



# A Comparative Law and Economics Analysis of the Proposed German “Model Declaratory Action”

JEL Classification: K41 K15

Keywords: model declaratory action, class action, group litigation, opt-in, opt-out

Tobias Pollmann

Supervisor: Professor Rabeea Assy

European Master in Law and Economics

I hereby declare and confirm that this thesis is entirely the result of my own work except where otherwise indicated. I acknowledge the supervision and guidance I have received from Rabeea Assy. This thesis is not used as part of any other examination and has not yet been published.

11.08.2018

Tobias Pollmann

DATE

NAME

SIGNATURE

## **Abstract**

This thesis provides an economic analysis of the newly introduced German “model declaratory action”, which seeks to combat rational apathy on the consumers’ part, deter misconduct by companies and safeguard against abusive collective action. It is hypothesized that the instrument fails to achieve these goals. An overview is presented first, pinpointing the major features of the instrument: ‘opt-in’-system, standing limited to consumer protection agencies, declaratory ruling needing individual follow-on actions. A tradition law and economics analysis of each of the three main actors (consumer, company, consumer protection agency) follows, assuming rationality on each part. It is seen that the hypothesis is only partially true: While the instrument seems to fail to mitigate rational apathy (due to the follow-on action’s costs) and the deterrence effect on misconduct by companies is negligible, the system does safeguard against abusive collective action. A behavioural law and economics analysis provides similar results, showing that the rational apathy may be somewhat mitigated due to the bounded rationality of actors. It crystallizes that the ‘opt-in’ feature is the crucial feature determining the success, both to mitigate rational apathy and provide effective deterrence. A comparative analysis using the U.S.-style ‘opt-out’ class actions reveals several advantages over the ‘opt-in’ system, e.g. fewer costs for the plaintiff to collect aggrieved consumers, more pressure on the defendant to settle and be deterred. Lastly, policy implications are drawn from the preceding analyses and subsequently discussed, including a proposal to rectify the shortcoming of the ‘opt-out’-system, i.e. its necessity to identify the claims holders after successful litigation. Finally, it is concluded that it is too soon to deem the instrument a failure, mainly due to a lack of data and the analysis showing that it can partially succeed, especially with moderate claim amounts (as e.g. in the ‘VW emissions scandal’).

# Table of Contents

<b>ABSTRACT.....</b>	<b>III</b>
<b>TABLE OF CONTENTS.....</b>	<b>IV</b>
<b>A. INTRODUCTION .....</b>	<b>1</b>
<b>B. THE GERMAN MODEL DECLARATORY ACTION (‘MUSTERFESTSTELLUNGSKLAGE’).....</b>	<b>4</b>
I. OVERVIEW AND DECLARED GOALS.....	4
II. TRADITIONAL LAW AND ECONOMICS ANALYSIS .....	9
1. <i>Consumers</i> .....	10
2. <i>Companies</i> .....	18
3. <i>Consumer Protection Associations</i> .....	24
III. BEHAVIOURAL ANALYSIS.....	28
IV. SUMMARY .....	32
<b>C. COMPARISON: ‘OPT-IN’ VS. ‘OPT-OUT’ .....</b>	<b>33</b>
I. US.....	34
1. <i>Overview</i> .....	34
2. <i>Survey of Economic Analysis</i> .....	35
II. COMPARISON GERMANY - US.....	37
<b>D. DISCUSSION AND POLICY IMPLICATIONS.....</b>	<b>40</b>
<b>E. CONCLUSION.....</b>	<b>43</b>
<b>BIBLIOGRAPHY .....</b>	<b>XLV</b>
<b>APPENDIX.....</b>	<b>L</b>
I. TRANSLATION OF THE LAW TO IMPLEMENT A CIVIL PROCEDURE MODEL DECLARATORY ACTION.....	L
II. ADDITIONAL CALCULATIONS AND TABLES.....	LIX

## A. Introduction

In an age where consumers are not buying individual goods directly from producers but rather mass-produced ones from intermediaries<sup>1</sup> through non-transparent supply-chains<sup>2</sup>, faulty products, ensuing injuries and damages are much less directly actionable. Additionally, the value of individual claims is often too small for the consumer to pursue his claim due to high litigation costs outweighing potential benefits (rational apathy<sup>3</sup>). According to *Becker*<sup>4</sup>, enforcement plays a central role in deterring wrongdoers. While *Becker*'s focus was criminal law, his notion can easily be transferred to civil law claims.<sup>5</sup> While underlying liability laws are one major factor in deterrence, the other is enforcement.

The problem of rational apathy with low-value claims and the persistent lack of information regarding claim enforcement on the consumer's part point toward an inefficiency in available procedural devices, leading to negative effects on social welfare.<sup>6</sup> One solution may be the aggregation of similar low-value claims, creating economies of scale that lower the cost for the individual claimant and are able to rectify the existing imbalance between claimants and defendants.<sup>7</sup> Commonly, this is known as collective action.

---

<sup>1</sup> Retailers, wholesalers.

<sup>2</sup> For the individual consumer, the process of how a product was manufactured is often unknown and difficult to find out.

<sup>3</sup> Weber, *The Law and Economics of Enforcing European Consumer Law: A Comparative Analysis of Package Travel and Misleading Advertising*, 1st Edition, Routledge (2016), p. 35.

<sup>4</sup> Becker, "Crime and Punishment: An Economic Approach", *Journal of Political Economy* 76, no. 2 (1968): 169–217.

<sup>5</sup> See e.g. Shavell, "Chapter 2 Liability for Accidents", *Handbook of Law and Economics* 1, 7 (2007): 139–82, p.175; where Shavell analyses different liability rules, noticing different deterrence implications.

<sup>6</sup> Porcini and Ramello, "Class Action and Financial Markets: Insights from Law and Economics", *Journal of Financial Economic Policy* 3, 2 (2011): 140–60, p.141.

<sup>7</sup> Backhaus, Cassone, and Ramello, *The Law and Economics of Class Actions in Europe*, Edward Elgar Publishing (2012), p. 4.

The most well-known type of collective action is the class action, an invention of United States common law.<sup>8</sup> However, it is not possible to simply transplant the U.S. instrument to European legal tradition. The differences in legal systems are too vast: punitive vs. compensatory damages, American vs. English cost rules, contingency-based legal fees and lastly, ‘opt-out’ vs. ‘opt-in’. While this list is not comprehensive, it is clear that the obstacles in implementing a U.S.-style class action in any European country are enormous.

Nevertheless, European countries have recognized the need for more comprehensive collective redress and some have made considerable progress.<sup>9</sup> Germany has implemented one specific collective action device aimed at capital market disputes (“exemplary proceedings in capital markets disputes” [German: Kapitalanleger-Musterverfahrensgesetz]), which is limited until 2020.<sup>10</sup> Otherwise consumers are left to pursue claims on their own. The Volkswagen emissions scandal from 2015 reinvigorated the discussion about potential benefits to consumers from collective redress.

In the closing stages of the 2017 German federal election, one legal topic became a hot-button issue when it appeared in the televised debate between the two main candidates for the chancellorship: The ‘model declaratory action’ [German: Musterfeststellungsklage, hereafter: MDA].<sup>11</sup> It is the German attempt at a consumer-focused broad collective action device. The ‘opt-in’ style collective action aimed at a declaratory judgment is the main focus of this thesis.<sup>12</sup>

---

<sup>8</sup> Backhaus, Cassone and Ramello, p. 5.

<sup>9</sup> EC Report on Implementation of *Recommendation* (2013/396/EU), COM(2018)40, 25<sup>th</sup> Jan., 2018.

<sup>10</sup> Section 28 KapMuG.

<sup>11</sup> DIE ZEIT, “Musterfeststellungsklage Müssen wir uns das merken?”, article trying to define the legal term, [German] found at <https://www.zeit.de/2017/37/musterfeststellungsklage-defintion-wahlkampf>, last accessed June 18<sup>th</sup>, 2018.

<sup>12</sup> For a full overview, see Section C.I.

The first proposal from the *Federal Ministry of Justice and Consumer Protection* from July 2017<sup>13</sup>, published for discussion purposes (the proposal was blocked in government), was not further pursued. Following the election in September 2017, the new coalition agreement stipulated that the MDA is to be drafted into law before November 2018, in order to avoid the statute barring of consumer claims stemming from the Volkswagen emissions scandal.<sup>14</sup>

In a fast-tracked legislative process parliament has now passed the law adopting the new collective action instrument.<sup>15</sup> It will take effect on November 1<sup>st</sup>, 2018. Yet, this new law is not without controversy. The first proposal received substantial criticism for its shortcomings regarding the declaratory nature of the proceedings and its ability to mitigate the rational apathy of consumers.<sup>16</sup> While the passed law incorporated some of this criticism, the question of its effectiveness remains.

Therefore, the method of this thesis is twofold: Firstly, using both traditional and behavioural law and economics (l&e), it will evaluate the effectiveness of the MDA in achieving its goals. Secondly, using the findings, a comparative analysis focused on the ‘opt-in’ approach follows, drawing on lessons learned from the U.S. experience. This thesis tests the author’s hypothesis that the MDA as a legal instrument is insufficient to meet the goals it is aimed at achieving.

The structure of the thesis is as follows: Chapter B. provides an overview of the MDA and explores its declared goals followed by an extensive traditional l&e analysis

---

<sup>13</sup> BMJV, Discussion proposal, published 31<sup>st</sup> of July, 2017, [German] found at “[https://www.bmjbv.de/SharedDocs/Gesetzgebungsverfahren/Dokumente/DiskE\\_Musterfeststellungsklage.pdf?\\_\\_blob=publicationFile&v=3](https://www.bmjbv.de/SharedDocs/Gesetzgebungsverfahren/Dokumente/DiskE_Musterfeststellungsklage.pdf?__blob=publicationFile&v=3)”, last accessed June 18<sup>th</sup>, 2018.

<sup>14</sup> SPD, CDU, CSU, Coalition Agreement, p.122, March 14<sup>th</sup>, 2018 [German] found at “[https://www.bundesregierung.de/Content/DE/\\_Anlagen/2018/03/2018-03-14-koalitionsvertrag.pdf;jsessionid=D1279193105FF120D2278667645BA859.s2t1?\\_\\_blob=publicationFile&v=5](https://www.bundesregierung.de/Content/DE/_Anlagen/2018/03/2018-03-14-koalitionsvertrag.pdf;jsessionid=D1279193105FF120D2278667645BA859.s2t1?__blob=publicationFile&v=5)”, last accessed June 18<sup>th</sup>, 2018.

<sup>15</sup> German Parliament Press Release, June 14<sup>th</sup>, 2018, [German] found at “<https://www.bundestag.de/dokumente/textarchiv/2018/kw24-de-musterfeststellungsklage/558850>”, last accessed June 18<sup>th</sup>, 2018.

<sup>16</sup> See only [German] Halfmeier, “Musterfeststellungsklage: Nicht gut, aber besser als nichts”, in *Zeitschrift für Rechtspolitik*, 7 (2017): 193–220.

of the main actors follows in subchapter B.II; B.III incorporates a behavioural l&e approach.

Chapter C presents a brief overview of the U.S. common class action and surveys the l&e literature regarding the ‘opt-out’ system. Subchapter C.II draws the comparison of the German ‘opt-in’ vs. U.S. ‘opt-out’ model and draws conclusions. Chapter D is dedicated to a discussion of the findings of this paper and the arising policy implications. Chapter E concludes.

The scope of the thesis is limited: It does not provide an in-depth analysis of the U.S. class action system – this has been extensively done elsewhere. The focus lies on the German approach and its comparative advantages and disadvantages and the arising implications.

## **B. The German Model Declaratory Action (‘Musterfeststellungsklage’)**

### **I. Overview and declared goals**

The original legislative proposal by the federal government noted the problem of rational apathy<sup>17</sup>: smaller claims remain unpursued due to the low benefit and high costs of judicial enforcement while extrajudicial attempts fail.<sup>18</sup> The unjust enrichment thus remains with the injuring entity, creating a “competitive advantage over the lawful supplier”<sup>19</sup>. While these are two separate issues (One aiming at increasing individual consumer rights enforcement, the other at deterring companies from unlawful market practices), they are interlinked. This imbalance exists due to two main factors:

---

<sup>17</sup> See fn. 3.

<sup>18</sup> German Federal Government, Draft for a law to implement a civil procedure model declaratory action, p.1, [German] found at: „[https://www.bmju.de/SharedDocs/Gesetzgebungsverfahren/Dokumente/RegE\\_Musterfeststellungsklage.pdf](https://www.bmju.de/SharedDocs/Gesetzgebungsverfahren/Dokumente/RegE_Musterfeststellungsklage.pdf)”, last accessed July 4<sup>th</sup>, 2018.

<sup>19</sup> id, p.13 [German: „der hierdurch einen Wettbewerbsvorteil gegenüber rechtstreuen Anbietern erzielt.“].



Firstly, German civil procedure employs a loser-pays system. Legal counsel may only be needed in front of regional and higher courts<sup>20</sup>, yet, if the litigation value exceeds EUR 5000,-, the court of first instance is the regional court, not the local court.<sup>21</sup> Even without the legal representation, the individual consumer is faced with uncertainty regarding the outcome: the loser-pays-system may be limited to necessary expenses and fees<sup>22</sup> (i.e. remuneration agreements between the attorney and client that go beyond the minimum legal fees for attorney's services are excluded from reimbursement), yet, attorney's fees are reimbursed even if the party had the ability to represent itself in first instance. Court fees also apply. Even legal professionals have trouble exactly predetermining costs for any given trial due to the uncertain litigation values providing the basis for fee calculation. The risk for a consumer subsequently often outweighs the potential benefit if the amount claimed is small.<sup>23</sup>

Secondly, the length of trials adds to the uncertainty and the existing rational apathy for the individual consumer. This is due to the three-tiered legal system. An individual consumer may have to fight his way through three instances: first instance (where she may be able to represent herself), appeal (where legal representation is always necessary) and finally even an appeal on points of law, with the average length of first instance local court trials being approx. 5 months<sup>24</sup> and second instance 19 months<sup>25</sup>.

The MDA seeks to rectify this imbalance. It follows the European Union *Recommendation 2013/396/EU* from June 11<sup>th</sup>, 2013, which is setting out common principles regarding collective redress mechanisms in the Member States. This

---

<sup>20</sup> Section 78 I Code of Civil Procedure – hereafter “ZPO” (English translation available here: “[https://www.gesetze-im-internet.de/englisch\\_zpo/englisch\\_zpo.html](https://www.gesetze-im-internet.de/englisch_zpo/englisch_zpo.html)”, last accessed July 20<sup>th</sup>, 2018).

<sup>21</sup> Section 23 Nr.1 Courts Constitution Act (English translation available here: “[https://www.gesetze-im-internet.de/englisch\\_gvg/englisch\\_gvg.html](https://www.gesetze-im-internet.de/englisch_gvg/englisch_gvg.html)”, last accessed July 20<sup>th</sup>, 2018).

<sup>22</sup> Section 91 paragraph 1 ZPO.

<sup>23</sup> A formal analysis will follow in Section C.II.1.

<sup>24</sup> German Federal Statistical Office, “Rechtspflege” *Special series 10, Nr.2.1*, p.26, table 2.2, 2018.

<sup>25</sup> *id.* p.76, table 6.2.

recommendation was made to safeguard against the shortcomings<sup>26</sup> of the U.S. style class actions. Most relevant to the MDA, the *Recommendation* sets out that Member States should implement collective action devices with (1) representative entities designated in advance, required to disclose their funding<sup>27</sup>, (2) a loser-pays-principle<sup>28</sup>, (3) 'opt-in' principle<sup>29</sup>, (4) encouraging out-of-court settlement<sup>30</sup>, (5) disincentives in the fee-calculation for attorneys' to deter non-meritorious suits (i.e. no contingency fees)<sup>31</sup> and finally, (6) prohibit punitive damages<sup>32</sup>.

The following overview shows the German law to follow these points closely.

Figure 1 displays the process of the MDA.

