the gap may proxy the GRP level.

We tested the implementation of the proposed methodological approach over a sample made of Italian listed companies. The choice of the Italian case is a direct consequence of the elements that characterize the corporate governance in the country. Even for Italian listed companies, it is generally thought that governance may contribute significantly to the firm performance as a direct consequence of the higher concentration of shareholders and the market inefficiencies.

The sample is made of 60 Italian companies listed on the Italian Stock Exchange, as selected through the AIDA — Bureax Van Dijck database, by choosing those incorporated in Italy, having at least a track record of nine consecutive filed financial statements at end-2016 (i.e., an entire long-term economic cycle after the great financial crisis). The set has been limited to fully manufacturing companies, only, to avoid complex computation of beta normalization that could affect the clarity of the exposition and might bias the application of the methodology.

Step one consists of reclassifying the profit and losses (P&L) accounts to highlight the lines referring to specific stakeholders. Provided that we are considering the sample as a single company, we computed the cumulated P&L data for the entire sample.

Step two concerns the estimation of betas for each line/stakeholder. Beta-esteems are based on the dynamics of P&L lines for each stakeholder, as compared with those of the stock market. To achieve trustable esteems, P&L lines must refer to an uncorrelated (wider) sample over the longer possible period. By using data from an uncorrelated sample, we can avoid loops and self-fulfilling results, while the longer time horizon protects our esteems from contingent bias,

through the mean-reverting trends of risks. In fact, in the short-run, betas could divert from fair data because of the market inefficiencies.

For the Italian case, the above conditions may be matched by recurring to the datasets managed by Mediobanca, a sample of 2065 Italian companies[1]. Such a dataset lets us have a complete and continuous time series of data to be compared with the second dataset, being the historical Italian Stock Exchange Index (COMIT) since 1982. Data are indexed to the sum of operating revenues of the datasets (1982 = 100) to simplify comparisons with the COMIT Index. Based on these results, we compute the betas for any specific line of the aggregated P&L: we will call them "*BOOK-beta*", to remind that they are computed through a comparison of the accounting data dynamics with those of the stock market. Like the standard "*CAPM-beta*", resulting indexes state the relative sensitivity of the specific line/stakeholder to the market as a whole; therefore, the systematic risk, only.

Any difference between the BOOK-beta for revenues and those for a specific P&L line specifies the different risk-sharing choices as made for each stakeholder.

Step three consists of using the BOOK-betas to test the equilibriums by using data of the P&L lines of our specific sample. This should permit us to discover basic GRPs. In fact, in case of complete corporate governance of our sample, the market data should coincide with those computed as a linear combination of the different lines.

Provided the incompleteness of corporate governance, *step four* consists of using the previous esteems to assess the GRP using our break-down proposal. By focusing on the operating level, three of the four possible components contributing to the risk premium generated by incomplete governance are detected in the figures. In fact:

•the *basic component* (due to the distortions of a negotiation process carried out in ex-ante incomplete markets) can be estimated at 1.23%;

•the *informative component* (due to the asymmetries in *ex-ante* negotiations, as well, missing the risk-sharing consequences) adds 0.98% (= 2.21% - 1.23%);

•the *managerial component* (due to the capability to deal fair values including growing opportunities) reduces 1.91% (to 0.30% = 2.21% - 1.91%).

We still must find out if the residual 0.30% (= 1.23% + 0.98% - 1.91%) must be considered as the actual GRP or the direct consequence of its *behavioral component*.

The governance concept adopted in this research refers to a firm being intended as a nexus of stakeholders. In such a framework the chosen governance is asked to split the present value of expected payoffs between the stakeholders of the firm, i.e., to jointly share flows, risks and their time duration. Governance negotiations based on income

[1] "Dati Cumulativi di 2065 Società Italiane", Mediobanca, Milan, 2017 and previous different years.

