

Investors' Reaction to a Reform of Corporate Income Taxation

Dennis Voeller ‡
(University of Mannheim)

Jens Müller ‡
(University of Graz)

Draft: November 2011

Abstract: This paper investigates the stock market response to the corporate tax reform in Germany of 2008. The reform included a decrease in the statutory corporate income tax rate from 25% to 15% and a considerable reduction of interest taxation at the shareholder level. As a result, it provided for a higher tax benefit of debt. As it comprises changes in corporate taxation as well as the introduction of a final withholding tax on capital income, the German tax reform act of 2008 allows for a joint consideration of investors' reactions on both changes in corporate and personal income taxes. Analyzing company returns around fifteen events in 2006 and 2007 which mark important steps in the legislative process preceding the passage of the reform, the study provides evidence on whether investors expect a reduction in their respective tax burden. Especially, it considers differences in investors' reactions depending on the financial structure of a company. While no significant average market reactions can be observed, the results suggest positive price reactions of highly levered companies.

Keywords: Tax Reform, Corporate Income Tax, Stock Market Reaction

JEL Classification: G30, G32, H25, H32

‡ University of Mannheim, Schloss Ostflügel, D-68161 Mannheim, Germany, voeller@bwl.uni-mannheim.de.

‡ University of Graz, Universitätsstraße 15, A-8010 Graz, Austria, jens.mueller@uni-graz.at.

1 Introduction

Previous literature provides evidence that companies adjust their capital structure as a response to changes in the tax treatment of different sources of finance. However, it also shows that non-tax factors largely determine a company's financing decisions. If leverage decisions are constrained by firm-specific factors (*Graham/Harvey (2001)*) or entail costs of financial planning (cf., e.g., *Scholes/Wilson/Wolfson (1990)*), firms' ability to realize fiscal benefits provided by the differential taxation of equity and debt could depend on their financial structure. In case of a change in the tax benefit of debt, a company's capital structure would then largely determine whether the firm profits from increased after-tax returns that allow for higher cash flows to the shareholders.

The recent German tax reform which was passed in 2007 provides for a considerable tax benefit of debt finance. Although the most prominent feature of the reform is the reduction of the statutory corporate income tax rate from 25% to 15%,¹ the reform also includes the introduction of a final withholding tax (Abgeltungssteuer) on equity and debt at the shareholder level. From 2001 through 2008 one-half of dividend payments had been tax-exempt at the shareholder level, leading to an almost neutral taxation of equity and debt. In contrast, the introduction of the final withholding tax provides for a uniform taxation of interest and dividends at a rate of 25% (26.38% including solidarity surcharge). Given that a major part of interest payments is still deductible from the corporate income tax base, this leads to a tax benefit of debt of approximately 18%. The increased tax wedge between equity and debt, which can be expected to "turn corporate finance upside down" (*Homburg (2007)*, p. 609), is clearly inconsistent with the declared objective of the tax reform to ensure an equal taxation of different sources of finance (*CDU/CSU/SPD (2005)*, p. 69). This study investigates the stock market response to the German tax reform of 2008. Thereby, it provides evidence on whether investors perceive the reform as beneficial, i.e. whether they expect a reduction in their tax burden. Especially, it analyzes differences in investors' reactions depending on the financial structure of a company. The study examines company returns around fifteen events in 2006 and 2007 which mark important steps in the legislative process preceding the passage of the reform. Prior literature on

¹ Including the solidarity surcharge, the statutory corporate income tax rate was reduced from 26.38% to 15.83%.

investor reactions to tax reforms predominantly deals with the reaction on changes in personal income tax rates. For instance, it investigates the effect of changes in dividend and capital gains taxation on companies' market value. The German tax reform act of 2008 allows us to jointly consider investors' reactions on both changes in corporate and personal income taxes, since it comprises changes in corporate taxation as well as the introduction of a final withholding tax on capital income. Thereby, different portfolios of companies are analyzed to account for a potential heterogeneity of price reactions, depending on companies' financial structure. While we do not find significant average market reactions of the full sample, positive price reactions of highly levered companies can be observed.

The study is organized as follows. Section 3 provides a short review of the previous event study literature. Subsequently, section 4 includes an overview on the main features of the German tax reform 2008 as well as a description of the legislative process. Section 5 describes the data and the investigation approach, and section 6 interprets the empirical findings. Finally, section 7 summarizes the findings of the study and makes suggestions for further analyses of the reform.

2 Event Studies

To investigate the perception of tax reforms by market participants, an event study design is used. Building on the seminal analyses by *Fama et al. (1969)*; *Ball/Brown (1968)*, and *Beaver (1968)*, event studies predominantly measure whether a particular security or a portfolio of securities yield abnormal returns around a particular news release. The event study methodology has been applied to a wide variety of research topics. Recent reviews of this methodology and its applications in accounting, economics, and finance research include *Corrado (2011)*; *Kothari/Warner (2007)*, and *Cichello/Lamdin (2006)*.

Inferences that are based on empirical results from event studies depend on several assumptions. In particular, they rely on the proper identification of the events, on the existence of efficient markets and on the absence of confounding events. A correct identification of events requires an exact determination of the timing of news releases which can be presumed to affect market participants' expectations (*Brown/Warner (1985)*). However, changes in expectations

can only be empirically measured if they are reflected in share prices. The efficient market hypothesis implies that market participants quickly incorporate new information that is likely to affect expected future cash flows.² Consequently, investors' evaluation of an unanticipated event's impact on future cash flows is reflected in changes in security prices.³ To minimize the fundamental risk of confounding events affecting observed stock prices (cf. *McWilliams/Siegel* (1997)), short-window event studies choose relatively small measurement intervals to analyze the market perception of disclosed information.⁴ Information which could have an impact on expected future cash flows can be related to the disclosure of company-specific decisions or results (earnings announcements, stock-splits, etc.) or to external, e.g., legislative changes. In contrast to prior studies that investigate market reactions to firm-specific disclosures of tax-relevant information (e.g., *Blouin/Raedy/Shackelford* (2003); *Reese* (1998)), this study refers to the latter stream of literature. Since the 1980s, event study methodology has been used to investigate the direct market effects of regulatory provisions (*Schipper/Thompson/Weil* (1987); *Schipper/Thompson* (1983); *Schwert* (1981)). A prominent part of the economics-based literature in this field deals with the impact of market regulation in various industries on investors' expectations (e.g., *Banker/Das/Ou* (1997)). Accounting researchers seek to provide evidence on market reactions to changes in accounting regulation which are likely to affect accounting quality and the costs of accounting and auditing. For example, *Espahbodi et al.* (2002) analyze investors' perception of the regulatory process leading to the issuance of SFAS No. 123. *Li/Pincus/Olhoft* (2008) study the market reaction to the legislative process leading to the Sarbanes-Oxley Act in 2002 and find evidence for a predominantly positive perception of the SOX legislation. *Armstrong et al.* (2010) investigate the effect of the adoption of International Financial Reporting Standards (IFRS) by the European Union. They find that market-adjusted returns around the event dates are higher for firms with a lower accounting quality.

² Event studies regularly presume semi-strong-form efficiency, i.e. they assume that investors are not able to earn excess returns using public information (*Fama* (1970)). An own strand of event-study research directly investigates market characteristics, cf., e.g., *Kothari* (2001); *Fama* (1998).

