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IFRS Adoption in Germany: Perspectives and Consequences

A Case Study of Deutsche Telekom AG

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ABSTRACT

The mandatory adoption of the International Financial Reporting Standards (IFRS) as basis for the preparation of consolidated financial statements in 2005 constituted a major change in accounting regulations in Germany. This thesis focuses on gaining a deeper understanding of the consequences this change had on the financial reporting of German companies. For this reason, the financial reporting based on the previous German accounting regulations (German GAAP) is compared to the reporting under IFRS regulations. This is done both on a theoretical level and in a case study approach based on one specific company, Deutsche Telekom AG. The research produced a number of key findings: The largest differences in the financial reporting under the two accounting systems arise in the recognition and valuation of intangible assets, provisions and deferred taxes, leading to a considerable increase in equity in the first year of IFRS adoption at Deutsche Telekom. In the subsequent years, the level of provisions as well as the annual expenses for depreciation, amortization and impairments remained significantly lower. The main conclusions drawn from this research are that financial reporting under IFRS is less conservative than under German GAAP and there are fewer possibilities to smooth earnings via reserves. Moreover, it is visible that accounting practices adopted under IFRS are influenced by previous national accounting regulations, however only to a certain degree.

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ABBREVIATIONS

AG	*Aktiengesellschaft* (Corporation)
Art.	Article
bn	billion
BGBl.	*Bundesgesetzblatt* (Federal Law Gazette)
DAX	*Deutscher Aktienindex* (German stock index)
EBIT	Earnings before interest and taxes
EBITDA	Earnings before interest, taxes, depreciation, and amortization
et al.	et alii
EC	European Commission
EU	European Union
FIFO	First In, First Out
e.g.	for example
FDI	Foreign Direct Investment
FCC	Federal Communications Commission
GAAP	Generally Accepted Accounting Principles
GASC	German Accounting Standards Committee
GmbH & Co. KG	*Gesellschaft mit beschränkter Haftung & Compagnie Komanditgesellschaft* (Limited Partnership with a limited liability company as general partner)
GDP	Gross Domestic Product
HGB	*Handelsgesetzbuch* (Commercial Code)
i.e.	id est
ICT	Information and telecommunication technology
IT	Information technology
IAS	International Accounting Standards
IASB	International Accounting Standards Board
IASC	International Accounting Standards Committee
IFRS	International Financial Reporting Standards
IOSCO	International Organization of Security Commissions
LIFO	Last In, First Out
Ltd.	Limited
LLP	Limited Liability Partnership
p.	page
pp.	pages
para.	paragraph
PESTLE	political, economic, social, technological, legal, and environmental
sec.	section
TV	television
UK	United Kingdom
US	United States
US-GAAP	United States Generally Accepted Accounting Principles
USA	United States of America
Vol.	Volume

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1 Introduction

1.1 Motivation Of Study

Accounting systems are used to "identify, analyze, measure, record, summarize and communicate relevant economic information to interested parties" (Ainsworth, 1996, p. 1). This includes for example investors who decide whether to buy equity or debt, suppliers who decide whether they engage in business with the company and also governments who decide on the company's tax burden (Smith, 2010). Accounting standards provide the basis of financial reporting by describing the methods that have to be applied in the preparation of financial statements. They ensure the high quality and comparability of the published information (Smith, 2010).

Originally, accounting regulations and practices used to differ significantly across countries and regions. A country's accounting system evolves as a result of its institutional environment. For example, differences in culture, the political and legal systems, taxation, or the economy may influence the development of different accounting systems (Nobes & Parker, 2008). However, different national accounting standards make the comparison of financial reporting between countries difficult for investors and other users of financial statements. So, when the world's capital market started to globalize, the need for common international accounting standards grew among investors and the accounting profession (Alfredson et al., 2007).

In 1973, the accountancy bodies of nine countries set up the International Accounting Standards Committee (IASC) with the goal to develop a single, globally accepted set of financial reporting standards (Alfredson et al., 2007). As of 2013, the body of international financial reporting standards (IFRS) consists of 41 standards that lay out rules for the recording of different accounting transactions (IFRS Foundation, 2013a, 2013b). Almost 120 countries worldwide have accepted the IFRS and permit or require their use for the financial reporting of companies (IFRS Foundation, 2013c). Since 2005, all publicly listed companies in the European Union are required to apply IFRS for their consolidated financial statements (European Commission, 2002).

The use of a common set of accounting standards is associated with several advantages, such as the increased comparability of international financial information, easier access to

foreign capital markets and lower cost of capital for firms (Alfredson et al., 2007). However, it has to be taken into account, that for many countries the adoption of IFRS constituted a major change from their previously used local GAAP. One of the countries where the conversion from the old national GAAP to IFRS was particularly complex is Germany. Under German GAAP, the main purpose of financial reporting was the determination of the taxable and distributable income. Creditor protection and the prudent determination of income play a major role (Lüdenbach, 2010). The IFRS, however are rather shareholder-oriented and aim at providing useful information for existing and potential investors (Alfredson et al., 2007).

Since the basis for the preparation of financial statements changed with the mandatory introduction of IFRS, the German companies had to adjust their financial statements and accounting policies accordingly. The large differences between the two accounting systems imply that the mandatory adoption of IFRS had major implications on the financial reporting of German firms. For example, researchers found that accounting under IFRS is less conservative and provides fewer possibilities to smooth income (Beckman, Brandes, & Eierle, 2007; Hung & Subramanyam, 2007). In addition to this, the IFRS provide options to choose accounting policies in several standards or only state vague criteria that require interpretation (Nobes, 2006). It is argued that despite the harmonization of the accounting regulations, the actual application of the standards, i.e. the accounting practice depends on political and economic factors that remain local (Ball, 2006). Consequently, the question arises, to what extent financial reporting in Germany changed with the adoption of IFRS and if the influence of the old national accounting rules are still visible in the policy choices under IFRS.

1.2 Research Purpose

This study aims at investigating the consequences of the mandatory IFRS adoption in Germany. The main goals of this work are to:

- explore how German GAAP differs from the IFRS regulations and how this is related to the institutional environment of accounting in Germany
- investigate the consequences of the IFRS adoption on the financial reporting of a German company in a case study approach

- evaluate the degree of influence of German GAAP on the practices applied under IFRS in one specific company

In order to be able to assess the consequences of the IFRS adoption in Germany, first a thorough understanding of the specific characteristics of German GAAP and the IFRS has to be gained. For this reason, both accounting system will be described within the institutional environment they were developed in and compared to each other. This is necessary to be able to assess the nature and dimension of the differences between both accounting systems. Subsequently, the knowledge gained by the theoretical comparison of German GAAP and IFRS is applied to the practice of financial reporting in Germany. For this purpose, the adoption of IFRS in one particular German company is investigated in a case study approach. The company that has been chosen for the analysis is Deutsche Telekom AG, one of the worlds' leading telecommunication companies (Deutsche Telekom AG, 2013a). The case study aims at providing in-depth insights into the financial statement effects of the IFRS adoption, both in the year of the first-time adoption and in the subsequent years. Finally, the relationship between the requirements of the old national accounting regulations and the practices applied under IFRS is explored, using the example of Deutsche Telekom AG. This aims at evaluating the degree to which old national accounting regulations influence financial reporting under IFRS until today.

This study adds value to the current research in this area in a variety of ways. First, the study adds to the better understanding of the accounting differences between a stakeholder- and shareholder-oriented accounting system, the IFRS and German GAAP. Second, it allows for the comparison of theoretical differences in the accounting regulations to differences in the actual practice of financial reporting of one particular firm. From this, a better understanding of the consequences of the IFRS introduction in German companies in general can be obtained. Finally, the study provides the possibility to apply and assess empirical findings based on a large sample of firms with respect to one particular company. This helps in gaining a better understanding of the phenomena and the context in which they occur.

1.3 Outline Structure

The remainder of this study is structured as follows. Chapter 2 provides an overview of the research methods applied in the study. The research perspective taken is clarified and the perception of accounting as a social and institutional practice in this study is illustrated. Chapter 3 comprises a review of literature relevant for the field of study. The theoretical foundations of accounting are explained and different accounting methods and traditions are explored. Subsequently the German accounting system and the IFRS are described and compared. Chapter 4 presents the case study on Deutsche Telekom AG. After the company has been introduced, the adoption process of IFRS in the company is explored. In Chapter 5 the company's financial statements are analyzed with regard to the consequences of the IFRS adoption. Both the first-time adoption as well as the application of the standards in the subsequent years is investigated. In chapter 6, the findings from the case study are discussed with reference to related empirical findings. Finally, chapter 7 provides a conclusion of the findings.

2 METHODOLOGY

The following chapter describes the research methodology applied in this study. The research is conducted applying a case study approach that is explained in more detail in the following section. Subsequently the several levels that are addressed in the study are introduced and the research perspective taken is described. Finally, the perception of accounting as a social and institutional practice is presented and the implications this has on the study are illustrated.

2.1 CASE STUDY APPROACH

In this study, a case study approach is applied in order to explore the consequences of the IFRS adoption in Germany. A case study is defined by Yin as "an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin, 2009, p. 18). Furthermore, a case study inquiry deals with situations where more variables are of interest than there are data points. Consequently, it relies on multiple sources of evidence and benefits from prior research to guide the data collection and analysis. Although the case study method can be regarded as a qualitative research choice, it may involve both the use of quantitative and qualitative research data. Different types of case studies can be distinguished. An explanatory research design aims at explaining causal relationships, while a descriptive research design aims at fully describing a phenomenon in its real-life context (Yin, 2009).

Since the adoption of IFRS is a very broad field of research, a case study provides the possibility to gain a better understanding of the consequences by means of analyzing one specific company, Deutsche Telekom AG. For this purpose, the company's financial statements and other publications concerning the adoption of IFRS are analyzed. The aim of the analysis is an in-depth understanding of the effects the adoption of IFRS had on the firm and its financial statements. In addition to that, the case study method provides the possibility to assess the applicability of empirical research findings to the specific firm and to investigate the phenomena in greater depth. The research design is descriptive, as the case study aims at contributing to the overall understanding of the consequences of the IFRS adoption by describing the effects it had on one specific firm.

2.2 Three Perspectives of Analysis

According to Monsen (1987) there are three perspectives of analysis that can be taken in research. The choice of the perspective has an influence on the conclusions that can be drawn from the analysis. In the following, the three perspectives will be explained and the choice of perspective taken in this study will be presented.

2.2.1 Analytical perspective

The analytical perspective is the oldest of the three perspectives. When applying this perspective, reality is perceived to consist of separate components that are combined in an objective manner. The developed knowledge is independent from individual character, i.e. different individuals will perceive the same phenomenon in the same way. The whole is regarded as the sum of the parts (Monsen, 1987).

2.2.2 System perspective

When applying the system perspective, reality is perceived to be composed in such a way, that the sum of the parts deviates from the whole. Consequently, the relations between the individual parts become important since positive or negative effects on the whole may exist. The knowledge developed when applying the systematic perspective is dependent on the system. This means that the individual parts are explained emanating from the whole system's properties (Monsen, 1987).

2.2.3 Actor perspective

The third perspective of analysis is the actor perspective. It can be traced back to David Silverman who first applied it in the end of the 1960's. The actor perspective explains the whole as a result of the individual parts' properties. It aims at investigating the meaning and content that the individuals put into their actions, since this will affect the content of the whole. Consequently, reality is assumed to consist of various social processes. The knowledge developed is dependent on individuals since the individual's actions and not the whole is of primary interest (Monsen, 1987).

2.2.4 Choice of Perspective

In this study, the analytical perspective is applied. The analysis is based on financial statement information which is prepared following accounting regulations. Financial accounting follows clear, systematic rules and the outcomes of certain actions are

foreseeable. For example, every book entry leads to a certain effect on equity, assets or liabilities. Consequently, it is logical to apply the analytical perspective. This does also imply that several parts of the analysis can be completed independently from each other, since it is assumed that the sum of the parts equals the whole picture.

2.3 Levels of Analysis

According to Monsen and Wallace (1995), accounting developments can be studied on three different levels. These are the theoretical level, the regulatory level and the practical level. While the theoretical level focuses on the underlying accounting theories and concepts, the regulatory level encompasses accounting laws, standards and recommendations. The practical level addresses the accounting practices actually observed. According to Tay and Parker (1990), regulations and practices immediately affect the individual firms' financial reporting and are thus most relevant to the analysis of accounting harmonization developments.

In the course of this study, the IFRS adoption will be analyzed on various levels. First, the development of accounting is explored on the theoretical level and different accounting methods and traditions are compared. In a second step, differences and similarities between German GAAP and the IFRS on the level of accounting laws and standards are illustrated. In the subsequent case study of Deutsche Telekom AG, the focus is set on the regulatory and practical level. A comparison is drawn between the accounting policies applied by the company after the adoption of IFRS on the one hand, and the German GAAP regulations as well as the practices applied under German GAAP on the other hand.

2.4 Accounting as a Social and Institutional Practice

According to Miller (1994), the domain of accounting has expanded significantly in the past. The application of accounting practices has implications not only within the organization it is applied in, but also for the society as a whole. For this reason, accounting can be regarded as a social and institutional practice instead a mere technical practice. Miller (1994) stated that:

> Accounting can now be seen as a set of practices that affects the type of world we live in, the type of social reality we inhabit, the way in which we understand the choices open to business undertakings and individuals, the way in which we manage and organize activities and processes of diverse types, and the way in which we

> administer the lives of others and ourselves… From such a perspective, accounting is no longer to be regarded as a neutral device that merely documents and reports 'the facts' of economic activity. (p.1)

Consequently, the ideas of institutional theory can be applied in analyzing the development and change of accounting as an institutional practice over time. According to Scott (2008), institutions are comprised of regulative, normative and cultural-cognitive elements. In different institutional forms, varying combinations of these elements can be observed. The regulative pillar focuses on the regulatory processes such as rule-setting, monitoring and sanctioning in order to constrain and regularize behavior. The normative pillar, on the other hand, stresses the prescriptive and evaluative dimension of norms and values. The cultural-cognitive pillar, finally, emphasizes the function of culture as a template for particular types of actors and scripts of actions (Scott, 2008). When regarding accounting as an institutional practice, the regulative element seems to be the predominant element to shape individuals' behavior. Furthermore, some cultural-cognitive elements may influence accounting as an institution to some degree.

2.4.1 Application to this Study

In this study, accounting is perceived as a social and institutional practice and institutional theory is applied as a guideline in analyzing its development and change. The perception of accounting applied in this research requires that the German accounting system is not studied in isolation from the wider social and institutional environment prevailing in the country. For this reason, the institutional environment is analyzed, based on its regulatory and cultural-cognitive elements. This includes different cultural, economic and legal aspects that had an influence in shaping the German accounting system and practice. The analysis of the institutional environment also helps in understanding the institutional change that was provoked by the adoption of a different accounting system, the IFRS. According to North (1990), institutional change is a slow and complicated process and even though formal rules may change overnight, informal constraints are much more persistent.

2.5 Summary

The research method applied in this study is a case study approach in order to gain a deeper understanding of the consequences of the IFRS adoption in Germany, based on the detailed

description of the effects it had one particular company. This approach allows exploring the phenomenon, the IFRS adoption, within its complex environment and allows for the consideration and analysis of different aspects. The study is conducted from an analytical perspective, assuming that the analysis of single parts can be added up to describe the whole phenomenon. Throughout the study, the differentiation between the levels of accounting theory, regulations and practices is maintained in order to guide the analysis and discussion. Moreover, accounting is regarded as an institutional practice that cannot be analyzed without considering its institutional environment.

3 Theoretical Framework

Accounting is based on a set of basic ideas that serve as logical foundation for accounting rules. Hence, it is necessary to get an overview of the theory underlying different financial accounting systems in order to fully understand financial reporting standards and practice. In the following, first, the basic concepts and elements of financial accounting are clarified and the terms revenues and expenses are defined. Subsequently, different accounting methods and traditions that have evolved over time are presented and compared. After a general overview of existing financial accounting concepts and methods has been given, the focus is set on the German Generally Accepted Accounting Principles (German GAAP) and the International Financial Reporting Standards (IFRS). The institutional factors that influenced the development of both systems are illustrated and the most important accounting rules of both systems are summarized and compared.

3.1 Revenues and Expenditures

According to Mülhaupt (1987), revenues and expenses are the main concepts in financial accounting. Revenues are defined as a claim on a cash receipt; expenditures are an obligation to pay cash (as cited in Monsen, 2012). Revenues and expenses always have a cash effect, meaning they affect the company's money deposit positively or negatively. Furthermore they can also have a profit effect and lead to an increase or decrease of the company's equity. This is for example the case for sales revenue or production expenses. Examples for revenues and expenses without profit effects are loan revenues or installment expenditures. A company may accrue revenues and expenditures occurred in a period based on money effects or profit effects. This can be referred to as the *money accrual principle of accounting* and the *profit accrual principle of accounting* (Monsen, 2012).

When accruing for money effects, different points of time for the receipt or payment of cash can be distinguished. The profits or expenses can be accrued for either when they have been incurred, when they have been authorized for cash receipt or payment, or when they have been paid or received in cash. Similarly, when accruing for profit effects, revenues and expenses with profit effects are distinguished from profit-neutral revenues and expenses. Revenues and expenses with profit effects can influence profits positively or negatively, either immediately or in a later period. Examples for the latter are advance payments by

customers or investments that are expensed over their useful life in the form of depreciation (Monsen, 2012).

