

## Preface

The book looks at private company valuation in the context of M&A transactions. It addresses some of the issues in the area of private company M&A:

- Understanding the mechanics of M&A involving private targets
- Understanding influence factors on acquisition prices paid for private firms.
- Estimating the size of the Private Company Discount (PCD) and providing explanations for its application.

When selling or buying a company, M&A professionals, decision makers and other parties involved have to overcome two hurdles. On the one hand they have to develop a more or less exact asking price – they have to value the target – and on the other they have to execute the transaction process.

Looking at the transaction process, research shows that transactions between private and public firms differ not only because of the private status but also because of unique private firm characteristics and psychological aspects which play an important role for the owner who is selling. These aspects are often ignored because they are difficult to evaluate and to measure. Although there is a huge amount of research on M&A and it covers a whole range of aspects, from company valuation, game theory, liquidity of stakes, psychological interactions to the family firm's characteristics, the research is not able to show, besides anecdotal evidence, how the characteristics of private firms influence the transaction and its outcome and how the transaction process itself impacts the price finally agreed.

Developing a valuation for private companies is challenging; most approaches result in an indication of value which presupposes liquidity. Therefore, the concept of a discount for the lack of liquidity constitutes a crucial aspect in the valuation of privately-held companies. A discussion is ongoing that on the one hand challenges the situations to which a discount is reasonably applicable, and on the other hand, the size of discounts to be applied. People discuss whether majority shares of privately held companies need to be discounted for the lack of liquidity at all and what the factors which influence such a discount are: these discussions allow people to speak not about the Discount for Lack of Liquidity (DLL) in the context of private firm valuation but rather about the broad term PCD.

Given the discussion around the PCD and specialties of private firm transactions, Chapter 2 addresses the M&A process by taking a detailed look at the transaction process and how the process and company characteristics influence the outcome (the purchase price agreed) of the process. This analysis takes a look at the process from the preparation of the long list

to the signing of the sales & purchase agreement (SPA) and uses measurable statistics to capture the influence of factors like competition, trust and other private firm characteristics. To address uncertainty with respect to the Private Company Discount, further analysis presented in Chapter 3 of the book offers new empirical evidence on the PCD and its influence factors for the different markets. In particular the market and companies in Germany are considered, but the book also includes detailed evidence for North America, Western Europe, and the UK.

In reading this book, you should gain a better up-to-date understanding about the appropriate PCD applied to private companies. The analysis of different markets addresses a problem that many valuation specialists in Europe and Germany face: that the majority of PCD studies are done in the US and the results are not applicable to the market situation and company structures over here. The inclusion of the North American and other markets provides actual data for the PCD for international valuations and valuation specialists and helps to pin down the broad range of discounts used to date. To look up a PCD quickly, the reader may choose the respective region and focus on the empirical results he/she is interested in.

Furthermore, the book shows that approaches which are considered when valuing minority interests are difficult to apply to control situations. As comprehensive studies supporting the liquidity discount for controlling interest are missing, the book uses the acquisition approach as an independent assessment of the potential PCD for private companies.

Because of the different problems that are examined in Chapter 2 and Chapter 3, the analyses presented in these chapters are conducted with two different data sets. The chapters are connected insofar as both examine specialties of private firms; Chapter 3 in relation to valuation (application of the PCD) and Chapter 2 in relation to the M&A process. Whereas the results of Chapter 3 apply to all private firms, Chapter 2 adds a special focus on independent private firms. The analysis in Chapter 3 uses global data, Chapter 2 only uses transactions with German target companies, but those firms can be seen as representatives of any other private firm. International readers should not be put off by the German term "Mittelstand" that appears in Chapter 2 and Chapter 3. This term is used in Germany only to refer to independent private companies. As in all other countries it describes a class of privately-held companies with no direct access to public equity markets which are legally and economically independent and with a strong linkage between the owner and the enterprise.<sup>1</sup>

The book aims to be a practical guide that would allow a reader, who already had a strong foundation in financial valuation, to apply those skills effectively to the valuation of private companies.