³ Alternative empirical proxies for investors' evaluation of an event are, e.g., changes in bid-ask-spreads and trading volumes.

⁴ Long-window studies which, e.g., analyze the statistical correlation between accounting information and market prices over longer, contemporaneous time periods are also referred to as association studies. In contrast to short-window event studies, causal inferences regarding the information content of disclosed information can hardly be drawn from this type of studies (*Holthausen/Watts* (2001); *Kothari* (2001)).

Analyzing the market reactions to legislative changes, tax-related research has mainly focused on the effects of amendments in capital gains taxes. For example, *Liang/Matsunaga/Morse* (2002), *Lang/Shackelford* (2000), and *Shackelford* (2000) analyze stock returns around the announcement of the 1997 Tax Relief Act.⁵ *Amoako-Adu/Rashid/Stebbins* (1992) investigate stock price reactions to the introduction and subsequent reduction of capital gains tax exemptions in Canada. *Frischmann/Shevlin/Wilson* (2008) extend the analysis to corporate income taxation. They study the market reactions to pronouncements of the FASB with regard to FIN 48, an interpretation of FASB Statement No. 109 which was supposed to reduce diversities in accounting for income taxes. Since the German tax reform of 2008 includes legislative changes which affect tax payments both at the corporate and the investor level, the subsequent analysis complements the above-mentioned studies.

3 Background

3.1 The German Tax Reform 2008

The Tax Reform Act 2008, approved by the two chambers of the German parliament in May and July 2007, includes numerous amendments with regard to the tax rates and to the tax base. The most prominent element of the reform is a cut of the corporate tax rate (*Körperschaftsteuer*). After the reform, a rate of 15%, increased to 15.83% by a 5.5% solidarity surcharge, has to be applied. This implies a significant reduction compared to the rate of 25% (26.38% including surcharge) before the reform.

Besides the cut of the statutory corporate income tax rate, the tax reform includes a different determination of the local business tax and changes regarding the integration of the local business tax and the corporate income tax. Namely, expenses for the local business tax which were deductible from the corporate income tax base before the reform cannot be deducted anymore. The local tax on business income has to be paid on top of the corporate income tax. The calculation of the local business tax is amended as well. From 2008 onwards, the

⁵ *Reese* (1998) chooses an indirect approach by comparing abnormal trading volumes and returns of IPOs before and after the Tax Reform Act of 1986.

tax payment can be calculated by multiplying the basic federal rate (*Steuermesszahl*), which is 3.5% of the taxable income, with a factor that is determined by the respective municipalities. This factor lays between 200%, the legal minimum, and 900% (*Hebesatz*). In 2007, a higher basic federal rate of 5% had to be applied. Several provisions affecting the base of the local business tax could also have an impact on the effective tax burden. For example, the reform entails that 25% of the interest expenses have to be added to corporate income when the local business tax is determined. Before the reform, restrictions of interest deductibility only applied to long-term debt. While only 50% of interest payments on long-term debt were deductible from the local business tax base, interest payments on short-term obligations could be fully deducted.

At the shareholder level, the prior shareholder-relief system of capital income taxation is replaced by a flat rate withholding tax (*Abgeltungssteuer*). Under the shareholder-relief system, used since 2001, corporate profits were taxed at the corporate income tax rate, and 50% of the dividends were tax-exempt at the shareholder level. In contrast, the reform that became effective in January 2009 provides for a uniform taxation of shareholders' capital income at a rate of 25% (26.38% including solidarity surcharge). This rate applies to all income from dividend and interest payments. Due to the corresponding cut of the statutory tax rate and the broadening of the tax base, the additional tax burden on dividends at the shareholder level remains relatively stable for investors taxed in the top income brackets. To avoid an even higher tax burden for taxpayers who are taxed in the lower income tax brackets, investors could opt for being taxed at the old tax rates. However, the uniform taxation means a significant reduction of the tax rate on interest income for investors who were taxed in the higher income tax brackets before the reform.

Table 1 illustrates the taxation of corporate profits before and after the reform, depending on the respective source of finance.⁶ To allow for a consideration of reform elements referring to both the corporate and the shareholder level, tax rates in 2007 are compared to tax rates from 2009 onwards.⁷ The table shows that despite the significant reduction of the corporate income

⁶ A similar comparison which focuses on the tax burden after the reform can be found in *Scheffler* (2010), p. 154 ff.

⁷ While changes regarding the determination of the corporate income tax became effective in 2008, the final withholding tax on capital income at the shareholder level did not come into force until 2009.

Table 1: The Taxation of Corporate Profits

	Taxation of Dividends		Taxation of Interest Income	
	2007	2009	2007	2009
Combined Corporate Tax Rate	0.3945	0.3094	0.0815 (0)	0.0429
Dividend Tax Rate	0.1437	0.1821		
Interest Tax Rate			0.4360 (0.4747)	0.2524
Overall Tax Rate	0.5382	0.4915	0.5175 (0.4747)	0.2953

The table presents the tax rates on distributed profits and on interest income, respectively, both on the corporate and the shareholder level. Details on the calculation can be found in the main text. The tax rates in the years 2007 and 2009 are chosen to allow for a comparison between the tax rates before and after the complete enactment of the reform. The combined corporate tax rate includes the local business tax and implies restricted deductibility of interest payments. We assume the mean multiplier of the local trade tax of municipalities which have a minimum of 50.000 inhabitants each in the year 2007 (432%). The dividend tax rate denotes the additional tax burden due to dividend taxation at the shareholder level. The interest tax rate indicates interest taxation on the investor level. Numbers in parentheses refer to the taxation of interest payments on short-term debt. Church taxes are not included.

tax rate the overall tax burden on equity only slightly decreases by 4.66%. The main reason for this moderate reduction is the amended calculation of the local business tax. While before the reform the local business tax of 17.76%⁸ could be deducted from the corporate income tax rate, leading to a combined corporate tax rate of 39.45%, such a deduction is not possible after the reform. Consequently, the local business tax of 15.12% adds to the corporate income tax of 15.82%, leading to a combined corporate tax rate of 30.94%. The dividend tax rates reflect the taxation of 50% of the dividends at the top income tax rate (47.47%) before the reform and taxation of all dividends at the uniform tax rate of 26.37% in 2009 (both tax rates include the solidarity surcharge). With regard to the taxation of interest, we assume that taxes resulting from the restricted deductibility of interest payments are paid out of pre-tax income. As until 2007 only 50% of interest expenses on long-term debt could be deducted from the local business tax base, we separately calculate the respective tax rates on long-term debt and on short-term debt (in parentheses). In contrast, the tax reform prescribes that only 75% of the interest payments could be deducted, independent from the maturity of the underlying debt. Table 1 illustrates that the introduction of a uniform taxation of dividends and interest payments provides for a large tax benefit of debt. If the shareholder is taxed at the top income tax rate,

⁸ We assume the mean multiplier of the local trade tax of municipalities which have a minimum of 50.000 inhabitants each in the year 2007 (432%).

this tax benefit amounts to 19.63%.⁹

Both the reduction of the corporate income tax rate and the introduction of the new uniform tax rate were expected to materially reduce the national tax revenue (*Deutscher Bundestag* (2007a)). A broadening of the tax base should partly make up for these fiscal deficits and restrict the expected decrease in tax revenue to approximately five billion euro a year (cf. *Deutscher Bundestag* (2007a), p. 39 ff.; *Deutscher Bundestag* (2007b)).¹⁰ With regard to corporate financing, the most important element is a limitation of interest deductibility by means of a so-called interest barrier (*Zinsschranke*). In principle, the reform entails a limitation of net interest deduction to 30% of tax EBITDA. Interest expenses exceeding this threshold can be carried forward. Exceptions from the basic limitation of interest deduction are made for small companies (that is, net interest expense of up to one million euro can still be fully deducted), for stand-alone companies, and for affiliates whose equity ratio exceeds the ratio of the whole company group.