3.2 Different Accounting Methods and Traditions

In the history of accounting, various bookkeeping methods and accounting theories have been developed. However, not only diverse bookkeeping methods, but also different perceptions and theories of the main purpose of accounting evolved in different parts of the world over time. In the following, first an overview of the development of bookkeeping methods from the single-entry method to the double-entry method used today is given. Subsequently, the perspective on accounting prevailing in Anglo-Saxon countries is compared to the German perspective by presenting and contrasting basic theories and accounting research of both regions. Finally, the main characteristics of the resulting Anglo-Saxon and the continental European accounting model are described.

3.2.1 Single- and Double-Entry Commercial Bookkeeping

Historically bookkeeping was limited to the recording of cash inflows and outflows. The *single-entry bookkeeping method* was used, where every transaction is only registered once on one account. A cash inflow is entered on the debit side of the cash account whereas a cash outflow is entered on the credit side. Consequently, at the end of the period the change in cash can be calculated (Monsen, 2012).

An advancement of the single-entry bookkeeping method is the *systematic single-entry bookkeeping method*. Here, transactions can be entered more than once into the system, i.e. several "single-entries" are possible. Transactions with cash and performance effect are only entered once on the cash account. However, transactions with only performance but no cash effect are entered on another account, e.g. accounts receivable. Transactions with only cash effect but no performance effect on the other hand, are entered twice, in the cash account and another account. The entry in the second account thereby neutralizes the performance effect. As an example, the payment of loan installments is entered on the credit side of the cash account and on the debit side of the long-term debt account. The performance effect through the cash inflow recorded on the cash account is neutralized by the decrease in debt, so that the transaction is recorded profit-neutral overall. Consequently, the systematic single-entry bookkeeping method provides the possibility to

derive the company's result of a period directly from the accounting system in one way, through the payment side (balance sheet). The activity side in the form of profits and losses, however, is not shown (Monsen, 2012).

Today's commercial bookkeeping in larger companies is mainly based on double-entry bookkeeping (Monsen 2012). This method was developed and used first by Italian merchants, with Luca Pacioli publishing the first work on it in 1494 (Hendriksen, 1977). In double-entry bookkeeping all transactions are recorded twice, where each entry corresponds to one or more entries of an equal amount. Moreover, every transaction is recorded on at least two different accounts, whereby one account is debited and the other is credited. In addition to *payment accounts* (assets and liabilities), *activity accounts* (profit and loss accounts) exist (Monsen, 2012). The opening balance of the payment accounts is equal to the ending balance of the last year and is obtained from the opening balance sheet. Activity accounts however are period-specific and record the income and expenditures of the current year (Heinhold, 1990). According to Walb (1926), the main advantage of the double-entry bookkeeping method over the single-entry method is that the two types of accounts are directly linked, since the net change in equity equals the difference between revenues and expenses with profit-effects of a period. Hence, the company's profit or loss of a period is reported dually, via the payment side (balance sheet) and the activity side (profit and loss accounts) (as cited in Monsen, 2012).

Monsen (2001) argues that the perception of the main advantage of double-entry bookkeeping differs between Anglo-Saxon countries that comprise the UK, the US and other English-speaking countries on the one hand, and Germany on the other hand. The German literature, e.g. represented by Walb, emphasizes the advantages of the dual reporting of results through the balance sheet and the income statement (Walb, 1926, as cited in Monsen, 2001). In contrast to this, Ijiri, as a representative of the Anglo-Saxon literature, points out the accountability function of double-entry bookkeeping. Since capital accounts contain the sum of performance results of the preceding years, the firm's current financial statements represent the cumulative past. Double-entry bookkeeping therefore compels a representation of the firm's current financial status in a way that accounts for the company's past (Ijiri, 1982, as cited in Kam, 1990) In the following, the German as well as the Anglo-

Saxon perspectives on bookkeeping and the corresponding accounting theories will be explained in more detail.

3.2.2 Anglo-Saxon Perspective on Accounting

The Anglo-Saxon perspective on accounting has been influenced by two theories of the firm, the *proprietary theory* and the *entity theory*. In the following, both theories are presented shortly and their implications for financial accounting are explained. Subsequently, the modern accounting model that can be found in many English-speaking countries today, the Anglo-Saxon accounting model, is outlined.

a) Proprietary Theory

Within proprietary theory, the proprietor of the company forms the center of accounting interest and the recording of transactions and preparation of financial statements serves the purpose of measuring and analyzing the owner's net worth (Chatfield, 1977). The net worth of the owner in the business is represented by proprietorship, which is in turn equal to the difference between assets and liabilities, i.e. the firm's capital. Revenues and expenses are seen as subsidiary accounts of proprietorship that help to determine the owner's income. Consequently, the profit or loss of the company is the net change of the wealth of the owner (Kam, 1990). Kam (1990) argues, that the proprietary theory still influences the present accounting practice by a large degree.

b) Entity Theory

Proprietary theory was developed, when firms were small and the firm was typically run by its owners. With the emergence of corporations, where the firm is legally separated from its owners, proprietary theory became inapplicable and the entity theory was developed (Chatfield, 1977). In the entity theory, the corporation itself becomes the center of interest of accounting, while shareholders and creditors are merely seen as investors. Consequently stewardship and accountability constitute two fundamental purposes of accounting (Kam, 1990). Revenues and expenses are no longer seen as increase or decrease in proprietorship, but accrue to the corporation itself. The company then distributes its profit to its stakeholders in the form of tax payments, interest payments and dividends, or retains them (Chatfield, 1977).

c) The Anglo-Saxon Accounting Model

Today, the accounting approach prevailing in the United States and the United Kingdom is often referred to as the Anglo-Saxon accounting model. Many other countries and regions that have been historically influenced by those countries follow similar practices (Mueller, Gernon, & Meek, 1997). Also the IFRS are said to be strongly influenced by the Anglo-Saxon accounting model (Hung & Subramanyam, 2007). The main purpose of financial reporting in this accounting system is the provision of information for investors and creditors that is useful in making decisions. Characteristic of the economy in these countries are large, well developed equity markets that serve as the main source of capital for companies. Furthermore, in these countries many large, worldwide operating corporations exist. The countries in the Anglo-Saxon accounting cluster are common law countries, where the laws only establish the limits of legal behavior. Accounting standards are mainly developed by accountants themselves. They often permit and even encourage latitude and professional judgment. Since the accounting standards are determined by the profession itself, they are said to be more adaptive to changes in the environment and more innovative (Mueller et al., 1997).

3.2.3 German Perspective on Accounting

The German perspective on accounting differs from the Anglo-Saxon perspective in the perception of the main purpose of bookkeeping. In the following, this is outlined in more detail. Moreover, the continental European accounting model, to which also the German accounting system belongs, is characterized and contrasted to the Anglo-Saxon model described in the previous section.

a) The Direct Link between Income Statement and Balance Sheet

In German and other continental accounting research, the interrelation between balance sheet and income statement has always been of major interest. In the first half of the twentieth century, several competing theories of accounts were developed, aiming at the classification of accounts (Mattessich, 2008). Walb's *Zahlungsleistungstheorie* (payments and performance theory) differentiates between two classes of accounts, payments and performance accounts. Whereas the income statement summarizes the company's performance, the balance sheet represents the payments. Hence, the dual determination of income is emphasized (Walb, 1926, as cited in Mattessich, 2008). Especially the direct link

between the income statement and the balance sheet has always been important in continental European countries (Monsen, 2012). Von Wysocki (1965) emphasizes, that profit result accounts and balance accounts are prepared in "verbundener Form" (in a directly linked way) (as cited in Monsen, 2012). Moreover, cash transactions without a profit effect are recorded only on balance accounts and not on profit result accounts. Consequently, at the reporting date, the balance account reports total assets, liabilities and equity (Monsen, 2012).

b) The Continental Accounting Model

The continental accounting model comprises most countries of continental Europe and Japan. This accounting model is characterized by a high importance of banks as the providers of capital for companies. Furthermore, often close ties exist between the companies and banks (Nobes & Parker, 2008). Financial reporting does not primarily serve the aim of providing decision-relevant information to investors, but rather aims at satisfying requirements imposed by the government. This includes for example the determination of income taxes or the compliance with the national government's macroeconomic plan. Accounting practices are often based on legislation and are rather conservative. The continental European countries possess a codified law system, where the laws prescribe the minimum standard of behavior expected. Accounting standards are also often codified in national legislation and are consequently often highly prescriptive and detailed. Accounting practice is determined rather by the legislator than by the accounting profession (Mueller et al., 1997).

3.3 The German Generally Accepted Accounting Principles

As outlined in the previous section, accounting methods and traditions prevailing in different regions of the world vary considerably. The reasons for this are differences in the institutional environment. The focus of this section is set on Germany and the German Generally Accepted Accounting Principles (German GAAP). First, the regulative and cultural-cognitive elements that influence accounting in Germany are analyzed. Subsequently, the main concepts and regulations of the German GAAP are presented and related to the institutional environment.

3.3.1 Institutional Environment of Accounting In Germany

a) Cultural-cognitive elements

According to Gray (1988), differences in national accounting systems can arise from differences in culture and underlying societal values. Those in turn influence the development of legal and political systems, the development of capital markets and the typical ownership structure of firms. Gray's work is based on Hofstede (1980, 1984), who defines four basic dimensions of culture: Individualism versus collectivism, large versus small power distance, strong versus weak uncertainty avoidance, and masculinity versus femininity. Germany is considered to be a rather individualistic country with low power distance, a medium uncertainty avoidance and high level of masculinity. This means that the society maintains a rather low degree of interdependence and there is little hierarchical order. Furthermore, the society tolerates uncertainty and ambiguity to a certain degree and sets a high value on achievement, assertiveness and material success.

Gray (1988) defines four pairs of "accounting values", which characterize accounting systems. These are professionalism versus statutory control, uniformity versus flexibility, conservatism versus optimism, and secrecy versus transparency. Professionalism in accounting denotes the possibility for accounting professionals to apply personal judgment where necessary, whereas statutory control implies the existence of a prescriptive and detailed body of law that has to be followed. Uniformity relates to a high degree of inter-temporal and inter-company comparability of accounting practices, as opposed to more flexibility to account for different circumstances. Conservatism relates to a high degree of prudence in asset measurement and profit determination, whereas secrecy relates to a high degree of confidentiality in disclosure.

According to Gray, Hofstede's four cultural dimensions can be related to accounting values in order to explain the characteristics of accounting systems. For example, he associates a high degree of individualism with a high degree of professionalism, and a high degree of uncertainty avoidance with a high degree of conservatism in accounting. Based on these relations, Gray classifies clusters of countries with respect to two accounting values (see Figures 1 and 2). While professionalism and uniformity relate to authority and enforcement, conservatism and secrecy relate to measurement and disclosure.

Since Germany is an individualistic country with small power distance, it is classified to be a country with a relative high degree of professionalism. Here, it differs most notably from Asian countries, less developed Latin countries and the Near East. Moreover, Germany ranks higher on uniformity than e.g. the Anglo-Saxon and Nordic countries, since it shows a lower degree of individualism and stronger uncertainty avoidance (compare Table 1). Furthermore, Germany ranks higher on secrecy as well as conservatism compared to the Anglo-Saxon and Nordic countries. The reason for this is Germany's stronger uncertainty avoidance and its lower level of individualism.

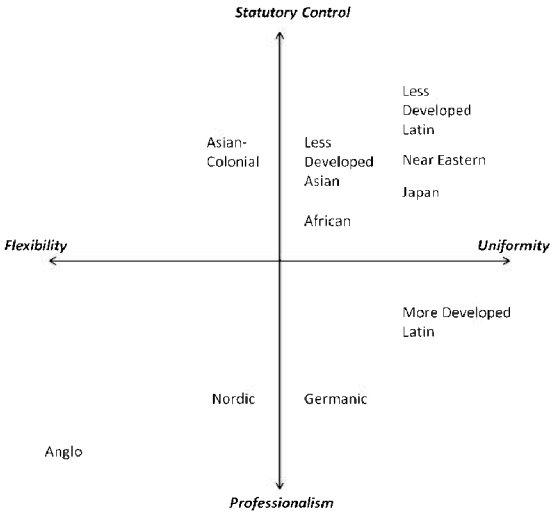
Although it is perceived to be plausible that culture influences the development of an accounting system to a certain degree, it is difficult to quantify the influence. Moreover, the measures of cultural attributes are often regarded to be vague and imprecise. For this reason, the influence of culture on accounting systems is regarded to be rather indirect and difficult to measure (Nobes & Parker, 2008).

TABLE 1: HOFSTEDE'S CULTURAL DIMENSIONS SCORES AND RANKS BY COUNTRY

Country	Individualism		Power Distance		Uncertainty Avoidance		Masculinity	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank
Germany	67	36	35	10-12	65	23	66	41-42
Great Britain	89	48	35	10-12	35	6-7	66	41-42
USA	91	50	40	16	46	11	62	36

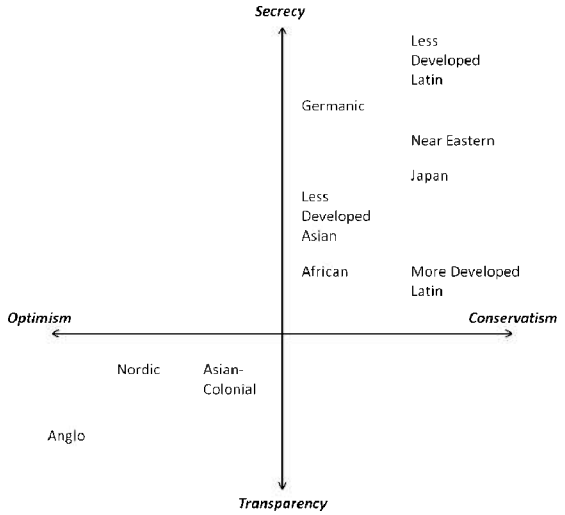
Adapted from Hofstede, 1984, p. 85

FIGURE 1: ACCOUNTING SYSTEMS – AUTHORITY AND AND ENFORCEMENT



Source: Gray, 1988, p. 12

FIGURE 2: ACCOUNTING SYSTEMS – MEASUREMENT DISCLOSURE



Source: Gray, 1988, p. 13

b) Regulative elements

Besides culture, the legal system and the tax system can have an influence on a country's accounting regulations and practice. Germany has a codified law system that consists of general rules that have been written down to be followed. Consequently, the legislator also establishes rules and regulations for accounting and financial reporting, that are codified in law (Nobes & Parker, 2008). All general accounting rules are laid down in the Commercial Code *(Handelsgesetzbuch, HGB)* and company laws. Furthermore, financial statements have to be prepared in accordance with principles of orderly bookkeeping *(Grundsätze ordnungsmäßiger Buchführung),* that have been developed by practice and are partly codified in law (Nobes & Parker, 2008).

Due to the codified law system, the influence of the auditing profession on standard setting is rather weak in Germany. The Institute of Certified Public Accountants (*Institut der Wirtschaftsprüfer in Deutschland, IDW*) issues opinions and recommendations on the interpretation of accounting standards. These are binding upon auditors, but are not legally enforceable (Ballwieser, 2001).

Besides the Commercial Code, accounting regulations are also influenced by tax law to a great extent. The reason for this is the authoritativeness principle *(Maßgeblichkeitsprinzip)*, that is codified in tax law and requires that taxable income is calculated based on the same

principles of orderly bookkeeping as commercial accounting. Tax accounting is therefore directly linked to commercial accounting (Pfaff & Schröer, 1996). As a consequence, disputes regarding accounting regulations are often decided by fiscal courts and the development of accounting regulations has been based on court rulings to a large extent (Nobes & Parker, 2008). Furthermore, the close connection of tax accounting and commercial reporting can give incentives to minimize corporate profits for tax saving purposes (Haskins, Ferris, & Selling, 2000). The authoritative principle implies that commercial law also applies for the preparation of tax accounts, if there are no explicit, deviating provisions in tax law. However, if there are deviating provisions in tax law, it prevails over commercial law. Hence, the commercial financial statements are the basis for preparing the tax accounts, both for recognition as well as measurement. Prior to a legislative reform in 2009, the authoritative principle had further implications. If there were corresponding options for recognition or measurement in both tax and commercial law, the option chosen in tax accounting had to be applied in the commercial statements as well. Here, the authoritative principle was reversed and the commercial financial statements became dependent on the tax accounts. This applied primarily to tax concessions, such as special depreciation or provision, which could only be claimed, if they were also recorded in the financial statements (Pfaff & Schröer, 1996).

The reverse authoritative principle was viewed critically in the literature, since the financial statements were influenced by tax law and the information content regarding the firm's true financial position and results was assumed to be reduced (Nobes & Parker, 2008). The Accounting Law Modernization Act (*Bilanzrechtsmodernisierungsgesetz, BilMoG*) that came into effect in 2009 removed the reverse authoritative principle from law. Consequently, the legislation for preparing tax accounts and financial accounts has been assimilated and the deviations between both statements have been reduced in the previous years (Schanz, 2009).

Furthermore, accounting is influenced by regulations and laws to protect shareholders and other providers of capital. In Germany, banks are the main provider of capital, and the owners of the companies are also often banks, the government or large families (Nobes & Parker, 2008). As a consequence of this, the German equity market is much smaller and less developed compared to the US or the UK. In 2011, the market capitalization of listed firms

amounted to 104.3% of GDP in the US. In the UK it was even 118.7% of GDP. Compared to that, the market capitalization of listed firms in Germany amounted to only 32.9% of GDP (The World Bank, 2013). Since banks play a very important role as providers of finance, creditor protection plays a major role in German financial reporting. Besides providing information to shareholders and creditors, the primary purpose of financial reporting is the determination of distributable income, i.e. that part of income which can be distributed to shareholders without impairing the firm's long-term financial stability and hence the creditors' claims (Glaum & Mandler, 1996). As a result of this, the German accounting system emphasizes a very prudent approach that aims at the understatement of profits rather than at their overstatement (Ballwieser, 2001).