Taking into account the increased importance of private firms, it is crucial for everybody involved in situations that trigger a company valuation to obtain a real understanding of the key characteristics and associated problems in the context of private firms. As quantitative studies on the M&A process and the PCD are rare, this book can help to improve the readers' understanding of the M&A process and the PCD.

## **INTENDED AUDIENCE FOR THE BOOK**

The book is relevant for professionals dealing with private company valuation and M&A professionals: analysts/associates in investment banks working in M&A and corporate finance, analysts in smaller banks (equity research), professionals in corporate finance houses, private equity fund associates, analysts/ consultants in accounting and consultancy firms, corporate

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<sup>1</sup> A detailed description of independent private firms is given in Section 1.1.2.

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lawyers as well as CEOs and CFOs of private companies. While the part about the M&A process is most interesting to M&A professionals and those corporate officers faced with M&A, the empirical analysis in Section 3.4 and following are mostly focused on valuation professionals. These two categories of reader should gain different benefits. While M&A professionals should be able to optimize the process and therefore the result of negotiations, valuation professionals should gain a credible source for quantifiable discount data and a thorough understanding of their application.

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## Introduction

Private firms are the most dominant form of entrepreneurship in the world; 99.8% of all enterprises worldwide are not publicly traded. The majority of private firms are in the hands of families, around 55% of all businesses are family firms. They are truly important to the national economies as they employ around 50% of the current workforce and earn 50% of the Gross National Product globally.

Over the last decade, the global market environment has seen a constant stream of mergers and acquisitions (M&A) below the mega merger size involving privately-held companies. In the course of the subprime crisis, with declining M&A volumes worldwide, the importance of private companies has increased further. The importance of private firms for the M&A market is expected to increase with impulses coming from difficult public M&A markets and continuing succession problems within the family firm class. For example, in Germany, 55% of family owners are expected to retire within the next 10 years, the figure in other countries is lower, but it is fair to say that a double-digit percentage of private companies within the small and medium size categories will be confronted with the transfer of ownership and/or management within 10 years.

It is therefore rather strange that there is a comprehensive amount of literature available on M&A issues of large enterprises, while acquisitions involving private firms, especially with family ownership is still a neglected issue although the valuation of private firms and their M&A transactions are different:

- In addition to the difficult application of fundamental valuation methods like Discounted Cash Flow (DCF) models due to lack of data, valuation professionals generally agree that some downward adjustment is justified to account for a lack of ability to convert an investment into cash in terms of timing and costs. But the magnitude and the correct application of that adjustment is often a contentious subject. Former court decisions especially in the US rejected the application of a standard discount and required a solid and reasonable argument for the discounts in valuation reports.
- Empirical research shows that transactions between private and public firms differ with respect to the transaction prices paid and control premiums achieved and provides various explanations for the differences. In addition to the most prominent factors – liquidity or lack of it – and quantifiable differences concerning financial performance and deal size, there are other factors that might drive the transaction outcome when private targets are involved compared to public ones. Ignoring the influence of ownership structure and the family perspective can jeopardize a thriving M&A transaction (Gisser and Gonzalez, 1993; Mickelson and Worley, 2003). According to these authors, family issues need to be addressed to increase the likelihood of successful acquisitions. This holds true when a private owner or a family wants to sell its company and for potential acquirers of these firms.

The book therefore presents two different analyses; the first one shown in Chapter 2 describes features related to M&A with private firms and contains a detailed analysis of factors which influence the result of a successful M&A process, meaning the transaction price. These factors

include competition, motives and those factors that relate especially to family firms as described in Section 1.1.

The second analysis in Chapter 3 contains a comprehensive analysis of the PCD to provide an understanding of various studies available on the DLL and PCD and how they relate to the particular entity being valued. In addition, the analysis shows whether the applied liquidity discount is reasonable for the situation in question, i.e. is it below, equal to or above the discounts suggested by DLL studies. The acquisition approach is presented in a study that attempts to explore the magnitude of discounts in Germany, the US, and other countries and investigates additional factors which have turned out to have an influence on the value of private companies.