Further components of the above-mentioned tax-cut cum base broadening strategy are:¹¹

- The abolishment of the declining balance depreciation. After the reform, straight-line depreciation is the only applicable depreciation method. In contrast, a declining balance depreciation of up to 30% could be chosen for movable property until 2007.¹²
- Additional restrictions on the offset of losses. Before the reform, only the economic identity of the corporation which incurred a loss and the company which used the resulting tax carryforward was demanded from the tax authorities. In contrast, the reform act envisions a stricter regulation. Namely, for an acquisition of 25% to 50% of a company's shares within five years, the tax carryforward is reduced proportionally. If more than

⁹ Dependent on the tax status of the individual shareholder, the actual tax benefit might differ. For example, dividends from significant shareholdings are also subject to the local business tax at the shareholder level.

¹⁰ Using a microsimulation model, *Bach et al.* (2007) confirm the government's estimation of revenue effects.

¹¹ Cf. *Homburg* (2007); *Finke et al.* (2010). The tax reform also entails several provisions regarding non-incorporated companies, e.g., partnerships and sole proprietorships (*Knirsch/Schanz* (2008)). Since the empirical analysis is only based on incorporated companies, we do not describe these provisions in detail.

¹² In December 2008, the declining balance depreciation was reintroduced for movable property acquired or produced between January 2009 and December 2010. Since this reintroduction has been a reaction on the economic turbulences caused by the financial crisis, we do not expect any anticipation effects of the reintroduction on our events.

50% of the shares are acquired, the loss can not be offset anymore, according to the new legislation.

- Stricter provisions regarding transfer prices. E.g., the reform entails that, in case of business restructurings including a transfer of functions to a related party abroad, transferred hidden reserves have to be taxed in Germany. This provision could effectively mean a double taxation of profits.

These amendments of the corporate tax base entail that the change in the overall tax burden might be affected by the respective tax status of companies and individual investors. Nevertheless, the reform on average implies a moderate tax relief. Therefore, a positive market reaction to events which enhance the probability of a reform passage can be expected. However, price reactions are likely to depend on firm financing and on further firm characteristics which determine the degree to which companies are subject to the broadening of the tax base.

3.2 The Passage of the German Tax Reform

To identify all relevant events during the passage of the Company Tax Reform Act, we searched the Factiva database for news related to the tax reform. Additionally, we searched three leading German newspapers (*Die Welt*, *Financial Times Deutschland*, and *Frankfurter Allgemeine Zeitung*) for articles containing new information on the content of the reform or the probability of its adoption. Finally, we browsed several news websites to make sure that the days of the respective news releases are correctly identified and to exclude that confounding events systematically interfere with our results. Significant market reactions can only be expected if new information is considered to be both relevant and credible. To meet both criteria, we consider news releases by members of the government, leading politicians of the governing parties, and the responsible task forces or working groups. All major steps that the draft had to pass during the course of the legislative process are considered as well.¹³

To summarize the legislative process described below, Table 2 (page 13) gives an overview of the considered events. Thereby, the first column denotes the number of the respective event (in

¹³ An overview of the reform process is given, for example, by *Schaumburg* (2007), pp. 339-350.

chronological order). The second column includes the date, and the third column summarizes the content of the respective event. The fourth column reports the assumed average effect of the event on investors' expected tax burden. Correspondingly, the last column lists the market reaction we expect for each event. Since the reform on average provides for a net decrease in the overall tax burden, we expect events which lead to a higher probability of adoption to cause a positive market reaction. Uncertainty about the features of the reform and the probability of its adoption is reduced with each settled discussion. However, for one of the fifteen events, we nevertheless expect a negative price reaction. This event (event number 3 in Table 2) can be assumed to have a negative impact on the probability of the reform adoption.

We follow the legislative process until the final approval of the tax reform by the Federal council on July 6, 2007. Thereby, April 10, 2006 represents our first event date.¹⁴

When taking office in fall 2005, the new so-called "grand coalition", formed by the center-right Christian Union (CDU and CSU) and the center-left Social Democratic Party (SPD), declared that reforming the taxation of business income would be a priority of the new German government. The coalition agreement, released in November 2005, stated that a reform of corporate income taxation should be passed until January 1, 2008 (*CDU/CSU/SPD* (2005), p. 69). A reduction of corporate income tax rates should be a major element of this reform and advance the competitiveness of the German economy. Thereby, the coalition followed a widespread trend in European countries which since the 1980s, but especially since 1998 had lead to lower statutory tax rates (*Heinemann/Overesch/Rincke* (2010)). At the same time, consistent with tax reforms in other European countries (*Devereux/Griffith/Klemm* (2002)), the national tax revenue should be secured by constraining possibilities for corporate tax planning. Even before the election, both parties had discussed a reduction of the corporate income tax rate from 25% to 19%. However, the concrete design of the reform was subject to extensive discussions between and within the coalition parties. The Christian Union has started its 2005 campaign with a blueprint for a radical tax reform.¹⁵ Being forced to form a coalition with the

¹⁴ Considering the coalition treaty which already stated the objective of a tax reform in autumn 2005 would not be useful: First, the plenty of provisions agreed on would lead to significant confounding effects. Second, while the tax reform was stated as a common objective of the two governing parties, the concrete design of the reform remained unclear in the coalition treaty. Therefore, a market reaction on the reform plan could not be expected at this stage.

¹⁵ Subsequent analyses ascribed the remarkable decrease in popularity from 48%, according to opinion polls

Social Democrats which had led a center-left government until September 2005, the concept of a radical tax reform seemed no longer a viable solution. The Social Democrats, in turn, who appointed the minister of finance, faced claims from their own left wing to abstain from measures which could lead to a lower tax burden of companies.

However, on April 10, 2006, leading German media reported that the ministry of finance intended to reduce the corporate income tax rate from 25% to 15%. Including local business tax and solidarity surcharge, this reduction would lead to a decrease of the combined corporate tax rate, including taxation at the shareholder level, from 39% to approximately 30%. Even if this reduction of the corporate income tax rate implied a less comprehensive reform than the alternative models put forward, e.g., by the German Council of Economic Experts,¹⁶ the reported tax rate significantly lay below the tax rate of 19% which had been discussed in 2005. While the above-mentioned media reports were based on unofficial propositions brought forward by financial experts of the ministry of finance, the reduction of the corporate income tax rate was confirmed as a central element of the reform by the minister of finance, Peer Steinbrück, on May 4, 2006. On the same day, different news sources also confirmed that the ministry aimed at a combined tax rate for corporations of about 30%. As these plans would lead to an annual decrease of five billion euro in national tax revenue or even more, they faced some criticism especially from the left wing of the SPD. On the other hand, politicians from the CDU and industry lobbyists were afraid that the SPD-led ministry could propose plans for an extensive broadening of the tax base. On June 01, 2006, these concerns were addressed by three leading politicians of the CDU/CSU in a position paper which became public. At the same time, several leading newspapers reported that the introduction of the final withholding tax on capital income should be postponed to 2009 or 2010, to avert revenue decreases in 2008.