3.3.2 Accounting Standards Based on the German Commercial Code

After the institutional environment of Germany has been explored in the previous section, the insights gained can be used to enhance the understanding of the German accounting standards. The following section will provide an overview over the German accounting regulations with respect to accounting principles, format of financial statements, recognition and measurement of assets and liabilities, as well as consolidation. Since accounting systems are very extensive and complex, the following overview can only provide a limited understanding of the standards based on some examples. Furthermore, it has to be noted that a comprehensive legislative reform, the Accounting Law Modernization Act (*Bilanzrechtsmodernisierungsgesetz, BilMoG*), that came into effect in May 2009 resulted in major changes in the German accounting regulations. In the following, the focus will be set on the currently prevailing accounting regulations. However, for the introduction of the IFRS in Germany, the accounting regulations prior to 2009 are also relevant. Therefore, for areas where there were major changes in accounting laws, a short description will be provided.

a) Accounting Principles

The main objectives of the German accounting system are "to preserve equity, protect creditors and facilitate the computation of taxable income" (Harris, Lang, & Möller, 1994, p. 190). Hence, financial reporting aims at the determination of the distributable income and the taxable income. Moreover it provides information for creditors and it ensures accountability of the management towards shareholders and owners (Lüdenbach, 2010).

All accounting rules are laid down in the German Commercial Code *(Handelsgesetzbuch, HGB)* and are based on several underlying accounting principles. The most fundamental principle is the prudence principle, that is stated in § 252 sec. 1 No. 4 HGB. It requires that valuations are determined prudently and can be traced back to the aim of creditor protection. The prudence principle can be seen as a source of many accounting regulations. For example, a brand name that has not been required cannot be capitalized for reasons of prudence (§ 248 sec. 2 HGB). Further fundamental accounting principles are the realization principle and the imparity principle, which both follow from the prudence principle. The imparity principle demands an unequal treatment of profits and losses. While losses have to be accounted for as soon as they are anticipated, profits can only be shown when they have already been realized. From this follows that assets have to be valued at historical cost and that losses have to be anticipated by making provisions for contingent losses. Moreover, §252 HGB requires the individual valuation of assets and liabilities, the use of accrual accounting, a going concern assumption and consistency in the preparation of the financial statements (Ballwieser, 2001).

For companies with limited liability there is also a true and fair view requirement stated in § 264 sec. 2 HGB. The financial reports have to convey a true and fair view of the firm's net worth, financial position and results, but also have to be prepared by use of the principles of orderly bookkeeping. Hence, the true and fair view requirement is limited on both the legal form of a limited company and the principles of orderly bookkeeping. It can be regarded as a supplementary rule rather than an overriding concept. If a true and fair view is not conveyed in the financial statements, additional information has to be disclosed in the notes (Ballwieser, 2001).

b) Format of Financial Statements

The requirements for the preparation of financial statements differ with respect to the legal form and size of the company. Three size classes of corporations are distinguished, based on balance sheet totals, annual sales totals and number of employees. The requirements for publicly traded companies equal those of large companies. All companies are required to prepare a balance sheet, an income statement and notes. Large and medium-sized companies additionally have to provide a management report (Choi, Frost, & Meek, 1999).

The form of the balance sheet and income statement is fixed and prescribed by law (§§ 266, 275 HGB). The balance sheet has to be prepared in the double entry form, the income statement in a vertical format. On the balance sheet, assets are presented in the order of their liquidity, liabilities are classified based on their type (Nobes & Parker, 2004). For the classification of cost in the income statement two methods are allowed, the total cost method and the cost of sales method. Under the total cost method, expenses are classified according to their nature. The change in inventory as well as the change in own work capitalized are shown in the income statement. In contrast to this, under the cost of sales method, expenditures are classified according to function. In the income statement, the cost of goods sold is shown (Nobes & Parker, 2004).

c) Recognition and Initial Measurement

The principles for the recognition and initial measurement of assets, liabilities, revenues and expenses differ with respect to their nature. In the following, the main principles of initial recognition and measurement found in the German accounting standards are demonstrated using the examples of revenue and various categories of assets and liabilities.

The regulations for the recognition of revenue follow from the realization principle. The realization principle prohibits the recognition of revenue before it has been realized. Consequently, revenue from long-term contracts cannot be realized on a percentage of completion basis but only after the provisions of the contract have been essentially fulfilled (Ballwieser, 2001). This completed contract method results in a higher volatility in earnings, since the major part of revenue is realized in the year of completion (Haskins et al., 2000).

In the recognition and measurement of assets and liabilities, the strong influence of the prudence principle is evident. The historical cost principle prevails as a mean of inflation control and as a result of the strong link between tax and commercial accounting (Haskins et al., 2000). Assets are measured at acquisition or manufacturing; liabilities are measured at the amount to be paid (§ 251 sec. 1 HGB). Research and selling expenses must not be included in the manufacturing cost but expensed when incurred (§ 255 sec. 1, 2 HGB). Internally generated intangible assets may also be capitalized with some exceptions at the amount of their development cost. However, research and development costs have to be distinguished, since research cost must be expensed immediately and cannot be capitalized (§§ 248, sec. 2; 255 sec. 2 HGB). Before the legislative reform in 2009, it was not allowed to

capitalize any internally generated assets (Van Hall, Kessler, & Strickmann, 2010). Goodwill arising from an acquisition of another company as the excess amount paid over the value of assets, has to be capitalized (§ 246, sec. 1 HGB). Prior to 2009, the law provided an option to capitalize acquired goodwill fully or partially and take it to profit and loss (Van Hall et al., 2010). For the recognition and measurement of financial instruments, the German law does not provide specific regulations. Consequently, financial instruments are measured at historical cost and must not be marked-to-market (Nobes & Parker, 2008).

Different methods for the valuation of homogenous assets within inventories are permitted, the First In, First Out (FIFO) method or the Last In, First Out (LIFO) method. Moreover, the average cost method is admissible (§ 240 sec. 3 HGB). Tax law only allows the use of the LIFO and the average cost method (Ballwieser, 2001). The LIFO method generally decreases profits when prices rise over time. Consequently, this method is often used in commercial as well as in tax accounting in order to reduce taxable profits (Nobes & Parker, 2004). Prior to 2009 the law also provided the option to apply any other valuation method, such as for example the valuation based on the purchase price (Van Hall et al., 2010).

According to German GAAP, provisions have to be set up for uncertain liabilities and potential losses from pending transactions. Additionally, provisions are required for repairs and maintenance expenses to be incurred within three months of the following year, for obligations of overburden removal to be incurred in the following year and for guarantee expenses without legal obligation (§ 249 HGB). The amount that has to be set aside should be determined based on sound business judgment (§ 253, sec. 1 HGB). Provisions are generally used heavily as an instrument to reduce taxable income or to smooth earnings. In good years, discretionary reserves are built up and in bad years these can be dissolved in order to increase profits (Choi et al., 1999). However, the legislative reform in 2009 removed some possibilities for discretionary provisions from the law. It is no longer allowed to set up provisions for repairs and maintenance expenses to be incurred after three months but within the following year. Furthermore, the option to set up provisions for other accurately specified expenses that relate to the current or a previous reporting period was abolished (Van Hall et al., 2010). The legislative reform also affected the accounting for pension obligations. While prior to 2009 the obligations were calculated based on current salaries, now future salary increases and career trends have to be considered (Lüdenbach, 2010).

In cases where the taxable income and the commercial income in a specific period differ, a deferred tax liabilities and assets arise. If the taxable income is lower than the commercial income before taxes, a tax liability arises that must be settled in later years (Ballwieser, 2001). In this case, a deferred tax liability has to be recognized. If the taxable income in a period is higher than the commercial income, a lower tax burden can be expected in later periods. In this case, a deferred tax asset may be recorded, but is not required (§ 274, sec. 1 HGB). Because of the close connection of commercial and tax reporting in Germany, deferred taxes seldom arise (Choi et al., 1999).

d) Subsequent Valuation

After the initial recognition and measurement of assets and liabilities on the balance sheet, possible changes in value due to wear and tear or unexpected value losses have to be accounted for. However, for assets the acquisition or manufacturing cost net of systematic depreciation represents the upper bound for the measurement and can never be exceeded (§ 253 sec. 1 HGB). Fixed assets with a definite useful life have to be depreciated or amortized systematically over the estimated period of use. Goodwill that has been acquired in a business combination has to be amortized as well (§ 253 sec. 3 HGB). It is generally amortized over 4 years on a straight-line basis. Depending on the anticipated time of usefulness, a longer amortization period may be chosen. For tax purposes, goodwill has to be amortized over 15 years (Nobes & Parker, 2004).

If there are indications of a permanent decrease in value, assets have to be impaired. However, fixed asset must only be impaired, if the decrease in value is considered to be permanent. For financial assets, impairment is optional in case of a temporary decrease in value (§ 253 sec. 3 HGB). Inventories are generally carried at the lower of cost and net realizable value. If the carrying amount exceeds the current market price, the value has to be decreased to the lower value, even if the decrease in value is perceived to be only temporary (§ 253 sec. 4 HGB). Prior to the legislative reform in 2009, the law also provided the possibility to make discretionary impairments on fixed assets and inventories based on sound business judgment (Van Hall et al., 2010). If the reasons for the impairment cease to exist, the impairment has to be reversed. However, an impairment of goodwill must not be reversed (§ 252 sec. 5 HGB).

e) Consolidated Financial Statements

Parent companies, i.e. companies that have subsidiaries, are required to prepare consolidated financial statements comprising all firms of the group. In addition to a balance sheet, income statement, notes and a management report, the consolidated financial statements also have to include a cash flow statement and a statement of changes in equity. Segment reporting can be included optionally (§ 297 sec. 1 HGB). Since 1998, internationally accepted standards, such as IAS or US-GAAP, may be used in preparing consolidated financial statements. From 2005, the International Financial Reporting Standards (IFRS) have to be applied by all listed companies in the European Union (Nobes & Parker, 2008). Non-listed companies in Germany have the option to apply IFRS (§ 315a HGB). Prerequisite for the obligation to prepare consolidated accounts is that the company is a parent company. Parent companies have to fulfill specific requirements of control over their subsidiaries. Based on certain size criteria, a parent company can be released from the duty of preparing consolidated accounts. Moreover, a company can be exempted if it has a parent company itself, which publishes consolidated financial statements in accordance with EU law (Haskins et al., 2000).

For the purpose of consolidation, the accounting and valuation principles in the different subsidiaries of the group have to be equalized. However, in the individual financial statements, different principles can be chosen. Hence, tax-driven accounting choices in the individual statements do not necessarily have an influence on the group accounts. Consolidated financial statements primarily serve the purpose of providing information to investors and do not serve as basis for taxation or profit distribution (Choi et al., 1999).

German accounting regulations provide for various methods of full or partial consolidation. Subsidiaries are fully consolidated, i.e. all its assets and liabilities are included in the consolidated balance sheet. At the same time, the parent's investment book value in the subsidiary is offset with the subsidiaries net assets. If there is a positive difference between purchase price and the value of the subsidiary's net assets, goodwill is recognized as an intangible asset. If there is a negative difference, the difference is capitalized as well and shown on the credit side of the balance sheet (§ 301 sec. 3 HGB). Prior to the change in legislation in 2009, three methods for full capital consolidation were allowed. Under the book value method, the subsidiary's net assets are valued at their book value. In contrast to

this, under the fair value method, the value of the subsidiary's net assets is measured at fair value. The most relevant consequence of the differences between both methods is the calculation of non-controlling interests. In addition, the law provided a possibility for merger accounting, the pooling of interest method. However, this method was seldom used in practice (Nobes & Parker, 2004). Since 2009, the fair value method is the only method permitted for full capital consolidation (Van Hall et al., 2010).

Interests in joint ventures can be accounted for alternatively using proportionate consolidation or the equity method. Under proportionate consolidation, only the group's share of assets and liabilities is included in the consolidated financial statements. Under the equity method, the investment value is calculated at acquisition cost plus a proportionate share of retained profits. For companies which are not subsidiaries, but can be influenced significantly by the group, the equity method has to be applied (Nobes & Parker, 2004).

3.4 The International Financial Reporting Standards

After the prerequisites for accounting in Germany and the German accounting standards have been explored, the focus will now be set on the International Financial Reporting Standards. First, the history of the IFRS from an initial idea of common international accounting standards to the realization and widespread acceptance will be presented. Subsequently, the main ideas and principles of the IFRS will be summarized.

3.4.1 The History of the International Financial Reporting Standards

a) The IASC and the IASB

With the increasing internationalization of capital markets around the world starting in the 1960s, the need for international financial accounting standards became apparent. Users of financial reporting required internationally comparable financial statements, which were easily understandable and provide complete financial disclosures. With more and more companies operating globally, also governments developed an increased demand for international financial reporting for the purpose of regulation and taxation (Alfredson et al., 2007).

In 1973, the International Accounting Standards Committee (IASC) was set up by professional accountancy bodies of nine countries. Those were Australia, Canada, France, Germany, Japan, Mexico, the Netherlands, the United Kingdom, Ireland and the United States. In the subsequent years, the IASC was joined by more members so that by 2000, the committee consisted of 152 accountancy bodies from 112 countries. The IASC's main objective was to develop International Accounting Standards (IAS) that were intended to be adopted as national GAAP in the member countries. The IASC board that establishes the IAS consisted of representatives of different member countries and international organizations. Furthermore, a number of other international groups were represented as observers, such as the European Commission, the US Financial Accounting Standards Board (FASB) and the International Organization of Securities Commissions (IOSCO). Until its restructuring in 2001, the IASC developed and published 41 International Accounting Standards (Alfredson et al., 2007).

In 2000, the IASC initiated an extensive restructuring of its organization in order to cope with the increasing workload and the need for broader sponsorship. In addition to that, the relationships with national standard setters should be improved and the recognition of the

standards by regulators enhanced. As a consequence of the restructuring, the IASC was replaced by a much smaller International Accounting Standards Board (IASB). The IASB operates under the newly established IASC Foundation, consisting of representatives from different regions of the world and other interest groups. The IASB continues to develop and publish accounting standards that are referred to as International Financial Reporting Standards (IFRS). However, the term IFRS is meant to comprise both the IAS and IFRS (Alfredson et al., 2007).

Today, IFRS are mandatory or permitted to use in almost 120 countries all over the world (IFRS Foundation, 2013c). In the European Union, all publicly listed companies are required to apply IFRS in their consolidated financial statements as of 2005. Most of the EU countries additionally permit the use of IFRS in individual company financial statements and non-listed firms. Among others, Australia, New Zealand, Hong Kong, and Singapore have adopted national GAAPs that are largely equivalent to IFRS (Alfredson et al., 2007). Until now, China and the USA have not yet permitted the use of IFRS for listed companies. However, in the US, foreign private issuers can publish their financial statements under IFRS without reconciliation to US-GAAP. China as well as the US expressed the intention to further converge their national GAAP with IFRS in the future (PricewaterhouseCoopers LLP, 2012).

b) Development of the Accounting Standards

The IASC developed its accounting standards with the aim of improving international accounting regulations by committing to the use of good accounting practice. Main goal of financial reporting should be a fair presentation and full disclosure. Financial statements should provide information "used by variety of users, especially shareholders and creditors for making evaluations and financial decisions" (IAS 1, 1976, paras. 11-12, as cited in Cairns, Creighton, & Daniels, 2002, p. 33). The IASC aimed at formulating basic standards that set out principles for specific topics and provide a choice of acceptable alternative accounting practices. Unsound practices were supposed to be filtered out in the process. Consequently, early IAS were very broad and provided many options reflecting differences in national standards (Cairns et al., 2002).

In 1987, the IASC started to work on a comparability project with the goal of reducing the number of permitted alternatives in the standards. The committee felt that this step was necessary to enhance the acceptance of IAS. The removal of options in the standard has

been an ongoing process. In 1990, the IASC launched the improvement project which led to the revision of 10 IAS. Amongst others, the choice between the completed contract method and the percentage of completion method for construction contracts as well as the choice to capitalize development cost was removed (Cairns et al., 2002).

3.4.2 Accounting Rules According to IFRS

a) Accounting principles

In 1989, the IASC adopted The Framework for the Preparation and Presentation of Financial Statements. In 2010 it was revised and renamed as the Conceptual Framework for Financial Reporting (Framework, Foreword). The Framework presents the basic concepts underlying the International Financial Accounting Standards. It serves as a guideline for the development of new standards and helps in the interpretation of existing standards. If the standards do not address a specific accounting issue, the Framework can serve as a guide in resolving the problem (Alfredson et al., 2007).

The general objective of financial reporting is defined in the Framework as providing "financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity" (Framework, OB2). Although financial reporting is aimed at investors, creditors and other parties, it is often argued that investors are seen as the primary, overriding user group. It is assumed that if the financial statements meet the investors' information needs, they will also satisfy the information needs of other stakeholders (Alfredson et al., 2007). Hence, financial reporting mainly serves the objective of providing information useful in decision making. This encompasses also the goal of stewardship, i.e. the accountability of management, since those interested in the accountability of management also use the provided information to make future-oriented decisions. However, the determination of taxable income or distributable profits is not an objective of financial statements prepared under IFRS (Cairns et al., 2002).

The Framework presents two underlying assumptions of financial statements. Those are the accrual basis of accounting and the going concern assumption. Accrual accounting requires that transactions are recorded in the period they relate to rather than in the period when the cash flow occurs. The going concern assumption demands that financial reports are prepared under the presumption that the entity will continue to operate indefinitely.