## 1.1 PRIVATE FIRMS – SETTING OUT THEIR STALL

The obvious characteristics of private firms are the lack of quotation and their independence from stock markets (if positively expressed) or the lack of access to share capital (if negatively expressed). Further classification of private firms is done according to two dimensions: size (usually measured by turnover and number of employees) and the relationship between company and ownership. These factors are often correlated, but there is no 100% overlap. To understand, to value and to sell or buy private companies, the ownership dimension in particular needs to be understood by appraisers and other investors, particularly the relationship of certain owners (private persons and families) to the “their” company. Depending on the ownership, private companies can be roughly distinguished into independent (of which mostly family firms) and dependent (non-family) firms.

Independent private firms are firms which are legally and economically independent, whereas dependent private firms are subsidiaries of corporations (whether public or private) or other institutional owners like private equity investors. In these companies there is no personal identification between the owner(s) and the company and the management is often performed by outside managers. According to the size dimension, private firms can be classified as small and medium-sized enterprises (SMEs) and large enterprises. The problem is that there is neither a universally valid definition for SMEs nor is there one for family firms, so the challenge faced by all researchers involved is to find acceptable and useful definitions.

### 1.1.1 Introduction to SMEs in Different Countries

Governments of many countries and many of the multinational organizations are targeting SMEs for their political agenda and special financial business support, and therefore provide their own definitions and criteria.

According to the European Commission, a small enterprise has a headcount of less than 50, and a turnover or balance sheet total of not more than EUR 10 million. A medium-sized enterprise has a headcount of less than 250 and a turnover of not more than EUR 50 million or a balance sheet total of not more than EUR 43 million. The Commission has a third category called micro enterprises. A micro enterprise has a headcount of less than 10, and a turnover or balance sheet total of not more than EUR 2 million. The Commission considers application of this definition by Member States, the European Investment Bank and the European Investment Fund to be an aid to improving consistency and effectiveness of policies targeting SMEs.

In the US, there is no universally accepted definition of an SME, even within the US government. Furthermore, unlike the European Union, size standards differ for firms in the

manufacturing, agricultural, and service sectors to reflect the relative nature of the “small” and “medium” size classifications.

The definition used for SMEs by the Small Business Administration’s Office of Advocacy (SBA Advocacy) is the most straightforward, as it includes all enterprises with fewer than 500 employees for all three sectors. In addition, the SBA uses different annual revenue parameters to classify SMEs in various service subsectors. The vast majority of SME service subsectors fall in the USD 7 million category; for some (computer services) a USD 25 million category is used. For agricultural firms, the US Department of Agriculture (USDA) also uses annual revenue to differentiate farms by size, but it does not use a “medium” category; it defines as “small” only those farms that earn less than USD 250,000 in annual revenue, and considers all others “large”. In an attempt to partially harmonize these definitions the United States International Trade Commission uses for their annual statistics the SBA Advocacy’s “fewer than 500 employees” definition of SMEs across all sectors, as that accounts for the vast majority (approximately 99%) of firms.

In Germany, the Institut für Mittelstandsforschung (IFM) classifies SMEs according to annual turnover, balance sheet value and number of employees, based on the recommendation of the European Commission. According to the IFM definition, small companies are companies with an annual turnover below EUR 1 million, and a workforce up to 9 employees. Medium-sized companies are companies with an annual turnover of EUR 1 million to EUR 50 million, and a workforce of between 10 and 499 employees.

In the UK, sections 382 and 465 of the Companies Act 2006 define a small company as one that has a turnover of not more than £6.5 million, a balance sheet total of not more than £3.26 million and not more than 50 employees. A medium-sized company has a turnover of not more than £25.9 million, a balance sheet total of not more than £12.9 million, and not more than 250 employees. It is worth noting that even within the UK this definition is not universally applied.

A summary of definitions is provided in Exhibit 1.1.

### 1.1.2 Introduction to Family Firms in Different Countries

It has been difficult to formulate an unambiguous and transparent definition of family businesses because a family is an interrelated system which influences a firm’s structure, strategy, conduct, and success. As financial programmes and support by governments and organizations are aligned to size classes, there is no official definition for a family business nationally or internationally but definitions stem from different academics and scholars who are interested in family firm research.

