

**Easier Said Than Done: The Effect of ARUG II on
Clawback Provision Adoption and the Diversity of Clawback Trigger
Events in German DAX30 & MDAX Companies**

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Date: 17th May 2021

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Abstract

In this study, we examine the annual reports of the German DAX30 and MDAX companies to analyze the level of clawback provision adoption in management compensation contracts due to the finalization of ARUG II in Germany. In addition, we investigate the diversity of the trigger events named in the provisions already implemented. We find that although the number of companies that adopted clawback provisions slightly increased from 2018 to 2019, it is still relatively low, compared to the developments in the US several years ago. We find that in 2019 39 % of the companies had clawback provisions implemented in their compensation system. By analyzing the trigger events named in these provisions we show, that most of the clawback provisions are meant to prevent compliance violations or misconduct. Very few provisions cover errors in reporting or negative contribution to success. Based on these findings we present and discuss previous literature, which helps to explain the slow change and discuss the different effects of clawback trigger events. We further suggest avenues for future research and provide implications based on our findings.

Keywords: Clawback provisions; management compensation; trigger events; ARUG II

I. Introduction: ARUG II and Clawback Provisions

In December 2019, the implementation of the second shareholders' rights directive (ARUG II) and the associated amendment of § 87a of the German Stock Corporation Act (AktG) have set the legal framework for the implementation of clawback provisions. Due to ARUG II German companies are encouraged to implement clawback provisions in management board compensation systems on a voluntary basis. Clawback provisions authorize companies to reclaim paid or promised bonuses due to subsequently uncovered events (trigger event), i. e. serious compliance violations (Chan, Chen, Chen, & Yu, 2012). In this study, we analyze the annual reports of the German DAX30 and MDAX companies (n = 90) to shine a light on the increasing level of clawback provisions adoption into management board compensation contracts due to the finalization of ARUG II and more interestingly investigate the diversity of the trigger events named in these provisions. We find that although the implementation level slightly increased from 2018 to 2019, the implementation level is still relatively low, compared to the developments in the US some years ago. We find that in 2019 only one third of the companies had clawback provisions implemented in their compensation system. By analyzing the trigger events named in these already implemented provisions in 2018 and 2019 we show, that most of the clawback provisions are implemented to prevent compliance violations or misconduct. The fewest provisions we found cover errors in financial reporting (misstatement) or negative contribution to success. In light of the original objective of clawback provisions, that is to implement stricter remuneration policies that stronger link variable compensation to the consequences of mismanagement, our findings uncover a significant disproportion.

The remainder of this paper is structured as follows: In section II we provide an overview of the underlying legal bases of clawback provisions in Germany. In section III we present the results of our analysis of the annual reports of the German DAX30 and MDAX companies of 2018 and 2019. In section IV we present and discuss previous literature which can help to explain the low clawback adaption rate and discuss the effects of different clawback trigger

events. In section V we summarize our findings and discuss why clawback adaption – including the decision on which events would trigger a clawback – is easier said than done. Furthermore, we suggest avenues for further research and provide implications based on our findings which are especially usefully for practitioners.

II. Legal basis of Clawback Provisions in Germany

The starting point of clawback provisions in Germany was set by two different European Union (EU) directives. The directives 2010/76/EU and 2013/36/EU. Both focus on credit and financial service institutions and were meant to improve regulatory issues regarding the supervision and publication requirements of credit institutions and investment firms. One aspect of those directives is to provide guidelines for implementing stricter remuneration policies that stronger link variable compensation to the consequences of mismanagement. The legislative process to implement clawback provisions for credit and financial service institutions was finished in 2017 with the amendment of the Institutsvergütungsverordnung (InstitutsVergV). Regarding the InstitutsVergV for all employees whose variable compensations exceeds € 50.000 including a clawback provisions in the compensation contract is mandatory (§ 18 (1) InstitutsVergV). It provides the possibility to claw back variable remuneration when serious misbehaviour of employees leads to substantial losses or regulatory sanctions for credit and financial service institutions. A second event, which can be covered by clawback provisions based on § 18 (5) InstitutsVergV are serious violation of the company code of conduct or external regulations.

Besides these mandatory and detailed clawback provisions for credit and financial service institutions, the guidelines for all other public listed companies in Germany are voluntary and less strict. The EU directive 2017/828/EU is strengthening the rights of shareholders in terms of a more comprehensive corporate governance of public listed companies. This directive merged into ARUG II followed by an amendment of the AktG by the end of 2019. The newly

introduced § 87a in the AktG describes detailed guidelines for management board compensation systems. Especially, § 87a (6) AktG now foresees the opportunity to implement clawback provisions and to reclaim the variable remuneration. However, the adoption of clawback provisions is voluntary upon the decision of the supervisory board and the shareholders. In addition, the guidelines do not state specific rules about when clawbacks have to be executed. Thus, there is a substantial difference between the regulatory guidance for credit and financial service institutions (§ 18 (5) InstitutsVergV) and all other public listed companies (§87a (6) AktG). We argue that the vaguely formulated AktG leaves to much discretionary and thus gives to less guidance in the choice of clawback trigger events that could be contractually fixated in a clawback provision.