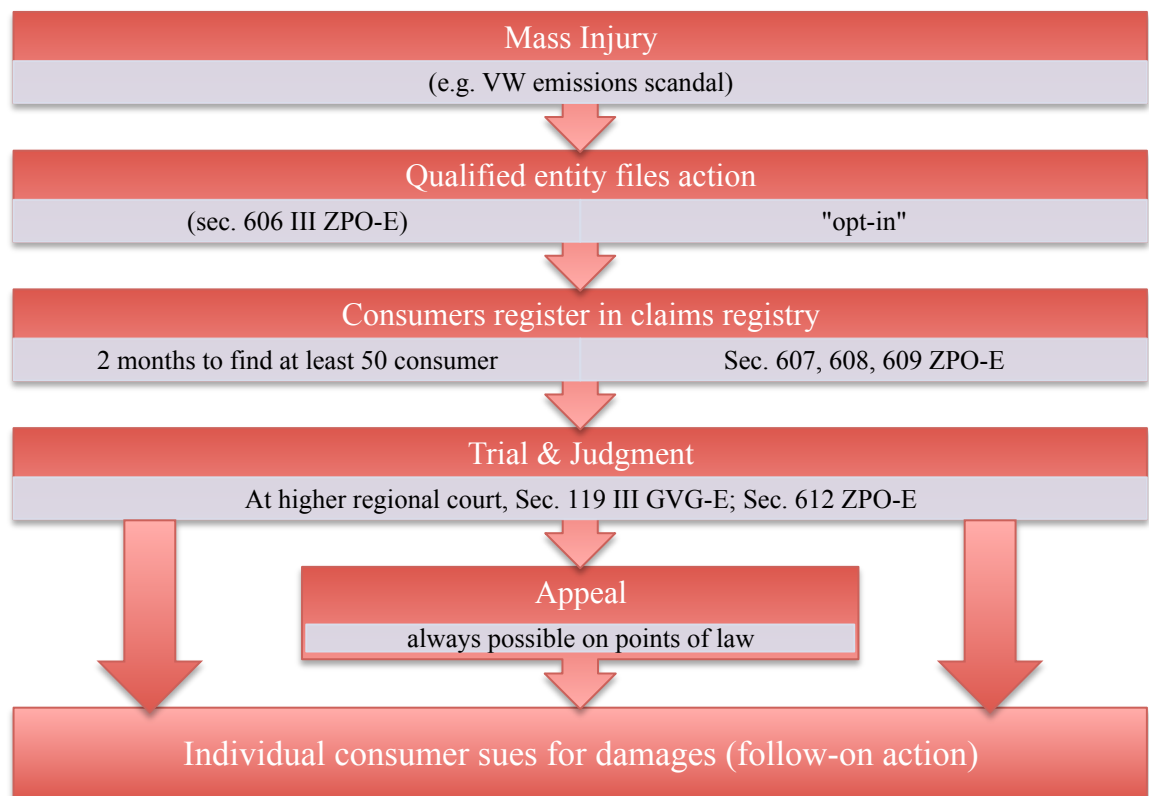


Figure 1

<sup>26</sup> Some of the shortcomings of the U.S. System can be found here: Scherer, "Class actions in the U.S. experience: an economist's perception" in *The Law and Economics of Class Actions in Europe: Lessons from America*, Backhaus, Cassone and Ramello (eds), 1st Edt., Edward Elgar Publishing (2012): p.28.

<sup>27</sup> EC, *Recommendation* 2013/396/EU, III.4, 6 and 14.

<sup>28</sup> id., III.13.

<sup>29</sup> id., V.21.

<sup>30</sup> id., V.25.

<sup>31</sup> id., V.29, 30.

<sup>32</sup> id., V.31.

After a mass injury<sup>33</sup>, be it through a (allegedly intentionally) faulty product (e.g. VW emissions scandal) or abusive prices by energy companies, the new law permits “qualified entities” (hereafter: consumer protection associations or CPA) to file the action if they can credibly show the dependency of ten consumers’ legal relationships or claims on the declaratory goals (Section 606 III Nr. 2 ZPO-E, i.e. the proposed alterations to the Code of Civil Procedure, denoted by ‘ZPO-E’)<sup>34</sup>. This is not limited to one type of civil claim (e.g. tort or contractual) as long as the parties are a consumer and an entrepreneur (Section 606 I ZPO-E). According to Section 606 I ZPO-E, a CPA must have at least either ten member-associations active in the same remit or 350 natural persons as members, and it must have been registered for at least 4 years.<sup>35</sup> The CPA may not file MDAs for profit, it has to protect consumers’ interests in fulfilment of its statutory responsibilities without substantial commercial advisory and informative activities and it cannot have more than 5 % of its income contributed by companies. However, these requirements are irrefutably assumed to be fulfilled if public funding predominantly supports the CPA. Mostly, the 17 German state-funded consumer protection associations are meant here.<sup>36</sup> If serious concerns exist regarding these requirements, Section 606 I 3 ZPO-E allows the court to require disclosure of funding. Germany’s procedural law already prescribes a loser-pays-principle for standard civil law procedures; contingency fees for attorneys are prohibited.<sup>37</sup>

Once the CPA has filed a claim, this is published in the claims registry. This registry is established (e.g. electronically) and operated by the Federal Office of Justice

---

<sup>33</sup> Injury is understood not to be limited to bodily harm, but rather any unlawful conduct harmful to a consumer’s utility.

<sup>34</sup> See **Appendix A** for a complete translation by the author of this paper of the law implementing the model declaratory action.

<sup>35</sup> Registration either according to Injunctions Act or Article 4 of EU Directive 2009/22/EC.

<sup>36</sup> Verbraucherzentrale Bundesverband e.V., Jahresbericht 2016/17, p. 89; [German] available here:

“[https://www.vzbv.de/sites/default/files/jahresbericht\\_vzbv\\_2016\\_17\\_gesamt\\_0.pdf](https://www.vzbv.de/sites/default/files/jahresbericht_vzbv_2016_17_gesamt_0.pdf)”, last accessed July 25<sup>th</sup>, 2018.

<sup>37</sup> Section 49b Federal Lawyers Act.

(sec. 609 I ZPO-E). Public announcements published in the claims registry can be viewed by anyone free of charge.

The CPA has two months following the filing of the action to find at least 40 additional affected consumers willing to register their claim or legal relationship to be determined as part of the MDA ('opt-in' principle). The claim or legal relationship has to be dependent on the declaratory goals; entries can be made until the end of the last day before the first court hearing. (Sec. 608 I ZPO-E)

Standing is given exclusively to the CPA, consumers do not become part of the suit, yet the final judgment regarding the MDA has an *inter partes* effect and thus binds the court adjudicating in the follow-on action.

The dispute arising out of the MDA is tried in front of a states' higher regional court (OLG). In case of multiple MDAs filed on the same day concerning the same life circumstances, they will be tried as joinder procedure (Section 610 II ZPO-E and Section 149 ZPO). Section 614 ZPO-E permits an appeal on points of law as the legal matter is "always of fundamental legal significance" as is required by current appeals law. If filed, the dispute moves to the Federal Court (BGH). Its decision is final. Any decision concerning the MDA is limited to declaring the "factual and legal prerequisites for the existence or non-existence of claims or legal relationships between consumers and an entrepreneur" (Sec. 606 I ZPO-E).

After a final decision has been rendered, any registered consumer has to sue the defendant in a follow-on action for damages payment. As mentioned, the deciding court in this dispute is bound by the decision in the model declaratory process (Section 613 ZPO-E). The court judging the follow-on action must thus decide firstly, whether the individual claim is encapsulated by the declaratory goals, i.e. subject to the same life-circumstances, and secondly, the value of the claim. This follow-on proceeding can either be a simple payment order process (this would require the plaintiff to be certain

of the exact value of the claim – something which may be doubtful) or a standard suit for damages payment. It should be noted that the follow-on proceeding is open to the full court system and is thus subject to appeal as long as the amount in dispute exceeds EUR 600.00 or the court of first instance grants leave to appeal.<sup>38</sup> The appellate court can grant leave to appeal on points of law<sup>39</sup>.

Assuming the MDA has to be decided by the *BGH* because of an appeal on points of law and the follow-on procedure is subject to a single appeal as well, a final payment of damages for the consumer could come approximately 2-4 years after the initial filing of the MDA.<sup>40</sup> While the law prescribes specific settlement conditions in Section 611 ZPO-E, the settlement is subject to court approval (Section 611 III ZPO-E). The decision still lies with the consumer, who has one month to withdraw from the settlement. No more than 30 % can withdraw for the court to declare the settlement valid. It is not possible to have a court settlement before the first hearing. This does not exclude the possibility of out-of-court settlement.

Thus, the proposal follows the *Recommendation*. The goals of the MDA can be summed up: (1) Mitigate rational apathy, (2) deter unlawful suppliers and (3) safeguard against abusive collective action.

## **II. Traditional Law and Economics Analysis**

A traditional law and economics analysis rests upon the economic assumption of individual rationality<sup>41</sup>, i.e. individuals act in their best interest to maximize welfare, with two main axioms underlying: completeness axiom (all choices are known to the actor, not limited by cognitive ability) and transitivity axiom (if A is preferred over B

---

<sup>38</sup> Section 511 II Code of Civil Procedure.

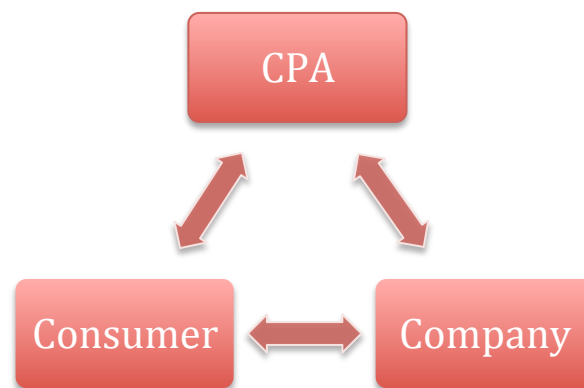
<sup>39</sup> Section 549 Code of Civil Procedure.

<sup>40</sup> See fn.24 regarding average procedural durations. Of course, no data is available for the MDA, it is an approximation based on the available data.

<sup>41</sup> Blume and Easley, "Rationality BT - The New Palgrave Dictionary of Economics", Palgrave Macmillan UK (2016): 1–13, p.2.

and B is preferred over C, then A is also preferred over C) with (subjectively) *known probability distributions*.<sup>42</sup>

For the MDA, three actors can be identified: the injured consumer seeking compensation, the defendant entity (hereafter company) and the CPA. Each of these actors is subject to a different set of incentives and costs. Subsequently, for each actor two relationships exist. Figure 2 shows this.



**Figure 2**

Each actor will be analysed individually. After having identified the goals of the MDA in the last section, this analysis seeks to assess whether these goals are fulfilled.

## **1. Consumers**

As mentioned, the consumer's responsibility in the process of the MDA is limited to the registration within the aforementioned two-month timeframe (Sec. 608 III ZPO-E) and potentially approving or disapproving of a settlement offer. It is assumed that consumers are rational, risk-neutral actors as given in the *subjective expected utility* theory.<sup>43</sup> The decision to register would then depend on the probability (of success for the consumer)  $p$  multiplied with the expected utility  $W$  being greater or equal to the

---

<sup>42</sup> These axioms are subject to criticisms - see id. However, for the purposes of this paper and the traditional law and economics analysis, rationality will be assumed as under the subjective expected utility theory.

<sup>43</sup> Blume and Easley, p.3.

expected costs  $C$ .  $W$  is equal to damages  $d$ .  $C$  is a function of attorney's costs  $ac$  and court fees  $cc$ . Personal costs are  $pc$ . This can be formalized:

$$p * W \geq ((1 - p) * C) + pc$$

**Equation 1**

The Consumer is only subject to very low personal costs (time and effort) when registering, making the registration itself almost costless, as the registry is going to be kept electronically and registration is expected to be possible in the same manner; hence, the assumption can be made that a rational consumer will register her claim.

Assuming the rational consumer's ability to exactly calculate the litigation value, she is also able to assess the costs of pursuit after the MDA. These are enumerated in the *Law on Remuneration of Attorneys* and the *Law on Court Costs* and calculated based on the litigation value. Testing *Equation 1* with a basic litigation value of EUR 1,000.00 results in the following expected costs<sup>44</sup> for first instance in the follow-on action (assuming zero out-of-court attorney's fees)<sup>45</sup>:

Attorney costs $ac$ (total $ac$ for both plaintiff and defendant)	EUR 523.60-
Court costs $cc$ (total)	EUR 159.00-
Total costs dependant on litigation value	EUR 682.60-
Personal costs $pc$ (assumed at EUR 20.00/hr)	EUR 200.00-

**Table 1**

The personal expenses are assumed to be EUR 20.00 per hour with the amount of time spent on an individual action with legal representation in first instance

<sup>44</sup> Cost calculation is based on the online calculator provided by Deutscher Anwaltverein (German attorney's association), [German] available at "<https://anwaltverein.de/de/service/prozesskostenrechner>", last accessed 22<sup>nd</sup> July, 2018.

<sup>45</sup> For simplicity, out-of-court activity is disregarded in this analysis.

(realistically) estimated to be 10 hours. If the success were certain (i.e.  $p=1$ ), the following results:

$$1,000 \geq 200$$

**Equation 2**

However, *Equation 1* is too simple. The MDA declares the factual and legal prerequisites for a claim or legal relationship. Thus, the probability of the follow-on action rises with success in the MDA. As such, the rational consumer gains utility due to the increased probability in succeeding with the follow-on action and the reduced costs of litigation in that action. The rational consumer is able to foresee this choice and take it into account. For the purpose of this paper, we will thus denote the success in the MDA for the consumer by ‘sense of justice’  $j$  and it will equal the expected damages  $d/2$ , as the model declaratory ruling is a prerequisite for the individual pursuit of a claim and would be perceived by any actor as a first step towards full utility. For simplicity, the probabilities of the MDA and the follow-on action (denoted by  $p_{mda}$  and  $p_i$  respectively) are independent of each other. Instead, the payoff  $j$  is given as a substitute to increase overall payoff. This increase is realistic as success in the MDA substantially increases the probability (and thus the expected value) of success in the follow-on action. Thus, the decision to register actually depends on the probability of success in both the MDA *and* the individual suit being equal or greater than the expected cost. Formalized:

$$(p_{mda} * j) + (p_i * d) \geq ((1 - p_i) * C) + pc$$

**Equation 3**

Assuming a 50 % probability for the MDA and a 50 % probability for the individual action, the following results:

$$\left(0.5 * \left(\frac{1,000}{2}\right)\right) + (0.5 * 1,000) \geq (0.5 * 682.60) + 200$$



$$750 \geq 541.30$$

**Equation 4**

Thus, the condition holds true. The expected value is larger than the expected cost. Yet, this is only true for a first instance individual success that is not subject to an appeal. For the appeals' instance, an additional (realistic) 5 hours of personal time are assumed. When adding an appeals' stage (in assuming the lengthiest outcome possible), the cost structure changes:

Attorney costs <i>ac</i> (total <i>ac</i> for both plaintiff and defendant)	EUR 1.104,32-
Court costs <i>cc</i> (total)	EUR 371,00-
Total dependant costs	EUR 1.475,32-
Personal costs <i>pc</i> (assumed at EUR 20,00/hr)	EUR 300,00-

**Table 2**

The resulting equation, again assuming a 50 % success chance in MDA and the individual action, shows the condition not to hold anymore:

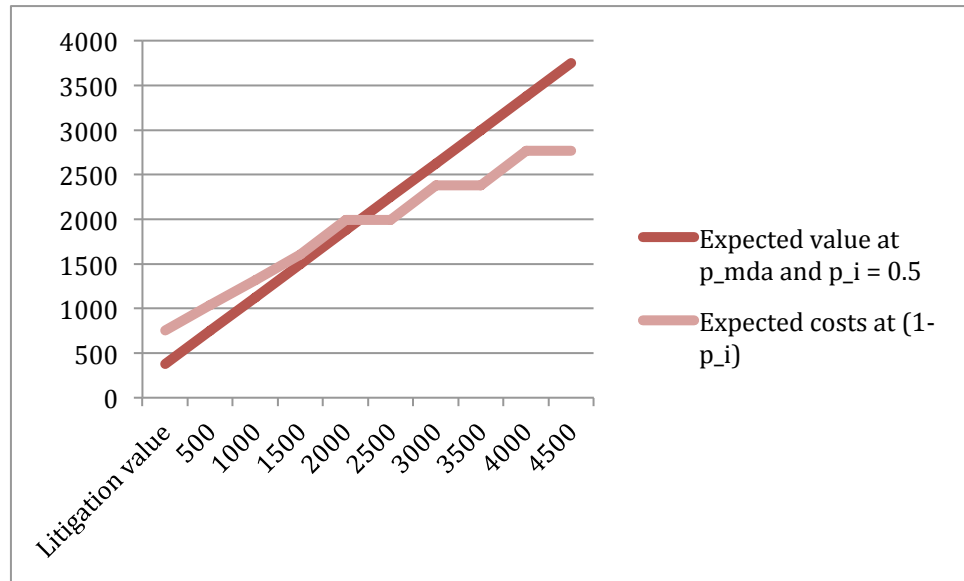
$$\left(0.5 * \frac{1,000}{2}\right) + (0.5 * 1,000) \not\geq (0.5 * 1,475.32) + 300$$

$$750 \not\geq 1.037,66$$

**Equation 5**

Thus, adding an appeal stage makes the registration unviable for a rational consumer with a litigation value of EUR 1,000.00. Assuming an appeal on points of law (third instance) makes it even less viable. Note that while the equations omit the dependability of each probability on the preceding one, this does not substantially change the result: In fact, when the probabilities depend on each preceding one, the expected value of success increases significantly – additional payoff *j* captures this.

