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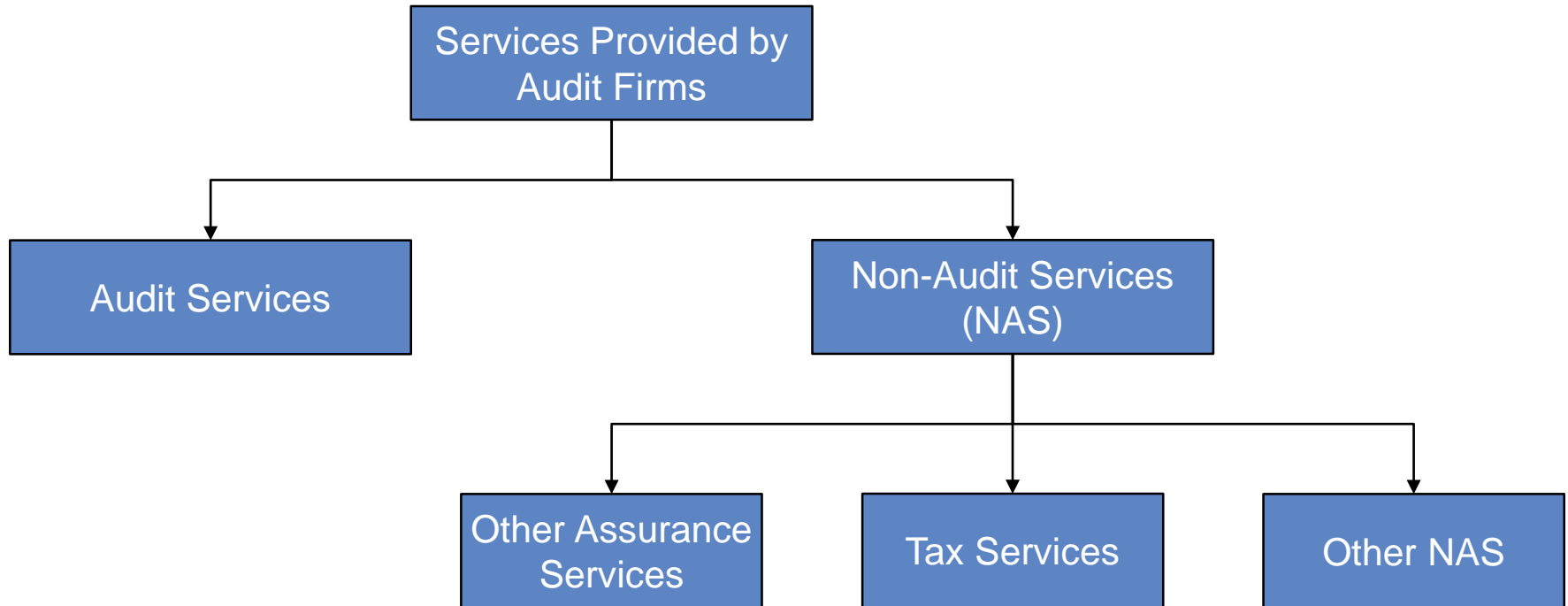
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**Do Client Business Scandals Affect the  
Reputation of Audit Firms?**