Furthermore the Framework sets out four qualitative characteristics that determine the usefulness of information to investors. Those are understandability, relevance, reliability and comparability. Understandability requires that information is presented in a way that is readily understandable by experienced readers. Information is relevant, if it is capable of influencing a user's decisions. Moreover, information is reliable, if it is free from material error and bias and faithfully represents events and transactions. Finally, the requirement of comparability states that users of financial information have to be able to make comparisons over time and across companies (Alfredson et al., 2007).

b) Format of Financial Statements

According to paragraph 10 of IAS 1, complete financial statements consist of a statement of financial positions, a statement of comprehensive income, a statement of changes in equity, a statement of cash flows and notes. The notes should comprise a summary of significant accounting policies and other explanatory information. The financial reports of listed companies additionally have to provide segment information (IFRS 8, paras. 1,2).

The standards do not prescribe a specific format for the balance sheet and the income statement, however, a list of line items that are regarded to be relevant and shall be included is provided (IAS 1, paras. 54, 82). Assets and liabilities on the balance sheet should be classified as current and non-current, unless a presentation based on liquidity provides more relevant and reliable information (IAS 1, para. 60). A presentation based on liquidity may be chosen by entities that do not supply goods or services in a clearly identifiable operating cycle, such as financial institutions (IAS 1, para. 63). Cost on the income statement can be classified either by nature or by their function. The choice of representation should be based on which of the options provides the most relevant and reliable information (IAS 1, para. 99).

c) Recognition & Measurement

For the recognition of items on the balance sheet or income statement, the IFRS specifiy two general criteria which have to be satisfied. First, it has to be probable, that future economic benefits will flow to or from the entity. Second, the items' cost or value has to be reliably measurable (Framework, para. 4.38). These general criteria apply to the recognition of assets and liabilities as well as income and expenses; however they are supplemented by more specific criteria in the individual standards.

The Framework states that revenue is recognized when "an increase in future economic benefits related to an increase in an asset or a decrease of a liability has arisen that can be measured reliably" (Framework, para. 4.47). Revenue from construction contracts can be recognized under the percentage of completion method, if the outcome of the contract can be measured reliably. In this case, revenue and expenses related to the contract can be recognized with reference to the stage of completion, as the service activity progresses (IAS 11, para. 22).

Items of property, plant and equipment that satisfy the recognition criteria are measured at cost. The cost of an item consists of the purchase price, directly attributable cost and cost of dismantling, removing or restoring the site (IAS 16, paras. 15, 16). Similarly, inventory is initially recognized at cost. Here, cost includes the purchase price, the costs of conversion and other cost incurred in bringing the inventory to their present location and condition (IAS 2, para. 10). For purposes of assigning costs to inventory on sale for homogenous goods, the First In, First Out (FIFO) method or the weighted average cost formula can be applied (IAS 2, para. 25).

An intangible asset is defined in paragraph 8 of IAS 38 as "an identifiable non-monetary asset without physical substance". It is identifiable, if it either is separable from the entity or arises from contractual or other legal rights (IAS 38, para. 12). An intangible asset can be recognized, if it is probable that future economic benefits attributable to the asset will flow to the entity and the cost of the asset can be measured reliably (IAS 36, para. 21). Those criteria are assumed to be always fulfilled for separately acquired intangible assets (IAS 36, paras. 25, 26). Development costs for internally generated intangible assets can be capitalized, if certain requirements stated in paragraph 57 of IAS 38 are fulfilled. However, research expenses cannot be capitalized (IAS 38, para. 54).

For the initial measurement of financial instruments, the IFRS provide specific regulations in IAS 32, IAS 39 and IFRS 7. The term "financial instruments" comprises financial assets, financial liabilities and equity instruments (IAS 32, para. 11). Four categories of financial instruments are defined in the standards: financial assets and liabilities at fair value through profit or loss, held-to-maturity investments, loans and receivables and available-for-sale financial assets (Alfredson et al., 2007). Financial instruments are initially measured at fair

value, i.e. "the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction" (IAS 39, paras. 9, 43).

Under IFRS, a provision must be set up if an entity has a present obligation arising from past events, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and the amount of the obligation can be measured reliably (IAS 37, para. 14). The amount required to set aside in a provision should be the best estimate of the expenses required to settle the obligation (IAS 37, para. 36). In the measurement of pension provisions, future salary increases have to be reflected (IAS 19, para. 83a).

If the carrying amount of an asset or liability differs from its tax base, a temporary difference arises. A deferred tax liability has to be recognized for taxable temporary differences, where the future taxable amount of an asset or liability exceeds the amount deductible in the future. If the future taxable amount of an asset or liability is less than the amount deductible, a deferred tax asset has to be recognized (Alfredson et al., 2007).

IAS 17 furthermore provides specific guidelines for the recording of lease transactions. It differentiates between finance and operating leases. A lease transaction is classified as finance lease if all risks and rewards incidental to ownership are transferred to the lessee. If this is not the case, the lease transaction is classified as operating lease (IAS 17, para. 8). In the case of an operating lease, the lease object is recorded on the lessor's balance sheet, whereas in the case of a finance lease, the lease object is recorded on the lessee's balance sheet. In a finance lease, the asset is recorded at the lower of its fair value or the present value of the minimum lease payments (IAS 17, paras. 20, 49).

d) Subsequent Valuation

For the measurement subsequent to the initial recognition, the IFRS provide a choice between two measurement models for property, plant and equipment as well as intangible assets (IAS 16, para 29; IAS 38, paras. 74-75). Under the cost model, the item of PPE is measured "at its cost less any accumulated depreciation and any accumulated impairment losses" (IAS 16, para. 30). Under the revaluation model, the asset is carried at its revalued amount, which is "its fair value at the date of the revaluation less any accumulated depreciation and any accumulated impairment losses" (IAS 16, para. 31). An increase in an asset's carrying amount as a result of a revaluation is recognized profit neutral, as long as

the increase does not reverse a previous decrease of the same asset that was recognized through profit or loss (IAS 16, para. 39).

If the carrying amount of an asset or exceeds its recoverable amount, the asset has to be impaired by this amount according to IAS 36. The recoverable amount is defined as the higher of the fair value less cost to sell and the value in use (IAS 36, para. 6). If the recoverable amount is not identifiable for individual assets, it has to be determined for the smallest identifiable group of assets, the cash generating unit (Alfredson et al., 2007). The entity has to assess, whether there are indications of an impairment loss at the end of each period, and if this is the case, the recoverable amount of the asset has to be determined (IAS 36, para. 9). However, an impairment test has to be conducted annually for intangible assets with an indefinite useful life and goodwill acquired in a business combination (IAS 36, para. 10).

For the measurement of inventories, IAS 2 provides further requirements. It states that inventories are measured at the lower of cost and net realizable value (IAS 2, para. 9). The net realizable value is defined as the "estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale" (IAS 2, para. 6). Since inventories should not be carried at an amount higher than the value expected to be realized from their sale or use, they have to be written down if the carrying amount exceeds the net realizable value (IAS 2, para. 28).

The subsequent valuation of financial instruments depends on the category of financial instruments they were classified as. Financial assets and liabilities measured at fair value through profit or loss and available-for-sale financial assets are subsequently measured at fair value. However, changes in value of financial instruments measured at fair value through profit or loss are recorded in profit and loss, whereas changes in value of available-for-sale financial assets are recorded directly in equity. Held-to-maturity investments as well as loans and receivables are subsequently measured at amortized cost. Amortized cost is determined using the effective interest method that allocates the interest income or interest expenses over the relevant period (Alfredson et al., 2007).

e) Consolidated Financial Statements

Under IFRS the requirements for individual financial statements stated in IAS 1 equally apply to consolidated financial statements (IAS 1, para. 4). However, in the consolidated balance sheet, non-controlling interests in equity have to be presented separately (IAS 27, para. 27). Any parent company that has one or more subsidiaries is required to prepare consolidated financial statements under IAS 27 (paras. 4, 9). Parent companies do not have to prepare consolidated statements, if they are subsidiaries themselves and their owners do not object, if the company is not publicly listed or if the ultimate or an intermediate parent of the entity provides consolidated financial statements that are in accordance with IFRS (IAS 27, para. 10).

Paragraph 4 of IAS 27 defines a subsidiary as an entity that is controlled by another entity. An entity has control over another entity, if it has "the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities" (IAS 27, para. 4). If an entity possesses more than the half of all voting rights in another entity, control is assumed to exist. However, control can also exist in situations where the parent owns half or less than half of the voting rights but has factual control (IAS 27, para. 13).

For the consolidation of subsidiaries, the acquisition method described in IFRS 3 is applied (para. 4). All assets acquired and liabilities assumed are measured at their fair value in order to determine the value of the subsidiary's equity (IFRS 3, para. 18). Subsequently, the carrying amount of the parent's investment is set off with the parent's portion in the subsidiary's equity (IAS 27, para. 18). The remaining positive difference between the purchase price and the non-controlling interest on the one hand and the value of the subsidiary's net assets on the other hand is recognized as goodwill (IFRS 3, para. 32). A negative difference is recognized in profit and loss as gain from a bargain purchase (IFRS 3, para. 34). Non-controlling interests in the subsidiary can be measured based on two methods. Either non-controlling interests are determined as a share on the fair value of the acquired company or as a share on the revalued net assets of the acquired company (IFRS 3, para. 19). Prior to a change in IFRS 3 in 2010 however, only the second option was permitted (Lüdenbach, 2010).

Investments in associate companies, which are not subsidiaries but over which the investor has a significant influence are consolidated according to IAS 28. If the investor holds more than 20% of the voting rights, it is presumed that he has a significant influence. If he holds

less than 20%, a significant influence is not presumed, but the opposite can be demonstrated (IAS 28, para. 6). For investments in associated companies the equity method is applicable. The investment is initially recognized at cost and is increased or decreased each period by the investor's share of profit or loss and distributions (IAS 28, para. 11). Interests in joint ventures are accounted for based on IAS 31. Either the equity method or proportionate consolidation can be applied (IAS 31, para. 30).

3.5 Main Differences between German GAAP and IFRS

3.5.1 Differences in Basic Principles

A major difference between IFRS and German GAAP concerns the basic structure and depth of the regulations. The German accounting standards are codified in law and are based on the underlying principles of orderly bookkeeping. The law only sets out rather abstract principles, while the application of these principles on individual cases is limited to court decisions and recommendations of accountancy bodies. In contrast to this, the IFRS are more specific and also address individual cases. Individual provisions in the standards generally precede the principles set out in the Framework (Lüdenbach, 2010).

With regard to the format of financial statements, the IFRS provide more flexibility concerning the statements' structure and presentation. Whereas the German Commercial Code prescribes a fixed format for the balance sheet and the income statement, the regulations in IFRS only provide minimum requirements for disclosure and various options concerning the structure (§§ 266, 275 HGB; Lüdenbach, 2010). Moreover, all financial statements prepared under IFRS have to include a statement of changes in equity and a statement of cash flows (Alfredson et al., 2007). Under German GAAP, this is only required for consolidated financial statements (§ 297 sec. 1 HGB).

The standards also differ with respect to the definition of the main purpose of financial reporting. While German GAAP focuses on the prudent determination of the distributable income of a period, IFRS sets its main focus on the provision of information that is relevant for decision making (Lüdenbach, 2010). Hence, German GAAP is dominated by the aim of creditor protection and the determination of taxable income, whereas the IFRS are primarily shareholder-oriented and independent from tax accounting considerations (Harris et al., 1994; Hung & Subramanyam, 2007).

Due to the differences in the definition of the main purpose of financial reporting, German GAAP and IFRS are based on different basic principles. German GAAP strongly emphasizes the prudence principle and the financial statements should rather understate the results of the company than overstate it. As a consequence of this, losses have to be accounted for as soon as they are anticipated but gains can only be accounted for when they already have been realized (Ballwieser, 2001). Since the IFRS aim at the provision of decision-relevant information for all stakeholders of the firm, prudence is not emphasized as strongly. IFRS are

rather based on the concept of accrual accounting that aims at recording all transactions in the period they relate to. This e.g. enables the recognition of revenue from long-term construction contracts before the completion of the project (Lüdenbach, 2010).

The strong influence of the prudence principle on German GAAP also results in many opportunities to set up discretionary provisions in order to smooth income through reserves (Nobes & Parker, 2008). IFRS on the other hand, is more fair-value driven and consequently economic events are recorded faster. As a result, earnings reported under IFRS are often more volatile than earnings reported under German GAAP (Hung & Subramanyam, 2007).

3.5.2 Differences in Accounting Regulations

a) Recognition and Measurement

In the area of recognition and measurement of assets, liabilities and revenue there are several differences between IFRS and German GAAP. Regarding the recognition of revenue, the prudence principle dominating German GAAP does not allow the application of the percentage of completion method in most cases. Revenue can generally only be recorded, when it has been realized, i.e. after the contract has been completed (Ballwieser, 2001). In contrast to this, IFRS sets more value on the matching of revenues with the periods they relate to and hence allows the recognition of revenues from long-term contracts with reference to the stage of completion (Lüdenbach, 2010).

Further differences can be found in recognition of intangible assets. Prior to the legislative reform in 2009, German GAAP generally did not allow the capitalization of internally generated intangible assets (Van Hall et al., 2010). Today, German GAAP provides an option to capitalize internally generated intangible assets, as long as the cost of development can be separated from the research cost (§ 255 sec. 2a HGB). IFRS also requires the capitalization of development cost as long as certain criteria are met. Research expenses cannot be capitalized either under IFRS (IAS 38, paras. 21, 54). Goodwill acquired in a business combination has to be recognized under both German GAAP and IFRS. However, prior to the legislative reform in 2009 it was possible to record acquired goodwill directly in profit and loss under German GAAP (Van Hall et al., 2010).

The regulations in the German GAAP and IFRS differ as well with regarding to the assignation of cost to inventory on sale for homogenous goods. Whereas German GAAP allows both the First In, First Out (FIFO) and the Last In, Last Out (LIFO) method, IFRS only allows the FIFO

method (§ 256 HGB; IAS 2, para. 25). Prior to 2009, the German law also allowed the use of any other suitable valuation method (Van Hall et al., 2010).

Moreover, the differences in the regulations concerning financial instruments differ considerably between German GAAP and IFRS. Under German GAAP, financial instruments are accounted for exactly as any other asset, since the law does not provide special regulations for this group. Consequently they are initially measured at their historical cost (§ 253 sec. 1 HGB). In contrast to this, under IFRS all financial instruments are initially measured at their fair value, the subsequent measurement depends on their classification (IAS 39, paras. 43, 45).

Furthermore, the possibilities to set up provisions differ between the standards. Prior to the legislative reform in 2009, the German law provided possibilities to set up discretionary provisions based on management judgment, which is not possible under IFRS (Van Hall et al., 2010). German GAAP also requires cost provisions to be set up for expenses to be incurred within the first three months of the subsequent year. In contrast to this, under IFRS provisions can only be set up for obligations against third parties (Lüdenbach, 2010). Provisions for restructuring can be set up only if specific conditions stated in IAS 37 are met (para. 72). German GAAP however, does not provide special regulations for provisions for restructuring (Lüdenbach, 2010). The measurement of pension provisions does no longer differ significantly after the legislative reform of German GAAP in 2009. However, the German law allows the distribution of the appreciation in value after the consideration of future salary increases over the 15 years following the reform. Therefore, pension obligations measured based on German GAAP may currently still lie below the value based on IFRS (Lüdenbach, 2010).

Finally, there are some differences in the regulations regarding the recording of lease transactions. German GAAP does not provide any specific rules on lease transactions, only tax legislation provides some guidance (Lüdenbach, 2010). In contrast to this, the IFRS provide detailed regulations regarding lease transaction in IAS 17. The criteria to classify finance and operating leases are essentially equal under German GAAP and IFRS. However, IFRS requires that leases are classified as finance leases if the present value of the minimum payments amounts to at least substantially all of the fair value of the lease object (IAS 17, para. 10d). Under German GAAP, this regulation does not exist. As a consequence, the

classification of leases may differ in some cases under German GAAP and IFRS (Lüdenbach, 2010).

b) Subsequent Valuation

The differences in the purpose of financial reporting and accounting principles between German GAAP and IFRS also lead to differences in the subsequent valuation of assets and liabilities. German GAAP is primarily based on the historical cost principle, meaning that the carrying value of assets can never exceed its acquisition or production cost less accumulated depreciation. IFRS, however, allows the revaluation method for the subsequent valuation of PPE and intangible assets (IAS 16, para. 31; IAS 38, para. 72). Assets can therefore be revalued to an amount exceeding the assets' historical cost. This model is not in accordance with the German principles of orderly bookkeeping (Lüdenbach, 2010). Similar differences arise in the subsequent valuation of financial instruments. Under German GAAP, financial instruments are carried at the lower of market value and historical cost (§ 253 sec. 3, 4 HGB). Under IFRS, assets and liabilities measured at fair value through profit and loss as well as financial assets available for sale can be carried at a market value that exceeds their acquisition cost (Alfredson et al., 2007).

Moreover, the regulations of German GAAP and IFRS differ with respect to impairments of assets. While German GAAP requires assets are impaired on an individual level, IFRS allows impairments on the level of cash generating units (§ 253, sec. 2; IAS 26, para. 18). The IFRS regulations may lead to the protection of single assets from impairments, if they are subsidized by the cash generating unit (Lüdenbach, 2010). Also, the subsequent valuation of goodwill acquired in business combinations differs. Under German GAAP, goodwill has to be amortized over its expected useful life (§ 246 sec. 1 HGB). IFRS on the other hand, follows an impairment-only approach, where goodwill is not amortized (Lüdenbach, 2010). Instead, an impairment tests have to be carried out on a regular basis (IAS 36, para. 10b).

c) Consolidated Financial Statements

Further differences concern the consolidation methods allowed under German GAAP and IFRS. Prior to 2009, German GAAP allowed the use of the book value as well as the fair value method (Nobes & Parker, 2004). Nowadays only the fair value method is allowed, which corresponds to the regulations under IFRS (Van Hall et al., 2010). However, in contrast to

German GAAP, the IFRS provide the option to capitalize goodwill attributable to non-controlling interests (IFRS 3, para. 19).