III. Analysis of the Annual Reports of German DAX30 & MDAX Companies

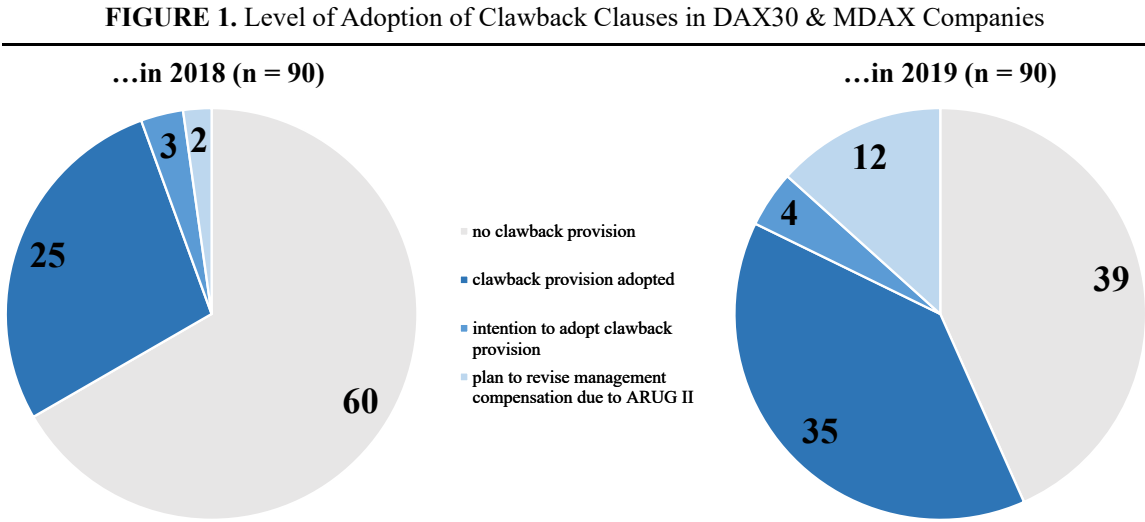
III.1 Level of Adaption of Clawback Provisions

Empirical studies based on data collected in the US provide evidence that implementing clawback provisions into management board compensation system lead to positive stock-market reactions (Iskandar-Datta & Jia, 2013) and that it improves financial reporting quality (Chan et al., 2012; deHaan, Hodge, & Shevlin, 2013). Due to these positive effects observed in the US and in addition due to the finalization of ARUG II in Germany, we assume that an increasing number of German companies will adopt such provisions. To test this hypothesis, we analyze the 2018 and 2019 annual reports of the German DAX30 & MDAX companies (n = 90), in which the companies have to report their management board compensation system.¹ Thus, the analysis includes the 90 companies with the highest market capitalization in Germany. First, we wanted to identify how many of these companies already implemented clawback provisions

¹ We also included companies that fall under the InstitutsVergV.

in their management board compensation system, and second, how many of them plan to revise their compensation system due to ARUG II.

FIGURE 1 shows the first results of our analysis.² We found that the total number of companies that implemented clawback provisions increased slightly – from 25 (28 %) companies in 2018 to 35 (39 %) companies in 2019. Vice versa, the number of companies with no clawback provisions decreased from 60 companies in 2018 to 39 companies in 2019. Besides the companies that already implemented clawback provisions and the companies that not yet have implemented clawback provisions we find an increasing number of companies that express the intention to revise their management board compensation system due to ARUG II (2 in 2018; 12 in 2019). These companies may implement clawback provisions in the near future due to the new regulatory guidelines. In addition, a small number of companies specifically committed themselves to implement clawback provisions in the next year (3 in 2018; 4 in 2019).³



Please note: The data includes three banks (Aareal Bank AG, Commerzbank AG and Deutsche Bank AG) that fall under the mandatory guidance of the InstitutsVergV.

² The data in **Figure 1** includes the data of three banks (Aareal Bank AG, Commerzbank AG and Deutsche Bank AG) that fall under the mandatory guidance of the InstitutsVergV.

³ For example in 2018, the Bayer AG stated the intention to implement clawback provisions. In fact, in the 2019 annual report of the Bayer AG we found a clawback provision.

Taken together, these results show that the majority of the DAX30 and MDAX companies (55) have not adopted clawback provisions into their management board compensation system. In 2019, four companies state the intention to adopt clawback provisions in the future and 12 companies state the plan to revise the management compensation system due to ARUG II. However, an interesting finding is the changing ratio of DAX30 vs. MDAX companies that adopted clawback provisions (see **TABLE 1**).

TABLE 1. Difference in Clawback Adoption in DAX30 and MDAX companies

	2018		2019	
	DAX30	MDAX	DAX30	MDAX
no clawback provision	60	48	39	32
clawback provision adopted	25	11	35	17
intention to adopt	3	0	4	2
plan to revise due to ARUG II	2	1	12	9
sum	90	60	90	60

In 2018, 14 of the 25 companies (56 %) were listed in the DAX30 index. In contrast in 2019, 18 of the 35 companies (51 %) were listed in the DAX30 index. This finding suggests that due to ARUG II an increasing number of companies listed in the MDAX integrated clawback provisions into their compensation systems (in 2018: 11; in 2019: 17).

Even though we found an increasing level of clawback provision implementation from the year 2018 to the year 2019, it seems like the rate of adaption is relatively small compared to non-adaptors as the majority of the German DAX30 & MDAX companies have not yet implemented any kind of clawback provision. Considering that the regulatory guidelines in Germany were implemented in 2017 (InstitutsVergV) respectively in 2019 (ARUG II), many companies considered clawback provisions before the regulatory guidelines were passed, especially in the case of ARUG II. The decision about the adoption may be as well influenced by the US

capital market, where the legislation process of clawback provisions started earlier in the century. In 2015, Equilar Inc. (2015) reported that 77% of the S&P500 companies had already implemented clawback provisions.

III.2 Design of Clawback Trigger Events

Since ARUG II allows for a large degree of discretion in designing clawback provisions, we would expect to find different variations of clawback provisions – especially of the events that trigger a clawback (trigger events) – across companies. Therefore, the second part of our analysis examines the diversity of trigger events determined in the clawback provisions of the DAX30 & MDAX companies. Based on Erkens, Gan, and Yurtoglu (2018), who analyze 4,464 clawback provisions,⁴ trigger events can be distinguished into financial triggers – any event that leads to a restatement of financial figures – and non-financial triggers – events like breach of duty or criminal behaviour (Erkens et al., 2018). In **FIGURE 2**, we summarize the results of our analysis of the annual reports of DAX30 and MDAX companies.