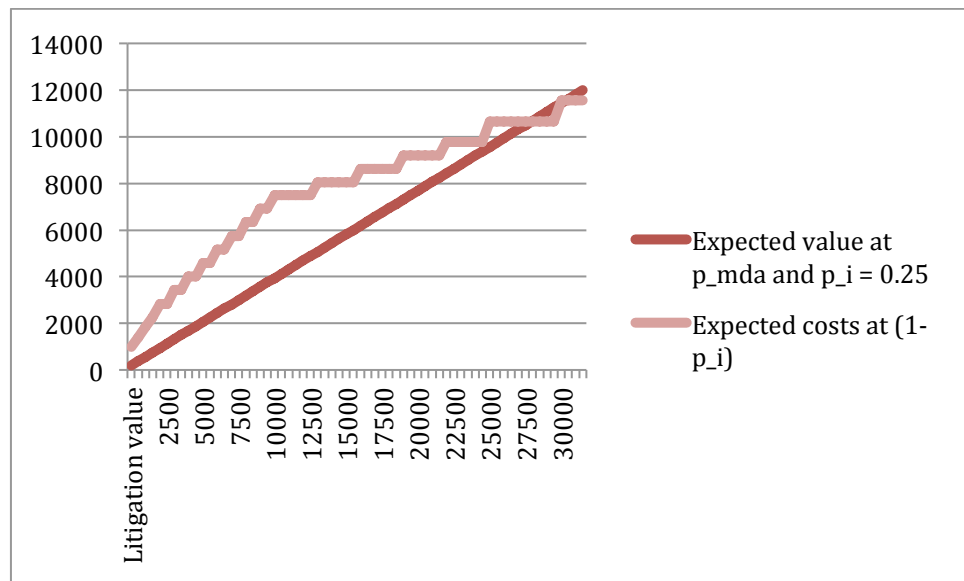
*Figure 3* shows the progression of expected costs and benefits for different litigation values.



**Figure 3**

*Figure 3* shows that the break-even point for where the MDA plus two-instance individual follow-on action becomes viable for a rational consumer is approx. EUR 2.670,00. This is only true for a 50% probability success value,<sup>46</sup> and is due to the nature of the fee calculation being based on the litigation value. *Figure 4* shows that the break even point for viability is significantly delayed at a lower probability value of 25%.

<sup>46</sup> Table showing results for  $p_{mda}$  and  $p_i = .25$  and  $.75$  in the Appendix.



**Figure 4**

The results show that the viability depends on the certainty of the outcome. Only if the expected value of the action exceeds the expected costs does the rational consumer proceed. This analysis shows the condition only holds true under certain circumstances, most importantly the probability of success and a sufficiently high litigation value. For example the emissions scandal cases that value may be sufficiently high due to the nature of the suits: most possible suits stemming from the emissions scandal that are not statute-barred seek to return the car and refund the purchase price (minus the value of use).<sup>47</sup> Here, the litigation value is approximately equal to the purchase price and therefore may even be sufficient in cases where the probability value is set at 25%. In such cases, the MDA would be of use to the rational consumer as it may lower the duration of the individual proceeding, since the factual and legal prerequisite for the claim or legal relationship has already been decided. The importance of this point should be noted: Success in the MDA may increase the probability of success in the follow-on action – but more importantly could reduce the costs significantly. As the current remuneration law stipulates blanket sums for certain

<sup>47</sup> A comprehensive list of suits filed relating to the emissions scandal is compiled by the German Automobile Association ADAC, [German] found here: “<https://www.adac.de/-/media/pdf/rechtsberatung/vw-abgasskandal-adac-rechtssprechungsuebersicht-ea-motoren.pdf>”, last accessed July 23<sup>rd</sup>, 2017.

actions, this would have to be changed to accommodate the decreased workload for the follow-on action.

However, the MDA seeks to mitigate rational apathy overall and not just for parties aggrieved by the emissions scandal. In fact, in cases in front of local courts in first instance in Germany the mean litigation value in 2017 (without cases involving rental disputes) was EUR 1,431.00.<sup>48</sup> In front of regional courts in first instance, that value jumps to EUR 15,712.00<sup>49</sup>. Clearly, the probability value has to be sufficiently high for the rational consumer to register in a MDA. While of course not all cases that go in front of local or regional courts are suited for collective action, the numbers are indicative of the new law not being able to completely mitigate rational apathy.

The foregoing analysis provided above is simplified. It is not an exact mathematical recreation of the thought process of a rational individual. For instance, the probability value of success for the individual action would in reality increase with success in the MDA, since the decision on factual and legal prerequisites for the claim or legal relationship is binding to the court dealing with the individual action. The court only needs to clarify the factual circumstances in the individual case and apply whether the substance of the declaratory ruling is met. Yet, low litigation values would still be an issue, even with higher probabilities in the individual action.

Assessing at the relationships the consumer has within the MDA (recall *Figure 2*), the most problematic is the pursuit of the MDA by the consumer protection associations (CPAs). As the consumer does not deal directly with the defendant during the MDA, she has to fully rely on the CPA to act in her best interest. The relationship between the consumer and the CPA is characterized by information asymmetry, i.e. the CPA has full information on the proceedings (e.g. witnesses called, legal arguments

---

<sup>48</sup> German Federal Statistical Office, 'Rechtspflege', *Special series 10, Nr. 2.1*, p.26, table 2.2, 2018.

<sup>49</sup> *id.*, page 56, table 5.2; which can be attributed to the EUR 5000,00 prerequisite for the regional court to be the court of first instance.

raised) while the individual consumer has little information. Thus, a principal-agent-problem is present. As *Shavell* elaborates:

“[...]one party, the principal, “enjoys” the outcome of the activity of the other party, the agent. [...] The description may seem to apply [...] to any relationship where only one of the parties directly influences the probability distribution of the outcome. [sic]”<sup>50</sup>

This is the case here: The consumer has no foreseeable way to impact the proceeding in any meaningful way. In fact, the consumer is explicitly not a part of the legal proceeding during the MDA;<sup>51</sup> she could only be called as a witness. Additionally, since the requirements in standing are stringent (see above in **B.I.**), the number of CPAs allowed to file a MDA is limited, thereby creating a small market that may not be subject to traditional remedies to the principal-agent-problem, such as reputational signalling<sup>52</sup>, i.e. having litigated a number of MDAs with greater success than others as proven by the satisfaction of the consumers or word-of-mouth about opting in when a particular CPA is litigating. Viable remedies to the difficulty of having some form of control over the CPAs conduct are not foreseen in the new law. The only transparency requirement for the proceeding is stipulated in Sec. 607 III ZPO-E:

“The court arranges for the immediate public announcement of its scheduling, notes and intermediate decisions in the claims registry, if it is *necessary* [emphasis added] in order to keep the consumers informed of the course of the proceedings. The public announcement of hearings shall occur no later than one week prior to the day of the hearing.”<sup>53</sup>

---

<sup>50</sup> Shavell, “Risk Sharing and Incentives in the Principal and Agent Relationship,” *The Bell Journal of Economics* 10, 1 (1979): 55-73, p.55.

<sup>51</sup> See fn.18, p.17.

<sup>52</sup> Schaefer, “The Bundling of Similar Interests in Litigation. The Incentives for Class Action and Legal Actions Taken by Associations,” *European Journal of Law and Economics* 9, 3 (2000): 183–213, 194.

<sup>53</sup> See Appendix.

While an argument can be made against the inefficiency of notifying potentially thousands of consumers of any change in the proceeding, the lack of remedies for the consumer to the principal-agent-problem in the law is noticeable. However, as will be discussed further in subchapter **B.I.3**, CPAs face different incentives and thus may be a reasonable choice to represent the consumers.

Thus, the rational consumer faces two problems: Potentially insufficient incentives to overcome his rational apathy and a principal-agent-problem without any viable remedy in sight.

## 2. Companies

The second goal of the MDA is to deter companies from wrongdoing. This goal is of high importance as *Porrini* and *Ramello* note:

“[...] the lack of protection of private interests can have consequences on the behavior of agents, which in turn affects dynamic efficiency and leads to suboptimal outcomes. In particular, this lack of protection determines a suboptimal level of deterrence for harmful behavior that may in turn affect social losses [sic].”<sup>54</sup>

It follows that in order to maintain an efficient state of social welfare<sup>55</sup>, private interests have to be protected better. Whether the MDA is able to achieve better deterrence will be examined in the following analysis. Note that it is again a simplified analysis intended as a first step – thus it also does not incorporate the individual proceedings needed for full compensation. Rather, it uses the MDA’s success as certainty that individual proceedings will be successful. It also omits fixed court and attorney’s fees

---

<sup>54</sup> Porrini and Ramello, p.141.

<sup>55</sup> Meant here in the sense of a Kaldor-Hicks social welfare standard (developed by Nicholas Kaldor and John Hicks). They postulated an improvement in aggregate social welfare (i.e. aggregate individual utility) to be when one member of society gains and another loses, but the gain outweighs the loss so far that the ‘winner’ could *theoretically* compensate the ‘loser’, see Kaldor, “Welfare Propositions of Economics and Interpersonal Comparisons of Utility,” *The Economic Journal* 49, 195 (1939): 549–52; Hicks, “The Foundations of Welfare Economics,” *The Economic Journal* 49, 196 (1939): 696–712.

due to the uncertainty over the value for the MDA – the individual consumer analysis incorporated them only insofar as was needed for the individual actions, not the MDA.

Again, assume rationality on the part of the company as an actor. Two main factors determine a company's decision to take a (potentially) liable action, e.g. manufacture a product without the most efficient care or, in the emissions case scandal, (allegedly) intentionally manufacture a faulty product: firstly, the utility derived from the action (e.g. costs saved in development, extra revenue incurred by selling above actual worth) and secondly, the probability of detection ( $p_d$ ) and enforcement ( $p_{mda}$ ) multiplied by the damages  $d$ , which are equal to the litigation value. As long as the former is larger or equal to the latter, the company will choose to take a liable action. Additionally, assume the reputational loss  $X$  to be dependent on the probability of enforcement and detection and, for simplicity, on the number of cases multiplied by  $d/2$ .

Utility is  $W$  and is equal to the litigation value multiplied by cases  $y$ . The reason behind this connection is simple: the benefit depends on the amount of cases. An injury to just one consumer does not provide a large enough benefit – in fact, the costs of altering one unit are higher than the costs of altering many units.<sup>56</sup> Damages will be denoted by  $D$ . Note that  $D$  depends on the probability of success in the MDA  $p_{mda}$  and detection  $p_d$ , the amount  $d$  and the number of cases  $y$ . The reason for the reputational damage is that any successful MDA will most likely be widely publicized and significantly hurt the public reputation of the company. As this damage is extremely difficult to measure, this simplified measure has been chosen for the purposes of the analysis. This can be formalized as:

$$W \geq D + X$$

**Equation 6**

---

<sup>56</sup> This is due to the economics of scale, i.e. lower average cost for many units produced than for one unit produced. See Pindyck and Rubinfeld, *Microeconomics*, Eighth Edition, Pearson (2013), p.255.

$$W = d * y$$

**Equation 7**

$$D = (p_{mda} * p_d * (d * y))$$

**Equation 8**

$$X = p_{mda} * y * \left(\frac{d}{2}\right)$$

**Equation 9**

Recall the simple test case from above with a relatively low individual litigation value of EUR 1,000.00. Assume a probability on all parts of 50% and 100 cases. *Table 3* shows the results:

$W$	$D$	$X$	$p_d=0.5$	$p_{mda}=0.5$	$y$	$d$
100,000	25,000	25,000	0.5	0.5	100	1,000

**Table 3**

With a probability value of 50% for both detection and success of the MDA, the deterrence effect is negligible. Even with the expected reputational damage, the overall expected negative consequences are *half* the expected benefit (100,000  $\geq$  50,000). A rational actor would not be deterred from the liable act but rather proceed under these circumstances. What becomes immediately clear is that the probability values are the decisive factors here. Only with sufficiently high probability of both detection and success of the MDA does a deterrence effect take hold.

*Figures 5, 6 and 7* show the progression of the overall expected negative consequences ( $D+X$ ) plotted against the expected ( $W$ ) for different probabilities.<sup>57</sup>

<sup>57</sup> The corresponding table of values can be found in Appendix A.



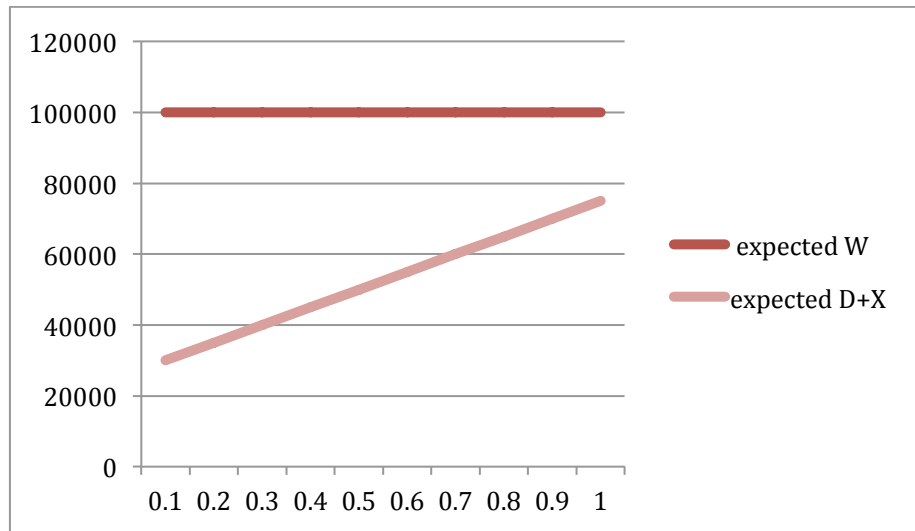


Figure 5;  $p_d$  from 0.1 to 1,  $p_{mda} = 0.5$

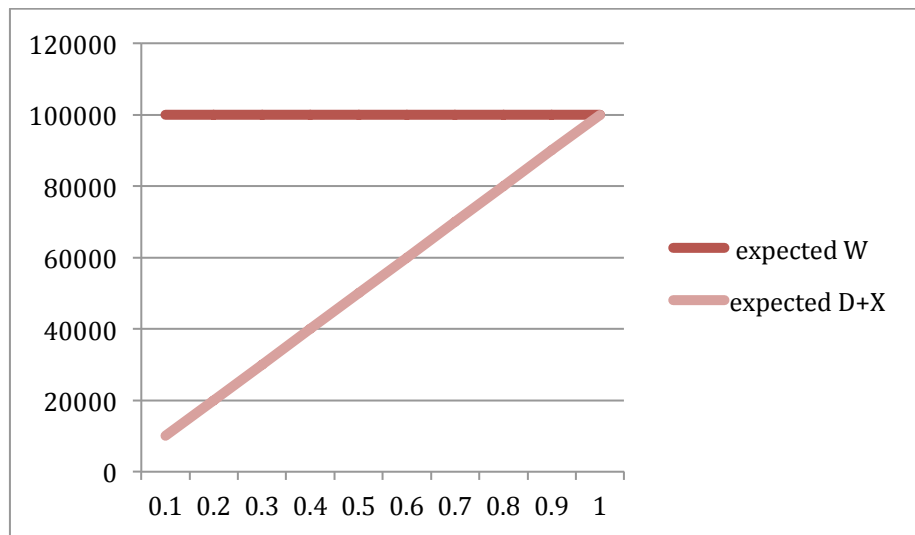


Figure 6;  $p_d = 0.5$ ,  $p_{mda}$  from 0.1 to 1

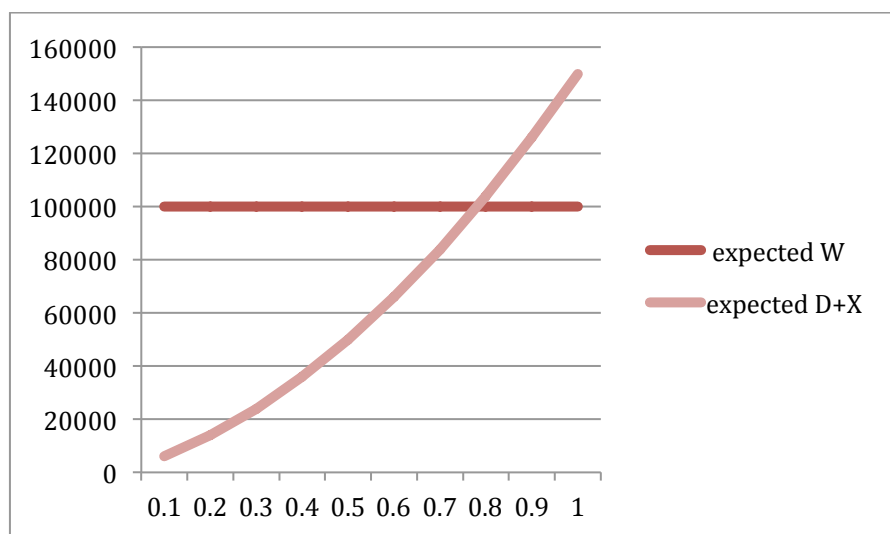


Figure 7;  $p_d$  and  $p_{mda}$  from 0.1 to 1

The figures show that while the probability of the MDA has more influence, it would have to be at 100% with the probability of detection at above 50% for a deterrence effect to exist (*Figure 6*). However, the costs of increasing the probabilities to these levels would not merit the benefit. The law of diminishing marginal returns also applies to increasing the probabilities, i.e. per Euro spent on improving the probability of detection the increase in the probability will diminish with each further Euro. A hypothetical example: Where EUR 50.00 spent on improving the probability of detection will let it rise from 0 to 5%, the next EUR 50.00 will only let it rise from 5 to 9% and so on due to the diminishing effect of each Euro spent. Thus, reaching 100% probability of detection requires an uneconomic amount if it is even possible. The same holds true for the probability of success in the MDA. It would not be socially efficient or desirable. However, reaching some deterrence effect would be socially desirable as the current state is also inefficient. The above analysis thus shows a major shortcoming of the new law: the second goal is apparently not fulfilled.