Goodwill arising from differences in the purchasing price and the value of the subsidiary's net assets is treated slightly differently under German GAAP and IFRS. Prior to 2009, German GAAP allowed the partial or full offset of goodwill in profit and loss (Van Hall et al., 2010). Under IFRS as well as after the legislative reform in Germany, this is not allowed (Alfredson et al., 2007; Van Hall et al., 2010). In cases where a negative difference between the purchase price and the value of the subsidiary's net assets arises, German GAAP requires that the difference is capitalized and shown on the credit side of the balance sheet (§ 301 sec. 3 HGB). Under IFRS, however, the difference has to be recorded as a gain from a bargain purchase immediately (IFRS 3, para. 34).

TABLE 2: MAIN DIFFERENCES BETWEEN GERMAN GAAP AND IFRS

	German GAAP	IFRS
ACCOUNTING PRINCIPLES		
Main focus	Determination of distributable income and taxable profits	Provision of information useful for decision making
Dominating principle	Prudence principle	Accrual accounting
FORMAT		
Components of financial reports	Management report for corporations; cash flow statement and statement of changes in equity for consolidated statements	No management report required; cash flow statement and statement of changes in equity for all companies
Balance sheet and income statement	Format prescribed for corporations	No specific format prescribed
RECOGNITION AND INITIAL MEASUREMENT		
Revenue	Completed contract method	Percentage of completion method
Internally generated intangibles	Optional capitalization of development cost (prior to 2009: no capitalization)	Capitalization of development cost required
Financial instruments	Historical cost	Fair value or amortized cost
Valuation of similar inventory items	LIFO, FIFO and weighted average cost method (prior to 2009: also other methods)	FIFO and weighted average cost method
Provisions	Uncertain liabilities, potential losses from pending transactions (prior to 2009: additionally for other accurately specified expenses)	Present obligation arising from past events
Provisions for repairs and maintenance expenses	Capitalization required, if expense is expected to be incurred within 3 months of the subsequent year (prior to 2009: optional if incurred within 1 year)	Capitalization prohibited
Valuation of pension obligations	Based on expected future salaries (prior to 2009: usually based on current salaries)	Based on expected future salaries
Deferred tax assets	Optional capitalization	Required capitalization
Lease transactions	No specific regulations	Operating and finance leases
SUBSEQUENT VALUATION		
Assets	Historical cost less accumulated depreciation and impairment losses	Revaluation or cost model for PPE and intangible assets
Goodwill	Amortized	Impairment-only approach
Impairment of fixed assets	Impairment only if decrease in value permanent (prior to 2009: also based on sound business judgment)	Impairment if carrying amount is higher than recoverable amount

Impairment of inventory	Impairment if carrying amount is higher than net realizable value, even if decrease in value is temporary (prior to 2009: also based on sound business judgment)	Impairment if carrying amount is higher than net realizable value
CONSOLIDATED FINANCIAL STATEMENTS		
Consolidation methods	Purchase method (prior to 2009: also book value method)	Purchase method
Goodwill attributable to non-controlling interests	Capitalization prohibited	Optional capitalization (since 2010)
Goodwill	Capitalization required (prior to 2009: optional to set off against P&L)	Capitalization required
Negative goodwill	Capitalization (only in consolidated statements)	Expensed immediately

Sources: Alfredson et. al. (2007); Ballwieser (2001); Lüdenbach (2010); Nobes & Parker (2004); Van Hall et al. (2010)

3.6 SUMMARY

The previous chapter provided an overview over the theoretical background of financial accounting. Revenues and expenses can be identified as the main concepts of financial accounting that can be accrued in different ways (Mülhaupt, 1987, as cited in Monsen, 2012) As a result, different accounting methods and traditions have evolved over the time. The concept of single-entry bookkeeping was developed further into double-entry bookkeeping, where all transactions are recorded twice (Monsen, 2012). However, the perception of the main focus of the double-entry bookkeeping method differs in the Anglo-Saxon and German literature (Monsen, 2001). Whereas the Anglo-Saxon literature emphasizes the accountability function of accounting, the German literature focuses on the dual reporting of results (Walb, 1926, Ijiri, 1982, as cited in Monsen, 2001). Accordingly, the accounting model prevailing in the Anglo-Saxon countries today differs significantly from the accounting model prevailing in continental Europe (Mueller et al., 1997).

The German accounting system is based on the institutional environment in Germany. The country is characterized by a codified law system, a close link between tax and commercial accounting and the high importance of banks as providers of capital (Nobes & Parker, 2008). In contrast to this, the IFRS have been developed by the professional accountancy bodies of different countries with the aim of harmonizing international financial reporting (Alfredson et al., 2007). However, they are said to be heavily influenced by the Anglo-Saxon accounting system (Hung & Subramanyam, 2007). The main purpose of financial reporting under German GAAP is the determination of distributable income and tax income (Lüdenbach, 2010). The prudence principle influences the standards strongly, which can e.g. be seen in the domination of the historical cost principle for the valuation of assets (Ballwieser, 2001). Moreover, provisions and other reserves are used heavily in order to smooth income over the periods (Nobes & Parker, 2008). The main purpose of accounting according to IFRS is to provide information that is useful in making decisions (Framework, OB2). In contrast to German GAAP, the IFRS emphasizes the concept of accrual accounting which aims at recording transactions in the period they occur (Lüdenbach, 2010). Moreover, IFRS is more fair value-oriented, resulting in a timelier recognition of economic events in the financial statements. This leads to more volatile earnings under IFRS (Hung & Subramanyam, 2007).

4 Case Study of Deutsche Telekom AG

The analysis of the relevant literature in the first part of this thesis gave insights into the external factors and theoretical foundations that have influenced the development of the German accounting regulations and accounting practice. It revealed a rather large difference between the accounting regulations and practices applied in Germany and the regulations stipulated by IFRS. These theoretical findings are now further explored and tested in a real-life context in the form of a case study of a German company, Deutsche Telekom AG. The case study aims at analyzing the effects the adoption of IFRS had on the company's financial statements both in the year of the first-time adoption and in the subsequent years. To begin with, in the following chapter the company Deutsche Telekom AG is introduced and the IFRS adoption process of the company is described.

4.1 Deutsche Telekom AG

Deutsche Telekom AG is a German telecommunications company providing fixed-network and mobile services, internet and TV for consumers as well as information and telecommunication technology (ICT) solutions for business customers. The company is headquartered in Bonn, Germany and operates in 50 countries worldwide (MarketLine, 2012). In 2012, the company earned revenues of €58.2 bn and recorded a net loss of €5.3 bn. Over half of the revenue was generated outside the home country Germany. On average the company employed 232,000 people worldwide. Deutsche Telekom AG is listed on the Frankfurt Stock Exchange and has a weight of 3.8% in the DAX 30 index (Deutsche Telekom AG, 2013c).

Deutsche Telekom AG divides its operations into three areas. The fixed-network business comprises voice and data communication activities based on fixed-network and broadband technology. The mobile communications business provides mobile voice and data services to consumers and business customers. T-Systems, finally, is the corporate customers arm of the company. It is active in the field of network-centric ICT solutions and provides combined IT and telecommunications services for companies. Moreover, it offers cloud computing services, i.e. the dynamic provision of infrastructure, software or platform services online (Deutsche Telekom AG, 2013c).

The group is divided into of four operating segments: Germany, Europe, United States and Systems Solutions. In addition to these four segments, the Group Headquarters and Shared Services division comprises all group units that cannot be related directly to one of the operating segments (Deutsche Telekom AG, 2013c).

Deutsche Telekom was established as Deutsche Bundespost Telekom in 1990, when the German federal postal services (*Deutsche Bundespost*) were split into three separate, state-owned entities. In 1995, the company was transformed into the initially state-owned stock company Deutsche Telekom AG. The company's shares began to trade publicly in November 1996 in one of the largest initial public offerings in Europe at that time. In the following years, the company expanded internationally through several acquisitions, primarily in Europe and the USA. In 2000, Deutsche Telekom reorganized its operating divisions and launched its mobile communication division T-Online International AG as a separate company on the stock market. The internet division is reorganized into a separate company as well, T-Online International AG. In 2001, the company's system house division was launched as T-Systems, becoming Europe's second largest system house for IT and telecommunications solutions. As fourth division, Deutsche Telekom's fixed line division was launched as the independent brand T-Com in 2003. In 2006, Deutsche Telekom AG and T-Online International AG merge again and T-Online is included into the strategic business area fixed-network and broadband (Deutsche Telekom AG, 2013b).

4.2 The Introduction Process of IFRS at Deutsche Telekom

Deutsche Telekom AG adopted the International Financial Reporting Standards as a basis for the preparation of their financial statements for the first time in the reporting period starting on January 1, 2005. The change from German GAAP to IFRS was a reaction to a Regulation of the European Commission that made the adoption of IFRS mandatory for all publicly listed firms in the EU as of 2005 (Deutsche Telekom AG, 2006).

Regulation 1606/2002 that was enacted in 2002 was aimed at accelerating the completion of the internal market for financial services and enhancing the comparability of financial statements by publicly traded companies in the European Union. Furthermore, it was intended to contribute to the efficiency, cost-effectiveness and competitiveness of the European capital markets. For this reason, all publicly traded EU companies have to prepare

their consolidated financial statements in accordance with one single set of accounting standards, the IAS/ IFRS, at the latest by 2005. However, the individual standards of the IFRS have to be adopted first by the European Commission in order to be used within the EU. They can only be adopted if they provide a true and fair view of the company's financial position and performance, are conductive to the European public good and fulfill the criteria of understandability, relevance, reliability and comparability. Moreover, the regulation allows the member states of the European Union to extend the permission or requirement to use IFRS to other companies and annual accounts (European Commission, 2002).

At Deutsche Telekom, the adoption of IFRS in the financial year 2005 is accompanied with the reorganization of the company structure. The previous four divisions of the company, T-Com, T-Mobile, T-Systems and Group Headquarters are transformed into three strategic business units. These are broadband/ fixed-network, business customers, mobile communications as well as group headquarters and shared services. T-Com and T-Mobile are combined to form the new broadband/ fixed-network division. In addition to that, several business areas are assigned to different divisions (Deutsche Telekom AG, 2005b).

In accordance with recommendations of the Committee of European Securities Regulators, Deutsche Telekom already disclosed certain information regarding the conversion to IFRS in their financial statements for the year 2004. This included the publication of preliminary financial statements under IFRS for the years 2003 and 2004. In addition to consolidated balance sheets, income statements and cash flow statements under IFRS, information regarding the company's net debt and a preliminary reconciliation from German GAAP to IFRS was published (Deutsche Telekom AG, 2005b).

In 2005, the company prepared their first complete financial statements based on IFRS. In accordance with IFRS 1 concerning the first-time adoption of IFRS, Deutsche Telekom prepared an opening IFRS balance sheet at the date of transition, January 1, 2003. Assets and liabilities had to be retrospectively measured based on the IFRS effective on December, 31, 2005. The differences between carrying amounts of assets and liabilities under IFRS and German GAAP are recorded directly in equity at the date of transition to IFRS (Deutsche Telekom AG, 2006). As a result of the restatement of the financial statements under IFRS, the net profit reported for 2003 increased from €1.3 bn to €2.1 bn and the net profit reported for 2004 decreased from €4.6 bn to €1.6 bn. Moreover, the company's equity of

2003 was restated from €33.8 bn to €43.7 bn and the equity of 2004 was restated from €37.9 bn to €45.8 bn (Deutsche Telekom AG, 2005a).

5 Analysis of Deutsche Telekom's Financial Statements

In this chapter the financial statements of the company are analyzed with respect to the consequences of the change in accounting regulations. The chapter is structured as follows: First, the first-time adoption of IFRS is analyzed and conflicts between accounting policies previously applied under German GAAP and IFRS are pointed out. Subsequently, the company's IFRS financial statement is compared to the statements prepared under German GAAP. It is analyzed how the company applies the new accounting standards and if there is a relationship between the accounting policies applied under IFRS and the policies previously applied under German GAAP. Moreover, the overall effect of the introduction of IFRS on the financial statements of the company is analyzed.

5.1 Analysis of the First-Time Adoption

In the following section, the first-time adoption of IFRS at Deutsche Telekom is analyzed. In accordance with IFRS 1, Deutsche Telekom determined the date of transition to IFRS to be January 1, 2003 and consequently restated the financial statements of 2003 and 2004 under IFRS. The company published additional information regarding the first-time adoption and its consequences with its financial reports in 2004 and 2005. In the following, the accounting practices applied under German GAAP in the years 2003 and 2004 are compared to IFRS in order to uncover conflicts between previously adopted accounting practices and the new accounting standards. Subsequently, the effects of the restatement of the financial statements of the years 2003 and 2004 are described.

5.1.1 Comparison of Previous Accounting Practices To IFRS

When comparing Deutsche Telekom's 2005 financial statement prepared under German GAAP to the new IFRS regulations, conflicts arise in several accounting areas. The first of these areas that is considered here is the recognition of revenue. Under German GAAP Deutsche Telekom realized revenue from long-term fixed price contracts upon completion of the project (Deutsche Telekom AG, 2005c). However, under IFRS the percentage of completion method has to be applied, where revenue is recognized with reference to the stage of completion (IAS 11, para. 22).

A second difference arises in the recognition of revenue from up-front fees paid by customers entering into a contract with the company. Under German GAAP, revenue is recorded fully when the line is activated, under IFRS, however, the revenue has to be accrued over the average customer retention period if a competitive edge is given in the subsequent services (Deutsche Telekom AG, 2006; Lüdenbach, 2010).

Moreover, the company faces large changes in the recognition and measurement of intangible assets, especially goodwill. Deutsche Telekom owns a considerable amount of US mobile communications licenses (FCC licenses) that were amortized over their expected useful life under German GAAP (Deutsche Telekom AG, 2006). However, under IFRS these licenses are considered to have an indefinite useful life, since they are renewed routinely and at negligible costs (Deutsche Telekom AG, 2013c). Consequently there is no foreseeable limit to the period over which the asset is expected to generate net cash flows for the entity (IAS 38, para. 88). The licenses are therefore not amortized under IFRS, but are subject to annual impairment tests (IAS 38, paras. 107, 108). Furthermore, the company owns UMTS licenses that are amortized both under German GAAP and IFRS, since they are considered to have a definite useful life. However, the amortization under German GAAP begins when the licenses are acquired, whereas the amortization under IFRS begins when the UMTS network is put into operation. The UMTS network was put into operation in 2004, which is the first year of amortization under IFRS. However, Deutsche Telekom acquired the licenses earlier and amortized and impaired the licenses already in 2002 and 2003 under German GAAP (Deutsche Telekom AG, 2005b). In addition to that, under German GAAP the company amortized acquired goodwill with respect to its estimated useful life over 3-20 years (Deutsche Telekom AG, 2005c). Under IFRS, however, goodwill is not amortized but an impairment test has to be conducted at least annually (IAS 36, para. 10).

Deutsche Telekom's accounting practices regarding lease transactions under German GAAP were also not fully in accordance with the IFRS requirements. Firstly, the company states that more of their lease transactions are classified as finance leases under IFRS than under German GAAP (Deutsche Telekom AG, 2005b). This is consistent with the stricter IFRS criteria to be fulfilled compared to German GAAP, in order to qualify as operating lease (Lüdenbach, 2010). Secondly, Deutsche Telekom engaged in sale and leaseback transactions in connection with its real estate portfolio that are differently recorded under IFRS and

German GAAP. Under German GAAP, the transactions were regarded as a sale of real estate that was subsequently leased back. Gains and losses from the sale as well as an annual rental expense were recognized. Under IFRS, however, the lease back transactions concerning buildings is regarded as a finance lease and the transactions concerning land is regarded as an operating lease. Consequently, interest expenses and a depreciation charge have to be recognized for the lease back of the buildings and annual rental expenses for the land. Moreover, the disposal gain has to be spread over the duration of the lease (Deutsche Telekom AG, 2005b).

As pointed out earlier, the differences between German GAAP and IFRS concerning the recognition of provisions are large. This also affects Deutsche Telekom's financial statements. Firstly, the regulations regarding pension provisions differ. Deutsche Telekom uses the projected unit credit method in order to determine its pension obligations. This method takes into account expected increases in wages, salaries and retirement benefits (Deutsche Telekom AG, 2006). Differences between German GAAP and IFRS arise primarily from the different treatment of actuarial gains and losses (Deutsche Telekom AG, 2005c). With regard to other provisions, mainly restructuring provisions and cost provisions are affected. The IFRS regulations regarding the recording of restructuring provisions under IFRS can be regarded more restrictive than the German regulations (Lüdenbach, 2010). Furthermore, Deutsche Telekom recognizes provisions for maintenance work deferred to the next reporting period but carried out within the first three months of the subsequent year according to § 249 sec. 1 HGB (Deutsche Telekom AG, 2005c). These provisions are not permitted under IFRS (Lüdenbach, 2010).