Uncertainty regarding these issues was partly resolved by a draft paper by the ministry of finance which included a major reduction of the corporate income tax rate and the introduction of a final withholding tax as central elements of the reform, as well as modifications of the corporate

in June 2005, to a result of only 35% in the September elections partly to the lack of popularity of this blueprint (*Brown/Miller/Taylor* (2005)).

¹⁶ Two independent expert groups, the Stiftung Marktwirtschaft (Foundation for the Market Economy) and the German Council of Economic Experts, had brought forward comprehensive propositions for a tax reform. However, in January 2006, the government had declared its intention to develop an own draft instead of adopting one of the two existing proposals.

tax base and of the local business tax. This paper which became public on Monday, June 26, 2006¹⁷ was accepted by the parliamentary groups of the two governing parties on July 3, 2006 and by the Federal Cabinet on July 12, 2006. Despite this consensus about the main guidelines of the tax reform, the details of the reform project remained controversial. The discussions lead to an open dispute between the SPD-led ministry of finance, which put forward a restricted deductibility of interest payments if interest expenses exceed a certain threshold, and the CSU-led ministry of economics and technology. On September 5, 2006, however, media reports suggested that the ministry of finance planned to restrict interest deductibility only above a certain threshold. Prior plans had implied a general restriction of interest deductibility. Conflict about this issue not only arised between but also within the two governing parties. According to media reports, a majority of the members of parliament supported a (partial) restriction of interest deductibility.

A task force led by the minister of finance, Peer Steinbrück (SPD), and the prime minister of the state of Hesse, Roland Koch (CDU), was assigned to negotiate on the controversial issues and to develop a more detailed draft of the tax reform.¹⁸ On November 2, 2006, the task force agreed on a concept which already included the main elements of the reform that was finally passed by the two chambers of the German parliament in 2007. That is, it provided not only for a lower tax rate on corporate profits but also comprised details on the limitation of interest deductibility and several amendments regarding the local business tax. In summary, the task force confirmed the aim of the reform to reduce the tax burden of companies in Germany. As the concept continued to face criticism from the left wing of the SPD, an agreement between the federal government and the federal states on the exact date of the introduction of a flat withholding tax on capital income at the shareholder level was not reached before January 22, 2007.¹⁹ On February 1, 2007, the task force approved a ministry draft of the tax reform, which was subsequently passed by the federal cabinet on March 14, 2007. After extensive

¹⁷ Some newspapers already reported details of the paper in advance during the preceeding weekend, but after the closing of the German Stock Exchange on Friday, June 23, 2006.

¹⁸ In Germany, federal tax reforms have to be adopted not only by the federal parliament (*Bundestag*), but also by the federal council (*Bundesrat*) which represents the interests of the federal states (*Bundesländer*). Therefore, the task force should not only mediate between the interests of the two governing parties, but also ensure the approval of the federal states in the federal council.

¹⁹ News regarding the agreement were published during the preceeding weekend, but after the closing of the German Stock Exchange on Friday, January 20, 2007.

discussions in both chambers of the house, leading politicians of CDU and SPD announced on May 14, 2007, that an agreement on the draft was reached and that the reform would be approved by the federal parliament until the end of May, 2007.²⁰ On May 18, 2007, an official bill including all proposed amendments was published. Although some state governments had required amendments or even announced to vote against the reform, the bill was not only passed by the federal parliament on May 25, but also received a broad majority in the federal council on July 6, 2007.

²⁰ A previous statement of the federal council published on May 11, 2007 included numerous suggestions regarding the concrete design of the reform.

Table 2: List of Events

No.	Event Date	Description	Expected Effect on Tax Burden	Predicted Market Reaction
1	10-Apr-2006	Media reports based on a proposition of experts from the ministry of finance: Ministry of finance intends to reduce the corporate tax rate to 15% or even 12%. A decrease of up to five million euro in national tax revenue can be expected in the first years after the adoption of the reform.	decrease	+
2	04-May-2006	Minister of finance confirms that the reduction of the corporate income tax rate is a central element of the reform.	decrease	+
3	01-Jun-2006	Media report that the reform of capital income tax could not become effective before 2009. Plans of the ministry of finance to broaden the corporate tax base are criticized by leading politicians of the CDU.	increase	(-)
4	26-Jun-2006	Draft Paper of the ministry of finance including a proposal to reduce the corporate tax rate and to expand the tax base of the local business tax by means of restricted deduction of interest expenses, rents, and leasing costs. Stricter transfer pricing rules as well as obligation to pay taxes on hidden reserves in case of headquarter relocations are also proposed. A final withholding tax on dividends, interest, and capital gains is planned.	decrease	+
5	03-Jul-2006	Corner stones of the corporate tax reform are accepted in the coalition group meeting.	decrease	+
6	12-Jul-2006	Acceptance of the corner stones by the Federal Cabinet.	decrease	+

Table 2 *ctd.*

7	05-Sep-2006	Minister of finance and minister of economics and technology argue about deductibility of interest expense. However, an earnings stripping rule (“interest barrier”) is introduced as a potential way of restricting only overly instead of all interest deductions. A partial restriction is also supported by leading politicians of the conservative party.	decrease	+
8	02-Nov-2006	Task-Force Koch-Steinbrück: corporate tax rate should equal 15%. Modification of the proposed earnings stripping rule: interest expenses not exceeding 30% of corporate profits should be deductible and an allowance of one million euro should be introduced.	decrease	+
9	22-Jan-2007	Agreement on the date of introduction for the final withholding tax (December 31, 2008).	decrease	+
10	01-Feb-2007	Task-Force Koch-Steinbrück accepts the ministry draft of the tax reform.	decrease	+
11	14-Mar-2007	Federal Cabinet approves the ministry draft.	decrease	+
12	14-May-2007	Agreement on the reform by leading politicians of CDU and SPD.	decrease	+
13	18-May-2007	Proposal of law by government.	decrease	+
14	25-May-2007	Federal parliament approves corporate tax reform.	decrease	+
15	06-Jul-2007	Federal council approves corporate tax reform.	decrease	+

4 Empirical Analysis

4.1 Investigation Approach

To evaluate investors' perception of the German Tax Reform 2008, we analyze stock returns around fifteen events. Assuming efficient stock markets, these returns reflect shareholders' expectations regarding the economic consequences of the reform steps. As described above, reliability of the results depends on the proper identification of the events and on their reflection in market prices. To measure an event's impact on share prices the component of security returns that is related to event-related information has to be identified; that is, a measure of abnormal returns is needed. The abnormal return can be described as the difference between the actual ex post return of a security and its normal return over the event window (*Campbell/Lo/MacKinlay* (1997), p. 151):

$$AR_{it} = R_{it} - E[R_{it}|X_t], \quad (1)$$

where AR_{it} , R_{it} , and $E[R_{it}]$ are abnormal, actual, and normal returns for a security i at time t . X_t denotes the conditioning information for the normal performance model. While actual returns should be conditional on the event, the normal performance model seeks to empirically determine securities' expected returns unconditional on the event but conditional on other information (*Kothari/Warner* (2007)).

