

5 Empirical Evidence on Contractual Architecture

5.1 Introduction

This chapter offers new insights into the real-world practices of contract negotiations and design between venture capital companies and their portfolio companies in the German venture capital market. Similar to the theoretical model in Chapter 4, its focus lies on the contractually defined allocation of cash flow rights to the contracting parties. It therefore adopts an *augmented contracting* approach in order to consider not only the cash flows resulting from financial instruments but also those determined by cash flow-related covenants. It additionally analyzes determinants of contract design, which relate to characteristics of the venture capital company. The separate allocation of control rights is also reported, despite the fact that control rights are not at the center of the analysis.

The study builds on the research question of the theoretical analysis in Chapter 4, which proposes that the incentive structure created by straight equity financing in combination with specific covenants is suited to effectively replicate the optimal allocation of cash flow rights obtained with convertible securities. This view has also been expressed by this survey's participants.²¹⁰ Since straight equity defines linear payoff functions for the contracting parties while convertible securities define non-linear payoff functions,²¹¹ it can be argued that straight equity has to be combined with at least one cash flow-related covenant if it is to replicate the convertible securities' kinked payoff function. In order to isolate the frequently employed combinations of straight equity and cash flow-related covenants, five contracting patterns on the basis of different financial instruments are identified. Subsequently, determinants of the choice of contracting patterns by the venture capital companies are searched for within

²¹⁰ 13.95% of survey participants report that they do not finance all investments with convertible securities because they are highly complex financial instruments. See Table 5-24.

²¹¹ See Bascha and Walz (2000), p. 412.

their characteristics. On the one hand, venture capital company characteristics are the least analyzed determinants in empirical literature. On the other, the data collected by means of a self-report survey among venture capital companies does not permit the inclusion of further determinants such as legal, tax, and institutional environments or portfolio company characteristics and related agency problems.²¹² Altogether, the empirical study therefore researches the following questions:

- Is straight equity the main financial instrument in German venture capital contracts, as existing empirical evidence suggests?
- How are German venture capital contracts structured? Can consistent patterns in combinations of financial instruments (*esp. straight equity*) and cash flow-related covenants be identified?
- What are the determinants of contractual architecture? Taking into account the limitations of the survey data on venture capital portfolios, which variables describing the venture capital companies' characteristics determine contract design?

These questions are summarized by the expectations²¹³ and hypotheses, which have been developed in Chapter 3.²¹⁴

Expectation 1	Straight equity is the main financial instrument in the German venture capital market.
Expectation 2	Straight equity is used in combination with at least one non-ubiquitous cash flow-related covenant.
Hypothesis 1	Sophisticated venture capital companies use convertible securities as dominant financial instrument in their contracts.
Hypothesis 2	The investor types of venture capital companies determine the implemented contractual architecture.
Hypothesis 3	The ownership categories of venture capital companies determine the implemented contractual architecture.

Table 5-1: Expectations and Hypotheses

²¹² For an overview of empirical literature on determinants of venture capital contract design, see Table 3-3.

²¹³ For an explanation of expectations, see Section 3.1.

²¹⁴ For an overview of the formulated expectations and hypotheses, see Table 5-1.