The definitions of a family business all have a common direction. A family business is a company which experiences a degree of “familyness”. Astrachan and Shanker (2003) describe three different levels of how to perceive a family influence from family participation and control of strategic direction (base level) over the second level, which sharpens the definition and adds founder/descendant management and the intent to keep the business in the family as criteria. The last level considers the true family business, as the firm must include multiple generations and more than one member of the family must hold a managerial responsibility. It is important to understand that the business has to be influenced by a family or by a family relationship, and that this influence leads to an identity of ownership and management, to a strong emotional investment by owners and staff and to an emphasis on family and business continuity.

When/at which level of family member influence the identity of ownership and management is reached, depends on the provider of the definition. Some scholars define a family business

**Exhibit 1.1** Quantitative definitions of SMEs

	EU			US			Germany			UK		
	Small	Medium	Large	Small & Medium	Large	Small	Medium	Large	Small	Medium	Large	
Annual sales	≤€10m	≤€50m	>€50m	<\$7m*	>€50m	<1m	<€50m	≥€50m	≤€6.5m	≤€25.9m	>€25.9m	
Balance sheet	≤€10m	≤€43m	>€43m	<500**	>€43m	<10	<500	≥500	≤€3.26m	≤€12.9m	>€12.9m	
Employees	<50	<250	≥250	≥500	≥250	<10	<500	≥500	≤50	≤250	>250	

\* only for the service sector

\*\* varies depending on industry classification

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as an organization having at least three family members active within the company or as an organization where at least two generations have had control over the company or where the next generation is prepared to enter the company. Others define family businesses as businesses where, *inter alia*, the shares are held by several family members or several branches of the family or businesses where, within a single branch, several generations are involved in various roles in the company. Sometimes, more elaborate combinations of criteria are used, e.g. a family businesses is a firm where the name of a director is part of the name of the company, at least two directors have the same name or at least two directors (who do not have the same name) live at the same address.

Overall, the most important criterion for family firms is the interaction between the company (business sphere) and the private /family sphere. This interaction influences how the firm works and leads to unique characteristics of family firms that need to be addressed in business valuation and transactions. The identity of ownership and management does not necessarily mean that the owner needs to be in active management as CEO or CFO but that he/they have control over important business decisions as members of the supervisory board or with a veto power of the controlling shareholder.

Therefore one can ask if all independent private firms are family firms: in some firms, there is a strong linkage between the owner and the company but the owners are not necessarily a family or part of a family. For example, with a Management-Buy-Out (MBO), the existing management acquires the company from former owners and one can say that the link between owner and companies is strong and the interaction between ownership and management exists as in a true family firm. From this viewpoint all independent private firms are family firms and in the later chapters of the book, the term “independent private firms” is used to describe private companies with no direct access to public equity markets and a strong linkage between company and owner irrespective of whether the owners are relatives or not. In contrast to that, the term “dependent private companies” refers to legally and economically dependent companies with no direct access to public equity markets and with no special linkage between management and ownership. Whereas in family firms there is an overlap between the private system (the family system) and the company (the company system), in non-family firms both systems work independently.