To derive normal and abnormal returns, we follow *Frischmann/Shevlin/Wilson* (2008) who employ a Multivariate Regression Model (MVRM) as proposed by *Schipper/Thompson* (1983).²¹ The MVRM accounts for the occurrence of an event by adding a dummy variable for each event to the market model. Consistent with previous studies, we use an event window of three days, including the day of an event as well as the days before and after the event. Thereby, the day before the event is included to capture possible price effects of information which becomes public shortly before the official announcement. The day after the event is considered to allow for market reactions to news which are released after the market closes (*Campbell/Lo/MacKinlay*

²¹ Further studies using a similar methodology include *Li/Pincus/Olhoft* (2008) and *Espahbodi et al.* (2002).

(1997)). Hence, we estimate the following regression model:

$$R_{pt} = \alpha_p + \beta_p R_{mt} + \sum_{k=1}^K \gamma_{pk} D_{kt} + \epsilon_{pt} \quad (2)$$

R_{pt} denotes the return on portfolio p (with $p = 1, 2, 3, 4$) on day t ($t = 1, 2, \dots, T$). We estimate the regression for four portfolios. The first portfolio comprises all sample firms. The other three portfolios include highly leveraged firms, that is firms that belong to the top 33% according to three alternative proxies of leverage. T represents the total number of daily returns from January 2006 through December 2007. Observations within each portfolio are equally weighted. R_{mt} is the daily return of the MSCI EMU ex Germany index on day t .²² D_{kt} is a dummy variable which is set equal to one in case of a favorable event, that is an event which is supposed to lower the expected future tax burden, and equal to minus one in case of an unfavorable event. For all non-event days it equals zero. Consequently, the coefficient γ_{pk} (denoted Portfolio AR) indicates the incremental effect of event k over the non-event days on portfolio returns. ϵ_{pt} is a random disturbance term that is assumed to be normally distributed and independent from the explanatory variables.

Besides providing descriptive evidence on the portfolio reactions of highly levered companies, we directly analyze the relation between cross-sectional differences regarding our variables of interest and stock returns. Therefore, we estimate the following multivariate model for each event k (with $k = 1, 2, \dots, 15$):

$$AR_{ik} = \alpha_k + \beta_k LEV_{ik} + \gamma_k LN(TA)_{ik} + \delta_k ROA_{ik} + \eta_k TANG_{ik} + \epsilon_{ik} \quad (3)$$

AR_{ik} denotes the abnormal return of firm i around event k that is estimated in a firm-specific regression equivalent to the portfolio regression described in equation 2. LEV_{ik} indicates three alternative leverage characteristics that are introduced in section 5.2. $LN(TA)_{ik}$, ROA_{ik} , and $TANG_{ik}$ are included to control for the influence of further firm characteristics, namely com-

²² The MSCI EMU ex Germany index is a value-weighted index which measures the performance of stocks based in 10 countries within the European Economic and Monetary Union (EMU), with German companies excluded.

pany size, profitability, and tangible assets, on abnormal returns. We consider these attributes as control variables as they could have an impact on abnormal returns. Such an effect would be possible if the three variables influence the extent to which companies are affected by taxation in general or by specific elements of the reform. The ratio of tangible to total assets, for example, could be an indicator for the importance of the declining balance method, and the return on assets may provide information on taxable profits.

4.2 Description of the Data

We base our analysis on a sample of all German companies included in the Worldscope Financial Database. Availability of returns for all 15 three-day event windows is required. 274 securities which are not traded on each event are eliminated. This strict requirement regarding the availability of returns is set to focus on firms with active and informed investors, and to avoid problems related to thin trading (see, e.g., *Andronikidi/Kallinterakis (2010)*). Abnormal returns of securities that are infrequently traded can be assumed not to reflect changes in expectations as quickly as frequently traded shares.

Table 3: Sample Selection

	Companies
Initial sample German companies Worldscope	841
Returns available for all fifteen events	-274
Individual financial statement data available	-220
Final sample	347

However, group financial statement information as provided by Worldscope does not allow for an adequate consideration of a firm's country-specific tax incentives. Groups operating in multiple jurisdictions can shift taxable profits to low-tax countries to reduce their tax burden (*Devereux (2007)*). As a result, financing characteristics and firm profitability, for example, might differ considerably between separate affiliates of one group. Therefore, using consolidated financial statements to proxy for cross-sectional differences regarding the effects of the tax reform on the corporate tax burden would be misleading. Corporate taxation refers to single legal entities

instead of the company group. As tax statements are not publicly available in Germany, we use information from individual financial statements of each group’s parent company to proxy for capital structure choice and further firm characteristics that could influence the impact of the reform on the corporate tax burden. We therefore merge the Worldscope dataset with financial statement information that is obtained from the Dafne database that is provided by Bureau van Dijk. Thereby, we loose another 220 companies for which individual financial statement information on the required firm characteristics is not available. The described selection criteria lead to a final sample of 347 German companies which fulfill the above requirements. Table 3 gives an overview of the sample selection.

Table 4: Descriptive Statistics

	Mean	Median	Std. Dev.	Minimum	Maximum	25%	75%
LN(TA) in €	11.677	11.350	2.143	6.609	18.443	10.290	12.683
ROA	0.031	0.042	0.179	-1.804	0.893	-0.004	0.097
TANG	0.099	0.029	0.156	0	0.922	0.005	0.135
LEVT	0.393	0.381	0.228	0.004	0.984	0.204	0.565
LEVM	0.271	0.239	0.194	0.002	0.906	0.107	0.407
LEVLT	0.209	0.173	0.165	0.002	0.932	0.074	0.313

The table presents descriptive statistics of the variables used in the portfolio analyses and additional company characteristics. All variables are taken from individual financial statements of the groups’ parent company. LN(TA) denotes the natural logarithm of total assets. ROA is the ratio of net income to total assets. TANG is the ratio of tangible fixed assets to total assets. LEVT represents the the ratio of total debt to total assets. LEVM is the ratio of total debt to entity value, when equity is measured as market capitalization two days before the event. LEVLT is the ratio of long-term debt to total assets.

Descriptive statistics of the variables used in the portfolio and multivariate analyses are provided in Table 4. As the literature has not come to a consensus regarding an adequate proxy for corporate leverage (*Hanlon/Heitzman (2010)*), we base our analyses on three alternative measures. Namely, we employ the ratio of total debt to total assets (LEVT), the ratio of debt to the entity value of the firm (LEVM), and the ratio of long-term debt to total assets as alternative proxies for corporate leverage. Considering long-term debt is especially important as section 4.1 emphasizes that the effect of the tax reform might not only depend on a firm’s decision between debt and equity, but also on the type of debt. However, the lower share of long-term debt compared to total debt could partly compensate for the higher effect of the

reform on long-term debt. Therefore, a prediction regarding the relative size of the coefficients for long-term and total debt is not possible.