FIGURE 2. Trigger Events in Clawback Clauses in DAX30 & MDAX Companies

	... in 2018 (n = 25)		... in 2019 (n = 35)	
financial triggers	material misstatement	14%	material misstatement	20%
	negative contribution to success	16%	negative contribution to success	17%
non-financial triggers	misbehavior	68%	misbehavior	69%
	compliance violation	48%	compliance violation	51%
	termination of cause	12%	termination of cause	9%
	not specified	13%	not specified	10%

⁴ Erkens et al. (2018) included data on voluntary clawback adoptions of Russel 3000 firms between 2007 and 2013 (p. 5).

The results of our analysis show, that those companies, that have integrated clawback provisions (2018: 25; 2019: 35) mostly state *misbehavior* (2018: 68%; 2019: 69%) and/or *compliance violation* (2018: 48%; 2019: 51%) as triggering events for a bonus clawback. Thus, most companies focus on non-financial trigger events.

The trigger event *compliance violation* denotes any violation of the company's code of conduct or other internal rules regarding appropriate standards of conduct. In contrast, the trigger event *misbehavior* is somewhat broader and is described in many different forms. For example, we found fraud, breach of duty (§ 93 AktG), participation in behavior that results in economic loss or regulatory sanctions, or any unethical behavior. Both trigger events (*compliance violation* and *misbehavior*) presuppose intentional or intention-independent misconduct by the manager responsible or a severe violation of internal rules by a person under the manager's responsibility.

In some cases, the trigger events we find in the annual reports are tied to a restatement of the financial result. Thus, a clawback could be triggered if the detected misbehavior leads to a later restatement of the financial statement (e.g. Linde plc, 2020). This kind of trigger event is called *material misstatement* and can be separated into intentional and unintentional misstatements. An unintentional material misstatement is based on false information or on mathematical mistakes and does not necessary imply fraudulent misconduct. Whereas an intentional material misstatement is based on fraudulent behavior, e. g. by manipulating company's earnings. **TABLE 2** shows examples for clawback trigger events we find in the annual reports of the DAX30 & MDAX companies.

TABLE 2. Examples for clawback trigger events specified in DAX30 & MDAX companies annual reports

<u>trigger event category</u>	<u>example</u>
financial triggers	<p>material misstatement (intentional) “Recapture Clawback Policy: The Board of Directors of the Company has adopted a policy for the recapture of annual performance-based variable compensation payouts, equity grants and certain equity gains in the event of a later restatement of financial results. Specifically, if the Board, or an appropriate committee thereof, has determined that any fraud by any Section 16 officer of the Company materially contributed to the Company having to restate all or a portion of its financial statements, the Board or committee shall take, in its discretion, such action as it deems necessary to remedy the misconduct.” (Linde plc (2020), p. 56)</p>
	<p>material misstatement (unintentional) “The service agreement of the Management Board members appointed from fiscal 2019 forward contain retention and clawback provisions for the variable compensation (annual bonus and LTI) components. If the relevant aspects for determining the payout amount of variable compensation should prove to be incorrect after the variable compensation has been paid out, the supervisory Board can reduce or completely eliminate the variable compensation (retention) and reclaim any excess compensation already paid out (clawback).” (Uniper SE (2020), p. 92)</p>
negative contribution to success	<p>“According to the new Code recommendation G.11, variable remuneration can be withheld or reclaimed (clawback) in justified cases. 50% of the annual bonus from target achievement is transferred into the medium-term component and is subject to a two-year sustainability phase (deferral). This medium-term component, even if earned, is clawed back and expires without replacement if EAC, the sustainability criterion, is not met during the sustainability phase. The SARs [stock appreciation rights] granted are clawed back and expire without replacement, if and to the extent that, absolute or relative performance targets are not met during the four-year lock-up period.” (Deutsche Post AG (2020), p. 23)</p>
non-financial triggers	<p>misbehavior “Through the introduction of a clawback clause in the current Managing Board remuneration system, reduction, withdrawal, and clawback of annual bonus are possible in case of breach of essential duties of diligence.” (HeidelbergCement AG (2020), p. 80)</p>
	<p>compliance violation “Cases in which the clawback provision may be applied include violations of internal rules and regulations (Merck Code of Conduct), legislation, other binding external requirements in the area of responsibility, significant breaches of duty of care within the meaning of section 93 AktG, and other grossly non-compliant or unethical behavior or actions that are contradictory to our company values.” (Merck KGaA (2020), p. 142) *</p>
	<p>termination of cause “If the contract of service is terminated by MTU for cause, no severance package is paid in such cases, MTU also has the right to demand the repayment of the RSP [Restricted Stock Plan] tranche granted in the fiscal year in which the contract was terminated (clawback).” (MTU Aero Engines AG (2020), p. 98)</p>
	<p>not specified “Annual cash incentives as well as the long-term equity based incentives are subject to claw back provisions pursuant to Dutch law. No such reclaim has occurred during the financial year.” (Shop Apotheke Europe N.V. (2020), p. 70)</p>

* In the clawback provision non-compliant behavior or any other misbehavior (e. g. breach of duty) are named together.

Further, only in few cases we find that financial and non-financial trigger events are combined. E. g., Adidas AG (2020), p. 35 sanctions “[...] material misstatements in the financial reports, serious compliance violations and violations of duty as well as breaches of the company-internal rules of conduct by the Executive Board member which, in any such case, would lead to an unjustified bonus payment [...]”. We found a similar combination of financial and non-financial clawback trigger events only in the annual reports of Deutsche Lufthansa AG (2020), Henkel AG & Co. KGaA (2020) and Linde plc (2020).