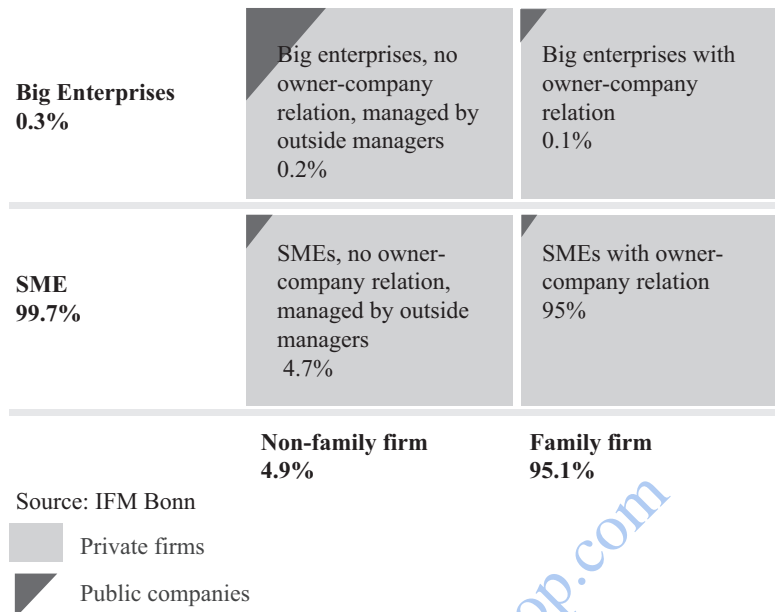
## **1.2 THE RELATION BETWEEN THE TWO DIMENSIONS OF PRIVATE FIRMS**

The relation between the classification criteria for firms and the respective definitions can be seen in Exhibit 1.2 using the example of Germany. Most private firms belong to the SME class. Of those, the overwhelming majority are family owned. Some SMEs may be public companies, and some big family firms are listed. But in the size and family classification scheme, listed companies should usually be found in the upper left rectangle.

## **1.3 A NOTE ON GERMANY AND THE GERMAN MITTELSTAND**

In Germany, a class of companies exists that is called the “Mittelstand”. It is difficult to give an exact definition of the term because the word “Mittelstand” (directly translated) refers to the “middle class” and dates back to the Middle Ages when the German word “Stand” described an individual’s socio-economic status. Clergy, nobility and stand (including the bourgeoisie and the farmers) were three levels of status to be distinguished. The bourgeoisie





**Exhibit 1.2** SME, family business and listing

were called Mittelstand to differentiate them from the farmers. Nowadays, the “Mittelstand” term comprises not only a definition of a class of companies, but it is also a description of a social class which has great economic and political influence. The term Mittelstand is often associated with the German “Wirtschaftswunder” (Germany’s post-war economic success) and the success of the German economy in general and in contrast to other European countries and the US, this term is much more widely used in politics and the media in Germany than the term “SME”. For example in Germany the terms “Mittelstandspolitik” and “Mittelstandförderung” comprise a central point on the agenda of major political parties. The question to ask is what constitutes the typical Mittelstand firm and how does the Mittelstand firm fit into the “independent/family firm” and “SME” categories?

The official definition of the IFM uses company size and qualitative criteria to classify the Mittelstand. According to the IFM, Mittelstand firms are SMEs. However, the focus only on firm size as the defining characteristic falls short of an adequate description of the typical Mittelstand firm, therefore the IFM adds qualitative criteria and defines Mittelstand companies as privately-held companies with no direct access to public equity markets; they are legally and economically independent, and there is a strong linkage between the owner and the enterprise, meaning that these companies are controlled and managed by the founder(s) or the family/(ies) of the founder(s).

**1.3.1 Mittelstand vs. Family Firm**

According to the IFM, family business, SME and Mittelstand are practically identical. Looking at the IFM statistics, 95.1% of firms are family firms and 99.7% are SMEs, so from the numbers, the two IFM criteria for Mittelstand companies are fulfilled for the majority of firms.

Section 1.1.2 argues that in emphasizing the linkage between ownership and company all independent companies are family firms, and with this emphasis so are Mittelstand companies. As outlined before, the relation between ownership and company plays a pivotal role in the definition of the Mittelstand. According to theory, a family business is a company which is controlled and/or managed by a family.

The whole group of Mittelstand firms is not necessarily in the hands of or managed by families. They can be founded by an MBO or sold to other outside (private) investors by the founder or the founder's family. In the context of the book the qualitative aspects of the Mittelstand definition are important, especially the strong linkage between the owners (not necessary family) and their enterprises, meaning the identity of ownership and personal responsibility for the enterprise's activities and success, a personal relationship between employer and employees, and the identity of ownership and personal liability for the entrepreneur's and enterprise's financial situation. This emphasis makes the definition of the Mittelstand identical to the definition of a family business with owners not necessarily being relatives.

### 1.3.2 Mittelstand vs. SME

As the qualitative dimensions of the Mittelstand definition are most important, meaning the relation between ownership and company and the resulting special attitude and behaviour as previously described, the size constraints in terms of turnover and employees are disregarded for the definition of the Mittelstand. Therefore, Mittelstand can be SMEs but are not necessarily so. For the empirical analysis in Chapter 3, only companies with positive turnover are included to as to avoid useless data sets.

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