5 Results

Table 5 presents abnormal portfolio returns for each of the fifteen events. Column (1) indicates the expected market reaction to each event based on an equally-weighted portfolio of all companies included in our sample. The following three columns present results for different subsamples which represent highly leveraged companies. The portfolio in regression (2) is based on the upper 33% of companies according to their ratio of total debt to total assets (LEVT). Portfolio (3) includes the upper third of companies according to their market leverage (LEVM), and portfolio (4) is based on the 33% of the companies with the highest long-term book leverage (LEVLT). The results suggest no significant response of the overall market on the passage of the tax reform. For only two of the fifteen events, a weakly significant market reaction can be observed. The F-statistic which tests the joint significance of the fifteen coefficients is not significant at the ten percent level. In contrast, the F-statistics for the three portfolios that include highly levered firms are all significant at the 5% level. The highly significant abnormal returns on some event dates for all three leverage portfolios indicate that investors recognize the asymmetric tax benefits provided by the reform. Untabulated results for the respective lower leverage portfolios support this finding as the respective F-statistics for these portfolios are not significant.

However, the above analysis does not represent a direct test of the relation between corporate leverage and the market response. Therefore, a multivariate analysis directly considers this relation and controls for further potential determinants of abnormal returns. Tables 6 and 7 present the results of two sets of regressions which use abnormal returns around the event dates as dependent variable. The shares of companies' total debt and long-term debt in total assets are used as explanatory variables, respectively. While the results regarding the total debt ratio (LEVT) do not confirm the findings from the portfolio analyses, the coefficient for LEVLT is significant at the 10% level over all fifteen event dates. Results from a regression of abnormal

Table 5: Market Reaction to Events

Event number	Event date	(1) All firms AR (t-stat) (N=347)	(2) High LEVT AR (t-stat) (N=115)	(3) High LEVM AR (t-stat) (N=119)	(4) High LEVLT AR (t-stat) (N=115)
1	10-Apr-2006	0.11 (0.07)	0.01 (0.06)	0.12 (0.13)	0.00 (0.04)
2	04-May-2006	0.00 (0.10)	0.21 (0.16)	-0.04 (0.10)	0.27* (0.16)
3	01-Jun-2006	-0.10 (0.27)	-0.00 (0.28)	0.14 (0.27)	0.12 (0.18)
4	26-Jun-2006	0.04 (0.15)	-0.19 (0.14)	0.01 (0.20)	0.02 (0.22)
5	03-Jul-2006	0.40* (0.21)	0.32** (0.16)	0.30*** (0.11)	0.51*** (0.16)
6	12-Jul-2006	0.06 (0.07)	0.00 (0.13)	-0.01 (0.09)	-0.10 (0.09)
7	05-Sep-2006	0.14 (0.11)	0.22*** (0.07)	0.04 (0.16)	0.14 (0.10)
8	02-Nov-2006	0.06 (0.04)	0.03 (0.10)	0.03 (0.07)	0.10 (0.12)
9	22-Jan-2007	0.08 (0.15)	0.05 (0.15)	0.06 (0.18)	0.09 (0.25)
10	01-Feb-2007	0.01 (0.16)	0.10 (0.08)	-0.04 (0.15)	0.04 (0.21)
11	14-Mar-2007	-0.06 (0.34)	0.07 (0.31)	0.05 (0.20)	-0.05 (0.36)
12	14-May-2007	0.09 (0.07)	0.23*** (0.07)	0.32 (0.09)***	0.21*** (0.05)
13	18-May-2007	-0.02 (0.19)	0.11 (0.25)	-0.11 (0.18)	0.12 (0.17)
14	25-May-2007	0.12* (0.07)	0.26*** (0.10)	0.21*** (0.07)	0.10 (0.12)
15	06-Jul-2007	0.11 (0.09)	0.01 (0.03)	0.26*** (0.03)	-0.10 (0.12)
Total		1.04	1.43	1.44	1.47
F-Statistic		2.20	4.25	3.99	3.95

The table presents abnormal portfolio returns around the 15 event dates. Column (1) is based on the full sample, while columns (2) to (4) represent portfolio returns for three subsamples. The results of column (2) are based on a portfolio consisting of the upper third of companies according to their total book leverage (LEVT). Column (3) is based on a portfolio consisting of the upper third according to market leverage (LEVM), and column (4) presents results for the 33% of companies with regard to long-term debt (LEVLT). Abnormal portfolio returns equal the estimated coefficients from equation 2 (in %). Robust standard errors are in parentheses. (*), (**), (***) denote significance at the (10%), (5%), and (1%) level (two-tailed). As D_{kt} is set equal to -1 for event number 3 and equal to one for the remaining 14 events, positive abnormal portfolio returns are expected for each event. The F-statistic tests whether the sum of the estimated coefficients across all fifteen events is significantly different from zero.

returns on the ratio of total debt to the entity value of the firm (LEVM; the table is presented in the appendix) also suggest that investors realize the increased tax benefit of debt provided by the tax reform.

Table 6: Multivariate Results - Total Debt

Event no.	Event date	LEVT	LN(TA)	ROA	TANG	Const.
1	10-Apr-2006	0.06 (0.23)	0.03 (0.02)	0.33 (0.28)	-0.22 (0.40)	-0.28 (0.28)
2	04-May-2006	0.59** (0.27)	-0.04 (0.02)	-0.05 (0.21)	-0.59** (0.30)	0.25 (0.27)
3	01-Jun-2006	-0.02 (0.27)	0.07*** (0.02)	-0.68*** (0.23)	0.62** (0.30)	-0.98*** (0.27)
4	26-Jun-2006	-0.44 (0.27)	-0.03 (0.03)	-0.60** (0.27)	0.27 (0.39)	0.54* (0.29)
5	03-Jul-2006	-0.62** (0.26)	-0.05** (0.02)	0.24 (0.27)	1.36* (0.74)	1.06*** (0.27)
6	12-Jul-2006	-0.38 (0.26)	0.00 (0.03)	-0.75*** (0.29)	-0.07 (0.27)	0.20 (0.26)
7	05-Sep-2006	0.53** (0.24)	-0.00 (0.02)	0.25 (0.18)	-0.15 (0.25)	-0.05 (0.24)
8	02-Nov-2006	-0.31 (0.23)	0.01 (0.03)	0.79*** (0.29)	0.46** (0.23)	-0.00 (0.27)
9	22-Jan-2007	-0.03 (0.31)	-0.00 (0.03)	0.20 (0.30)	0.20 (0.30)	0.12 (0.31)
10	01-Feb-2007	0.11 (0.26)	0.00 (0.02)	0.07 (0.34)	0.07 (0.28)	0.11 (0.26)
11	14-Mar-2007	0.44** (0.21)	-0.02 (0.02)	0.44* (0.25)	-0.28 (0.19)	0.06 (0.22)
12	14-May-2007	0.44* (0.23)	0.01 (0.02)	0.44* (0.25)	-0.28 (0.19)	0.06 (0.22)
13	18-May-2007	0.06 (0.22)	0.02 (0.02)	0.39 (0.33)	0.86 (0.29)	-0.33 (0.23)
14	25-May-2007	0.37 (0.24)	-0.03 (0.03)	-0.98*** (0.37)	-0.22 (0.25)	0.43 (0.27)
15	06-Jul-2007	-0.27 (0.25)	0.02 (0.02)	-0.30 (0.50)	-0.72** (0.36)	-0.27 (0.25)
	All events	0.03 (0.07)	-0.00 (0.01)	-0.07 (0.08)	0.15* (0.09)	0.05 (0.07)

Dependent variable is the company-specific abnormal return around the respective event date. Coefficients are given in percent. Robust standard errors are in parentheses. (*), (**), (***) denote significance at the (10%), (5%), and (1%) level (two-tailed).