There are several potential reasons for this: Firstly, the model itself is flawed due to its simplicity. While I have taken care to account for the main factors contributing to the overall expected negative consequences as well as the benefits, several things need consideration for a more comprehensive model: In the scope of this paper, the value of the reputational damage is impossible to measure due to e.g. incontestable market-share<sup>58</sup> and brand loyalty. Additionally, both the probability of detection and success of the MDA are impossible to predict without data (and non-detection is impossible to measure as it is not public information). As the law has only been passed but not yet implemented, such data does not exist. As mentioned above, certainty is almost unattainable, thereby significantly reducing the indicative value of a

---

<sup>58</sup> According to the theory of contestable markets, a certain part of the market is generally contestable – conversely, there is an incontestable part, i.e. one that a company will hold regardless of what happens. See e.g. Baumol, “Contestable Markets: An Uprising in the Theory of Industry Structure,” *The American Economic Review* 72, 1 (1982): 1–15, p.3.

thought-experiment with 100% probability values, albeit *Figure 7* shows for a deterrence effect to exist at about 80% probability values. Even if it were a more sophisticated model, there is no guarantee that the judge in the individual proceeding (which was intentionally left out of this model) would allot perfect compensation, i.e. the full damage amount.

Secondly, the law governing damages in Germany poses a major complication to the deterrence effect. German law, regardless of whether it is tort law or contract law, only compensates the individual for damages actually incurred (with rare exceptions in cases of immaterial damage): The consumer must only be “restore[d to] the position that would exist if the circumstance obliging [the injurer] to pay damages had not occurred”<sup>59</sup> (also known as differential hypothesis). According to the above model, the only reason the expected negative consequences may exceed the expected benefits is the reputational damage. If the reputational damages were inexistent, the expected negative consequences could at most equal the expected benefit. With a risk-neutral actor, there would then still not be deterrence as the condition for the injuring activity is for the expected benefit to be ‘greater or *equal*’ to the expected cost. Thus, for deterrence, the MDA has to fully rely on the reputational damages to accrue to a critical level. This reliance on ‘social’ damages may be desirable when trying to avoid implementing punitive damages due to their very own complicated nature<sup>60</sup> but it does diminish the potential of achieving the second goal. Potential solutions will be discussed more in the chapter C.

---

<sup>59</sup> See only Section 249 I German Civil Code, English available at: „[https://www.gesetze-im-internet.de/englisch\\_bgb/englisch\\_bgb.html](https://www.gesetze-im-internet.de/englisch_bgb/englisch_bgb.html)“, last accessed July 24<sup>th</sup>, 2018. There are limited exceptions to this statute where immaterial injuries are concerned – the general rule however limits damages to reinstating the victim.

<sup>60</sup> Morris, “Punitive Damages in Tort Cases,” *Harvard Law Review* 44, 8 (1931): 1173–1209, p.1176.

### 3. Consumer Protection Associations

The third goal of the new law is to safeguard against abuse. The CPA is the actor responsible for filing the MDA. As such, the law imposes stringent restrictions on the standing of the CPA as plaintiff. However, the standing limitations merit some deeper consideration before turning to the formal economic analysis. CPAs have to be registered in the “qualified entities list” kept by the Federal Office of Justice according to Section 4 UKlaG<sup>61</sup>. The list currently contains 78 qualified entities, most (approx. 55) of which either belong to the German consumer protection association *Verbraucherzentrale Bundesverband* e.V. (publicly funded entity) which contains all 16 state associations plus the federal umbrella organization<sup>62</sup>, or they belong to the consumer protection association for tenants *Deutscher Mieterbund* e.V. which has approx. 3 million members in approx. 320 local organizations and is financed through its member fees.<sup>63</sup> One other prominent entity on this list is the *Allgemeiner Deutscher Automobil-Club* e.V. (German automobile association, one of the largest associations in the world with over 20 million members)<sup>64</sup>, also financed through its members. The majority of the list is not publicly funded and may have to declare its funding to the court (if “serious concerns exist”, see Sec. 606 I sentence 3 ZPO-E).

These limitations thus have far-reaching implications for the incentives that usually govern a plaintiff’s actions. As described in the subchapter on the rational consumer, a (potential) plaintiff wants to maximize his individual utility and thus his welfare. Therefore, a cost-benefit-analysis regarding the expected utility and costs is done and only when the expected utility outweighs the expected costs does the plaintiff

---

<sup>61</sup> Injunctions Act, no translation available.

<sup>62</sup> See fn. 36.

<sup>63</sup> Deutscher Mieterbund e.V., Press release, 8<sup>th</sup> June, 2017, [German] available at: “<https://www.mieterbund.de/presse/pressemeldung-detailansicht/article/40097-67-deutscher-mietertag-eroeffnet.html>”, last accessed July 25<sup>th</sup>, 2018.

<sup>64</sup> ADAC e.V., Geschäftsbericht 2017, [German] available at: “<https://www.adac.de/der-adac/verein/daten-fakten/geschaeftsjahr-2016-ev/>”, last accessed July 25<sup>th</sup>, 2018.

sue. This was formalized in *Equation 3*. His incentive to sue is thus the maximization of individual utility. A common point of criticism for collective actions is that any plaintiff who is asked to represent may have to carry all of the costs due to the loser-pays system and is thus not incentivized to sue.<sup>65</sup> This notion cannot simply be transferred onto the CPAs under consideration here: Firstly, their statutes limit them from substantial commercial activity (despite not being non-profit organizations). Secondly, they are legally banned from filing MDAs *for profit*. Thirdly, the loser-pays system is limited to necessary expenses and while this may entail some greater expenses than an individual action would incur, there is no profit gained. These three points would make it unviable for a CPA to ever sue if the analysis was based on direct monetary gains. The CPA's incentives to sue must lie elsewhere as they do sue on behalf of consumers, even if they do not directly gain directly.<sup>66</sup> The utility of the actor thus has to depend on indirect gains, i.e. a sense of justice and the probability that a successful suit brings more funding through more members, donations or federal funding. The formal analysis has to be adapted to incorporate this utility seeking. This can be achieved by assuming a direct value attached to these indirect gains.

Thus, assume sense of justice (as above in subchapter **B.I.1.**) is denoted by  $j$  and is equal to half the amount of aggregate damages  $L$ .  $L$  depends on the number of consumers  $y$  multiplied by individual damage  $d$ . Additionally, the expected utility  $W$  depends on the value of new members  $k$  multiplied by a probability factor  $p_k$ . Both  $j$  and  $k$  depend on the success of the MDA.  $k$  will be assumed to be ten per cent of the number of aggrieved consumers and multiplied by 50<sup>67</sup>. The expected cost is the amount of attorney's fees and court costs. As mentioned, the attorney's fees are calculated based

---

<sup>65</sup> Issacharoff and Miller, "Will Aggregate Litigation Come to Europe?," in *The Law and Economics of Class Actions in Europe: Lessons from America*, ed. Backhaus, Cassone, and Ramello, 1st Edt. (Edward Elgar Publishing, 2012), p.60.

<sup>66</sup> The German *Injunctions Act* specifically allows them to sue for an injunction for certain violations of consumer rights.

<sup>67</sup> It is assumed that a member pays about EUR 50.00 per year.

on the litigation value, which is, for simplicity, equal to  $L$ .<sup>68</sup> It is expected that the condition will hold in any situation. This can be formalized:

$$p_{mda} * (j + (p_k * k)) \geq (1 - p_{mda}) * (ac + cc)$$

**Equation 10**

$$j = \frac{L}{2}$$

**Equation 11**

$$L = y * d$$

**Equation 12**

$$k = \frac{y}{10} * 50$$

**Equation 13**

Assume a simple case with 100 consumers, each of whom has EUR 1000,00 in damages. Again, it is assumed that two instances are given as the MDA is always open to appeal on points of law. *Table 4* shows the result:

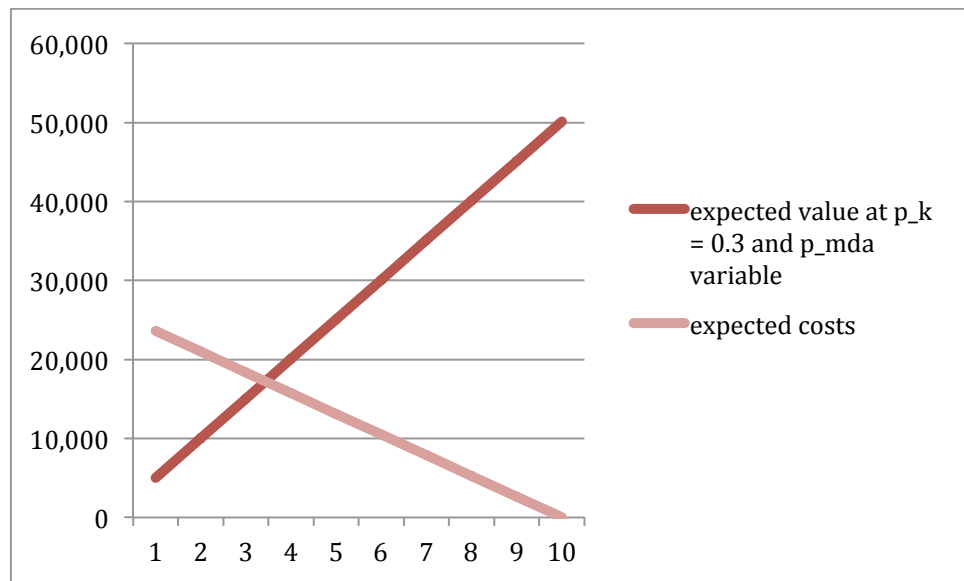
Litigation value/Aggregate damages $L$	Sense of justice $j$	Damage $d$	Number of consumers $y$	value of new members $k$	expected value at $p_{mda} = 0.5$ and $p_k = 0.3$	expected costs	ac+cc
100.000	50.000	1.000	100	500	25.075	13.118	26.236,06

**Table 4**

The *expected value* at probabilities of  $p_{mda} = 0.5$  and  $p_k = 0.3$  is much larger than the *expected costs*. *Figure 8* shows the progression of the expected value and costs in the test case with  $p_{mda}$  varying from 0.1 to 1.

---

<sup>68</sup> See fn. 44 for calculation method.



**Figure 8;**  $p_{mda}$  from 0.1 to 1<sup>69</sup>

*Figure 8* clearly shows that the CPA's expected utility surpasses the expected costs quickly at approx. 35% success chance. As the costs are dependent on the litigation value, this result will not change substantively for other litigation values, especially since the prospective MDAs are probably of higher value. The CPA will thus file the action even with a significantly low chance of succeeding.

Together with being statute-barred from seeking a profit with such an action, the CPAs seem to be an excellent choice to avoid abusive actions. Since the CPAs are subject to different incentives for filing the action (from an ethical point of view, one might call them purer motives) and they are either both funded and controlled by their own members or funded with public money and controlled by their members, the abovementioned principle-agent-problem is already mitigated without many structures that would help consumers control the CPA. Due to their inherent structure, there seems to be little risk of 'capture' by outside interests (e.g. competitors of the defendant seeking to smear the defendant's reputation paying the CPA to sue).

Thus, from a traditional law and economics analysis point of view, the third goal of the law is fulfilled. The next subchapter will incorporate some basic behavioural law

<sup>69</sup> The tabulated results are in the Appendix.

and economics. An in-depth behavioural analysis is not possible in the scope of this thesis.

### III. Behavioural Analysis

The last chapter was dedicated to a standard law and economics analysis, thus mainly based on the traditional economic definition of rationality.<sup>70</sup> While that notion of perfect rationality is much more accessible in testing a hypothesis without extensive empirical work, it is widely criticized for not being in line with actual human behaviour as observed by psychology and social science.<sup>71</sup> Instead, behavioural economists formulated a more realistic definition of rationality incorporating the cognitive limitations of the actor: bounded rationality.<sup>72</sup> Bounded rationality relaxes “one or more of the assumptions”<sup>73</sup> of traditional rationality in the sense of the *subjective expected utility* theory<sup>74</sup> as it was employed above. One of the most important realisations of the theory of bounded rationality is aptly characterized by *Jolls et.al.*:

“We have limited computational skills and seriously flawed memories.”<sup>75</sup>

To overcome these limited computational skills and flawed memories, humans employ rules of thumb – such as the ‘availability heuristic’, as described by *Tversky and Kahneman*<sup>76</sup>, used in order to make a probability judgment. Recalling the most recent available instance in which the event happened, the actor then makes the probability judgment based on that availability.<sup>77</sup>

If we take this realization and transfer it onto the consumer, it becomes clear that

---

<sup>70</sup> See fn. 41.

<sup>71</sup> See e.g. Jolls, Sunstein, and Thaler, “A Behavioral Approach to Law and Economics,” *Harvard Law School John M. Olin Center for Law, Economics and Business Discussion Paper Series*, Paper 226 (1998): 1471-1550, p.1473; Kelman, “Consumption Theory, Production Theory, and Ideology in the Coase Theorem,” *Southern California Law Review*, 52, (1979): 669-698, p.679.

<sup>72</sup> Simon, “Rationality, Bounded BT - The New Palgrave Dictionary of Economics”, Palgrave Macmillan UK (2017): 1–4, p.1.

<sup>73</sup> *id.*, p.1-2.

<sup>74</sup> See fn. 42.

<sup>75</sup> Jolls, Sunstein and Thaler, p. 1477.

<sup>76</sup> A. Tversky and D. Kahneman, “Judgment under Uncertainty: Heuristics and Biases,” *Science* 185, 4157 (1974): 1124–31, p.1127.

<sup>77</sup> *id.*, p.1124 with empirical evidence.



the consumer may not make the calculations as indicated in the traditional analysis on whether she will join the MDA, which depended on the follow-on action's costs. It is far more likely that the consumer will simply register because it's free and then misjudge the probability of success in the follow-on action due to the success of the MDA, thus leading her to file it without factual consideration as were rational in the sense of the *subjective expected utility* theory. Both in terms of deterrence goals and more effective consumer rights this may be a positive outcome.

Above, it is assumed that plaintiffs, i.e. consumers, are risk-neutral. However, as *Rachlinski* points out, the risk-preference of parties to a suit depends on the framing of their choices.<sup>78</sup> Framing means the presentation of a choice. Humans prefer the status quo (*status quo bias*)<sup>79</sup>, i.e. their preference is not to diverge from the original allocation of e.g. rights or wealth. Thus, a change from the original status quo is valued more than the quantity of the change. To illustrate: if the status quo is 100, a change of 5 % from this is perceived as more valuable than the next 5 % in change. This is due to an “asymmetry of value”<sup>80</sup>, i.e. that the negative utility from a loss is greater than the positive utility from a gain.<sup>81</sup> Due to this asymmetry, the framing of a choice is important: depending on whether the choice is framed as a loss or a gain, the actor might be risk-averse to that choice when faced with a gain or risk-seeking when faced with a loss. To illustrate: if the defendant (i.e. the company) is faced with the prospect of losing, it will become risk-seeking so as to avoid the loss (and thus the negative utility). However, the plaintiff on the other hand is risk-averse, due to the loser-pays

---

<sup>78</sup> Rachlinski, "Gains, losses, and the psychology of litigation", in *Southern California Law Review*, 70, (1996): 113-185, p.144.