Further differences arise in the recognition of financial instruments. This especially concerns the recording of investments in companies that are not fully consolidated and not accounted for under the equity method. Under German GAAP, these investments are carried at the lower of purchase price and fair value (Deutsche Telekom AG, 2005c). However, under IFRS, IAS 39 has to be applied and the investments have to be carried at fair value. The differences in carrying amount between German GAAP and IFRS as of January 1, 2003, are recognized directly in equity (Deutsche Telekom AG, 2005b).

Finally, conflicts arise with regard to deferred tax assets and liabilities. German GAAP requires the capitalization of deferred tax liabilities, but provides an option for the

capitalization of deferred tax assets (§ 274 sec 1 HGB). Under IFRS, however, both deferred tax assets and liabilities have to be recorded (Alfredson et al., 2007). In the case of Deutsche Telekom, conflicts arise in two areas. Firstly, the company has recorded contribution goodwill as a result of its privatization in the tax accounts. Due to the fact that this goodwill cannot be capitalized in the IFRS statements, a deferred tax asset, which has so far not yet been recorded, has to be recognized (Deutsche Telekom AG, 2006). Secondly, IFRS requires that a deferred tax asset is recognized for future expected tax reductions from the utilization of tax loss carryforwards as long as it is probable that the deferred tax asset will be realized in the future (IAS 12, para. 34). Deutsche Telekom therefore needs to recognize deferred tax assets for loss carryforwards, depending on the estimated development of future earnings (Deutsche Telekom AG, 2006).

Although many conflicts arise when comparing Deutsche Telekom's previous financial statements prepared under German GAAP to IFRS, there are also areas where the company's policies are in accordance with the new regulations. One example is the consolidation policy adopted in the financial years prior to the adoption of IFRS. Deutsche Telekom chose to apply the fair value method for full capital consolidation of subsidiaries (Deutsche Telekom AG, 2005c). This method is also the only method allowed under IFRS (Lüdenbach, 2010). Moreover, Deutsche Telekom does not use the option to offset acquired goodwill directly in profit or loss that was provided by the German law prior to 2009 (Deutsche Telekom AG, 2005c; Van Hall et al., 2010). The company does however, capitalize negative goodwill under other accruals in accordance to German GAAP, whereas the IFRS require an immediate realization as bargain purchase gain (§ 301 sec. 3 HGB; IFRS 3, para. 34).

5.1.2 Consequences on the Financial Statements of 2003 and 2004

In the previous section, the conflicts between the policies adopted under German GAAP and the new IFRS regulations were described. The first-time adoption of IFRS according to IFRS 1 requires that the company prepares an opening balance sheet at the date of transitions (IFRS 1, para. 6). Deutsche Telekom prepared an opening balance sheet as of January, 1, 2003, and adjusted the financial statements of the years 2003 to 2004 so that they are consistent with IFRS (Appendix 1). As a result of these adjustments, shareholders' equity increased by €9.9 bn in 2003 and by €7.9 bn in 2004. Furthermore, the company's income after taxes increased by €0.9 bn in 2003 and decreased by €2.9 bn in 2004 (Deutsche Telekom AG,

2006). In the following, the three main factors that led to these consequences are described. Tables 3 and 4 summarize the reconciliation of income after taxes and equity under IFRS and German GAAP.

The different regulations regarding goodwill and other intangible assets had the largest consequences on the restatement of the company's financial statements. In order to determine the carrying amount of goodwill under IFRS, the German GAAP goodwill as of January 1, 2003, was taken as a basis. Furthermore, IFRS requires the company to conduct impairment tests at the date of transition and at least annually thereafter (IFRS 1, para. B2 g; IAS 36, para. 10b). As a consequence, Deutsche Telekom recognized the need for impairments on the level of several cash generating units in the years 2003 and 2004 (Deutsche Telekom AG, 2005b). This led to a decrease in the carrying amount of goodwill under IFRS compared to German GAAP as well as a decrease in equity and net income (Appendix 1). However, the scheduled amortization of goodwill under German GAAP had to be reversed, which resulted in an increase in equity and net income. The net effect was an increase in income of €1.6 bn in 2003 and €0.1 bn in 2004 (Table 3). Equity decreased by €3.5 bn in 2003 and €3.1 bn in 2004 (Table 4).

Moreover, the scheduled amortization and impairments of the UMTS licenses for the period before the UMTS network was put into operation as well as the scheduled amortization and impairments of the US mobile licenses had to be reversed. Consequently, a write-up of the US licenses in 2004, carried out in order to correct previous amortization, had to be reversed as well (Deutsche Telekom AG, 2006). The net effect of the changes in accounting for mobile licenses was an increase of net income by €1.1 bn in 2003, mainly due to the reversal of amortization. In 2004, net income decreased by €3.1 bn, mainly due to the reversal of the write-up of US mobile licenses (Table 3). Equity increased by €13.1 bn in 2003 and €9.8 bn in 2004 as a consequence of the reversal of amortization, impairments and write-ups (Table 4).

Furthermore, the differing accounting regulations for provisions affected the company's financial statements substantially. The differences in carrying amount of pension provisions under German GAAP and IFRS were recorded directly in equity at the date of transition to IFRS (Deutsche Telekom AG, 2006). The pension obligations recorded increased as of January 1, 2003, and equity decreased by €0.2 bn (Table 4). In the following years, the different treatment of pension provisions increased equity as well as income. The stricter

requirements for restructuring provisions and the prohibition of cost provisions led to a decrease of other provisions and an increase in equity, whereas income was largely unaffected (Deutsche Telekom AG, 2005b; Tables 3, 4).

The third factor that had a relatively large influence on the restatement of Deutsche Telekom's financial statements was deferred taxes. As described above, deferred tax assets had to be recognized for temporary differences between tax and commercial accounts due to the recognition of goodwill and for tax loss carryforwards. Moreover, the recognition and measurement differences between German GAAP and IFRS required the recognition of deferred tax liabilities (Deutsche Telekom AG, 2006). The net effect of deferred taxes on net income is a decrease in income by €2.1 bn in 2003 and an increase in income by €0.2 bn in 2004 (Table 3). The net effect on equity is an increase of €1.3 bn in the opening balance sheet, however, the effects on equity in 2003 and 2004 are rather small (Table 4).

TABLE 3: RECONCILIATION OF INCOME AFTER TAXES

in € bn	FY 2003	FY 2004
Income after taxes under German GAAP	**1.62**	**4.93**
Revenue recognition	-0.0	-0.1
Goodwill	+1.6	+0.1
Mobile communications licenses	+1.1	-3.1
Provisions	+0.5	+0.0
Pension provisions	*+0.4*	*+0.1*
Other provisions	*+0.1*	*-0.1*
Leasing	-0.3	-0.2
Deferred taxes	-2.1	+0.2
Available-for-sale financial assets	-0.0	-0.0
Other IFRS adjustments	+0.1	+0.1
Profit after taxes under IFRS	**2.5**	**2.0**
Difference German GAAP and IFRS	*+0.9*	*-2.9*

Adapted from: Deutsche Telekom AG, 2006, p.127

TABLE 4: RECONCILIATION OF SHAREHOLDERS' EQUITY

in € bn	01.01.2003	31.12.2003	31.12.2004
Shareholders' equity German GAAP	**35.4**	**33.8**	**37.9**
Revenue recognition	-0.9	-0.9	-1.0
Goodwill	-6.0	-3.5	-3.1
Mobile licenses	+14.0	+13.1	+9.8
Provisions	+1.1	+1.6	+1.6
Pension provisions	-0.2	+0.3	+0.4
Other provisions	+1.3	+1.3	+1.2
Leases	-0.2	-0.5	-0.6
Deferred taxes	+1.3	-0.3	+0.0
Deferred tax assets	+7.0	+4.0	+2.9
Deferred tax liabilities	-5.7	-4.3	-2.8
Available-for-sale financial assets	+0.3	+0.3	+0.9
Other IFRS adjustments	-0.1	+0.1	+0.4
Shareholders' equity IFRS	**45.0**	**43.7**	**45.8**
Difference German GAAP and IFRS	*+9.5*	*+9.9*	*+7.9*

Adapted from: Deutsche Telekom AG, 2006, p. 127

5.2 Comparison of IFRS and German GAAP Financial Statements

While in the previous section the focus was set on the restated IFRS financial statements for the years 2003 and 2004, this section focuses on the first financial statements prepared under IFRS in 2005. First, the practices applied in the new IFRS financial statements are related to the IFRS regulations and it is analyzed which policy choices the company made. Simultaneously, the new IFRS policy choices are compared to the previous German GAAP regulations. Subsequently, the effect of the change in accounting regulations on the firm's financial statements is analyzed by comparing the firm's current financial statements prepared under IFRS to the company's previous statements prepared under German GAAP.

5.2.1 Accounting Practices Applied under IFRS

In the following section, it is analyzed how Deutsche Telekom applied the new IFRS standards in its first financial statements prepared under IFRS in 2005. For this reason, the accounting areas where the IFRS provide a choice between different accounting policies are pointed out and the decisions made by Deutsche Telekom are presented. This analysis aims at gaining a better understanding of the financial statements' compliance with the new regulations and the company's actual application of the IFRS. Furthermore, the aim of this analysis is to investigate, if there is a relationship between the options chosen under IFRS and the regulations in force before the introduction of IFRS.

First, Deutsche Telekom made several decisions regarding the content and the presentation of its financial statements after the adoption of IFRS. The company's financial statements for the financial year 2005 contain a consolidated income statement, a consolidated balance sheet, a cash flow statement, a statement of changes in shareholders' equity, notes, and a management report. Moreover, the company presents segment information (Deutsche Telekom AG, 2006). The financial statements are therefore complete with respect to the requirements in IAS 1. The management report is not required under IFRS but is provided additionally. It is required for medium and large corporations under German GAAP, though (Choi et al., 1999).

On the balance sheet, assets and liabilities are classified as current and non-currents and not ordered based on liquidity (Deutsche Telekom AG, 2006). This is consistent with the company's business model as Deutsche Telekom provides services in operating cycles. The

company presents assets and liabilities in an order of decreasing liquidity. Equity is shown on the credit side of the balance sheet, before the liabilities (Deutsche Telekom AG, 2006). According to the German GAAP regulations, however, assets and liabilities have to be presented in an order of increasing liquidity. Moreover, equity is presented after the liabilities on the credit side (§ 266 HGB). IFRS does not prescribe specific rules for the presentation of assets and liabilities (Lüdenbach, 2010). Deutsche Telekom therefore decided to change the format of its balance sheet with the adoption of IFRS.

Regarding the classification of cost in the income statement, Deutsche Telekom chose the cost of sales method (Deutsche Telekom AG, 2006). The company changed from the total cost method to the cost of sales method in 2004 in order to enhance the international comparability of its financial statements (Deutsche Telekom AG, 2004). Under German GAAP, both methods of presentation are allowed as well (Nobes, 2006).

Furthermore, the IFRS provide options regarding the subsequent measurement of property, plant and equipment, intangible assets and investment property. For PPE and intangible assets, either the cost model or the revaluation model can be applied (IAS 16, paras. 29-31; IAS 38, paras. 74-75). Furthermore, investment property can be accounted for using the cost model according to IAS 16 or the fair value model, where the property is carried at fair value (IAS 40, paras. 32A, 33, 56). Deutsche Telekom chose to apply the cost model both for PPE, intangible assets and investment property. The company consequently carries all assets of PPE, intangible assets and investment property at historical cost less accumulated depreciation and impairment losses (Deutsche Telekom AG, 2006). This accounting policy is in compliance with German GAAP, which requires all assets to be carried at historical cost less depreciation and impairment losses (§ 253 sec. 1 HGB).

The IFRS provide further choices regarding the valuation of homogenous items of inventory. The First In, First Out (FIFO) method and the weighted average cost method are permitted according to IAS 2, para. 25. Deutsche Telekom chose to apply the weighted average cost method in its 2005 financial statements (Deutsche Telekom AG, 2006). This method is also allowed under German GAAP (§ 240 sec. 3 HGB).

Moreover, until 2009 the IFRS provided an option to capitalize borrowing costs that are incurred during the manufacturing period or between the purchase date and the point of time where the asset is ready for its intended use. Since 2009, an obligation to capitalize

borrowing cost exists (IAS 23, para. 11; Lüdenbach, 2010). Deutsche Telekom chose not to capitalize borrowing cost in its 2005 financial statements, it expenses borrowing costs as incurred (Deutsche Telekom AG, 2006). German GAAP provides only the option to capitalize borrowing cost incurred during the manufacturing period (§ 255 sec. 3 HGB). However, while Deutsche Telekom chose to expense borrowing cost incurred during construction under IFRS, it capitalized borrowing cost in the previous years under German GAAP (Deutsche Telekom AG, 2005c, 2006).

Regarding the treatment of financial instruments, Deutsche Telekom follows the regulations stated in IAS 32 and classifies its financial instruments into the categories fair value through profit or loss, held to maturity, loans and receivables and available-for-sale. However, as of 2005, Deutsche Telekom has not yet made use of the option to designate financial assets or liabilities as financial instruments at fair value through profit of loss upon initial recognition. Consequently, all financial instruments at fair value through profit or loss are financial instruments held for trading (Deutsche Telekom AG, 2006). In contrast to the IFRS regulations, German GAAP requires all financial assets to be carried at the lower of market value and historical cost (§ 253 sec. 3, 4 HGB).

In Deutsche Telekom's financial statements of 2005, the company capitalizes development cost of internally generated intangible assets if they meet the recognition criteria. Primarily, cost relating to the development and adaption of internally developed software, software platforms and architectures are capitalized (Deutsche Telekom AG, 2006). Although the capitalization of development cost is obligatory under IFRS if the criteria are met, it is argued that the differentiation between research and development costs provides room for discretionary judgment (Lüdenbach, 2010). Under German GAAP the capitalization of development cost was not possible prior to the legislative reform in 2009 (Van Hall et al., 2010).

Finally, the IFRS provides options concerning consolidated financial statements. One of these options relates to the accounting for investments in joint ventures. Investments in joint ventures can either be accounted for by applying the proportional consolidation method or the equity method (IAS 31, paras. 30, 38). Deutsche Telekom chose to apply the equity method, which is also applied for investments in associated companies (Deutsche Telekom

AG, 2006). German GAAP similarly provides the option to choose one of these methods (Nobes & Parker, 2004).

5.2.2 *Financial Statement Effects*

In the following section, the broader consequences of the IFRS introduction on the financial statements of Deutsche Telekom are analyzed. For this purpose, the financial statements of the years 2005 to 2010, after the adoption of IFRS, are compared to the statements of the years 1999 to 2004, prepared under German GAAP. In order to conduct the analysis, comparable balance sheets and income statements have been prepared, where all items are expressed as a percentage of total assets or net revenue, respectively (Appendices 2-5). Subsequently, different financial figures are compared based on their median values in the two reference periods.

As shown in Table 5, the financial statements of Deutsche Telekom prepared under IFRS differ from those prepared under German GAAP with respect to several balance sheet and income statement items. First of all, the value of the intangible assets as percentage of total assets increased by 3.4 pp under IFRS. On the one hand, the carrying value of mobile licenses increased by 7.5 pp. US mobile licenses are not amortized under IFRS anymore, which increases the carrying value of the licenses. However, it has to be noted that the company also acquired further US mobile licenses in 2006. On the other hand, the relative value of goodwill decreased by 4.7 pp after the IFRS adoption since it is no longer amortized and previous scheduled amortization was reversed. The company's goodwill increased significantly over the years prior to the IFRS adoption as a result of several acquisitions of other companies. After 2005, however, the goodwill remained largely stable. Furthermore, under IFRS, internally generated intangible assets can be capitalized, which also contributed to the increase in the relative value of intangible assets.

In addition to this, the relative value of provisions decreased by 2.6 pp. While the carrying amount of pension provisions increased by 1.4 pp, the value of other provisions decreased by 4.7 pp (Table 5). This is in line with the more restrictive regulations of the IFRS concerning provisions, especially restructuring and cost provisions. Deutsche Telekom's net debt, which is defined by the company as gross debt less cash and marketable securities, also decreases by 9.2 pp in the reference period (Deutsche Telekom AG, 2006; Table 5). However, after the introduction of IFRS, net debt initially increased, mainly due to the different treatment of

lease transactions and asset-backed securities transactions. The overall decrease of net debt in the reference period can be rather related to a relative high level of net debt before the introduction of IFRS that was reduced substantially in 2003 and 2004. Consequently also the company's gearing, i.e. the relation of net debt to equity improved over the years (Appendix 2).

Deutsche Telekom's equity increased substantially by the restatement of the financial statement of 2003 and 2004 in the context of the first-time adoption of IFRS. However, when comparing the periods 1999 to 2004 and 2005 to 2010, equity increased by only 1.5 pp as percentage of total assets (Table 5). Thus, the equity-increasing effect of the first-time adoption is not sustainable. However, it has to be noted that the level of equity and the equity ratio are influenced by many different factors. Especially prior to the IFRS adoption, Deutsche Telekom's level of equity varied strongly as a result of a large acquisition in the form of a stock swap in 2001 and negative earnings in 2001 and 2002 (Deutsche Telekom AG, 2002, 2003).

The adoption of IFRS not only had consequences on the balance sheet but also on the company's profits and other income statement items. Deutsche Telekom's EBITDA decreased by 9.5 pp in the period 2005 to 2010. However, when adjusted for special factors the increase only amounts to 0.1 pp. Furthermore, the expenses for depreciation, amortization and impairment losses decreased significantly by 8.9 pp. Under IFRS, goodwill and US mobile licenses are no longer amortized, which may have contributed to the lower expenses. However, it has to be taken into account that the worldwide economic downturn in the years 2001 and 2002 led to a unusually high level of non-scheduled write-downs in this period before the IFRS adoption (Deutsche Telekom AG, 2002, 2003). The company's net income remained largely unaffected by the adoption of IFRS and increased only slightly by 0.2 pp in the reference period (Table 5). As mentioned above, the company's earnings are a highly volatile accounting figure that is also influenced e.g. by the state of the economy.