Taken together, our analysis shows that the majority of German DAX30 and MDAX companies (2019: 56) has not implemented any kind of clawback provision in their management board compensation system, yet. In addition, we find that those companies that have integrated clawback provisions mostly state *misbehavior* and/or *compliance violation* as triggering events for a bonus clawback. These findings indicate that the finalization of ARGU II had a rather weak effect on the adaption level of clawback provisions in German companies so far. One explanation for this could be the relatively loose legislative guidance on the design of clawback provisions. However, we also find eleven companies which state that they are revisiting their compensation systems following the legislation of ARUG II. This may lead to further increase of companies that will introduce clawback provisions.

We recognize a growing body of academic literature that is predominantly focusing on the effects of voluntary adoption of clawback provisions in the US. The regulatory guidelines in the US are separated into the Sarbanes-Oxley Act (SOX) and the Dodd-Frank Act (DFA). The former focusses on mandatory provisions, which can be triggered by the SEC in case of material restatements caused by misconduct (SOX section 304). The latter (DFA) is to date still under certification of the authorities but foresees mandatory provisions to cover restatements due to mathematical mistakes and restatements due to the violation of accounting principles (DFA section 954). To derive implications on how to increase the number of companies, which

consider adopting clawback provisions and grapple with the diversity of triggering events, we analyze empirical studies based on data from US companies. In the next section, we present relevant findings, which can also be applied to German companies due to their voluntary nature.

IV. Previous Research on Clawback Provisions – Literature Review

IV.1 Identifying relevant Research Articles on Clawback Provisions

To identify previous research articles on clawback provisions, we conducted a systematic literature review examining 35 academic journals⁵ for articles that have the term *claw* or *clawback* in the title. In addition, we focus our search on studies regarding voluntary clawback provisions.⁶

Our search within the 35 journals revealed 19 published articles. To broaden the scope of the literature, we did an additional backward search and checked the reference lists of these 19 articles. Thus, we identified five additional published articles and three working paper. In total, we identify 27 research articles. In **TABLE 3** we list the identified published articles and working paper.

TABLE 3. Results of the systematic literature review – 27 articles

First search (19 published articles)

- 1 Addy et al. (2014). Voluntary adoption of clawback provisions, corporate governance, and interlock effects. *Journal of Accounting & Public Policy*, 33(2), 167-189.
- 2 Bao et al. (2018). Can shareholders be at rest after adopting clawback provisions? Evidence from stock price crash risk. *Contemporary Accounting Research*, 35(3), 1578-1615.
- 3 Brink et al. (2019). The effects of clawbacks on auditors' propensity to propose restatements and risk assessments. *Journal of Business Ethics*, 158(2), 313–332.
- 4 Brown et al. (2015). M&A decisions and US firms' voluntary adoption of clawback provisions in executive compensation contracts. *Journal of Business Finance & Accounting*, 42(1/2), 237-271.

⁵ To identify relevant journal articles with a sufficient impact on academic business research, we select the JOURQUAL 3 ranking of the German Academic Association of Business Research (VHB). Specifically, we chose the ranking for Accounting and therein, all journals that have a rating of A+, A or B which denote the top three rating categories with the highest impact factor on accounting research. The list of the 35 journal is in the Appendix, TABLE A1.

⁶ For example, the study Hirsch et al. (2017) (The impact of clawback provisions on information processing and investment behaviour. *Management Accounting Research*, 37, 1–11) and the study Natarajan & Zheng (2019) (Clawback provision of SOX, financial misstatements, and CEO compensation contracts. *Journal of Accounting, Auditing & Finance*, 34(1), 74–98) do not focus on voluntary clawback provisions, therefore were not included in our literature review.

- 5 Chan et al. (2012). The effects of firm-initiated clawback provisions on earnings quality and auditor behavior. *Journal of Accounting & Economics*, 54(2/3), 180–196.
- 6 Chan et al. (2015). Substitution between real and accruals-based earnings management after voluntary adoption of compensation clawback provisions. *Accounting Review*, 90(1), 147-174.
- 7 Chen & Vann (2017). Clawback provision adoption, corporate governance, and investment decisions. *Journal of Business Finance & Accounting*, 44(9/10), 1370-1397.
- 8 DeHaan et al. (2013). Does voluntary adoption of a clawback provision improve financial reporting quality? *Contemporary Accounting Research*, 30(3), 1027-1062.
- 9 Denis (2012). Mandatory clawback provisions, information disclosure, and the regulation of securities markets. *Journal of Accounting & Economics*, 54(2/3), 197-200.
- 10 Erkens et al. (2018). Not all clawbacks are the same: Consequences of strong versus weak clawback provisions. *Journal of Accounting & Economics*, 66(1), 291–317.
- 11 Fung et al. (2015). Insider sales and the effectiveness of clawback adoptions in mitigating fraud risk. *Journal of Accounting & Public Policy*, 34(4), 417–436.
- 12 Huang et al. (2019). Not clawing the hand that feeds you: The case of co-opted boards and clawbacks. *European Accounting Review*, 28(1), 101–127.
- 13 Iskandar-Datta & Jia (2013). Valuation consequences of clawback provisions. *Accounting Review*, 88(1), 171–198.
- 14 Kroos et al. (2018). Voluntary clawback adoption and the use of financial measures in CFO bonus plans. *Accounting Review*, 93(3), 213–235.
- 15 Kubick et al. (2020). The effect of voluntary clawback adoptions on corporate tax policy. *Accounting Review*, 95(1), 259–285.
- 16 Kyung et al. (2019). The effect of voluntary clawback adoption on non-GAAP reporting. *Journal of Accounting & Economics*, 67(1), 175–201.
- 17 Levine & Smith (2019). Clawbacks and earnings management. *Journal of Management Accounting Research*, 31(3), 129–151.
- 18 Liu et al. (2020). Corporate risk-taking after adoption of compensation clawback provisions. *Review of Quantitative Finance and Accounting*, 54(2), 617–649.
- 19 Pyzoha (2015). Why do restatements decrease in a clawback environment? An investigation into financial reporting executives' decision-making during the restatement process. *Accounting Review*, 90(6), 2515–2536.