<sup>79</sup> See e.g. Samuelson and Zeckhauser, "Status Quo Bias in Decision Making", *Journal of Risk and Uncertainty* 1, 1 (1988): 7-59, p.8 with empirical evidence.

<sup>80</sup> Kahneman, Knetsch, and Thaler, "Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias," *Journal of Economic Perspectives* 5, 1 (1991): 193-206, p.194.

<sup>81</sup> Kahneman and Tversky, "Choices, Values, and Frames" in *Handbook of the Fundamentals of Financial Decision Making*, World Scientific Handbook in Financial Economics Series, World Scientific (2012): 269–278, p.270.

rule even more so than in the American system of cost-splitting.<sup>82</sup> Due to this risk-averseness, the plaintiff is less likely to sue and more likely to settle for a smaller amount than the ‘gamble’ (of going to trial) is expected to yield.<sup>83</sup> For the follow-on actions, this is problematic. The success of the entire MDA rests upon the assumption that after the legal prerequisites for a claim or legal relationship have been declared, the registered consumers are more willing to sue for damages payment. The behavioural analysis now shows that the consumer may be risk-averse and would thus not want to sue due to the uncertainty of the outcome. *Shavell* suggests a solution for this:

“However, if such a party and his counsel employ a contingent fee arrangement, counsel's willingness and ability to bear risk will be relevant, since the party will not himself bear the risk of paying legal fees if he does not prevail; thus, the effect of the party's risk aversion will be diminished.”<sup>84</sup>

The problem with this solution is obvious: Germany does not allow for contingency fee arrangements. On the side of the defendant however, the willingness to fully litigate is obvious due to his risk-seeking attitude. In fact, the traditional analysis showed us that the company as a defendant is **less** likely to settle, something that the original proposal of the government was certain would happen<sup>85</sup> – this is corroborated by the behavioural analysis: the company is unlikely to settle either in the MDA or the follow-on action, the expected costs are not high enough nor does its risk-seeking behaviour imply a settlement. As *Augenhofer* noted in her statement regarding the legislative proposal, it is highly unlikely for **all** registered consumers to sue in a follow-on action with a

---

<sup>82</sup> For an analysis regarding the loser-pays system, see Rachlinski, 113 (p. 161).

<sup>83</sup> Shavell, “Suit, Settlement, and Trial: A Theoretical Analysis under Alternative Methods for the Allocation of Legal Costs,” *The Journal of Legal Studies* 11, 1 (1982): 55-81, p.61.

<sup>84</sup> *id.*, p.61, fn.24.

<sup>85</sup> Augenhofer, [German] “Stellungnahme Zum Entwurf Eines Gesetzes Zur Einführung Einer Zivilprozessualen Musterfeststellungsklage (BT- Drucksache 19/2439 Und 19/2507) Sowie Zum Entwurf Eines Gesetzes Zur Einführung von Gruppenverfahren (BT-Drucksache 19/243),” (2018), p.2; Augenhofer was called upon to give a statement regarding the proposal while it was still in the legislative process.

successful MDA<sup>86</sup>, thus minimizing the deterrence effect and giving no incentive for the company to seek a better deal with a settlement than would occur if every potential plaintiff were to sue.<sup>87</sup>

One potential solution to the problem the risk-averse consumers face is given by the *framing* theory. Recall that a choice can either be framed as a gain or a loss. If attorneys framed the choice the consumers face after a successful MDA as a gain, a positive effect (i.e. more follow-on actions) may be experienced. As the MDA is not in effect yet, no data exist regarding the percentage of follow-on actions.

There is one other important aspect that the behavioural economic analysis of law can assist with: the question of whether an ‘opt-in’ system is efficient for the MDA. While the *Commission* in its recommendation chose the ‘opt-in’ system as desirable, it did so because this is less questionable from a fundamental legal point of view.<sup>88</sup> However, the existence of the *status quo bias* calls the efficiency of the ‘opt-in’ principle into question. Recall that the *status quo bias* presents an obstacle for an actor to change from her initial position and that the framing of the decision the consumer faces has considerable impact on how she will choose. It crystallizes that the ‘default rule’<sup>89</sup> is of imperative importance. If it is set as having to opt-in to the MDA, then the consumer is less likely to expend the (even minute) effort of registering. As explained above: The initial change is perceived as more ‘expensive’ than any increase in change thereafter. There is substantial empirical evidence for this, as *Thaler* and *Sunstein*

---

<sup>86</sup> Augenhöfer, p. 2.

<sup>87</sup> There is empirical evidence by Hughes and Snyder, “Litigation and Settlement under the English and American Rules: Theory and Evidence,” *The Journal of Law and Economics* 38, 1 (1995): 244–45, that the loser-pays rule deters non-meritorious claims and thus plaintiffs that do sue have suits of a higher quality. However, the study was only conducted using medical malpractice suits, which *Rachlinski* suggests are generally of a higher quality and value (see fn. 73, p.164).

<sup>88</sup> European Commission Communication, COM/2013/0401 final, p. 11; available at: “<https://eur-lex.europa.eu/procedure/EN/202773>”, last accessed July 26<sup>th</sup>, 2018.

<sup>89</sup> Sunstein and Thaler, “Libertarian Paternalism Is Not an Oxymoron,” *The University of Chicago Law Review* 70, 4 (2003): 1159-1202, p.1160.

explain.<sup>90</sup> Additionally, European data regarding ‘opt-in’ regimes corroborates this notion: In England, ‘opt-in’ rates routinely lie below 50% of aggrieved class members<sup>91</sup>, while in an Italian case with hundreds of thousands of class members, only 3,000 opted in.<sup>92</sup> Another important aspect that comes to light with an ‘opt-in’ system is ‘free-riding’. If a passive party stands to profit of the action of another, it is incentivized to await the outcome of the action – creating a chain-reaction in which every party will wait for another to move first.<sup>93</sup> However, as the MDA’s result is only binding with registration, the incentive to free-ride is somewhat lessened. While registration is monetarily free, it does need time and effort (i.e. has opportunity costs)<sup>94</sup>. Free-riding can’t be fully excluded, as a successful MDA adjudicated by the Federal Court still gives a legal indication for a claim, even without a binding decision. An ‘opt-out’ principle may have been more desirable; the ‘opt-in’ device will put considerably more pressure on the CPA to (costly) campaign for consumers to register and may not be sufficient for a large-scale MDA at all. This question will be discussed further in the next chapter.

#### IV. Summary

Before the comparative analysis in Chapter C., a short summary of the traditional and behavioural economic analysis of this collective action device is prudent:

Recall that in chapter **B.II.1** the consumer’s incentives were analysed and found to be insufficient regarding low-value claims. Only if the claims are valued highly enough or the probabilities are sufficiently high will the cost-benefit analysis provide a

---

<sup>90</sup> id., p. 1160.

<sup>91</sup> Mulheron, "The Case for an Opt-Out Class Action for European Member States: A Legal and Empirical Analysis", in *Columbia Journal of European Law*, 15 (2009): 409–453, p.433.

<sup>92</sup> Mulheron, p.434.

<sup>93</sup> Weber, p.35.

<sup>94</sup> For a definition of opportunity costs, see Pindyck and Rubinfeld, p.230.

sufficient incentive for the consumer to sue. However, this is not fully supported by empirical findings, as explained in the behavioural analysis chapter.

The deterrent effect on the company, as described in chapter **B.II.2**, to not take further potentially litigious actions, i.e. take more care in their conduct, is negligible, both under the traditional and the behavioural analysis – in fact, it was shown that the company is less likely to settle, even after a successful MDA, due to their risk-seeking risk-preference.

Lastly, the analysis in chapter **B.II.3** showed the CPA to be an adequate representative of the consumers due to its non-monetary incentives and the stringent rules surrounding its standing. Highly problematic however, is the ‘opt-in’ choice as it means that the CPA has more expenses to incentivize consumers to register.

## **C. Comparison: ‘Opt-in’ vs. ‘Opt-out’**

The analysis thus far has been painted in broad strokes, giving a general overview of the MDA and its features, highlighting the shortcomings and benefits. One particular shortcoming is the main focus of this chapter, using a comparative analysis: ‘opt-in’ vs. ‘opt-out’. All MDAs will have to go through the critical gateway of acquiring enough consumers to move forward. Thus, the importance of the choice of regime cannot be overstated. The chapter will present the perhaps most well-known ‘opt-out’ collective action model: the U.S. class action system. After a comparison, the next Chapter will discuss what can be learned from this comparison.

## I. US

### 1. Overview

Originally intended as a civil rights protection mechanism<sup>95</sup>, the *common-question* U.S. class action is based on Rule 23(b)(3) of the *Federal Rules of Civil Procedure*<sup>96</sup>. While a comprehensive review of U.S. civil procedure is beyond the scope of this thesis<sup>97</sup>, a few differences regarding the procedural rules between Germany and the U.S. should be noted:

Firstly, the U.S. allows for seeking and awarding punitive damages (as opposed to purely compensatory damages in the German system), substantially raising the (expected) cost factor for the potential defendant. Secondly, the litigation process itself differs substantially: While Germany is governed by an inquisitorial process, i.e. the judge being much more active and leading the trial, the U.S. is governed by an adversarial process, i.e. the parties to the dispute are driving the trial. This also explains the extensive (and most important) pre-trial discovery process, during which the parties seek evidence from their adversary, which may or may not prove their case (thus colloquially known as “fishing expedition”<sup>98</sup>). Thirdly, it employs a cost rule where each party pays their own costs (‘American rule’) as opposed to the German ‘loser-pays’.

Similarly to the MDA, the U.S. class action is litigated by a representative plaintiff, albeit this is not limited to an association. However, that is where the similarities stop. It does not require a set number of aggrieved parties to partake, as it is not governed by the ‘opt-in’ system. Rather, *Rule 23(a)(1)* requires the class (i.e. the

---

<sup>95</sup> Malveaux, “The Modern Class Action Rule: Its Civil Rights Roots and Relevance Today,” *University of Kansas Law Review*, 66 (2017): 325-398, p.328; including an extensive history of the U.S. class action.

<sup>96</sup> An online resource can be found here: “<https://www.federalrulesofcivilprocedure.org/frcp/title-iv-parties/rule-23-class-actions/>”, last accessed July 27<sup>th</sup>, 2018.

<sup>97</sup> An in-depth overview can be found here: Keske, *Group Litigation in European Competition Law: A Law and Economics perspective*, Rotterdam, Erasmus School of Law, (2009): 1-321, p.227.

<sup>98</sup> Subrin, “Fishing Expeditions Allowed: The Historical Background of the 1938 Federal Discovery Rules”, in *Boston College Law Review*, 39, 3 (1998): 691–746.

potential plaintiffs) to be “so numerous that joinder of all members is impractical”. After certification by the judge of the appropriate court (*Rule 23(c)(1)*), the action moves to pre-trial discovery. Only then is it tried in court.

Three main functions of the U.S. style class action can be identified: Firstly, it provides procedural efficiency, i.e. a case with the same or similar factual and legal prerequisites that concerns a multitude of parties receives substantial efficiency through the economics of scale when tried in a single action as opposed to a multitude of single actions, i.e. with reduced administrative costs and reduced plaintiffs and defendants costs.<sup>99</sup> Secondly, it provides legal certainty: Many parallel individual suits are almost certainly going to lead to conflicting decisions.<sup>100</sup> Thirdly, it provides effective relief for low-value claims holders: By mitigating rational apathy of plaintiffs with low-value claims and the possibility of using (and common use of) contingency fees for attorneys in conjunction with the American cost rule, the class action device provides effective relief for low-value claims holders.<sup>101</sup> The possibility of punitive damages contributes considerably to the frequent use of contingency fees and thus an attorney’s willingness to seek potential class action members and litigate without upfront payment.

## **2. Survey of Economic Analysis**

In order to provide a useful comparison, a brief survey of the economic analysis of the U.S. class action is necessary. This will be limited to the main point of interest: the use of the ‘opt-out’ system.

As *Issacharoff* and *Miller* analyse, the main problem with large-scale ‘opt-in’ collective actions is inertia.<sup>102</sup> An empirical study conducted by *Eisenberg* and *Miller* involving several thousand U.S. class action decisions found that less than **1%** of class

---

<sup>99</sup> Liegsalz, *Die US-amerikanische Class Action im Lichte der ökonomischen Analyse des Rechts*, First Edit, Hamburg, Verlag Dr. Kovac GmbH (2012): 1-223, p.50.

<sup>100</sup> Liegsalz, p.52.

<sup>101</sup> Liegsalz, p.53.

<sup>102</sup> Issacharoff and Miller, p.60.

members opted out of the suit.<sup>103</sup> Of course, these findings can't simply be taken as fact regarding 'opt-in' procedural effectiveness, but they are an indication of the inertia and a good example of the *status quo bias*<sup>104</sup>. It also shows rationality, as it is better to participate in a potentially worthless suit without any cost for the individual than it is to opt out and hold on to a claim that is similarly worthless if the collective action fails.<sup>105</sup> An evaluation of the major Australian class action regimes by *Morabito* has found median 'opt-out' rates of 5.28 % and 11.19 % respectively.<sup>106</sup> While these are significantly higher than in the U.S. study, they are still low 'opt-out' rates.

Yet, the 'opt-out' system in the U.S. is not wholly without criticism: *Litwin* and *Feder* explain that this system merely delays the identification of aggrieved parties since they have to be identified (insofar as can be reasonably expected, *Rule 23(c)(2)(b)*) when a notice to potential claimants either to opt out or to collect their award is necessary.<sup>107</sup> Empirical evidence showing the difficulty in notification exists.<sup>108</sup> Additionally, it is highlighted that the 'opt-out' system in the U.S. is open to abuse by attorneys, due to the immense leverage a class action with thousands of class members provides for pressuring the defendant into settlement that is unjust to the class members but realizes a fast payment for the attorneys that have yet to actually find a single class member.<sup>109</sup>

---

<sup>103</sup> Eisenberg and Miller, "The Role of Op-outs and Objectors in Class Action Litigation: Theoretical and Empirical Issues", in *Vanderbilt Law Review*, 57 (2004):1529–1568, p.1532.

<sup>104</sup> See fn.80.

<sup>105</sup> Issacharoff and Miller, p.60.

<sup>106</sup> Morabito, *An Empirical Study on Australia's Class Action Regimes*, Part 2, (Melbourne, 2010), p.4; the median is given due to the skewdness of the average in the study.

<sup>107</sup> Litwin and Feder, "European Collective Redress: Lessons Learned from the U.S. Experience," in *The Law and Economics of Class Actions*, ed. Langenfeld, First Edit (Emerald Group Publishing Limited, 2014), p.223.

<sup>108</sup> Willging, Hooper, and Niemic, Empirical study of class actions in four federal district courts: Final report to the advisory committee on civil rules, *Federal Judicial Center*, Washington, DC, 1996.

<sup>109</sup> Litwin and Feder, p.224.



Finally, the ‘opt-out’ model coupled with the other financially lucrative incentives provided by U.S. civil procedural law leads to cases being litigated that may normally not be pursued due to their extremely low-value.<sup>110</sup>

## **II. Comparison Germany - US**

The previous chapters’ analyses provided sufficient results for a comparison of the two systems. Disregarding some potential complications concerning the compatibility of an ‘opt-out’ approach with German constitutional law, the comparison is useful. The hypothesis is that the ‘opt-in’ approach is inferior to the ‘opt-out’ approach for a collective action device, specifically the MDA. While the MDA is designed with the shortcomings of the U.S. common class action system in mind, i.e. it does not allow for contingency fees and limits the standing to specific associations, thus safeguarding against non-meritorious claims, the ‘opt-in’ system remains a critical question.

Starting with the position of the CPA, we shall analyse both states of the world under an ‘opt-in’ and an ‘opt-out’ system. Recall that the CPA almost always has an incentive to file the MDA as long as it has 10 aggrieved consumers. Realistically, finding 10 aggrieved consumers should not be difficult and is thus disregarded for these considerations. The problem lies beyond 10 aggrieved consumers. While it could be argued that, depending on the activity causing the injury, finding 50 aggrieved consumers willing to register shouldn’t be a problem either, both the case of 10 or 50 consumers could be litigated with relative ease without an MDA. The MDA’s purpose partly is large-scale litigation to provide more efficient claims enforcement for low-value claims. Therefore, a reasonable assumption is a case of 1000 aggrieved consumers or more, where joinder procedures are not efficient.

---

<sup>110</sup> cf.: Note, “Developments in the Law: Class Actions,” *Harvard Law Review* 89, 7 (1976): 1318-1644, p.1604; several cases are documented here show a gaping discrepancy between attorney’s fees and actual recompense for the class members.