To conclude the analysis of the changes in Deutsche Telekom's financial statements after the adoption of IFRS, it can be stated that the largest effects on the company's financial statements are visible in the relative value of intangible assets and provisions. Moreover, depreciation, amortization and impairment losses have decreased significantly in the reference period. However, it has to be taken into account, that these effects may be related

to other influences besides the change in accounting regulations, such as the economic situation and corporate decisions.

TABLE 5: CHANGES IN COMPARABLE FINANCIAL STATEMENTS AFTER IFRS ADOPTION

	IFRS Median FY 2005-2010	German GAAP Median FY 1999-2004	Change
Balance Sheet (% of total assets)			
Intangible assets	**42.9%**	**39.5%**	**3.4 pp**
Internally generated	0.7%	0.0%	0.7 pp
Acquired	25.9%	18.3%	7.5 pp
Goodwill	16.1%	20.7%	-4.7 pp
Total Provisions	**9.4%**	**12.0%**	**-2.6 pp**
Pension provisions	4.6%	3.2%	1.4 pp
Other provisions	4.6%	9.3%	-4.7 pp
Net Debt	**30.9%**	**40.1%**	**-9.2 pp**
Gearing (net debt/equity)	0.85	1.20	-0.3
Equity	**36.2%**	**34.8%**	**1.5 pp**
Income Statement (% of net revenue)			
EBITDA	**28.5%**	**38.0%**	**-9.5 pp**
EBITDA adj. for special factors	31.6%	31.5%	0.1 pp
Depreciation, amortization and impairment losses	**18.7%**	**-27.7%**	**-8.9 pp**
EBIT	**9.1%**	**13.6%**	**-4.5 pp**
Net income	**3.1%**	**2.9%**	**0.2 pp**

Data source: Deutsche Telekom AG, Annual Reports 1999-2010

5.3 Analysis of Policy Changes in the Subsequent Years

To conclude the analysis of Deutsche Telekom's financial statements, in this section the company's changes in accounting policies in the years subsequent to the first-time adoption are examined. Upon the initial adoption of IFRS, it is allowed to adopt different accounting policies than previously applied under national GAAP (IFRS 1, para. 11). Subsequent changes in accounting policies are only permitted if they are either required by an IFRS or if the new accounting policy provides more relevant information (IAS 8, para. 14). However, companies may choose to change accounting policies in order to react to changes in the environment or to make use of potential benefits of IFRS that were not fully understood upon the first-time adoption (Kvaal & Nobes, 2012).

Accounting policy changes made at Deutsche Telekom in the years after the first-time adoption of IFRS were made either as a reaction to amendments in the standards or voluntarily. Various changes were made as a consequence of changing accounting standards, but the effects on the financial statements were rather small. One example for this is the accounting policy applied for the capitalization of borrowing cost. An amendment of IAS 23 eliminated the option to capitalize borrowing cost and consequently obliged Deutsche Telekom to change their accounting policies and capitalize borrowing cost for qualifying assets as of 2009 (Deutsche Telekom AG, 2010). Further accounting policy changes were made voluntarily. However, the only voluntary change with significant influence on the firm's financial statement concerned the recognition of actuarial gains and losses from defined benefit plans one year after the first-time adoption of IFRS. As of 2006, Deutsche Telekom has recognized actuarial gains and losses arising from defined benefit plans directly in equity instead of applying the corridor method. Under the corridor method, actuarial gains and losses were amortized prospectively to profit or loss over the expected average working life of the employees, if they exceeded a certain threshold (Lüdenbach, 2010). Deutsche Telekom argued that the new method provides a better presentation of the financial position of the firm in the balance sheet, since hidden reserves and liabilities are realized (Deutsche Telekom AG, 2007).

5.4 SUMMARY

The case study of Deutsche Telekom showed that the adoption of IFRS had significant and extensive consequences on the financial statements of the company. After the first-time adoption of IFRS, the restated shareholders' equity increased by 29.4% in 2003 and by 20.7% in 2004. At the same time, net income before taxes increased by 55.1% in 2003 and decreased by 59.1% in 2004 (Deutsche Telekom AG, 2006). The main reasons for these effects are differences in the regulations concerning the amortization of telecommunication licenses and goodwill, more restrictive requirements for the recognition of provisions, and deferred taxes.

When analyzing the company's accounting practices under IFRS in comparison to the practices applied under German GAAP, a relation can be found in some accounting areas. For example, Deutsche Telekom did choose to measure PPE, intangible assets and investment property at cost instead of at fair value (Deutsche Telekom AG, 2006). However, the company adopted new practices that were not allowed under German GAAP in other accounting areas. For example, Deutsche Telekom changed the format of its published balance sheet and no longer capitalizes borrowing costs arising during construction (Deutsche Telekom AG, 2006).

These changes in accounting policies, both voluntarily and arising from differences in the standards, not only affected the financial statements in the year of the first-time adoption but also had consequences in the long run. In the 6 years after the IFRS adoption, the carrying amount of goodwill decreased significantly by 4.7 pp as a percentage of total assets. At the same time, the carrying amount of mobile communication licenses increased by 7.5 pp. Moreover, the relative value of provisions decreased by 2.6 pp. The annual expenses for depreciation, amortization and impairment losses decreased by 8.9 pp as percentage of net revenue. However, shareholder's equity remained on a rather constant level when comparing the reference periods before and after the IFRS adoption.

The analysis of changes in the accounting policies after the first-time adoption shows that the company mainly adhered to the practices chosen in the year of the IFRS adoption. Some policy changes were required by changes in accounting standards, whereas others were made voluntarily. However, only the voluntary change from the application of the corridor

method to the direct recognition of actuarial gains and losses in equity in 2006 had a significant effect on the financial statements.

6 Discussion

In the following chapter, the results obtained in the case study of Deutsche Telekom are discussed in the context of related research. First, the findings from the financial statement analysis are discussed with respect to the persistence of national accounting practices under IFRS. Subsequently, direct and indirect effects of the IFRS adoption in Germany are analyzed with respect to economic consequences and financial statement effects.

6.1 The Persistence of German GAAP Practices under IFRS

Accounting standards generally provide some discretion with regard to the implementation of the accounting rules. As a result, accounting practice can differ significantly between countries, even if the standards applied are identical (Ball, 2006). Among the countries that adopted IFRS, different practices may be applied because different versions and translations of the standards exist. Moreover, the standards themselves provide overt options for accounting policies. Many standards also contain vague criteria that require further interpretation and assumptions, providing covert options for the preparers of financial statements (Nobes, 2006).

Researchers suggest that despite the uniform adoption of IFRS in many countries, national differences in accounting practices continue to exist (Nobes, 2006). The reason for this is that accounting practice is affected by external factors such as the political, legal and tax system. Even though accounting standards may have been uniformed, differences in the institutional environment persist. For example, capital markets, especially debt markets, as well as political and economic forces are assumed not to be fully integrated and to remain local (Ball, 2006). Consequently, the motivation and incentives for preparing financial statements and enforcing accounting standards is still determined by national factors. Tax motivations, for example, might influence unconsolidated financial statements and consequently may also affect consolidated financial statements. Moreover, companies heavily relying on equity-financing might be more reluctant to provide voluntary disclosures. However, companies may also chose to adhere to formerly applied practices for reasons of continuity and comparability (Nobes, 2006).

Kvaal and Nobes (2010) provide empirical evidence of differences in accounting practices under IFRS by analyzing financial statements of several countries. They find systematic

differences in the application of IFRS and the options chosen under it. Where there are no strong incentives do to otherwise, the firms adopt those accounting policies that were adopted before the IFRS introduction, if they are still allowed. Consequently, Kvaal and Nobes argue that where possible, pre IFRS national practices continue to exist and therefore national patterns of accounting can be found. Furthermore, they showed that these national patterns continued to exist after several years (Kvaal & Nobes, 2012).

The analysis of Deutsche Telekom's financial statements in the previous chapter showed that, after the adoption of IFRS, the company adhered to previous practices in some areas, but adopted new practices in others. Some of the practices adopted after the transition to IFRS can be related to prior requirements under German GAAP or tax law. For example, Deutsche Telekom did not use the option under IFRS to carry PPE, intangible assets and investment property at fair value, but continues to apply the historical cost model which is required under German GAAP (Deutsche Telekom AG, 2006). Moreover, the company continues to use the weighted average method for the valuation of similar goods of inventory, which was prescribed by German law until 1990 (Ballwieser, 2001; Deutsche Telekom AG, 2006). For the consolidation of joint ventures, the company applies the equity method, which was the only method allowed until 1985 (Deutsche Telekom AG, 2006; Ordelheide, 2001). In these areas, Deutsche Telekom shows a pattern of national accounting practices under IFRS.

However, with regard to other accounting areas, Deutsche Telekom changed its policies after the adoption of IFRS. For example, the company changed the format of its balance sheet slightly by showing assets and liabilities in the order of decreasing liquidity instead of increasing liquidity, as it is required by German GAAP (Deutsche Telekom AG, 2006; § 266 HGB). Moreover, the company started to capitalize internally generated intangible assets. Although this is required by IFRS, if certain criteria are met, the standards provide a large degree of discretion in the recognition and measurement of development cost (Lüdenbach, 2010). However, the amount of capitalized development cost is relatively low. Deutsche Telekom also changed its accounting policy regarding the capitalization of borrowing cost with the adoption of IFRS. While it chose to capitalize borrowing cost under German GAAP, these were expensed immediately in the first years under IFRS (Deutsche Telekom AG, 2005b).

Besides these changes in accounting policies which are clearly visible in the financial statements, the company may show patterns of previous national accounting practices otherwise after the adoption of IFRS. This is possible in those accounting areas, where the IFRS provide only vague criteria that require interpretation (Nobes, 2006). Doupnik and Richter (2004) found, for example, that German accountants interpret the expression "probable" comparatively more conservative in a variety of accounting contexts. In other accounting areas, IFRS requires measurement evaluations or sound business judgment that provide room for discretion. This may, for example, relate to the estimation of useful lives of depreciable assets or the performance on impairment tests (Ball, 2006; Nobes, 2006). However, these differences in the interpretation and application of the standards cannot be observed as easily as overt policy choices that have to be disclosed in the financial statements (Nobes, 2006).

All in all, it can be stated that Deutsche Telekom shows patterns of old national accounting practice with regard to certain accounting areas, especially the measurement of PPE and intangible assets. In other accounting areas, the company changed accounting policies in a way that they are no longer in compliance with German GAAP. However, for example the fact that Deutsche Telekom does not allow an element of fair value in the measurement of assets, but relies solely on historical cost, indicates that it still follows one of the main principles of German GAAP. Further influences of the previous national accounting regulations on the interpretation of standards or criteria are difficult to evaluate based on an individual firm's financial statements.

6.2 Direct and Indirect Consequences of the IFRS Adoption

Several researchers have studied the adoption of IFRS with regard to its indirect economic consequences and the disclosure quality (e.g. Daske, Hail, Leuz, & Verdi, 2008; Gassen & Sellhorn, 2006; Yip & Danqing, 2012). While these indirect effects can hardly be studied on the level of a single firm, these studies give insights into the broader consequences of the IFRS adoption. Daske et al. (2008) found that the mandatory introduction of IFRS led to an increase in market liquidity and equity valuation, and a decrease in the firms' cost of capital. According to Yip and Danqing (2012), it also led to improvements in the comparability of information across different European countries. However, they point out that the cross-country comparability improvement is affected negatively by large differences in the

institutional environment. Gassen and Sellhorn (2006), furthermore, state that the adoption of IFRS in Germany led to more persistent and less predictable earnings, where economic losses are recognized in a timelier manner. They conclude that this provides limited evidence on an increase in earnings quality in comparison to German GAAP.

Further studies investigate the more direct effects of the IFRS adoption on the companies' financial statements. Beckman et al. (2007) argue that the adjustments required for several items in the first-time adoption of IFRS show greater conservatism in accounting under German GAAP. This especially relates to asset capitalizations and write-offs, provisions and reserves. Conservatism in accounting not only leads to the understatement of net assets, but also to the understatement of income. This lower reported income creates reserves that can be used in future years to smooth income (Penman & Xiao-Jun, 2002). Hung and Subramanyam (2007) found that deferred taxes, pensions, PPE and loss provisions caused the largest changes in the first-time adoption of IFRS in German companies. As a result, the book value of equity and total assets increased significantly for their sample of firms. They consider their findings to be consistent with the income smoothing orientation of German GAAP, characterized by the heavy use of reserves and delayed and gradual recognition of economic events. IFRS, on the other hand, records the effects of economic events faster and in a more volatile way and is therefore regarded to be more fair value-oriented.

When analyzing the financial statements of Deutsche Telekom in the year of the first-time adoption of IFRS, similar effects can be observed. Deutsche Telekom's equity increased by 29.4% in 2003 and by 20.7% in 2004 with the adoption of IFRS, showing a clear understatement of net assets under German GAAP (Deutsche Telekom AG, 2006). This is caused mostly by adjustments related to intangible assets, provisions and deferred taxes. After the IFRS adoption, the carrying amounts of intangible assets in the form of mobile licenses were raised significantly as a result of reversed amortization and impairments. Additionally, internally generated intangibles were capitalized. The company also had to make large adjustments regarding the recognition of provisions, resulting in fewer reserves. Further adjustment had to be made in the recognition of revenue for long-term construction contracts and from front-up fees, leading to a timelier recognition of revenues under IFRS (Deutsche Telekom AG, 2005b). All these adjustments show that the adoption of IFRS led to

a less conservative financial reporting in Deutsche Telekom's financial statements, with fewer opportunities to smooth income.

Even though the financial statements of Deutsche Telekom generally show a decrease in conservatism, the company continued to adopt several accounting policies that can be regarded as rather conservative. For example, the company does not use the choice provided by IFRS to measure PPE, intangible assets and investment property at fair value but applies the historical cost model. This results in a generally lower value of net assets and can therefore be regarded to be more conservative than the revaluation model. Moreover, the company chose not to capitalize borrowing cost but expenses them in the period they are incurred. This has similar effects on net assets.

Even in the period of 6 years after the first-time adoption, the effects of a less conservative and income-smoothing financial reporting are still visible to a certain degree. The decrease in the value of provisions as a percentage of total assets has been persistent over the years. Moreover, the annual charges for depreciation and amortization have decreased in relation to net revenues. However, equity has been largely unaffected in the long-term. Consequently, it can be argued that the company's financial reporting under IFRS is persistently less conservative in comparison to German GAAP with respect to the recognition of provisions and write-downs. However, the additional influence of other external factors cannot be ruled out completely.

6.3 SUMMARY

Empirical research provides evidence that accounting practices under IFRS continue to follow previous national patterns to a certain degree (Kvaal & Nobes, 2010). Since the institutional environment of accounting did not change with the introduction of IFRS, the motivation to prepare financial statements continues to be based on national factors (Ball, 2006). The influence of German GAAP regulations on the accounting practices applied after the adoption of IFRS is also visible at Deutsche Telekom to some extent. For example, the company continues to measure assets only at historical cost and uses the weighted average cost method for the valuation of homogenous goods of inventory, which was previously required by German law (Ballwieser, 2001; Deutsche Telekom AG, 2006). However, the company also adopted new accounting policies that are no longer in compliance with

German GAAP. This, for example, relates to format of the balance sheet or the capitalization of borrowing costs (Deutsche Telekom AG, 2006). Consequently, it can be argued that Deutsche Telekom follows national patterns of accounting in some areas, but not generally. However, certain main concepts of German GAAP, such as the historical cost principle, are still followed under IFRS.

In addition to this, empirical research suggests that the adoption of IFRS in Germany led to a less conservative accounting practice. Conservatism is in this context defined as a tendency to understate net assets and income (Beckman et al., 2007). Moreover, the adoption of IFRS led to fewer opportunities to smooth income via reserves (Hung & Subramanyam, 2007). These effects are also visible at Deutsche Telekom's financial statements. Shareholders' equity increased significantly with the first-time adoption of IFRS, which shows the relative understatement of net assets and therefore the more conservative accounting practice under German GAAP. In some accounting areas, Deutsche Telekom continued to show conservatism in choosing various options provided by IFRS. In the long-term analysis of Deutsche Telekom's financial statements after the adoption of IFRS, the decrease in equity is not persistent. However, the persistently lower level of provisions as well as depreciation expenses and write-downs may indicate a persistently less conservative and less income-smoothing accounting practice under IFRS.

7 CONCLUSION

This study aimed at contributing to the understanding the consequences the mandatory adoption of IFRS had on German companies. For this reason, first it was explored how exactly the German accounting system differs from IFRS. It was pointed out that different national accounting systems developed as a result of differing institutional settings in various countries and regions. Germany differs from many other IFRS countries, as it is, for example, characterized by a codified law system, the high importance of debt financing and a close link between commercial and tax accounting (Nobes & Parker, 2008). This leads to the fact that IFRS and German GAAP differ with regard to the main purposes of financial reporting and basic underlying accounting principles. Whereas IFRS aims at the timely recognition of economic events in the financial statements, German GAAP provides many opportunities to smooth income via provisions and reserves (Hung & Subramanyam, 2007; Lüdenbach, 2010). As a consequence of this, the individual standards differ widely in certain areas.