Second search – Backward search (5 published articles & 3 working paper)

- 1 Babenko et al. (2019). Clawback Provisions. *Working Paper, Ohio State University*, 1-60.
 - 2 Bakke et al. (2018). The value implications of mandatory clawback provisions. *Working Paper, University of Illinois at Chicago*, 1–65.
 - 3 Chan et al. (2013). The effects of firm-initiated clawback provisions on bank loan contracting. *Journal of Financial Economics*, 110(3), 659–679.
 - 4 Chen et al. (2015). The costs and benefits of clawback provisions in CEO compensation. *Review of Corporate Finance Studies*, 4(1), 108–154.
 - 5 Chen & Deng (2012). Self-enforcing clawback provisions in executive compensation. *Working Paper, University of California*.
 - 6 Fried (2016). Rationalizing the Dodd-Frank clawback. *Working Paper, European Corporate Governance Institute*, 1–69.
 - 7 Fried & Shilon (2011). Excess-pay clawbacks. *Journal of Corporation Law*, 36(4), 721–751.
 - 8 Schneider (2010). The clawback provision: What you need to know. *Journal of Financial Service Professionals*, 64(5), 24–28.
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IV.2 Research on Factors that influence the Adoption Level of Clawback Provisions

Reviewing the identified previous research articles on voluntary clawbacks, we find that one key driver of the adoption of voluntary clawback provisions is the current corporate governance system of a firm. For example, more supervision of the supervisory board increases the propensity of the implementation of clawback provisions (Addy, Chu, & Yoder, 2014). Additionally, an increasing board size and more independent directors on the board have a positive effect on the adoption of clawback provisions (Chen & Vann 2017).

Further, companies without clawback provisions achieve positive abnormal stock returns during the announcement of new clawback guidelines compared to those who already implement clawback provisions (Bakke et al. 2018). In addition, companies with clawback provisions compared to non-adopters have a higher stock valuation. This increase is higher for those companies that had numerous financial restatements before the clawback adoption (Iskandar-Datta & Jia 2013).

The voluntary adoption of clawback provisions has positive consequences on the companies' financial reporting. For example, various studies find that clawback provisions lead to a higher reporting quality. Specifically, these studies find that firms with implemented clawback provisions conduct fewer financial restatements, which is often used as a proxy measure for reporting quality (Chan et al., 2012; Chan, Chen & Chen, 2013; Chen, Owers, & Greene, 2015; deHaan et al., 2013). Furthermore, the adoption of clawback provisions leads to a decrease in fraud risk as long as the board is not engaging in insider trading activities (Fung, Raman, Sun, & Xu, 2015). The increased reporting quality in turn is also positively associated with lower audit fees and less signs of material weaknesses (Brink, Grenier, Pyzoha, & Reffett, 2019; Chan et al., 2012; Denis, 2012). Additionally, board members are more critical against audit recommendations from less experienced audit teams when their compensation system foresees the possibility to trigger a clawback (Pyzoha, 2015).

On the other side, we find evidence for some critical factors that hinder or inhibit the adoption of clawback provisions. For example, Huang, Lim, and Ng (2019) find that a co-opted board reduces the possibility of clawback adoption. In a co-opted board, members appointed by and after the CEO are more devoted and committed to her or him. Thus, powerful CEOs may abuse their standing to lag the implementation of clawback provisions.

Another literature stream discusses the consequences of an adaption of clawback provisions on the compensation structure. Kroos, Schabus, and Verbeeten (2018) show that the structure of the incentive compensation criteria changes following the implementation of clawback provisions as it puts more weight on financial performance measures. The authors suggest that this is driven mainly by the positive effect of clawbacks on the financial reporting quality. Furthermore, Kroos et al. (2018) as well as deHaan et al. (2013) show that the total compensation of managers increases after the clawback adoption. In addition, they find that this is driven by an increase of the fixed component of the salary rather than by an increase of the variable compensation. The authors argue that clawback provisions impose a higher risk on the compensation system, which is compensated by an increase in the fixed remuneration.

Besides these consequences, we find research on dysfunctional effects related to the adoption of clawback provisions. Kyung, Lee, and Marquardt (2019) reveal that companies increasingly use non-GAAP reporting to disclose earnings which decreases non-GAAP reporting quality subsequently. The authors argue that the presence of a clawback provision makes managers engage more in non-GAAP earnings management without risking a clawback, while earnings management in terms of the mandatory GAAP reporting standard could trigger a clawback. Chan, Chen, Chen, & Yu (2015) show that companies are less willing to engage in accrual earnings management activities because it attracts the attention of regulatory authorities. As a substitute, companies engage more in real earnings management activities and cut expenses such as expenses for research and development. In general, real earnings management is harder

to detect by authorities than accrual earnings management (Chen & Deng, 2012; Levine & Smith, 2019). Supporting these results, Babenko, Bennett, Bizjak, Coles, and Sandvik (2019) also show that the adoption of clawback provisions leads to a decrease in research and development activities and patent filings. In fact, in the post-clawback-adoption period, companies decrease their investment activities or are more interested in lower risk investments (Y. Chen & Vann, 2017). Liu, Gan, and Karim (2020) support this evidence by showing that companies reduce their book leverage and investment expenses. Additionally, Bao, Fung, and Su (2018) find that the risk of a stock price crash following the adaptation of clawback provisions increases for those companies that increase real earnings management activities and decrease readability of 10-K reports. To achieve certain financial goals companies are also more willing to engage in tax reduction activities such as hiring tax services and using tax havens (Kubick, Omer, & Wiebe 2020).