Thus, the CPA faces a major issue: In cases with uncertainty regarding the number of consumers afflicted, it has to expend considerable effort to both identifying such consumers and incentivizing them to register in order for the MDA's purpose to be fulfilled. An argument against this might be that the CPA is neither obligated to find more than 50 consumers nor does it have an incentive to do so. On the contrary, the more consumers are registered, the more effort it has to expend to litigate the action successfully. Yet, this argument disregards a crucial point made above regarding the CPAs. Most CPAs finance themselves through their members' fees. Successful litigation of an MDA raises the profile of the CPA litigating it and thus has a spillover effect: a successful MDA equals a (perhaps moderate) uptick in membership, which equals more fees and is positively correlated with the size of the MDA. Thus, in fact, the CPA is incentivized to gather as many consumers as possible for the final outcome to be as profitable as possible.

However, it is questionable whether this is efficient in terms of social welfare. While the CPA may be incentivized to expend much time and effort within the two-month timeframe to register as many consumers in the claims registry as possible, that time and effort could be better spent in preparing for the trial as the defendant is not incentivized to settle the suit – especially not with only a few consumers registered as this leaves perhaps a majority of claimholders open to suing. Thus, in terms of social welfare, the 'opt-out' model may be more efficient: under such a system, the CPA could concentrate fully on the trial with no need to find consumers beyond the first ten<sup>111</sup> with potentially enormous cost-saving effects. The incentive to litigate as best as possible is still given as the consumers eventually benefitting under an 'opt-out' system are still incentivized to join the CPA as members afterwards.

---

<sup>111</sup> It is assumed that these are always necessary in order to deter non-meritorious suits.

In terms of cost savings, there is one other point: under the ‘opt-in’ system, the judgment is only binding for registered consumers. Assuming out of 1,000 aggrieved consumers 900 register and, after successful MDA, file follow-on actions, the cost saving is greatly improved as opposed to 1,000 individual actions without an MDA, due to lower administrative costs, shorter trial lengths for individual suits (as the main legal question was decided) and a heightened possibility of settlement. However, this idealized case is highly unlikely, as *Mulheron* aptly characterizes: “participation rates are skewed very much in favor of the opt-out [sic].”<sup>112</sup> Instead, it is far more likely for the settlement possibility to be very low and the cost-saving factor to be minimal due to the high number of individual actions not barred by a successful MDA with a low participation rate. This cost-saving factor may not be able to outweigh the negative cost-effect of a CPA incentivized to gather as many consumers as possible. With an ‘opt-out’ system, these concerns do not exist: The CPA expends little time and effort in search for aggrieved consumers. The consumer is at first not subjected to rational apathy – she benefits from the MDA in much the same way. In fact, with an ‘opt-out’-system the possibility is high for an individual consumer, who had not known about the MDA before it started and thus could not register due to information asymmetry to learn about the MDA and the case during its course and subsequently bring a follow-on suit. Additionally, a beneficial settlement is equally far more likely due to the potentially high number of unknown consumers.

If a settlement offer includes a barring of claims regarding the same life-circumstances, a defendant is more incentivized to settle than to fight out all actions on her own. In terms of deterrence and effective consumer relief, this is important: the ‘opt-in’ approach does not have this possibility as no settlement offer barring other

---

<sup>112</sup> *Mulheron*, p.434.

claims could be made. In ‘opt-out’, the consumer could opt out of the settlement offer, but due to the *status quo bias* and the risk-averseness, she would most likely accept it.

The cost-saving effect for a consumer is only a small portion of the overall societal welfare improvement under a ‘opt-out’ regime. Since she still has to file a follow-on action, the only cost saving occurs in the time saving regarding the registration. For the defendant, the cost-saving effect lies in the more attractive settlement option in the course of the MDA due to the possibility of binding all afflicted consumers without any potential follow-on actions.

Of course, there is one important caveat with an ‘opt-out’ regime: the notification of either a successful MDA or a settlement offer. Here, the burden would still lie on either the administrative system (i.e. the court) or the CPA to identify the aggrieved consumers. This would nullify some of the earlier cost-saving effects, but not all in comparison to an ‘opt-in’ regime. A potential solution will be discussed in the next chapter.

This comparison has shown the ‘opt-in’ regime employed by the MDA to be more deficient than a U.S.-style ‘opt-out’ regime would be. The implications will be discussed in the next chapter.

## **D. Discussion and Policy Implications**

The previous chapters showed some unexpected results. The original hypothesis was that the MDA is an insufficient instrument to effectively achieve the goals as defined in Chapter **B.I**. This was at least partially disproven: While the traditional l&e analysis showed the consumer to not be sufficiently incentivized to register due to the high costs of the follow-on action in low-value claim scenarios, the behavioural analysis pointed in some respects to the opposite conclusion, i.e. regarding the overcoming of the existing inertia due to no cost for the registration and then, misjudging the

probability of success and filing the follow-on action. Thus, the potential deterrence factor may be higher than expected by the traditional l&e analysis. This result does not appear to change when implementing an ‘opt-out’ system, as the misjudging of the follow-on action’s probability of success still exists.

Deterring the defendant from future unlawful activities has proven to not be effective when using the traditional l&e analysis. The behavioural analysis strengthened this conclusion as it revealed a risk-seeking preference by the defendant. Here, an ‘opt-out’ approach may prove more useful as the incentives governing the defendant’s decision were more aligned with the goal of deterrence.

Regarding the CPA, both traditional and behavioural analysis corroborated the law’s intention: not only are these associations governed by incentive structures aligned with the goals, their restrictions effectively make non-meritorious suits uneconomical. While the implementation of an ‘opt-out’ approach may have adverse effects regarding this current state, the overall economic efficiency gain due to less costs expended on finding sufficient consumers outweigh the low potential danger of non-meritorious suits. The reason here is simple: the CPA is barred from filing an MDA for profitable purposes. Thus, even with an ‘opt-out’ approach and the subsequently higher settlement probability, the CPA could not profit from such a settlement.

What policy implications are gained by this analysis? The first and foremost change that should be made is to adopt an ‘opt-out’ system. The overwhelming evidence, both empirically and theoretically, points toward a major deficiency of ‘opt-in’ systems, as they are not in line with real human behaviour. It is wishful thinking that in all cases, all or even a majority of consumers afflicted will register *and* file follow-on actions. Without the certainty of a large number of follow-on actions, settlement is even less likely, effective deterrence is nigh negligible. The German constitution does not outright negate the possibility of ‘opt-out’ systems. As long as sufficient safeguards

exist that anyone who wishes not to be part of the suit can opt out, a conflict with the constitution should be avoidable (albeit this being a topic for a different, larger discussion).

One issue that persists under both regimes is the peculiar split between the MDA's ruling and the follow-on actions seeking actual damage payments. The efficiency gains are largely negated with the necessity of follow-on actions. It may be more prudent to combine both and have the MDA not just determine whether cause exists, but also what the value of damage is. The difficulties inherent in determining exact factual damages for each individual consumer could be mitigated by a standardization of claims where each consumer is allotted a 'minimum' of damages, with the defendant having no choice but to accept this minus compared to deciding each case on its own merits. Even with an 'opt-out' system, this could be more efficient. As *Mulheron* explains:

“Where the eventual take-up rate in an opt-out action is less than 100%, either the defendant will "benefit" in that it will retain the unclaimed portion of damages, or some alternative solution for the unclaimed sum (such as a *cy-près* distribution, or an escheat to the Treasury, or a pro rata distribution among the class members who did claim their individual compensation) may be permitted by the relevant opt-out regime.[sic]”<sup>113</sup>

An interesting notion entertained by *Guggenberger* regards the use of what he calls 'dynamic standards', i.e. the use of digital technology to effectuate essentially not just a 'burden of proof'-reversal but rather a reversal of claims enforcement.<sup>114</sup> Using the example of consumer rights regarding flight delays in the E.U., he argues that, using digital technologies, the compensation should be paid immediately and the airline

---

<sup>113</sup> *Mulheron*, p.434.

<sup>114</sup> [German] *Guggenberger*, "Durchsetzung nach Datenlage - Dynamische Standards", in *Einspruch Magazin - Frankfurter Allgemeine Zeitung*, Frankfurt (2018).

company, instead of the individual consumer suing for his small claim, should litigate any undue payments.<sup>115</sup> This is very much in line with the notion of the least-cost-avoider posited by *Calabresi*, i.e. that the cost of avoiding an accident should lie with the actor best suited to avoid it.<sup>116</sup> In terms of mass injuries and claims enforcement: the cost of litigating due to perceived undue claims should lie with the one best suited to avoid the injury in the first place. While this far-reaching idea would make a class action system obsolete, a less extreme notion can be drawn from this as well. If an ‘opt-out’ system is ineffective due to the necessity of identifying the individual consumers affected, the defendant should bear those costs as it (the company) is in the best position to a) know which consumer is affected and b) needs to satisfy their claim anyway. Another option could be to combine the standardization notion from above with this approach, making the follow-on actions unnecessary: the court could allot an average damage to be paid to every registered consumer (or in case of ‘opt-out’: every class member) and in cases where the defendant sees no cause, it has to sue individually for independent adjudication. Instituting either option together with the ‘opt-out’ system may substantially raise the cost-efficiency of the MDA and potential to mitigate the rational apathy for the individual consumer burdened by a small claim.

## E. Conclusion

The thesis posed one main hypothesis: The German approach to collective action in form of the ‘model declaratory action’ is insufficient to fulfil its goals. One limitation in the analysis is the current lack of historical data: Since the law instituting the MDA was only passed in June of 2018 and the MDA will not be available for use until November of 2018, there is no data available for its usage. Using both traditional

---

<sup>115</sup> *id.*

<sup>116</sup> *Calabresi, The Costs of Accidents: a Legal and Economic Analysis*, Yale University Press (1970): 1-350, p.136.

and behavioural law and economics tools, the analysis showed this hypothesis to be only partially true. Most features of the new law seem to be well thought-out with some improvements in mitigating rational apathy for low-value claims and providing effective safeguards against abusive collective action. While it crystallized that the German instrument cannot provide effective deterrence against unlawful actions in today's mass-producing markets, this thesis does put forward important policy implications, especially regarding deterrent effects, i.e. that an 'opt-out' approach would have effectuated more deterrence and mitigated rational apathy to an increased extent.

Leading on from this study future papers could provide a comprehensive comparative analysis using not only the U.S. common class action as a reference, but rather other European approaches. More detailed traditional l&e models incorporating more factors in assessing the cost and benefit structures can also provide more robust results.

It remains to be seen how effective the MDA will prove in practice. After the implementation and routine use of the MDA future studies may assess the conclusions to be drawn from historical data, especially with regards to the 'opt-in' process and the follow-on actions. Nonetheless, this thesis provided a first approximation of the benefits and drawbacks as well as the effects the MDA may have on the relationship between consumers and entrepreneurs and their incentive structures.



## Bibliography

- Augenhofer, Susanne, *Stellungnahme zum Entwurf eines Gesetzes zur Einführung einer zivilprozessualen Musterfeststellungsklage (BT- Drucksache 19/2439 und 19/2507) sowie zum Entwurf eines Gesetzes zur Einführung von Gruppenverfahren (BT- Drucksache 19/243)*. (2018): 1-8.
- Backhaus, Jürgen, Alberto Cassone, and Giovanni Ramello, *The Law and Economics of Class Actions in Europe*. Backhaus, Cassone and Ramello (eds), 1st Edt., Edward Elgar Publishing, (2012): 1-400. <<http://www.elgaronline.com/view/9781847208033.xml>>.
- Baumol, William J., ‘Contestable Markets: An Uprising in the Theory of Industry Structure’.in *The American Economic Review*, 72 (1982): 1–15, <<http://www.jstor.org/stable/1808571>>.
- Becker, Gary S., ‘Crime and Punishment: An Economic Approach’.in *Journal of Political Economy*, 76 (1968): 169–217, <<https://doi.org/10.1086/259394>>.
- Blume, Lawrence E., and David Easley, ‘Rationality BT - The New Palgrave Dictionary of Economics’.London, Palgrave Macmillan UK (2016): 1–13, <[https://doi.org/10.1057/978-1-349-95121-5\\_2138-1](https://doi.org/10.1057/978-1-349-95121-5_2138-1)>.
- Calabresi, Guido, *The Costs of Accidents: a Legal and Economic Analysis*.Yale University Press (1970): 1-350
- Eisenberg, Theodore, and Geoffrey Miller, ‘The Role of Op-outs and Objectors in Class Action Litigation: Theoretical and Empirical Issues’.in *Vanderbilt Law Review*, 57 (2004): 1529–1568.
- Guggenberger, Nikolas, ‘Durchsetzung nach Datenlage - Dynamische Standards’.in *Einspruch Magazin - Frankfurter Allgemeine Zeitung*, Frankfurt (2018).
- Halfmeier, Axel, ‘Musterfeststellungsklage: Nicht gut, aber besser als nichts’.in *Zeitschrift für Rechtspolitik*, 7 (2017): 193–220.

- Hicks, John R., ‘The Foundations of Welfare Economics’ .in *The Economic Journal*, 49 (1939): 696–712, <<http://www.jstor.org/stable/2225023>>.
- Hughes, James W., Edward A. Snyder, ‘Litigation and Settlement under the English and American Rules: Theory and Evidence’ .in *The Journal of Law and Economics*, 38 (1995): 225–250, <<https://doi.org/10.1086/467330>>.
- Issacharoff, Samuel, Geoffrey Miller, ‘Will aggregate litigation come to Europe?’ in *The Law and Economics of Class Actions in Europe: Lessons from America*. Backhaus, Cassone and Ramello (eds), 1st Edt., Edward Elgar Publishing (2012): 37-68.
- Jolls, Christine, Cass R. Sunstein, and Richard Thaler, ‘A Behavioral Approach to Law and Economics’ .in *Harvard Law School John M. Olin Center for Law, Economics and Business Discussion Paper Series.*, Paper 226 (1998): 1471-1549, <[http://lsr.nellco.org/harvard\\_olin/236](http://lsr.nellco.org/harvard_olin/236)>.
- Kahneman, Daniel, Jack L. Knetsch, and Richard Thaler, ‘Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias’ .in *Journal of Economic Perspectives*, 5 (1991): 193–206, <<http://www.aeaweb.org/articles?id=10.1257/jep.5.1.193>>.
- Kahneman, Daniel, and Amos Tversky, ‘Choices, Values, and Frames’ in *Handbook of the Fundamentals of Financial Decision Making*. World Scientific Handbook in Financial Economics Series, World Scientific (2012): 269–278, <[https://doi.org/10.1142/9789814417358\\_0016](https://doi.org/10.1142/9789814417358_0016)>.
- Kaldor, Nicholas, ‘Welfare Propositions of Economics and Interpersonal Comparisons of Utility’ .in *The Economic Journal*, 49 (1939): 549–552, <<http://www.jstor.org/stable/2224835>>.
- Kelman, Mark, ‘Consumption Theory, Production Theory, and Ideology in the Coase Theorem’ .in *Southern California Law Review*, 52 (1979): 669–698.
- Keske, Sonja E., *Group Litigation in European Competition Law: A Law and Economics perspective*. Rotterdam, Erasmus School of Law (2009): 1-321.

- Liegsalz, Andreas, *Die US-amerikanische Class Action im Lichte der ökonomischen Analyse des Rechts*. First Edit, Hamburg, Verlag Dr. Kovac GmbH (2012): 1-223.
- Litwin, Ethan E., and Morgan J. Feder, 'European collective redress: Lessons learned from the U.S. experience' in *The Law and Economics of Class Actions*. Langenfeld (ed), First Edit, Emerald Group Publishing Limited (2014): 209–248,  
<<http://www.emeraldinsight.com/doi/10.1108/S0193-589520140000026007>>.
- Malveaux, Suzette M., 'The Modern Class Action Rule: Its Civil Rights Roots and Relevance Today'. in *University of Kansas Law Review* (2017): 325–398.
- Morabito, Vince, *An Empirical Study on Australia's Class Action Regimes*. Melbourne (2010),  
<[http://globalclassactions.stanford.edu/sites/default/files/documents/Vince Morabito 2nd Report.pdf](http://globalclassactions.stanford.edu/sites/default/files/documents/Vince%20Morabito%202nd%20Report.pdf)>.
- Morris, Clarence, 'Punitive Damages in Tort Cases'. in *Harvard Law Review*, 44 (1931): 1173–1209.
- Mulheron, Rachael, 'The Case for an Opt-Out Class Action for European Member States: A Legal and Empirical Analysis'. in *Columbia Journal of European Law*, 15 (2009): 409–453.
- Note, 'Developments in the Law: Class Actions'. in *Harvard Law Review*, 89 (1976): 1318–1644, <<http://www.jstor.org/stable/1340257>>.
- Pindyck, Rober S., and Daniel L. Rubinfeld, *Microeconomics*, Eighth Edition, Pearson (2013): 1-699, <<https://www.pearson.com/us/higher-education/product/Pindyck-Pindyck-Microeconomics-8-8th-Edition/9780132857123.html>>
- Porrini, Donatella, and Giovanni Ramello, 'Class action and financial markets: insights from law and economics'. in *Journal of Financial Economic Policy*, 3 (2011): 140–160,  
<<http://www.emeraldinsight.com/10.1108/17576381111133615>>.
- Rachlinski, Jeffrey J., 'Gains, losses, and the psychology of litigation'. in *Southern California Law Review*, 70 (1996): 113-185.