The second goal of this study was to investigate the consequences of the IFRS adoption on the financial statements of one specific German company in a case study approach. The case study of Deutsche Telekom AG revealed that the company's financial statements show significant alterations. The change to IFRS increased equity significantly in the year of the first-time adoption and led to lower expenses for the amortization of acquired intangible assets and goodwill. Even several years later, the level of provisions and expenses for depreciation, amortization and write-downs remained on a considerably lower level. These findings suggest that the company's accounting under IFRS can be regarded to be less conservative in comparison to German GAAP, since fewer reserves are built up.

Finally, the study aimed at assessing the influence of the previous German accounting standards on the practices adopted under IFRS. The study showed that a relationship between both is only visible in some accounting areas. However, e.g. the strong tendency to measure assets at cost instead of fair value shows that the company still adheres to one of the main concepts of German GAAP, the historical cost principle, although this is no longer required under IFRS.

These findings are, however, subject to certain limitations. First, it cannot be ruled out completely that external factors or strategic management decisions caused changes in the

company's financial statements after the adoption of IFRS. This might have concealed certain effects or even led to wrong conclusions about the consequences of the IFRS introduction. Second, it is difficult to generalize the results obtained by the case study of Deutsche Telekom, since they are rather firm-specific and only based on one company. The adoption of IFRS may have had varying consequences on firms in different industries or of different size.

These limitations provide opportunities for further research in this area. In order to generalize the results for different types of companies or different industries, a comparative study could provide further insights and help in ruling out company-specific effects. Moreover, in this study the underlying reasons for accounting policy changes were not always clear and could only be presumed. It is e.g. not possible to assess whether the companies continued to adopt German GAAP practices for reasons of inertia or because this accounting policy provides the most useful information to their shareholders. In order to gain a deeper understanding of the reasons for policy changes, it would be necessary to rely on a larger amount of data, for example interviews or surveys. This data may also be helpful in investigating consequences of the change in accounting regulations that are not clearly visible on the companies' financial statements. This relates for example to the interpretation of vague expressions or the use of discretion in certain accounting areas.

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9. APPENDIX

APPENDIX 1: FIRST-YEAR ADOPTION OF IFRS

in € bn	FY 2003 G-GAAP	01.01.2003 IFRS	FY 2003 IFRS	FY 2003 Delta	FY 2004 G-GAAP	FY 2004 IFRS	FY 2004 Delta
BALANCE SHEET ITEMS							
Current assets	**19.9**	**15.0**	**21.4**	**1.5**	**16.9**	**18.9**	**2.0**
Non-current assets	**155.1**	**130.1**	**167.8**	**12.7**	**146.0**	**154.5**	**8.5**
Intangible assets	**45.2**	**61.9**	**55.5**	**10.3**	**43.2**	**50.7**	**7.5**
Goodwill	24.5	23.4	21.0	-3.5	21.9	18.7	-3.2
UMTS licenses	10.3	15.2	14.7	4.4	9.76	14.3	4.6
FCC licenses	8.2	20.3	16.9	8.7	9.24	14.5	5.3
PPE	47.5	54.9	49.2	1.7	44.4	46.3	1.9
Current liabilities	**30.3**	**26.6**	**30.2**	**-0.1**	**25.6**	**26.3**	**0.7**
Noncurrent liabilities	**53.9**	**73.1**	**62.1**	**8.2**	**46.1**	**53.2**	**7.1**
Provisions for pensions	4.5	4.1	4.2	-0.3	4.6	4.2	-0.4
Other noncurrent provisions	3.1	2.1	2.6	-0.5	3.4	2.9	-0.5
Shareholders' equity	**33.8**	**45.2**	**43.7**	**9.9**	**37.9**	**45.8**	**7.9**
INCOME STATEMENT ITEMS							
Net revenue	55.8	-	55.6	-0.2	57.9	57.4	-0.5
EBITDA	18.5	-	18.7	0.1	22.3	19.4	-2.9
Depreciation/ impairment	12.9	-	10.3	-2.6	12.2	13.1	0.9
EBIT	5.6	-	8.3	2.8	10.1	6.3	-3.8
Net revenue	55.8	-	55.6	-0.2	57.9	57.4	-0.5

Data source: Deutsche Telekom AG, 2005a; 2006

APPENDIX 2: DEUTSCHE TELEKOM AG - BALANCE SHEET GERMAN GAAP

in € bn	FY 2004		FY 2003		FY 2002		FY 2001		FY 2000		FY 1999	
ASSETS												
Non-current assets	**90.4**	***83.9%***	95.7	***82.4%***	111.5	***88.6%***	146.7	***89.2%***	106.6	***85.8%***	82.0	***86.6%***
Intangible assets	43.3	*40.1%*	**45.2**	*38.9*	**53.4**	*42.4%*	**80.1**	*48.6%*	**35.8**	*28.8%*	**15.0**	*15.9%*
Acquired	21.1	*19.6%*	20.6	*17.8%*	23.8	*18.9%*	39.3	*23.9%*	16.4	*13.2%*	1.5	*1.6%*
Goodwill	21.9	*20.3%*	**24.5**	*21.1%*	**29.4**	*23.4%*	**40.6**	*24.7%*	**19.3**	*15.5%*	**13.4**	*14.2%*
PPE	44.2	*41.0%*	47.3	*40.7%*	54.0	*42.9%*	58.7	*35.7%*	54.1	*43.6%*	59.0	*62.4%*
Financial assets	3.0	*2.8%*	**3.2**	*2.7%*	**4.2**	*3.3%*	**8.0**	*4.8%*	**16.7**	*13.5%*	**7.9**	*8.4%*
Current assets	**16.7**	***15.4%***	19.7	***16.9%***	13.5	***10.7%***	17.0	***10.4%***	16.7	***13.4%***	11.7	***12.4%***
Inventories	1.4	*1.3%*	**1.4**	*1.2%*	**1.6**	*1.2%*	**1.7**	*1.0%*	**1.6**	*1.3%*	**1.0**	*1.1%*
Receivables	5.1	*4.8%*	5.8	*5.0%*	6.3	*5.0%*	6.8	*4.1%*	7.2	*5.8%*	5.7	*6.0%*
Other assets	2.0	*1.8%*	**3.2**	*2.7%*	**3.4**	*2.7%*	**5.0**	*3.0%*	**3.7**	*3.0%*	**2.1**	*2.2%*
Cash and cash equiv.	8.1	*7.6%*	9.3	*8.0%*	2.3	*1.8%*	3.6	*2.2%*	4.3	*3.4%*	2.9	*3.1%*
Prepaid expenses and deferred charges	**0.7**	***0.7%***	**0.8**	***0.7%***	**0.8**	***0.6%***	**0.8**	***0.5%***	**1.0**	***0.8%***	**0.9**	***1.0%***
TOTAL	**107.8**	***100%***	116.1	***100%***	125.8	***100%***	164.6	***100%***	124.2	***100%***	94.6	***100%***
LIABILITIES AND SHAREHOLDERS' EQUITY												
Shareholders' equity	**37.9**	***35.2%***	**33.8**	***29.1%***	**35.4**	***28.1%***	**66.3**	***40.3%***	**42.7**	***34.4%***	**35.7**	***37.7%***
Liabilities	**69.3**	***64.2%***	**81.6**	***70.3%***	**89.7**	***71.3%***	**97.5**	***59.2%***	**80.9**	***65.1%***	**58.2**	***59.9%***
Accruals	**16.8**	***15.6%***	**15.7**	***13.5%***	**16.1**	***12.8%***	**18.4**	***11.2%***	**11.4**	***9.2%***	**9.3**	***8.2%***
Pensions obl.	4.6	*4.3%*	4.5	*3.8%*	3.9	*3.1%*	3.7	*2.2%*	3.3	*2.7%*	3.1	*3.3%*
Other accruals	12.3	*11.4%*	11.2	*9.7%*	12.2	*9.7%*	14.8	*9.0%*	8.1	*6.5%*	6.2	*6.5%*
Liabilities	**52.4**	***48.6%***	**65.9**	***56.7%***	**73.6**	***58.5%***	**79.1**	***48.0%***	**69.5**	***55.9%***	**48.9**	***51.7%***
Debt	42.7	*39.6%*	55.4	*47.7%*	63.0	*50.1%*	67.0	*40.7%*	60.4	*48.6%*	42.3	*44.7%*
Other	9.8	*9.1%*	10.5	*9.0%*	10.5	*8.4%*	12.0	*7.3%*	9.1	*7.3%*	6.6	*7.0%*
Deferred income	**0.6**	***0.6%***	**0.7**	***0.6%***	**0.7**	***0.6%***	**0.8**	***0.5%***	**0.7**	***0.5%***	**0.7**	***0.8%***
TOTAL	**107.8**	***100%***	**116.1**	***100%***	**125.8**	***100%***	**164.6**	***100%***	**124.2**	***100%***	**94.6**	***100%***
Net Debt	35.2	*32.6%*	46.6	*40.1%*	61.1	*48.6%*	62.8	*38.2%*	57.4	*46.2%*	37.9	*40.0%*
Gearing	0.9		1.4		1.7		0.9		1.3		1.1	

Data source: Deutsche Telekom AG, Financial Statements 1999-2004

APPENDIX 3: DEUTSCHE TELEKOM AG - BALANCE SHEET IFRS

in € bn	FY 2010		FY 2009		FY 2008		FY 2007		FY 2006		FY 2005	
ASSETS												
Current assets	***15.2***	***11.9%***	***23.0***	***18.0%***	***15.9***	***12.9%***	***15.9***	***13.2%***	***16.0***	***12.3%***	***16.7***	***13.0%***
Cash and cash equiv.	2.8	*2.2%*	5.0	*3.9%*	3.0	*2.5%*	2.2	*1.8%*	2.8	*2.1%*	5.0	*3.9%*
Trade/ other receiv.	6.9	*5.4%*	6.8	*5.3%*	7.4	*6.0%*	7.7	*6.4%*	7.8	*6.0%*	7.5	*5.9%*
Inventories	1.3	*1.0%*	1.2	*0.9%*	1.3	*1.1%*	1.5	*1.2%*	1.1	*0.9%*	1.1	*0.9%*
Other assets	4.2	*3.3%*	10.1	*7.9%*	4.2	*3.4%*	4.6	*3.8%*	4.3	*3.3%*	3.1	*2.4%*
Non-current assets	***112.6***	***88.1%***	***104.8***	***82.0%***	***107.2***	***87.1%***	***104.7***	***86.8%***	***114.2***	***87.7%***	***111.2***	***87.0%***
Intangible assets	*53.8*	*42.1%*	*51.7*	*40.5%*	*53.9*	*43.8%*	*54.4*	*45.1%*	*58.0*	*44.6%*	*52.7*	*41.2%*
PPE	*44.3*	*34.7%*	*45.5*	*35.6%*	*41.6*	*33.7%*	*42.5*	*35.2%*	*45.9*	*35.2%*	*47.8*	*37.4%*
Deferred tax assets	5.1	*4.0%*	5.2	*4.0%*	6.2	*5.1%*	6.6	*5.5%*	9.0	*6.9%*	7.6	*5.9%*
Other assets	9.3	*7.3%*	2.4	*1.9%*	5.5	*4.5%*	1.2	*1.0%*	1.4	*1.1%*	3.2	*2.5%*
TOTAL	***127.8***	***100%***	***127.8***	***100%***	***123.1***	***100%***	***120.7***	***100%***	***130.2***	***100%***	***127.9***	***100%***
LIABILITIES AND SHAREHOLDERS' EQUITY												
Liabilities	***84.8***	***66.3%***	***85.8***	***67.2%***	***80.0***	***65.0%***	***75.4***	***62.5%***	***80.5***	***61.8%***	***78.3***	***61.2%***
Current liabilities	***26.5***	***20.7%***	***24.8***	***19.4%***	***24.9***	***20.2%***	***23.2***	***19.2%***	***22.1***	***17.0%***	***25.0***	***19.5%***
Financial liabilities	*11.7*	*9.1%*	*9.4*	*7.3%*	*10.2*	*8.3%*	*9.1*	*7.5%*	*7.7*	*5.9%*	*10.4*	*8.1%*
Trade/ oth. payabl.	*6.8*	*20.7%*	*6.3*	*19.4%*	*7.1*	*20.2%*	*6.8*	*19.2%*	*7.2*	*17.0%*	*6.9*	*19.5%*
Income tax liabilities	*0.5*	*9.1%*	*0.5*	*7.3%*	*0.6*	*8.3%*	*0.4*	*7.5%*	*0.5*	*5.9%*	*1.4*	*8.1%*
Other provisions	*3.2*	*5.3%*	*3.4*	*4.9%*	*3.4*	*5.7%*	*3.4*	*5.7%*	*3.1*	*5.5%*	*3.6*	*5.4%*
Other liabilities	*4.3*	*0.4%*	*5.2*	*0.4%*	*3.6*	*0.5%*	*3.5*	*0.4%*	*3.6*	*0.4%*	*2.7*	*1.1%*
Non-current liabilities	***58.3***	***2.5%***	***61.0***	***2.6%***	***55.2***	***2.8%***	***52.2***	***2.8%***	***58.4***	***2.4%***	***53.3***	***2.8%***
Financial liabilities	*38.9*	*3.3%*	*41.8*	*4.1%*	*36.4*	*2.9%*	*33.8*	*2.9%*	*38.8*	*2.8%*	*36.3*	*2.1%*
Prov. for pensions	*6.4*	*45.6%*	*6.2*	*47.8%*	*5.2*	*44.8%*	*5.4*	*43.3%*	*6.2*	*44.9%*	*4.6*	*41.7%*
Other provisions	*1.6*	*30.4%*	*2.2*	*32.7%*	*3.3*	*29.5%*	*3.7*	*28.0%*	*3.2*	*29.8%*	*2.0*	*28.4%*
Deferred tax lia.	*7.6*	*5.0%*	*7.2*	*4.8%*	*7.1*	*4.2%*	*6.7*	*4.4%*	*8.1*	*4.7%*	*8.3*	*3.6%*
Other liabilities	*3.8*	*1.3%*	*3.8*	*1.7%*	*3.2*	*2.7%*	*2.7*	*3.0%*	*2.2*	*2.4%*	*2.0*	*1.6%*
Shareholders' equity	***43.0***	***6.0%***	***41.9***	***5.6%***	***43.1***	***5.8%***	***45.2***	***5.5%***	***49.7***	***6.2%***	***49.6***	***6.5%***
TOTAL	***3.7***	***3.0%***	***127.8***	***2.9%***	***123.1***	***2.6%***	***120.7***	***2.2%***	***130.2***	***1.7%***	***127.9***	***1.6%***
Net Debt	*42.3*	*33.1%*	*40.9*	*32.0%*	*38.2*	*31.0%*	*37.2*	*30.9%*	*39.6*	*30.4%*	*38.6*	*30.2%*
Gearing	*1.0*		*1.0*		*0.9*		*0.8*		*0.8*		*0.8*	

Data source: Deutsche Telekom AG, Financial Statements 2005-2010

APPENDIX 4: DEUTSCHE TELEKOM AG - INCOME STATEMENT GERMAN GAAP

in € bn	FY 2004		FY 2003		FY 2002		FY 2001		FY 2000		FY 1999	
Net revenue	**57.9**	***100%***	**55.8**	***100%***	**53.7**	***100%***	**48.3**	***100%***	**40.9**	***100%***	**35.5**	***100%***
EBITDA	**22.3**	***38.6%***	**18.5**	***33.2***	**16.2**	***30.0%***	**18.1**	***37.4%***	**20.7**	***50.6%***	**14.5**	***41.0%***
EBITDA adj.	19.4	*33.5%*	18.3	*32.8*	16.3	*30.4%*	15.1	*31.3%*	12.9	*31.5%*	14.5	*35.4%*
Deprec./ impairment	**12.2**	***21.2%***	**12.9**	***23.1***	**36.9**	***68.7%***	**15.2**	***31.5%***	**13.0**	***31.7%***	**8.5**	***23.9%***
EBIT	**10.1**	***17.4%***	**5.6**	***10.1***	**-20.7**	***-38.7%***	**2.9**	***5.9%***	**7.7**	***18.9%***	**6.1**	***17.1%***
Net income / loss	**4.6**	***8.0%***	**1.3**	***2.2***	**-24.6**	***-45.8%***	**-3.5**	***-7.1%***	**5.9**	***14.5%***	**1.3**	***3.5%***

Data source: Deutsche Telekom AG, Financial Statements 1999-2004

APPENDIX 5: DEUTSCHE TELEKOM AG - INCOME STATEMENT IFRS

in € bn	FY 2010		FY 2009		FY 2008		FY 2007		FY 2006		FY 2005	
Net revenue	**62.4**	***100%***	**64.6**	***100%***	**61.7**	***100%***	**62.5**	***100%***	**61.3**	***100%***	**59.6**	***100%***
EBITDA	**17.3**	***27.7%***	**19.9**	***30.8%***	**18.0**	***29.2%***	**16.9**	***27.0%***	**16.3**	***26.6%***	**20.1**	***33.8%***
EBITDA adj.	19.5	*31.2%*	20.7	*32.0%*	19.5	*31.6%*	19.3	*30.9%*	19.4	*31.6%*	20.7	*34.7%*
Deprec./ impairment	**11.8**	***18.9%***	**13.9**	***21.5%***	**11.0**	***17.8%***	**11.6**	***18.6%***	**11.0**	***18.0%***	**12.5**	***21.0%***
EBIT	**5.5**	***8.8%***	**6.0**	***9.3%***	**7.0**	***11.4%***	**5.3**	***8.5%***	**5.3**	***8.6%***	**7.6**	***12.8%***
Net income / loss	**1.8**	***2.8%***	**0.9**	***1.4%***	**2.0**	***3.3%***	**1.1**	***1.7%***	**3.6**	***5.8%***	**6.0**	***10.1%***

Data source: Deutsche Telekom AG, Financial Statements 2005-2010