March 5, 2019  
Málaga

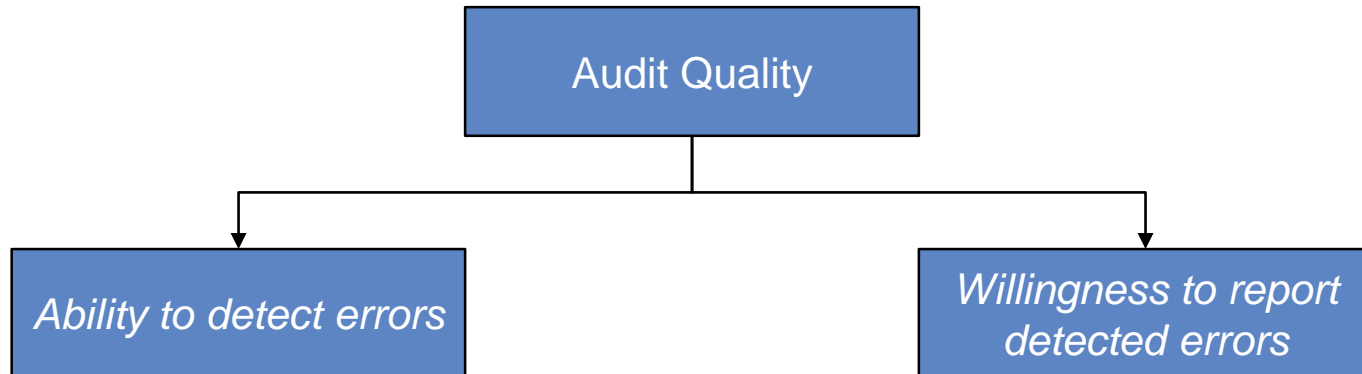
- Introduction
- The Enron Scandal
- Drivers of audit quality
- Research approach
- Empirical results
  - Frankfurt-Hahn Airport case
  - Schlecker case
  - Volkswagen dieselgate case
  - Siemens case
- Conclusion

# INTRODUCTION



## Demand for Audits

- Information asymmetries between management and owners
- Audits as a means to increase trust in financial statements
- Requirement: high quality of audits



## ISA 200.5

*„The auditor is required to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error.“*

≠

Absolute level of assurance

## Auditing as a credence good

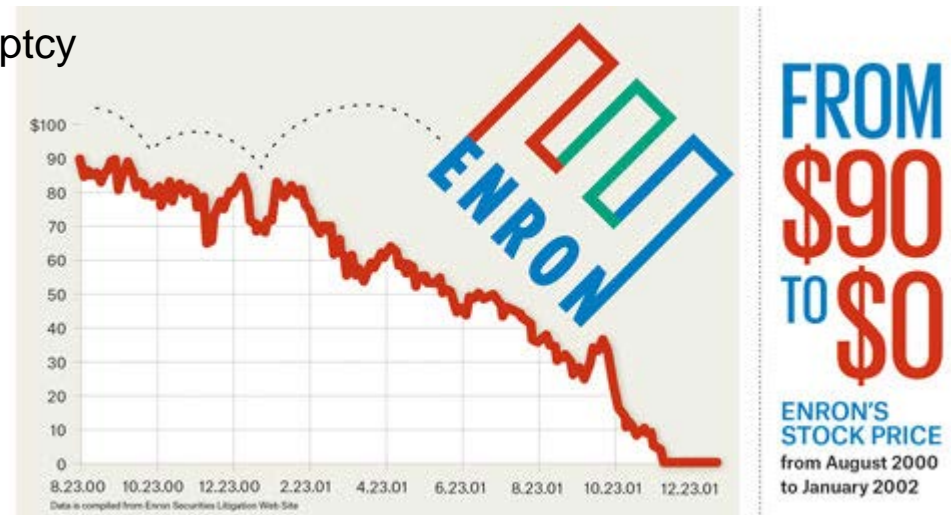
Information asymmetries between auditor and auditee/shareholders

- Auditing is a credence good
    - Clients are unable to assess important aspects of the service even after the purchase
- ↑ relevance of audit firm reputation

# THE ENRON SCANDAL



- Energy trading company
- America's 5<sup>th</sup> largest company
- „cooking the books“ → hidden debt, misrepresented earnings
- Summer 2001 → markets and regulators started to question the company
- Stock price fell from \$ 90.75 to \$ 0.26
- December 2, 2001: Enron declared bankruptcy
- Executives were sentenced to prison



- Arthur Andersen was Enron's auditor
- One of the Big 5 audit firms
- 2000: \$ 25 m audit fees  
\$ 27 m consulting fees
- Arthur Andersen was accused of applying reckless standards in its audits
- January 17, 2002: Arthur Andersen was dismissed as Enrons auditor
- June 15, 2002: Arthur Andersen was found guilty of shredding relevant documents
- August 31, 2002: Arthur Andersen surrendered ist license
- Loss of customers, operations ended, 85,000 employees lost their job
- 3 years later, the conviction was overturned by the US Supreme Court
- However, the firm was deeply disgraced