- Samuelson, William, and Richard Zeckhauser, 'Status quo bias in decision making'.in *Journal of Risk and Uncertainty*, 1 (1988): 7–59, <<https://doi.org/10.1007/BF00055564>>.
- Schaefer, Hans-Bernd, 'The Bundling of Similar Interests in Litigation. The Incentives for Class Action and Legal Actions Taken by Associations'.in *European Journal of Law and Economics*, 9 (2000): 183–213.
- Scherer, Frederic M., 'Class actions in the U.S. experience: An Economist's Perception' in *The Law and Economics of Class Actions in Europe: Lessons from America*.Backhaus, Cassone and Ramello (eds), 1st Edt., Edward Elgar Publishing (2012): 27-36.
- Shavell, Steven, 'Chapter 2 Liability for Accidents'.in *Handbook of Law and Economics*, 1 (2007): 139–182.
- , 'Risk Sharing and Incentives in the Principal and Agent Relationship'.in *The Bell Journal of Economics*, 10 (1979): 55-73, <<http://www.jstor.org/stable/3003319?origin=crossref>>.
- , 'Suit, Settlement, and Trial: A Theoretical Analysis under Alternative Methods for the Allocation of Legal Costs'.in *The Journal of Legal Studies*, 11 (1982): 55–81, <<https://doi.org/10.1086/467692>>.
- Simon, Herbert A., 'Rationality, Bounded BT - The New Palgrave Dictionary of Economics'.London, Palgrave Macmillan UK (2017): 1–4, <[https://doi.org/10.1057/978-1-349-95121-5\\_472-2](https://doi.org/10.1057/978-1-349-95121-5_472-2)>.
- Subrin, Stephen N., 'Fishing Expeditions Allowed: The Historical Background of the 1938 Federal Discovery Rules'.in *Boston College Law Review*, 39 (1998): 691–746.
- Sunstein, Cass R., and Richard Thaler, 'Libertarian Paternalism Is Not an Oxymoron'.in *The University of Chicago Law Review*, 70 (2003): 1159–1202, <<http://www.jstor.org/stable/1600573>>.
- Tversky, Amos, and Daniel Kahneman, 'Judgment under Uncertainty: Heuristics and Biases'.in *Science*, 185 (1974): 1124–1131, <<http://www.sciencemag.org/cgi/doi/10.1126/science.185.4157.1124>>.

Weber, Franziska, *The Law and Economics of Enforcing European Consumer Law: A Comparative Analysis of Package Travel and Misleading Advertising*. 1st Edition, Routledge (2016): 1-336.

Willging, Thomas E., Laural L. Hooper, and Robert J. Niemic, *Empirical study of class actions in four federal district courts: Final report to the advisory committee on civil rules*. Federal Judicial Center Washington, DC (1996).

## Appendix

### I. Translation of the law to implement a civil procedure model declaratory action

<b><u>Gesetz beschlossen durch den deutschen Bundestag</u></b> <b>Entwurf eines Gesetzes zur Einführung einer zivilprozessualen Musterfeststellungsklage*</b>	<b><u>Law passed by the German parliament</u></b> <b>Draft for a law to implement a civil procedure model declaratory action*</b>
<b>Artikel 1</b> <b>Änderung des Gerichtsverfassungsgesetzes</b>	<b>Article 1</b> <b>Changes to the Court Constitution Act</b>
Dem § 119 des Gerichtsverfassungsgesetzes [...] wird folgender Absatz 3 angefügt:  (3) In Zivilsachen sind Oberlandesgerichte ferner zuständig für die Verhandlung und Entscheidung von Musterfeststellungsverfahren nach Buch 6 der Zivilprozessordnung im ersten Rechtszug. [...]	To Sec. 119 of the Court Constitution Act [...] the following paragraph 3 shall be added:  (3) In civil matters the higher regional courts are additionally responsible for the trial and judgment of model declaratory proceedings according to book 6 of the code of civil procedure as first instance. [...]
<b>Artikel 2</b> <b>Änderung der Zivilprozessordnung</b>	<b>Article 2</b> <b>Changes to the code of civil procedure</b>
[...] 2. § 29c wird wie folgt geändert:  a) Nach Absatz 1 wird folgender Absatz 2 eingefügt: „(2) Verbraucher ist jede natürliche Person, die bei dem Erwerb des Anspruchs oder der Begründung des Rechtsverhältnisses nicht überwiegend im Rahmen ihrer gewerblichen oder selbständigen beruflichen Tätigkeit handelt.“ [...]	[...] 2. Sec. 29c shall be changed as follows:  a) After paragraph 1 the following paragraph 2 shall be inserted: “(2) A Consumer means every natural person that, when acquisition of the entitlement or the establishing of the legal relationship took place, acted predominantly outside his trade, business or profession.” [...]
[...] 4. § 148 wird wie folgt geändert: [...] b) Folgender Absatz 2 wird angefügt: „(2) Das Gericht kann ferner, wenn die Entscheidung des Rechtsstreits von Feststellungszielen abhängt, die den Gegenstand eines anhängigen Musterfeststellungsverfahrens bilden, auf Antrag des Klägers, der nicht Verbraucher ist, anordnen, dass die Verhandlung bis zur	[...] 4. Sec. 148 shall be changed as follows: [...] b) The following paragraph 2 shall be added: “(2) Further, the court can, if the judgment of the legal dispute is dependant on declaratory goals that are subject of an on-going model declaratory proceeding, upon motion of the plaintiff who is not a consumer, order the trial suspended until the disposal of the model declaratory proceeding.”

Erledigung des Musterfeststellungsverfahrens auszusetzen sei.“	
5. Buch 6 wird wie folgt gefasst:	5. Book 6 shall read as follows:
<p>„Buch 6 Musterfeststellungsverfahren</p> <p>§ 606 Musterfeststellungsklage</p> <p>(1) Mit der Musterfeststellungsklage können qualifizierte Einrichtungen die Feststellung des Vorliegens oder Nichtvorliegens von tatsächlichen und rechtlichen Voraussetzungen für das Bestehen oder Nichtbestehen von Ansprüchen oder Rechtsverhältnissen (Feststellungsziele) zwischen Verbrauchern und einem Unternehmer begehren. Qualifizierte Einrichtungen im Sinne von Satz 1 sind die in § 3 Absatz 1 Satz 1 Nummer 1 des Unterlassungsklagengesetzes bezeichneten Stellen, die</p> <ol style="list-style-type: none"> <li>1. als Mitglieder mindestens zehn Verbände, die im gleichen Aufgabenbereich tätig sind, oder mindestens 350 natürliche Personen haben,</li> <li>2. mindestens vier Jahre in der Liste nach § 4 des Unterlassungsklagengesetzes oder dem Verzeichnis der Europäischen Kommission nach Artikel 4 der Richtlinie 2009/22/EG des Europäischen Parlaments und des Rates vom 23. April 2009 über Unterlassungsklagen zum Schutz der Verbraucherinteressen (ABl. L 110 vom 1.5.2009, S. 30) eingetragen sind,</li> <li>3. in Erfüllung ihrer satzungsmäßigen Aufgaben Verbraucherinteressen weitgehend durch nicht gewerbsmäßige aufklärende oder beratende Tätigkeiten wahrnehmen,</li> <li>4. Musterfeststellungsklagen nicht zum Zwecke der Gewinnerzielung erheben und</li> <li>5. nicht mehr als fünf Prozent ihrer finanziellen Mittel durch Zuwendungen von Unternehmen beziehen.</li> </ol> <p>Bestehen ernsthafte Zweifel daran, dass die Voraussetzungen nach Satz 2 Nummer 4 oder 5 vorliegen, verlangt das Gericht vom Kläger die Offenlegung seiner finanziellen Mittel. Es wird unwiderleglich vermutet, dass</p>	<p>“Book 6 Model declaratory procedure</p> <p>Sec. 606 model declaratory action</p> <p>(1) The model declaratory action can be used by qualified entities to seek the declaration of the presence or absence of factual and legal prerequisites for the existence or non-existence of claims or legal relationships (declaratory goals) between consumers and an entrepreneur. Qualified entities within the meaning of sentence 1 are those bodies identified in Sec. 3 paragraph 1 sentence 1 number 1 of the Injunctions Act [UKlaG], which</p> <ol style="list-style-type: none"> <li>1. have at least 10 member associations active in the same remit or at least 350 natural persons as members,</li> <li>2. have been entered for at least 4 years in the registry according to Sec. 4 of the Injunctions Act or in the official registry of the European Commission following Article 4 of the Directive 2009/22/EC of the European Parliament and of the Council from April 23<sup>rd</sup> 2009 on injunctions for the protection of consumers’ interests (OJ L 110, 1.5.2009, p. 30),</li> <li>3. in the fulfilment of their statutory responsibilities protect consumers’ interests without substantial commercial advisory and informative activities,</li> <li>4. do not file model declaratory actions for the purpose of making a profit and</li> <li>5. do not receive more than five per cent of their financial resources through contributions by companies.</li> </ol> <p>If serious concerns exist regarding the prerequisites as described in sentence 2 numbers 4 or 5, the court asks the plaintiff to declare his financial resources. It shall be irrefutably presumed that the consumer organisation and other consumer protection agencies that are predominantly supported by public funding comply with the requirements of sentence 2.</p>

<p>Verbraucherzentralen und andere Verbraucherverbände, die überwiegend mit öffentlichen Mitteln gefördert werden, die Voraussetzungen des Satzes 2 erfüllen.</p> <p>(2) Die Klageschrift muss Angaben und Nachweise darüber enthalten, dass:</p> <ol style="list-style-type: none"> <li>1. die in Absatz 1 Satz 2 genannten Voraussetzungen vorliegen;</li> <li>2. von den Feststellungszielen die Ansprüche oder Rechtsverhältnisse von mindestens zehn Verbrauchern abhängen.</li> </ol> <p>Die Klageschrift soll darüber hinaus für den Zweck der Bekanntmachung im Klageregister eine kurze Darstellung des vorgetragenen Lebenssachverhaltes enthalten. § 253 Absatz 2 bleibt unberührt.</p> <p>(3) Die Musterfeststellungsklage ist nur zulässig, wenn</p> <ol style="list-style-type: none"> <li>1. sie von einer qualifizierten Einrichtung im Sinne des Absatz 1 Satz 2 erhoben wird,</li> <li>2. glaubhaft gemacht wird, dass von den Feststellungszielen die Ansprüche oder Rechtsverhältnisse von mindestens zehn Verbrauchern abhängen und</li> <li>3. zwei Monate nach öffentlicher Bekanntmachung der Musterfeststellungsklage mindestens 50 Verbraucher ihre Ansprüche oder Rechtsverhältnisse zur Eintragung in das Klageregister wirksam angemeldet haben.</li> </ol>	<p>(2) The statement of claim must include information on and evidence of</p> <ol style="list-style-type: none"> <li>1. the presence of the prerequisites described in paragraph 1 sentence 2;</li> <li>2. the dependency of claims or legal relationships of at least 10 consumers on the declaratory goals.</li> </ol> <p>The statement of claims shall furthermore include a short account of the submitted life-circumstances to be published in the claims register. Sec. 253 paragraph 2 shall remain unaffected.</p> <p>(3) The model declaratory action is only admissible if</p> <ol style="list-style-type: none"> <li>1. a qualified entity as identified in paragraph 1 sentence 2 brings the proceeding,</li> <li>2. the dependency of claims or legal relationships of at least 10 consumers on the declaratory goals is made credible and</li> <li>3. two months after the publication of the model declaratory action at least 50 consumers have effectively registered their claim or legal relationship to be entered into the claims register.</li> </ol>
<p style="text-align: center;">§ 607</p> <p style="text-align: center;">Bekanntmachung der Musterfeststellungsklage</p> <p>(1) Die Musterfeststellungsklage ist im Klageregister mit folgenden Angaben öffentlich bekannt zu machen:</p> <ol style="list-style-type: none"> <li>1. Bezeichnung der Parteien,</li> <li>2. Bezeichnung des Gerichts und des Aktenzeichens der Musterfeststellungsklage,</li> <li>3. Feststellungsziele,</li> <li>4. kurze Darstellung des vorgetragenen Lebenssachverhaltes,</li> <li>5. Zeitpunkt der Bekanntmachung im Klageregister,</li> <li>6. Befugnis der Verbraucher, Ansprüche oder Rechtsverhältnisse, die von den Feststellungszielen abhängen, zur Eintragung</li> </ol>	<p style="text-align: center;">Sec. 607</p> <p style="text-align: center;">Publication of the model declaratory action</p> <p>(1) The model declaratory action shall be publicly announced in the claims register with the following information:</p> <ol style="list-style-type: none"> <li>1. designation of the parties,</li> <li>2. designation of the court and case number of the model declaratory action,</li> <li>3. declaratory goals</li> <li>4. short account of the submitted life-circumstances</li> <li>5. time of the publication in the claims register</li> <li>6. power of the consumer to enter into the claims register claims or legal relationships which are dependent on the declaratory goals, form, time period and effect of registering as</li> </ol>



<p>in das Klageregister anzumelden, Form, Frist und Wirkung der Anmeldung sowie ihrer Rücknahme,</p> <p>7. Wirkung eines Vergleichs, Befugnis der angemeldeten Verbraucher zum Austritt aus dem Vergleich sowie Form, Frist und Wirkung des Austritts,</p> <p>8. Verpflichtung des Bundesamts für Justiz, nach rechtskräftigem Abschluss des Musterfeststellungsverfahrens jedem angemeldeten Verbraucher auf dessen Verlangen einen schriftlichen Auszug über die Angaben zu überlassen, die im Klageregister zu ihm und seiner Anmeldung erfasst sind.</p> <p>(2) Das Gericht veranlasst innerhalb von 14 Tagen nach Erhebung der Musterfeststellungklage deren öffentliche Bekanntmachung, wenn die Klageschrift die nach § 606 Absatz 2 Satz 1 vorgeschriebenen Anforderungen erfüllt.</p> <p>(3) Das Gericht veranlasst unverzüglich die öffentliche Bekanntmachung seiner Terminbestimmungen, Hinweise und Zwischenentscheidungen im Klageregister, wenn dies zur Information der Verbraucher über den Fortgang des Verfahrens erforderlich ist. Die öffentliche Bekanntmachung von Terminen muss spätestens eine Woche vor dem jeweiligen Terminstag erfolgen. Das Gericht veranlasst ferner unverzüglich die öffentliche Bekanntmachung einer Beendigung des Musterfeststellungsverfahrens; die Vorschriften der §§ 611, 612 bleiben hiervon unberührt.</p>	<p>well as their withdrawal,</p> <p>7. effect of a settlement, power of the registered consumer to withdraw from the settlement as well as form, time period and effect of withdrawal,</p> <p>8. Obligation of the Federal Office of Justice to, upon request, send every registered consumer a written extract of the information about him and his registration that is in the claims register after the final and binding judgement of the model declaratory proceeding.</p> <p>(2) The court arranges for the public announcement of the model declaratory action within 14 days after its filing, if the statement of claims fulfils the requirements set out in Sec. 606 paragraph 2 sentence 1.</p> <p>(3) The court arranges for the immediate public announcement of its scheduling, notes and intermediate decisions in the claims registry, if it is necessary in order to keep the consumers informed of the course of the proceedings. The public announcement of hearings shall occur no later than one week prior to the day of the hearing. The court further arranges the immediate public announcement of the end of the model declaratory proceedings; the provisions of Sec. 611, 612 remain hereby unaffected.</p>
<p style="text-align: center;">§ 608</p> <p style="text-align: center;">Anmeldung von Ansprüchen oder Rechtsverhältnissen</p> <p>(1) Bis zum Ablauf des Tages vor Beginn des ersten Termins können Verbraucher Ansprüche oder Rechtsverhältnisse, die von den Feststellungszielen abhängen, zur Eintragung in das Klageregister anmelden.</p> <p>(2) Die Anmeldung ist nur wirksam, wenn sie frist- und formgerecht erfolgt und folgende Angaben enthält:</p> <ol style="list-style-type: none"> <li>1. Name und Anschrift des Verbrauchers,</li> <li>2. Bezeichnung des Gerichts und</li> </ol>	<p style="text-align: center;">Sec. 608</p> <p style="text-align: center;">Registering of claims and legal relationships</p> <p>(1) Until the end of the day before the first court hearing, consumers can apply for entry into the claims registry claims or legal relationships that are dependent on the declaratory goals.</p> <p>(2) The registration only takes effect if it occurred in the correct and timely manner and states the following:</p> <ol style="list-style-type: none"> <li>1. name and address of the consumer,</li> <li>2. designation of the court and case number</li> </ol>