Table 7: Multivariate Results - Long-Term Debt

Event no.	Event date	LEVL	LN(TA)	ROA	TANG	Const.
1	10-Apr-2006	0.33 (0.30)	0.03 (0.02)	0.35 (0.28)	-0.29 (0.39)	-0.26 (0.28)
2	04-May-2006	1.65*** (0.39)	-0.05** (0.02)	-0.02 (0.22)	-0.83*** (0.31)	0.30 (0.28)
3	01-Jun-2006	0.42 (0.31)	0.06*** (0.02)	-0.65*** (0.23)	0.50 (0.32)	-0.95*** (0.27)
4	26-Jun-2006	0.05 (0.46)	-0.05* (0.03)	-0.54** (0.26)	0.11 (0.41)	0.60** (0.29)
5	03-Jul-2006	-0.15 (0.37)	-0.07*** (0.02)	0.30 (0.26)	1.20* (0.72)	1.12*** (0.28)
6	12-Jul-2006	-0.59* (0.33)	0.00 (0.02)	-0.74*** (0.28)	-0.04 (0.29)	0.20 (0.26)
7	05-Sep-2006	0.17 (0.24)	0.02 (0.02)	0.20 (0.18)	-0.03 (0.25)	-0.10 (0.23)
8	02-Nov-2006	-0.28 (0.23)	0.00 (0.02)	0.81*** (0.28)	0.44* (0.23)	0.01 (0.26)
9	22-Jan-2007	0.04 (0.33)	-0.01 (0.02)	0.21 (0.29)	0.17 (0.35)	0.13 (0.29)
10	01-Feb-2007	0.34 (0.38)	-0.00 (0.02)	0.06 (0.33)	0.03 (0.29)	-0.02 (0.24)
11	14-Mar-2007	0.34 (0.24)	-0.01 (0.02)	0.35 (0.24)	-0.21 (0.19)	0.03 (0.21)
12	14-May-2007	-0.22 (0.23)	0.04 (0.02)	-0.59* (0.32)	0.83*** (0.29)	-0.36 (0.25)
13	18-May-2007	0.67*** (0.26)	0.00 (0.02)	0.40 (0.35)	0.75*** (0.27)	-0.25 (0.22)
14	25-May-2007	-0.02 (0.30)	-0.02 (0.02)	-1.07*** (0.36)	-0.10 (0.25)	0.35 (0.26)
15	06-Jul-2007	-0.76*** (0.28)	0.03 (0.02)	-0.27 (0.50)	-0.63* (0.38)	0.01 (0.22)
	All events	0.15* (0.08)	-0.00 (0.01)	-0.07 (0.08)	0.13 (0.09)	0.06 (0.07)

Dependent variable is the company-specific abnormal return around the respective event date. Coefficients are given in percent. Robust standard errors are in parentheses. (*), (**), (***) denote significance at the (10%), (5%), and (1%) level (two-tailed).

6 Conclusion

This study investigates the perception of the German tax reform of 2008 by corporate investors. Therefore, price reactions of 347 German companies at fifteen events surrounding the legislative process of the reform passage are considered. The reform entails a significant reduction in the corporate tax rate. However, the reform also provides for a considerable broadening of the corporate tax base and includes changes regarding the calculation of the local business tax. Therefore, only a small net reduction of investors' tax burden can be expected in case of equity financing. In case of debt finance, the introduction of a uniform flat tax on capital income provides for a large decrease in the tax rate on interest income. Therefore, the reform leads to a substantial increase in the tax benefit of debt if taxation at the shareholder level is considered. The univariate findings seem to suggest that investors perceive the changes in individual capital income taxation as beneficial. While no significant response of the overall market to the passage of the reform can be observed, highly levered companies realize significant abnormal returns around the fifteen event dates. In contrast, cross-sectional regressions of abnormal returns on alternative proxies for corporate leverage and further control variables do not provide clear evidence on a potential influence of financing characteristics on price reactions.

Appendix

Table 8: Multivariate Results - Market Leverage

Event no.	Event date	LEVLM	LN(TA)	ROA	TANG	Const.
1	10-Apr-2006	0.66*** (0.24)	-0.01 (0.02)	0.38 (0.30)	-0.73* (0.40)	0.09 (0.26)
2	04-May-2006	-0.01 (0.27)	-0.01 (0.02)	-0.14 (0.24)	-0.40 (0.32)	0.14 (0.29)
3	01-Jun-2006	0.53* (0.27)	0.04** (0.02)	-0.62** (0.29)	0.71*** (0.24)	-0.79*** (0.25)
4	26-Jun-2006	-0.13 (0.33)	-0.04* (0.03)	-0.61** (0.30)	0.20 (0.44)	0.58* (0.31)
5	03-Jul-2006	-0.82*** (0.29)	-0.06** (0.02)	0.38 (0.28)	1.70** (0.82)	1.08*** (0.29)
6	12-Jul-2006	0.20 (0.36)	-0.01 (0.03)	-0.84** (0.33)	-0.26 (0.29)	0.22 (0.29)
7	05-Sep-2006	-0.08 (0.20)	0.03 (0.02)	0.27 (0.19)	-0.09 (0.26)	-0.21 (0.23)
8	02-Nov-2006	-0.34 (0.23)	0.01 (0.02)	0.75** (0.34)	0.46** (0.23)	0.01 (0.28)
9	22-Jan-2007	0.35 (0.26)	-0.03 (0.02)	0.30 (0.31)	0.07 (0.38)	0.40 (0.29)
10	01-Feb-2007	-0.56** (0.25)	0.03 (0.02)	-0.12 (0.36)	0.28 (0.29)	-0.20 (0.24)
11	14-Mar-2007	0.40* (0.23)	-0.01 (0.01)	0.39 (0.26)	-0.32* (0.18)	-0.06 (0.21)
12	14-May-2007	0.84*** (0.30)	0.01 (0.02)	-0.33 (0.33)	0.56** (0.29)	-0.27 (0.25)
13	18-May-2007	-0.40 (0.26)	0.03* (0.02)	0.24 (0.36)	0.89*** (0.32)	-0.40 (0.23)
14	25-May-2007	0.05 (0.27)	-0.02 (0.02)	-1.05*** (0.39)	-0.07 (0.27)	0.38 (0.25)
15	06-Jul-2007	1.05*** (0.35)	-0.03 (0.02)	0.12 (0.49)	-1.03*** (0.39)	0.23 (0.23)
	All events	0.12* (0.07)	-0.01 (0.01)	-0.08 (0.08)	0.14 (0.10)	0.09 (0.07)

Dependent variable is the company-specific abnormal return around the respective event date. Coefficients are given in percent. Robust standard errors are in parentheses. (*), (**), (***) denote significance at the (10%), (5%), and (1%) level (two-tailed).