# DRIVERS OF AUDIT QUALITY

## Insurance hypothesis

- Litigation risk
  - incentives for high audit quality
- Doubt about the ability of the auditor to provide such insurance
  - negative effects on the valuation of audit clients by investors

## Reputation hypothesis

- Reputation for high audit quality
  - ability to gain new clients, retain existing ones, and charge high audit fees
- Doubts about audit quality
  - ↑ perceived investment risk → investors charge a higher risk premium
  - negative effects on the valuation of audit clients by investors

**→ In a US setting, isolation of reputation hypothesis difficult!**

## Auditor liability in Germany

### Liability to the client

- Intentional misconduct: unlimited
- Negligent misconduct: limited to € 1 m/4 m

### Liability to third parties

- Intentional misconduct: unlimited
- Negligent misconduct: only in specific situations, e.g. personal contact between auditor and third party; liability cap applies

→ Intention is frequently not given and hard to prove

→ Liability exposure limit

→ Insurance hypothesis can be neglected

→ **Germany is an ideal setting to analyze reputation effects**

# RESEARCH APPROACH

***Do business scandals impact the reputation of the incumbent audit firm?***

## Market model

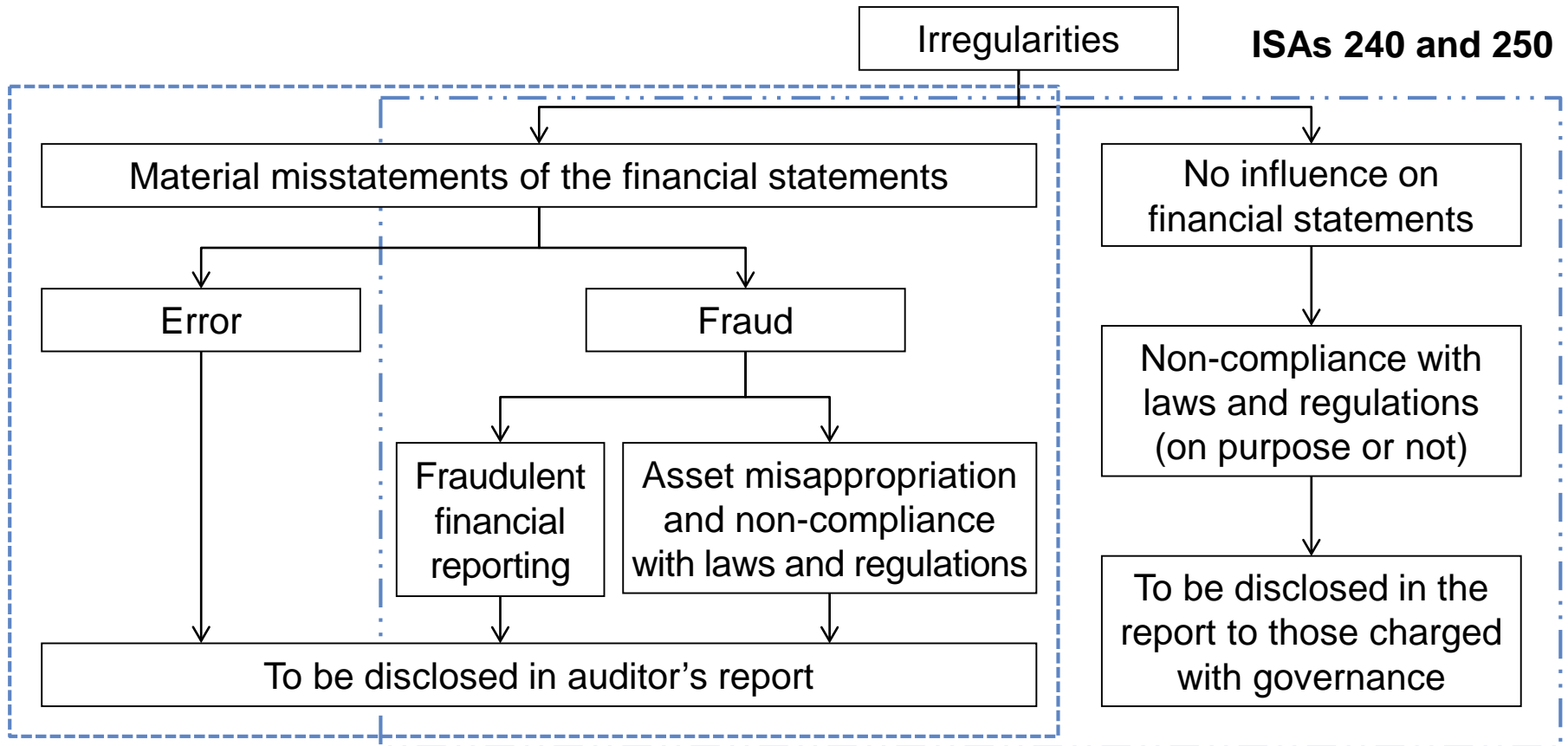
- Calculating coefficients for each client  $i$