IV.3 Research on Clawback Trigger Events

The above presented research articles mostly compare the impact of clawback provisions before and after its adoption on managerial behaviour such as reporting or investment decisions. Besides these, we also identified studies that highlight the effects of different trigger events.

Erkens et al. (2018) develop the so called *Clawback Strength Index*. The index is based on five categories: (1) compensation coverage, (2) employee coverage, (3) enforcement, (4) time period, (5) trigger. A similar categorisation is given by Chen et al. (2015) who structure clawback provisions as follows: “[...] (a) the types of employees covered by the provision, (b) the types and amounts of compensation that can be recovered, (c) the amount of discretion that the board has in enforcing the terms of the provision, and (d) the types of financial restatement that trigger recoupment.” (Chen et al., 2015, p. 133).

The results of Erkens et al. (2018) indicate that weaker provisions in terms of less trigger events lead to a slight decrease in financial reporting quality, whereas stronger clawback provisions lead to an increase in financial reporting quality. Based on Erkens et al. (2018), a stronger clawback provision is for example characterised by more compensation elements (e. g. stock options and variable remuneration) that could be clawed back, a broader target group of employees (e. g. executives and employees) to whom the provision applies, and more specified clawback trigger events. That said, Erkens et al. (2018) argue that weaker provisions might be implemented due to window-dressing purposes to fulfil shareholder needs at a basic level. A decrease in reporting quality is clearly not what lawmakers intended when they were paving the way for clawbacks as it should be an instrument to sanction misbehaviour.

Fried (2016) argues that provisions are written carefully to avoid a situation in which a recovery is automatically triggered. Thus, the overseers and the compensation committee use their discretion to trigger a recoupment of incentive payment (Brown et al., 2015; Fried & Shilon, 2011). Indeed, too much discretion may water down the purpose of clawback provisions (Schneider, 2010). Nonetheless, the importance of discretionary elements in clawback provisions is highlighted by Babenko et al. (2019). Using a dataset of 4,103 clawback from S&P 1,500 companies, the authors found that 57.1 % of these provisions grant discretion to trigger a clawback and 52.4 % of these provisions grant discretion to the determination of the height of the recoupment.

V. Implications and Summary

Our analysis reveals that less than half of the DAX30 and MDAX companies have implemented clawback provisions in 2019. This may be due to the relatively new regulatory guidelines of ARUG II. Following the voluntary clawback policies in Germany based on AktG, there is no guideline on what type of misbehaviour can be sanctioned by a clawback. Thus, the design,

implementation and enforcement of a clawback provision leaves room for discretionary decisions (Müller, Rieber, & Tank, 2020). Further we find that the most companies focus on non-financial trigger events such as compliance or breach of duty issues. We find only four companies (Adidas AG, 2020; Deutsche Lufthansa AG, 2020; Henkel AG & Co. KGaA, 2020; Linde plc, 2020) that have implemented a clawback provision that combines financial and non-financial trigger events and thus implemented, based on the Clawback Strength Index by Erkens et al. (2018), a strong clawback provision. Since a higher clawback strength is associated with, among other things, higher reporting quality, this can lead to higher demand of shares and thus to a higher stock price (Iskandar-Datta & Jia, 2013).

By discussing the different effects of the adoption of a clawback provision and in addition, the diversity of trigger event, in this paper we show that the design and implementation of clawbacks is not as easy as it might imply. In addition to the possibility of introducing clawback provisions, ARUG II stipulates a greater involvement of shareholders in decision-making processes on the legislation of the board member's compensation system. This involvement is also called Say-on-Pay. The shareholders now have to approve the remuneration system prepared by the supervisory board at the annual general meeting. The vote is only advisory in character but could be seen as indicator on how satisfied shareholders are with the board's compensation system (German Corporate Governance Code, 2019). A survey by hkp Deutschland GmbH and Ipreo Ltd. (2017) shows that the shareholders' acceptance of the boards compensation system of the DAX30 companies declines from 96 % in 2014 to 70 % in 2017. This may potentially provoke further conflicts in the design of compensation systems.

Generally, clawbacks are a suitable instrument to sanction intentional misbehaviour. Nonetheless, some drawbacks of the implementation of clawback provisions have to be considered. Implementing particularly strong provisions with several trigger events can have a nega-

tive influence on managers' decision-making behaviour. The supervisory board and the shareholders have to bear in mind that clawback provisions can lead to underinvestment behaviour as well as managers substitute accrual-based earnings management for real earnings management (Babenko et al., 2019; Y.-J. Chen & Deng, 2012; Levine & Smith, 2019). As a result, expenses on research and development, for example, are reduced, which may have a negative impact on the competitive position of companies in the long term. Thus, a misguided financial incentive through the implementation of a relatively strong clawback provisions shall be monitored by the supervisory board and the shareholders thoroughly.

Furthermore, data from US companies show that managers demand a premium on their fixed compensation after introducing clawback provisions to compensate for the risk of a possible clawback (deHaan et al., 2013; Kroos et al., 2018). The implementation of clawback provisions and the definition of trigger events is thus associated with an increase in personnel expenses for the company, presuming that the variable compensation does not decline.

