7 Conclusion

Venture capital relationships between venture capital companies and their portfolio companies are governed by contracts defining the financing terms as well as the contracting parties' rights and duties throughout the investment period. The contracts' coordinating function and their incentive-compatibility are particularly relevant in the venture capital setting where both parties are actively involved in the management of the portfolio company. Contracts and the design of their formal components, *financial instruments* and *contractual covenants,* therefore play a central role in making the investment a success.

Starting point of this thesis is a comprehensive *literature review* reflecting the current status of research on venture capital contracting. The *theoretical literature* strongly supports the use of convertible securities, rather than that of straight equity, as incentive-compatible financial instrument. It mainly ignores covenants despite the fact that they, too, can be employed to create incentives for the contracting parties. Neglecting the interaction between both contractual components in the creation of incentives, the analyses disregard a central aspect of contracting reality. The *empirical literature* presents evidence that straight equity is the main financial instrument in German contracts but is combined less frequently with covenants creating cash flow incentives than are convertible securities, which are the predominant financial instrument in US contracts. However, the analyses fail to identify common German contract designs consisting of both contractual components, which are required to fully assess the incentive-compatibility of German contracting practices. Summarizing these insights, an important *research gap* lies in the analysis of the combined use of financial instruments and covenants in the creation of incentive mechanisms for the contracting parties in the German venture capital market.

This thesis therefore lays its explicit focus on the interaction of both contractual components, which is introduced as an *"augmented contracting"* approach to

incentive-compatible contract design. Applying augmented contracting to venture capital, this thesis aims at comparing German real-world contracts with related theoretical incentive considerations and at deriving implications for an improved contract design.

The *theoretical analysis* in this thesis aims at investigating whether the incentive-compatible allocation of cash flow rights obtained with convertible securities can effectively be replicated by straight equity in combination with covenants allocating cash flow rights. It extends existing literature mainly by its augmented contracting approach. In a simultaneous double moral hazard model, which integrates several real-world phenomena, common financial instruments – among them straight equity and convertible securities – are combined with covenants and compared on the basis of three contract properties describing their incentive-compatibility. These properties include the level of the parties' utilities but also incentive mechanisms directed specifically towards the entrepreneur. The findings of this augmented contracting analysis are presented in a hierarchy of contract designs: Convertible securities contracts with redemption option are the most incentive-compatible contracts, followed by straight equity contracts with redemption option and liquidation provisions. Nevertheless, the latter creates the same utility levels as the former. Under both contracts, allocating a minority equity share to the venture capitalist is shown to be incentive-compatible. The hierarchy of contracts is formulated in the form of a new *pecking order of venture capital finance*, which significantly refines existing findings on the financing of young companies but contradicts the pecking order for mature firms established by Myers (1984).

The *empirical analysis* in this thesis aims at identifying common contract patterns consisting of financial instruments and covenants in the German venture capital market and at analyzing which characteristics of venture capital companies determine the choice of these patterns. It extends existing literature mainly by its augmented contracting approach. As the first paper applying cluster analysis to the context of venture capital contracting, it shows that German venture capital investors combine convertible securities with a redemption option and numerous other covenants. It further shows that they