$$R_{i,t} = \hat{\alpha}_i + \hat{\beta}_i \cdot R_{i,m,t} + e_{i,t}$$

- Calculation cumulative abnormal returns for each client  $i$  in event window  $t = [\tau, T]$

$$CAR_i = \sum_{t=\tau}^T e_{i,t} = \sum_{t=\tau}^T R_{i,t} - (\hat{\alpha}_i + \hat{\beta}_i \cdot R_{i,m,t})$$





# EMPIRICAL RESULTS

- Built 1951
- US military airport
- 1993: end of military use
- Ownership: 87.5% Rhineland-Palatinate  
12.5% Hesse
- High debt: € 132.8 m
- December 2014: Rhineland-Palatinate decided to sell its shares to a private investor through a public tender
- KPMG was engaged



- June 6, 2016: Shanghai Yiqian Trading Company chosen as buyer
- June 7, 2016: Press releases doubted the existence of SYT
- June 29, 2016: TV report revealed that there is a tire trader at the SYT address and that defrauded shareholders often pass there;  
Rhineland-Palatinate suspended the sale
- July 5, 2016: A state secretary and KPMG representatives were sent to Shanghai
- July 6, 2016: Sale was stopped; allegations that KPMG received falsified documents
- Rhineland-Palatinate: KPMG did not conduct due diligence properly
- KPMG: obligation of confidentiality
- Fee: € 6.25 m
- March 1, 2017: Sale of Rhineland-Palatinate shares to HNA Airport Group

## Timeline of Frankfurt-Hahn Airport case



## *Results of the market model*

Scandal	Event Window	Expectation	N	Ø (median) CAR	t-statistics
Frankfurt Hahn Scandal	Event 1 (7.6.2016)	–			
	(-1;1)		67	-.057% (-.405%)	-.167
	Event 2 (29.6.2016)	–			
	(-1;1)		70	.147% (.078%)	.315
	Event 3 (7.7.2016)	–			
	(-1;1)		73	-.499% (-.750%)	-1.336*

**Notes:** \*, \*\*, and \*\*\* denote significance at the 10%-, 5%-, and 1%-level, respectively, of a one-tailed t-test of the hypothesis that the average CAR is less than 0 (more than 0), where the expected sign is – (+).

In the column event window, the first (second) number is the beginning (end) of the event window; 0 denotes the day of the event, while negative (positive) figures denote the number of days before (after) the day of the event.

## Discussion

Overall, no reputation effect found

- Non-audit service
- Small engagement
- Public-sector company
- KPMG culpability unclear

- 1975: foundation of a drugstore chain

## Bancruptcy

- January 23, 2012: claim to start insolvency proceedings
- March 28, 2012: start of insolvency proceedings
- June 1, 2012: decision to break up the company
- June 27, 2012: stores were closed
- June 28, 2012: insolvency administrator announces end of the company