References

- Amoako-Adu, B./Rashid, M./Stebbins, M. (1992):** Capital gains tax and equity values: Empirical test of stock price reaction to the introduction and reduction of capital gains tax exemption. *Journal of Banking and Finance*, 16, 275–287.
- Andronikidi, A./Kallinterakis, V. (2010):** Thin trading and its impact upon herding: the case of Israel. *Applied Economics Letters*, 17, 1805–1810.
- Armstrong, C.S. et al. (2010):** Market reaction to the adoption of IFRS in Europe. *The Accounting Review*, 85, 31–61.
- Bach, S. et al. (2007):** Aufkommens- und Verteilungseffekte der Unternehmenssteuerreform 2008. *DIW Vierteljahreshefte zur Wirtschaftsforschung*, 76, 74–85.
- Ball, R./Brown, P. (1968):** An empirical evaluation of accounting income numbers. *Journal of Accounting Research*, 6, 159–178.
- Banker, R.D./Das, S./Ou, C.S. (1997):** Shareholder wealth effects of legislative events: The case of airline deregulation. *Public Choice*, 91, 301–331.
- Beaver, W. (1968):** The information content of annual earnings announcements. *Journal of Accounting Research*, 6, 67–92.
- Blouin, J./Raedy, J./Shackelford, D. (2003):** Capital gains taxes and equity trading: Empirical evidence. *Journal of Accounting Research*, 41, 611–651.
- Brown, A./Miller, V./Taylor, C. (2005):** Germany: Elections, the new government and anglo-german relations. London, House of Commons Library Research Paper 05/91.
- Brown, S.J./Warner, J.B. (1985):** Using daily stock return: The case of event study. *Journal of Financial Economics*, 14, 1–31.
- Campbell, J.W./Lo, A.W./MacKinlay, A.C. (1997):** The econometrics of financial markets. Princeton: Princeton University Press.
- CDU/CSU/SPD (2005):** Gemeinsam für Deutschland - mit Mut und Menschlichkeit. Berlin, Koalitionsvertrag.
- Cichello, M./Lamdin, D.J. (2006):** Event studies and the analysis of antitrust. *International Journal of the Economics of Business*, 13, 229–245.
- Corrado, C.J. (2011):** Event studies: A methodology review. *Accounting & Finance*, 51, 207–234.
- Deutscher Bundestag (2007a):** Beschlussempfehlung des Finanzausschusses. Berlin, Drucksache 16/5452.
- Deutscher Bundestag (2007b):** Beschlussempfehlung des Finanzausschusses. Berlin, Drucksache 16/5452.

- Devereux, M.P. (2007):** The impact of taxation on the location of capital, firms and profit: A survey of empirical evidence., Oxford University Working Paper 0702.
- Devereux, M.P./Griffith, R./Klemm, A. (2002):** Corporate income tax reforms and international tax competition. *Economic Policy*, 17, 451–495.
- Espahbodi, H. et al. (2002):** Stock price reaction and value relevance of recognition versus disclosure: the case of stock-based compensation. *Journal of Accounting and Economics*, 33, 343–373.
- Fama, E.F. (1970):** Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, 25, 383–417.
- Fama, E.F. (1998):** Market efficiency, long-term returns, and behavioral finance. *Journal of Financial Economics*, 49, 283–306.
- Fama, E.F. et al. (1969):** The adjustment of stock prices to new information. *International Economic Review*, 10, 1–21.
- Finke, K. et al. (2010):** Impact of tax base cut cum base broadening reforms on heterogeneous firms., ZEW Discussion Paper 10-036.
- Frischmann, P.J./Shevlin, T./Wilson, R. (2008):** Economic consequences of increasing the conformity in accounting for uncertain tax benefits. *Journal of Accounting and Economics*, 46, 261–278.
- Graham, J./Harvey, C.R. (2001):** The theory and practice of corporate finance: Evidence from the field. *Journal of Financial Economics*, 60, 187–243.
- Hanlon, M./Heitzman, S. (2010):** A review of tax research. *Journal of Accounting and Economics*, 50, 127–178.
- Heinemann, F./Overesch, M./Rincke, J. (2010):** Rate-cutting tax reforms and corporate tax competition in Europe. *Economics & Politics*.
- Holthausen, R.W./Watts, R. (2001):** The relevance of the value-relevance literature for financial accounting standard setting. *Journal of Accounting and Economics*, 31, 3–75.
- Homburg, S. (2007):** Germany’s Company Tax Reform Act of 2008. *FinanzArchiv*, 63, 591–612.
- Knirsch, D./Schanz, S. (2008):** Steuerreformen durch Tarif- oder Zeiteffekte? Eine Analyse am Beispiel der Thesaurierungsbegünstigung für Personenunternehmen. *Zeitschrift für Betriebswirtschaft*, 78, 1231–1250.
- Kothari, S.P. (2001):** Capital markets research in accounting. *Journal of Accounting and Economics*, 31, 105–231.
- Kothari, S.P./Warner, J.B. (2007):** Econometrics of event studies. In **Eckbo, B. E., editor:** *The Handbook of Corporate Finance*. Elsevier Science, 5–36.

- Lang, M.H./Shackelford, D. (2000):** Capitalization of capital gains taxes: Evidence from stock price reactions to the 1997 rate reduction. *Journal of Public Economics*.
- Li, H./Pincus, M./Olhott, S. (2008):** Market reaction to events surrounding the Sarbanes-Oxley Act of 2002 and earnings management. *Journal of Law and Economics*, 51, 111–134.
- Liang, J./Matsunaga, S.R./Morse, D.C. (2002):** The effect of the expected holding period on the market reaction to a decline in the capital gains tax rate. *Journal of the American Taxation Association*, 24, 49–64.
- McWilliams, A./Siegel, D. (1997):** Event studies in management research: Theoretical and empirical issues. *Academy of Management Journal*, 40, 626–657.
- Reese, W.A. (1998):** Capital gains taxation and stock market activity: Evidence from IPOs. *Journal of Finance*, 53, 1799–1820.
- Schaumburg, H. (2007):** Gesetzesentstehung. In **Schaumburg, H./Rödter, T., editors:** *Unternehmensteuerreform 2008*. C.H. Beck, 339–350.
- Scheffler, W. (2010):** Besteuerung von Unternehmen - Band III: Steuerplanung. Heidelberg et al.: C. F. Müller.
- Schipper, K./Thompson, R. (1983):** The impact of merger-related regulations on the shareholders of acquiring firms. *Journal of Accounting Research*, 21, 184–221.
- Schipper, K./Thompson, R./Weil, T. (1987):** Disentangling interrelated effects of regulatory changes on shareholder wealth: The case of motor carrier deregulation. *Journal of Law and Economics*, 30, 67–100.
- Scholes, M.S./Wilson, G.P./Wolfson, M.A. (1990):** Tax planning, regulatory capital planning, and financial reporting strategy for commercial banks. *Review of Financial Studies*, 3, 625–650.
- Schwert, G.W. (1981):** Using financial data to measure effects of regulation. *Journal of Law and Economics*, 24, 121–158.
- Shackelford, D.A. (2000):** Stock market reaction to capital gains tax changes: Empirical evidence from the 1997 and 1998 tax acts. *Tax Policy and the Economy*, 14, 67–92.