statement sharing, only, are short-term oriented and ready to become obsolete very soon. They require continuous-time re-negotiations and supporting contracts will be incomplete. Each renegotiation can be particularly expensive, suggesting protective behaviour during the deal. This makes arise governance risk premiums in expectations: stakeholders will require higher flows without having the opportunity to catch higher values of their own position versus the firm. In case of persistent excessive risk sharing, some stakeholders may decide to abandon the nexus (i.e., the firm). The higher the number of stakeholders abandoning the firm, the lower will be the long-term sustainability of the firm. Indeed, GRP-emersion signals the opportunity to repackage the governance because of the incompleteness of both markets and contracts. Being based on value allocation, the sources of governance inefficiency may refer to different drivers: flows, risk, time-horizons, growth, along with the sharing agreements referring to them. Governance might be incomplete itself if such drivers are not well allocated into the nexus, i.e., contracts are unable to craft drivers according to stakeholder's attitudes.

This is why a methodology to measure GRP and to relate it to different sources is required. But how to do it in practice? The study illustrates a possible methodology to measure GRP and split its sensitivity according to the possible drivers of the chosen governance. The basic concept adopted by the proposed method is based on the linear relationship of systematic risks (the CAPM-betas): GRP emerges when the measured CAPM-beta diverts from the one computed considering the firm as a portfolio (the nexus) of stakeholders' expectations each with its own BOOK-beta. An application to a sample of companies listed on the Italian Stock Exchange permits to find out 0.39% GRP into the equity cost of capital. Such a GRP has the following breakdown: 1.23% operating basic component; +0.98% operating informative component; -1.91% managerial component; +0.80% operating behavioural component; 0.81% quota of operating GRP shared to debt capital.

REFERENCES

1. Allen, F., & Gale, D. (1994). *Financial innovation and risk sharing*. Cambridge, the UK: The MIT Press.
2. Bebchuk, L. A., & Roe, M. J. (1999). *A theory of path dependence in corporate governance and ownership* (Columbia Law School Working Paper No. 131). https://doi.org/10.2139/ssrn.202748
3. Bertinetti, G., & Mantovani, G. M. (2009). Premi al rischio di governance e comunicazione finanziaria dell'impresa. In V. Maggioni, L. Potito, & R. Viganò (Eds.), *Corporate governance: Governo controllo e struttura finanziaria* (Vol. 1, pp. 425–446). Bologna, Italy: Il Mulino.
4. Comoli, M. (2002). *I sistemi di controllo interno nella corporate governance*. Milan, Italy: Egea.

5. Debreu, G. (1959). *The theory of value: An axiomatic analysis of economic equilibrium*. New York, NY: John Wiley & Sons.

6. Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy, 88*(2), 288–307. https://doi.org/10.1086/260866

7. Grossman, S. J., & Hart, O. D. (1986). The costs and benefits of owners: A theory of vertical and lateral integration. *Journal of Political Economy, 94*(4), 691–719. https://doi.org/10.1086/261404

8. Hart, O. (1995). Corporate governance: Some theory and implications. *The Economic Journal, 105*(430), 678–689. https://doi.org/10.2307/2235027

9. La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics, 58*(1–2), 3–27. https://doi.org/10.1016/S0304-405X(00)00065-9

10. Mantovani, G. M. (2012). The information risk drivers: A long-term analysis to support a risk premia modelling. *Quarterly Journal of Finance and Accounting, 50*, 145–199.

11. Mantovani, G. M., Daniotti, E., & Gurisatti, P. (2013). In search of corporate risk measures to complete financial reporting. The case of the "caldarerie"-industry. *International Research Journal of Applied Finance, 4*, 458–489.

12. Tirole, J. (1999). Incomplete contracts: Where do we stand? *Econometrica, 67*(4), 741–781. https://doi.org/10.1111/1468-0262.00052

13. Vives, X. (Ed.). (2000). *Corporate governance: Theoretical and empirical perspectives*. Cambridge, the UK: Cambridge University Press. https://doi.org/10.1017/CBO9781139175333

14. Williamson, O. E. (1985). *The economic institutions of capitalism*. New York, NY: Free Press.

15. Zingales, L. (2002). Corporate governance. In P. Newman (Ed.), *The new Palgrave dictionary of economics and the law* (pp. 497–503). https://doi.org/10.1007/978-1-349-74173-1_96