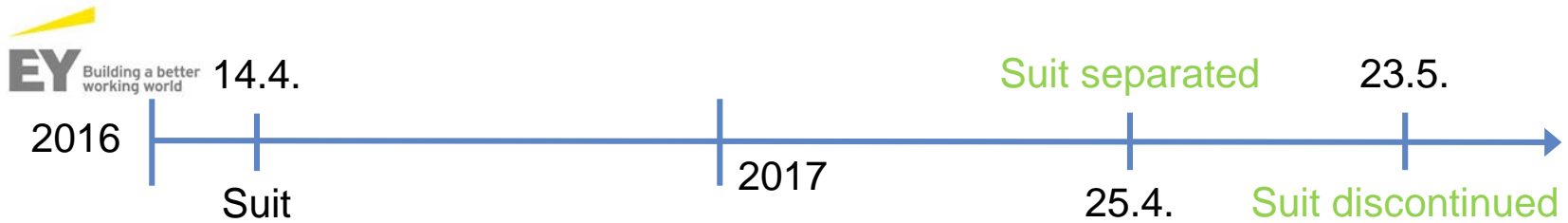
## Court case against family

- March 6, 2017: Court case started
- November 27, 2017: Court decision
  - founder Anton Schlecker 2 year imprisonment on probation, fine (intentional bankruptcy)
  - his kids Lars/Meike, imprisonment of 34/35 months (delay in filing for insolvency; breach of trust and fraud)

## Court case against auditors

- 2 auditors from EY were accused that they detected the manipulations in the financial statements but nevertheless provided a clean opinion
- April 14, 2016: indictment against auditors
- April 25, 2017: proceedings against EY auditors is separated from proceedings against family
- May 23, 2017: closing of court proceedings against the imposition of a fine due to minor fault

## Timeline of Schlecker case



## *Results of the market model*

Scandal	Event Window	Expectation	N	Ø (median) CAR	t-statistics
Schlecker Fraud	Event 1 (14.4.2016)	-			
	(-1;1)		56	-1.474% (-1.373%)	-2.746***
	Event 2 (25.4.2017)	+			
	(-1;1)		59	.143% (.114%)	.359
	Event 3 (23.5.2017)	+			
	(-1;1)		58	1.862% (1.003%)	3.561***

**Notes:** \*, \*\*, and \*\*\* denote significance at the 10%-, 5%-, and 1%-level, respectively, of a one-tailed t-test of the hypothesis that the average CAR is less than 0 (more than 0), where the expected sign is - (+).

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## Discussion

### Audit service

- Bankruptcy case = directly related to financial statements audit
- Clear reputation effects

## Illegal manipulations of diesel cars to comply with emission limits

- September 18, 2015: scandal becomes public

## Consequences in Germany

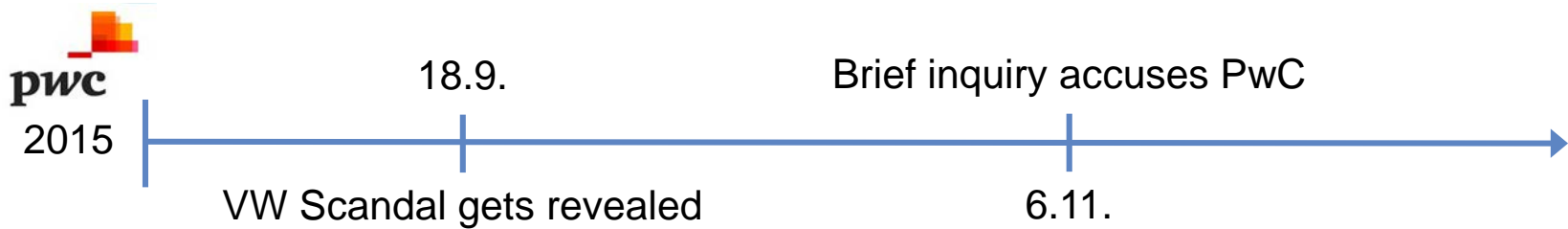
- October 8, 2015: raid to secure data
- November 11, 2015: PwC is accused of neglect and lack of independence by brief inquiry of party „Die Linke“
- November 24, 2015: investigation extended → tax fraud
- June 2016: investigations because of missing ad hoc publicity
- Ongoing claims for damages by customers



## Consequences in the US

- January 11, 2017: settlement in US: \$ 2.8 bn criminal penalty + \$ 1.45 bn civil penalty  
commitment to stronger control systems  
external supervision for 3 years  
Investment of \$ 2 bn in a charging pole network, accessible to all cars
- Payments of \$ 7,000 - 16,000 to customers
- Imprisonment of employees