Taken together, the supervisory board must consider very carefully how the clawback provisions should be designed. The supervisory board must decide which compensation components can be clawed back, which event triggers a clawback, and what period of time is considered. In the future, these decisions about the design of the remuneration system should more than ever take into account the interests of the shareholders.

Our analysis has some limitations and avenues for further research we want to highlight. First, we analyse the data of 2018 and 2019 financial statements. As ARUG II was legislated in late 2020, it is to be expected that the supervisory board and shareholder of companies without clawback provisions to date, may put more emphasis on the adjustment of the compensation system in the future. That assumption is supported by our finding that eleven companies state in their annual report of 2019 that they plan to revise the remuneration system following ARUG

II. Therefore, further research shall investigate newly introduced as well as changes in existing clawback provisions in the German DAX30 and MDAX companies.

Second, we derived implications on how clawback provisions and different trigger events influence managerial behaviour from US companies. To date it is unclear whether these findings also apply to German companies. With more companies introducing clawback provisions every year, a broader data base will be available in the near future which could be used to analyse the impact of reporting quality or investment behaviour before and after the introduction of clawback schemes.

APPENDIX

Link: [Consolidated clawback provisions of German DAX30 & MDAX companies of 2018](#)

Link: [Consolidated clawback provisions of German DAX30 & MDAX companies of 2019](#)

TABLE A1. 35 selected journals of the VHB JOURQUAL 3 rating, sub rating Accounting

Rating A+ (excellent and global leading scientific journals in accounting research)	
Accounting Review	Journal of Accounting and Economics
Journal of Accounting Research	
Rating A (leading scientific journals in accounting research)	
Accounting, Organizations and Society	Contemporary Accounting Research
European Accounting Review	Journal of Financial and Quantitative Analysis
Management Accounting Research	Review of Accounting Studies
Rating B (important and notable scientific journals in accounting research)	
Abacus	Accounting and Business Research
Accounting History Review	Accounting Horizons
Accounting, Auditing, & Accountability Journal	Auditing: A Journal of Practice & Theory
Behavioral Research in Accounting	Business Ethics Quarterly
Critical Perspectives on Accounting	European Journal of Finance
Information and Organization	International Journal of Accounting
International Journal of Auditing	Journal of Accounting & Organizational Change
Journal of Accounting and Public Policy	Journal of Accounting Literature
Journal of Accounting, Auditing & Finance	Journal of Business Ethics
Journal of Business Finance & Accounting	Journal of International Accounting Auditing and Taxation
Journal of International Accounting Research	Journal of Management Accounting Research
Journal of Risk	Managerial and Decision Economics
Review of Quantitative Finance and Accounting	Steuer und Wirtschaft

References

- Addy, N., Chu, X., & Yoder, T. (2014). Voluntary adoption of clawback provisions, corporate governance, and interlock effects. *Journal of Accounting & Public Policy*, 33(2), 167–189. <https://doi.org/10.1016/j.jaccpubpol.2013.12.001>
- Adidas AG (2020). Annual report 2019.
- Babenko, I., Bennett, B., Bizjak, J. M., Coles, J. L., & Sandvik, J. (2019). Clawback Provisions. *Working Paper, Ohio State University*, 1-60. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2023292
- Bakke, T.-E., Mahmudi, H., & Virani, A. (2018). The value implications of mandatory clawback provisions. *Working Paper, University of Illinois at Chicago*, 1–65. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2890578
- Bao, D., Fung, S. Y. K., & Su, L. (2018). Can shareholders be at rest after adopting clawback provisions? Evidence from stock price crash risk. *Contemporary Accounting Research*, 35(3), 1578–1615. <https://doi.org/10.1111/1911-3846.12326>
- Brink, W. D., Grenier, J. H., Pyzoha, J. S., & Reffett, A. (2019). The effects of clawbacks on auditors' propensity to propose restatements and risk assessments. *Journal of Business Ethics*, 158(2), 313–332. <https://doi.org/10.1007/s10551-018-3846-x>
- Brown, A. B., Davis-Friday, P. Y., Guler, L., & Marquardt, C. (2015). M&A decisions and US firms' voluntary adoption of clawback provisions in executive compensation contracts. *Journal of Business Finance & Accounting*, 42(1/2), 237–271. <https://doi.org/10.1111/jbfa.12111>
- Chan, L. H., Chen, K. C. W., & Chen, T.-Y. (2013). The effects of firm-initiated clawback provisions on bank loan contracting. *Journal of Financial Economics*, 110(3), 659–679. <https://doi.org/10.1016/j.jfineco.2013.08.010>
- Chan, L. H., Chen, K. C. W., Chen, T.-Y., & Yu, Y. (2012). The effects of firm-initiated clawback provisions on earnings quality and auditor behavior. *Journal of Accounting & Economics*, 54(2/3), 180–196. <https://doi.org/10.1016/j.jacceco.2012.05.001>
- Chan, L. H., Chen, K. C. W., Chen, T.-Y., & Yu, Y. (2015). Substitution between real and accruals-based earnings management after voluntary adoption of compensation clawback provisions. *Accounting Review*, 90(1), 147–174. <https://doi.org/10.2308/accr-50862>
- Chen, M. A., Owers, J. E., & Greene, D. T. (2015). The costs and benefits of clawback provisions in CEO compensation. *Review of Corporate Finance Studies*, 4(1), 108–154. <https://doi.org/10.1093/rcfs/cfu012>
- Chen, Y.-J., & Deng, M. (2012). Self-enforcing clawback provisions in executive compensation (Working paper). *Working Paper, University of California*. Retrieved from <https://cdar.berkeley.edu/sites/default/files/Chen2012-13.pdf>
- Chen, Y., & Vann, C. E. (2017). Clawback provision adoption, corporate governance, and investment decisions. *Journal of Business Finance & Accounting*, 44(9/10), 1370–1397. <https://doi.org/10.1111/jbfa.12259>
- DeHaan, E., Hodge, F., & Shevlin, T. (2013). Does voluntary adoption of a clawback provision improve financial reporting quality? *Contemporary Accounting Research*, 30(3), 1027–1062. <https://doi.org/10.1111/j.1911-3846.2012.01183.x>
- Denis, D. K. (2012). Mandatory clawback provisions, information disclosure, and the regulation of securities markets. *Journal of Accounting & Economics*, 54(2/3), 197–200. <https://doi.org/10.1016/j.jacceco.2012.07.002>
- Deutsche Lufthansa AG (2020). Annual report 2019.
- Deutsche Post AG (2020). Annual report 2019.