## Timeline of Volkswagen dieselgate case





## *Results of the market model*

Scandal	Event Window	Expectation	N	Ø (median) CAR	t-statistics
VW Scandal	Event 1 (18.9.2015)	–			
	(-1;1)		72	.677% (.624%)	1.606*
	Event 2 (6.11.2015)	–			
	(-1;1)		72	.072% (.090%)	.184

**Notes:** \*, \*\*, and \*\*\* denote significance at the 10%-, 5%-, and 1%-level, respectively, of a one-tailed t-test of the hypothesis that the average CAR is less than 0 (more than 0), where the expected sign is – (+).

In the column event window, the first (second) number is the beginning (end) of the event window; 0 denotes the day of the event, while negative (positive) figures denote the number of days before (after) the day of the event.

## Discussion

### Audit service

- Offense cannot be detected during financial statements audit
- No reputation effects

## General

- One of the world's leading electronics company
- Conglomerate
- Market value  $\approx$  € 100 bn
- Employees  $\approx$  380,000
- Profit  $\approx$  € 6 bn



## Corruption Scandal

- 330 dubious projects
- 4,300 illegal payments, e.g. in South Africa, Argentina, Venezuela, China, Mexico, Nigeria, Russia, Egypt, Saudi-Arabia, Greece
- In total           ≈ € 1.3 bn
- ↓
- Cost               ≈ € 2.9 bn

## Corruption scandal

- November 15, 2006: police raid
- imprisonments and resignations of many board members
- July 2007: total amount of bribe payments (€ 1.3 bn) announced
- October 2007: €201 m penalty payment (Higher Regional Court)
- December 2008: settlement with US Department of Justice
  - \$ 450 m penalty
  - and with SEC
  - \$ 395 m penalty
- Criminal convictions against former board members
- Settlements between Siemens and former board members

## Neubürger case

- September 9, 2007: criminal investigation against ex-CFO Neubürger started
  - Proceedings were closed in 2011 for a payment of € 400,000 to a charity
  - Siemens sued him for damage compensation due to a breach of monitoring obligations
  - November 2013: court decision: € 15 m
  - Summer 2014: settlement between Siemens and Neubürger
  - February 2015: suicide
- **Board members are liable in case that they do not set up an adequate compliance management system**

## Effect

Siemens now has a highly developed CMS: „only clean business is a Siemens business“

## The auditor (KPMG)

- November 17, 2006: police raid at KPMG offices
- December 3, 2006: media reports about the police raid
- September 21, 2007: Siemens supervisory board members plan to investigate why auditors did not find suspicious payments
- December 3, 2007: Siemens supervisory board decides to replace KPMG after 2008

## Timeline of Siemens case





## *Results of the market model*

Scandal	Event Window	Expectation	N	Ø (median) CAR	t-statistics
Siemens Scandal	Event 1 (3.12.2006)	–			
	(-1;1)		63	-.743% (-.654%)	-1.912**
	Event 2 (11.12.2006)	–			
	(-1;1)		65	-.344% (-.377%)	-.994
	Event 3 (21.9.2007)	–			
	(-1;1)		63	-.576% (-.702%)	-1.126
	Event 4 (3.12.2007)	–			
	(-1;1)		64	1.155% (.372%)	1.965**

**Notes:** \*, \*\*, and \*\*\* denote significance at the 10%-, 5%-, and 1%-level, respectively, of a one-tailed t-test of the hypothesis that the average CAR is less than 0 (more than 0), where the expected sign is – (+).

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## Discussion

### Audit service

- Bribery payments in income statement
- Auditor potentially might reveal bribery payments
- Negative reputation effect (first event)
- Positive impact (fourth event) surprising

- Reputation is essential in the audit industry
- No spillovers from non-audit services on audit quality reputation
- Business scandals can threaten the reputation of the involved auditor
- Negative impact of financial statements fraud
- Other offenses: Can they be revealed by the audit?
- Limitations:
  - Germany
  - Small sample
  - Just four cases
  - Completeness of events
  - Timing of events