- Equilar Inc. (2015). Compensation & governance outlook 2016: Shareholder engagement drives changes to proxy disclosures. Retrieved from <https://higherlogicdownload.s3.amazonaws.com/GOVERNANCEPROFESSIONALS/d7a9f2a8-68f8-485a-bf18-e4939f9b4684/UploadedImages/Landing%20Page%20Documents/Equilar%20Governance%20Outlook%202016.pdf>
- Erkens, M. H. R., Gan, Y., & Yurtoglu, B. B. (2018). Not all clawbacks are the same: Consequences of strong versus weak clawback provisions. *Journal of Accounting & Economics*, 66(1), 291–317. <https://doi.org/10.1016/j.jacceco.2018.06.002>
- Fried, J. M. (2016). Rationalizing the Dodd-Frank clawback. *Working Paper, European Corporate Governance Institute*, 1–69. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2764409
- Fried, J. M., & Shilon, N. (2011). Excess-pay clawbacks. *Journal of Corporation Law*, 36(4), 721–751. Retrieved from <http://www.redi-bw.de/db/ebsco.php/search.ebsco-host.com/login.aspx?fdirect%3dtrue%26db%3dbuh%26AN%3d65156877%26site%3dehost-live>
- Fung, S. Y. K., Raman, K. K., Sun, L., & Xu, L. (2015). Insider sales and the effectiveness of clawback adoptions in mitigating fraud risk. *Journal of Accounting & Public Policy*, 34(4), 417–436. <https://doi.org/10.1016/j.jaccpubpol.2015.04.002>
- German Corporate Governance Code (2019). German Corporate Governance Code 2019. Retrieved from https://www.dcgk.de//files/dcgk/usercontent/en/download/code/191216_German_Corporate_Governance_Code.pdf
- HeidelbergCement AG (2020). Annual report 2019.
- Henkel AG & Co. KGaA (2020). Annual report 2019.
- Hkp Deutschland GmbH, & Ipreo Ltd. (2017). Say-on-Pay: Which way does the coin flip? The influence of different investor groups & proxy advisors on executive compensation decisions in public companies in Switzerland and Germany. Retrieved from https://www.hkp.com/download?url=article_pdfs%2FbY3nzhriF3k5qEf73ubPTY813FvATyRu0EOb0IrD.pdf&name=say-on-pay-which-way-does-the-coin-flip.pdf
- Huang, S., Lim, C. Y., & Ng, J. (2019). Not clawing the hand that feeds you: The case of co-opted boards and clawbacks. *European Accounting Review*, 28(1), 101–127. <https://doi.org/10.1080/09638180.2018.1446036>
- Iskandar-Datta, M., & Jia, Y. (2013). Valuation consequences of clawback provisions. *Accounting Review*, 88(1), 171–198. <https://doi.org/10.2308/accr-50262>
- Kroos, P., Schabus, M., & Verbeeten, F. (2018). Voluntary clawback adoption and the use of financial measures in CFO bonus plans. *Accounting Review*, 93(3), 213–235. <https://doi.org/10.2308/accr-51892>
- Kubick, T. R., Omer, T. C., & Wiebe, Z. (2020). The effect of voluntary clawback adoptions on corporate tax policy. *Accounting Review*, 95(1), 259–285. <https://doi.org/10.2308/accr-52484>
- Kyung, H., Lee, H., & Marquardt, C. (2019). The effect of voluntary clawback adoption on non-GAAP reporting. *Journal of Accounting & Economics*, 67(1), 175–201. <https://doi.org/10.1016/j.jacceco.2018.09.002>
- Levine, C. B., & Smith, M. J. (2019). Clawbacks and earnings management. *Journal of Management Accounting Research*, 31(3), 129–151. <https://doi.org/10.2308/jmar-52256>
- Linde plc (2020). Proxy statement 2019.
- Liu, Y., Gan, H., & Karim, K. (2020). Corporate risk-taking after adoption of compensation clawback provisions. *Review of Quantitative Finance and Accounting*, 54(2), 617–649. <https://doi.org/10.1007/s11156-019-00801-y>
- Merck KGaA (2020). Annual report 2019.
- MTU Aero Engines AG (2020). Annual report 2019.

- Müller, F., Rieber, D., & Tank, A. (2020). Legal bases and implementation of clawback clauses: A comparison between Germany and the US. *KoR – Zeitschrift Für Internationale Und Kapitalmarkt-orientierte Rechnungslegung*, 20(3), 132–137. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3473896
- Pyzoha, J. S. (2015). Why do restatements decrease in a clawback environment? An investigation into financial reporting executives' decision-making during the restatement process. *Accounting Review*, 90(6), 2515–2536. <https://doi.org/10.2308/accr-51049>
- Schneider, P. (2010). The clawback provision: What you need to know. *Journal of Financial Service Professionals*, 64(5), 24–28.
- Shop Apotheke Europe N.V. (2020). Annual report 2019.
- Uniper SE (2020). Annual report 2019.