<p>Aktenzeichen der Musterfeststellungsklage,  3. Bezeichnung des Beklagten der Musterfeststellungsklage,  4. Gegenstand und Grund des Anspruchs oder des Rechtsverhältnisses des Verbrauchers,  5. Versicherung der Richtigkeit und Vollständigkeit der Angaben.</p> <p>Die Anmeldung soll ferner Angaben zum Betrag der Forderung enthalten. Die Angaben der Anmeldung werden ohne inhaltliche Prüfung in das Klageregister eingetragen.</p> <p>(3) Die Anmeldung kann bis zum Ablauf des Tages des Beginns der mündlichen Verhandlung in der ersten Instanz zurückgenommen werden.</p> <p>(4) Anmeldung und Rücknahme sind in Textform gegenüber dem Bundesamt für Justiz zu erklären.</p>	<p>of the model declaratory action  3. designation of the defendant of the model declaratory action  4. subject matter of the claim and cause of action or cause of the legal relationship of the consumer  5. statement of completeness and accuracy of the information provided.</p> <p>The registry shall further contain information regarding the amount the claim. The information provided upon registering shall be entered into the claims registry without substantive review.</p> <p>(3) The registration can be withdrawn until the end of the day of the beginning of the oral hearing in first instance.</p> <p>(4) Registration and withdrawal shall be issued in text form to the Federal Office of Justice.</p>
<p>§ 609  Klageregister; [...]</p> <p>(1) Klageregister ist das Register für Musterfeststellungsklagen. Es wird vom Bundesamt für Justiz geführt und kann elektronisch betrieben werden.</p> <p>(2) Bekanntmachungen und Eintragungen nach den §§ 607 und 608 sind unverzüglich vorzunehmen. Die im Klageregister zu einer Musterfeststellungsklage erfassten Angaben sind bis zum Schluss des dritten Jahres nach rechtskräftigem Abschluss des Verfahrens aufzubewahren.</p> <p>(3) Öffentliche Bekanntmachungen können von jedermann unentgeltlich im Klageregister eingesehen werden.</p> <p>(4) Nach § 608 angemeldete Verbraucher können vom Bundesamt für Justiz Auskunft über die zu ihrer Anmeldung im Klageregister erfassten Angaben verlangen. Nach rechtskräftigem Abschluss des Musterfeststellungsverfahrens hat das Bundesamt für Justiz einem angemeldeten Verbraucher auf dessen Verlangen einen schriftlichen Auszug über die Angaben zu</p>	<p>Sec. 609  Claims registry; [...]</p> <p>(1) Claims registry is the registry for model declaratory actions. It shall be maintained by the Federal Office of Justice and can be maintained electronically.</p> <p>(2) Public announcements and entries in accordance with Sec. 607 and 608 shall be made without delay. The information provided for a model declaratory action shall be kept in the claims registry until the end of the third year after the final and binding judgment of the proceeding.</p> <p>(3) Public announcements within the claims registry can be viewed by anyone without charge.</p> <p>(4) Consumers registered in accordance with Sec. 608 can request information from the Federal Office of Justice on the details of their registration in the claims register. After the final and binding judgment in the model declaratory proceedings, the Federal Office of Justice shall provide any registered consumer upon request a written extract on the details on his registration and himself</p>

<p>überlassen, die im Klageregister zu ihm und seiner Anmeldung erfasst sind.</p> <p>(5) Das Bundesamt für Justiz hat dem Gericht der Musterfeststellungsklage auf dessen Anforderung einen Auszug aller im Klageregister zu der Musterfeststellungsklage erfassten Angaben über die Personen zu übersenden, die bis zum Ablauf des in § 606 Absatz 3 Nummer 3 genannten Tages zur Eintragung in das Klageregister angemeldet sind. Das Gericht übermittelt den Parteien formlos eine Abschrift des Auszugs.</p> <p>(6) Das Bundesamt für Justiz hat den Parteien auf deren Anforderung einen schriftlichen Auszug aller im Klageregister zu der Musterfeststellungsklage erfassten Angaben über die Personen zu überlassen, die sich bis zu dem in § 608 Absatz 1 genannten Tag zur Eintragung in das Klageregister angemeldet haben.</p> <p>[...]</p>	<p>kept in the claims registry.</p> <p>(5) The Federal Office of Justice shall provide the court at which the model declaratory action is filed with an extract of the details of all persons which entered until the end of the day specified in Sec. 606 paragraph 3 sentence 3 in the claims registry regarding the specific model declaratory action. The court shall issue an informal copy of the extract to the parties.</p> <p>(6) The Federal Office of Justice shall, upon request, make available to the parties a written extract of all persons registered in the claims registry for the model declaratory action that have registered themselves into the claims registry until the day mentioned in Sec. 608 paragraph 1.</p> <p>[...]</p>
<p style="text-align: center;">§ 610</p> <p>Besonderheiten der Musterfeststellungsklage</p> <p>(1) Ab dem Tag der Rechtshängigkeit der Musterfeststellungsklage kann gegen den Beklagten keine andere Musterfeststellungsklage erhoben werden, soweit deren Streitgegenstand denselben zugrunde liegenden Lebenssachverhalt und dieselben Feststellungsziele betrifft. Die Wirkung von Satz 1 entfällt, sobald die Musterfeststellungsklage ohne Entscheidung in der Sache beendet wird.</p> <p>(2) Werden am selben Tag mehrere Musterfeststellungsklagen, deren Streitgegenstand denselben Lebenssachverhalt und dieselben Feststellungsziele betrifft, bei Gericht eingereicht, findet § 147 Anwendung.</p> <p>(3) Während der Rechtshängigkeit der Musterfeststellungsklage kann ein angemeldeter Verbraucher gegen den Beklagten keine Klage erheben, deren Streitgegenstand denselben Lebenssachverhalt und dieselben Feststellungsziele betrifft.</p>	<p style="text-align: center;">Sec. 610</p> <p>Special aspects of the model declaratory action</p> <p>(1) From the day of pending of the model declaratory action, no other model declaratory action can be brought against the defendant if its subject matter is based on the same life-circumstances and the same declaratory goals. The effect of sentence 1 lapses as soon as the model declaratory action ends without decision on the matter.</p> <p>(2) If multiple model declaratory actions with subject matter based on the same life circumstances and the same declaratory goals are brought to court on the same day, Sec. 147 shall be applied.</p> <p>(3) During the pending model declaratory action, a registered consumer cannot bring another suit against the defendant if the subject matter is based on the same life-circumstances and depends on the same declaratory goals.</p>

<p>[...]</p> <p>(5) Auf die Musterfeststellungsklage sind die im ersten Rechtszug für das Verfahren vor den Landgerichten geltenden Vorschriften entsprechend anzuwenden, soweit sich aus den Vorschriften dieses Buches nicht Abweichungen ergeben. Nicht anzuwenden sind § 128 Absatz 2, § 278 Absatz 2 bis 5 sowie die §§ 306 und 348 bis 350.</p> <p>(6) Die §§ 66 bis 74 finden keine Anwendung im Verhältnis zwischen den Parteien der Musterfeststellungsklage und Verbrauchern, die</p> <ol style="list-style-type: none"> <li>1. einen Anspruch oder ein Rechtsverhältnis angemeldet haben oder</li> <li>2. behaupten, entweder einen Anspruch gegen den Beklagten zu haben oder vom Beklagten in Anspruch genommen zu werden oder in einem Rechtsverhältnis zum Beklagten zu stehen.</li> </ol>	<p>[...]</p> <p>(5) The model declaratory action shall be subject to the provisions governing proceedings in front of the regional courts in first instance, if not differently provided in this book. Not applicable are Sec. 128 paragraph 2, Sec. 278 paragraphs 2 to 5 and Sec. 306 and 348 to 350.</p> <p>(6) Sec. 66 to 74 shall not be applicable in the relationship between the parties of the model declaratory action and the consumers that</p> <ol style="list-style-type: none"> <li>1. registered a claim or legal relationship or</li> <li>2. claim to have a claim against the defendant or be held liable by the defendant or be in a legal relationship with the defendant.</li> </ol>
<p style="text-align: center;">§ 611 Vergleich</p> <p>(1) Ein gerichtlicher Vergleich kann auch mit Wirkung für und gegen die angemeldeten Verbraucher geschlossen werden.</p> <p>(2) Der Vergleich soll Regelungen enthalten über</p> <ol style="list-style-type: none"> <li>1. die auf die angemeldeten Verbraucher entfallenden Leistungen,</li> <li>2. den von den angemeldeten Verbrauchern zu erbringenden Nachweis der Leistungsberechtigung,</li> <li>3. die Fälligkeit der Leistungen und</li> <li>4. die Aufteilung der Kosten zwischen den Parteien.</li> </ol> <p>(3) Der Vergleich bedarf der Genehmigung durch das Gericht. Das Gericht genehmigt den Vergleich, wenn es ihn unter Berücksichtigung des bisherigen Sach- und Streitstandes als angemessene gütliche Beilegung des Streits oder der Ungewissheit über die angemeldeten Ansprüche oder Rechtsverhältnisse erachtet. Die Genehmigung ergeht durch unanfechtbaren Beschluss.</p>	<p style="text-align: center;">Sec. 611 Settlement</p> <p>(1) A court settlement can be made with effect for and against the registered consumers.</p> <p>(2) The settlement shall include regulations about</p> <ol style="list-style-type: none"> <li>1. the performance each registered consumer shall be entitled to,</li> <li>2. the proof of entitlement each registered consumer has to provide,</li> <li>3. time of performance and</li> <li>4. distribution of costs between the parties.</li> </ol> <p>(3) The settlement shall be subject to approval by the court. The court shall approve the settlement if it deems the settlement to be an amicable resolution to the dispute or to the uncertainty of the registered claims or legal relationships, considering the circumstances and fact of the dispute thus far. The approval shall be given by way of reasoned order from which no appeal shall lie.</p> <p>(4) Consumers registered at the time of</p>

<p>(4) Den zum Zeitpunkt der Genehmigung angemeldeten Verbrauchern wird der genehmigte Vergleich mit einer Belehrung über dessen Wirkung, über ihr Recht zum Austritt aus dem Vergleich sowie über die einzuhaltende Form und Frist zugestellt. Jeder Verbraucher kann innerhalb einer Frist von einem Monat nach Zustellung des genehmigten Vergleichs seinen Austritt aus dem Vergleich erklären. Der Austritt muss bei dem Gericht schriftlich oder zu Protokoll der Geschäftsstelle erklärt werden. Durch den Austritt wird die Wirksamkeit der Anmeldung nicht berührt.</p> <p>(5) Der genehmigte Vergleich wird wirksam, wenn weniger als 30 Prozent der angemeldeten Verbraucher ihren Austritt aus dem Vergleich erklärt haben. Das Gericht stellt durch unanfechtbaren Beschluss den Inhalt und die Wirksamkeit des genehmigten Vergleichs fest. Der Beschluss ist im Klageregister öffentlich bekannt zu machen. Mit der Bekanntmachung des Beschlusses wirkt der Vergleich für und gegen diejenigen angemeldeten Verbraucher, die nicht ihren Austritt erklärt haben.</p> <p>(6) Der Abschluss eines gerichtlichen Vergleichs vor dem ersten Termin ist unzulässig.</p>	<p>approval shall receive the approved settlement together with instructions on the effect of the settlement, their right to withdraw from it as well as the form and time limit. Every consumer can declare his withdrawal from the approved settlement within one month from notification. The withdrawal shall be declared written to the court or recorded in person with the registry of the court. The withdrawal shall not affect the effectiveness of the registration.</p> <p>(5) The approved settlement shall enter into effect if less than 30 per cent of registered consumers have declared their withdrawal from the settlement. The court shall declare by way of reasoned order from which no appeal shall lie the content and the effect of the approved settlement. The reasoned order shall be publicly announced in the claims registry. With publication, the reasoned order takes effect for and against those registered consumers who have not declared their withdrawal.</p> <p>(6) A court settlement before the first court hearing is inadmissible.</p>
<p style="text-align: center;">§ 612</p> <p style="text-align: center;">Bekanntmachungen zum Musterfeststellungsurteil</p> <p>(1) Das Musterfeststellungsurteil ist nach seiner Verkündung im Klageregister öffentlich bekannt zu machen.</p> <p>(2) Die Einlegung eines Rechtsmittels gegen das Musterfeststellungsurteil ist im Klageregister öffentlich bekannt zu machen. Dasselbe gilt für den Eintritt der Rechtskraft des Musterfeststellungsurteils.</p>	<p style="text-align: center;">Sec. 612</p> <p style="text-align: center;">Publications regarding the model declaratory judgement</p> <p>(1) The model declaratory judgment shall be publicly announced in the claims registry after its pronouncement.</p> <p>(2) The lodging an appellate remedy against the model declaratory judgment shall be publicly announced in the claims registry. The same applies if the model declaratory judgement is final and binding.</p>
<p style="text-align: center;">§ 613</p> <p style="text-align: center;">Bindungswirkung des Musterfeststellungsurteils; Aussetzung</p> <p>(1) Das rechtskräftige Musterfeststellungsurteil bindet das zur</p>	<p style="text-align: center;">Sec. 613</p> <p style="text-align: center;">Binding effect of the model declaratory judgement; suspension</p> <p>(1) The final and binding model declaratory judgement shall bind any court called upon</p>

<p>Entscheidung eines Rechtsstreits zwischen einem angemeldeten Verbraucher und dem Beklagten berufene Gericht, soweit dessen Entscheidung die Feststellungsziele und den Lebenssachverhalt der Musterfeststellungsklage betrifft. Dies gilt nicht, wenn der angemeldete Verbraucher seine Anmeldung wirksam zurückgenommen hat.</p> <p>(2) Hat ein Verbraucher vor der Bekanntmachung der Angaben zur Musterfeststellungsklage im Klageregister eine Klage gegen den Beklagten erhoben, die die Feststellungsziele und den Lebenssachverhalt der Musterfeststellungsklage betrifft, und meldet er seinen Anspruch oder sein Rechtsverhältnis zum Klageregister an, so setzt das Gericht das Verfahren bis zur rechtskräftigen Entscheidung oder sonstigen Erledigung der Musterfeststellungsklage oder wirksamen Rücknahme der Anmeldung aus.</p>	<p>by a registered consumer in the decision of a legal proceeding between the registered consumer and the defendant if the decision is dependent upon the declaratory goals or life-circumstances of the model declaratory action. This shall not apply if the registered consumer withdrew his registration effectively.</p> <p>(2) If a consumer filed a claim against the defendant which is dependent on the declaratory goals and life-circumstances of the model declaratory action before the publication of information concerning the model declaratory action in the claims registry, and then registers his claim or legal relationship in the claims registry, the court shall suspend the proceedings until the final and binding decision or other disposal of the model declaratory action or the effective withdrawal of the registration.</p>
<p>§ 614 Rechtsmittel</p> <p>Gegen Musterfeststellungsurteile findet die Revision statt. Die Sache hat stets grundsätzliche Bedeutung im Sinne des § 543 Absatz 2 Nummer 1.“</p>	<p>Sec. 614 Legal remedies</p> <p>Against the model declaratory action appeal on points of law takes place. The legal matter is always of fundamental significance in the sense of § 543 paragraph 2 number 1.”</p>
<p>[...]</p>	<p>[...]</p>
<p><b>Artikel 6</b> <b>Änderung des Bürgerlichen Gesetzbuchs</b></p>	<p><b>Article 6</b> <b>Changes to the German Civil Code</b></p>
<p>§ 204 des Bürgerlichen Gesetzbuchs [...] wird wie folgt geändert:</p> <p>1. Nach Absatz 1 Nummer 1 wird folgende Nummer 1a eingefügt:  „1a. die Erhebung einer Musterfeststellungsklage für einen Anspruch, den ein Gläubiger zu dem zu der Klage geführten Klageregister wirksam angemeldet hat, wenn dem angemeldeten Anspruch derselbe Lebenssachverhalt zugrunde liegt wie den Feststellungszielen der Musterfeststellungsklage,“.</p> <p>2. Nach Absatz 2 Satz 1 wird folgender Satz eingefügt:  „Die Hemmung nach Absatz 1</p>	<p>Sec. 204 of the German Civil Code [...] shall be changed as follows:</p> <p>1. Following paragraph 1 number 1 the following number 1a shall be inserted:  “1a. filing a model declaratory action for a claim that a creditor effectively registered in the claims registry for the action if the registered claim depends on the same life-circumstances as the declaratory goals of the model declaratory action,”.</p> <p>2. Following paragraph 2 sentence 1 the following sentence shall be inserted:  “Suspension according to paragraph 1 number 1a also ends six months after</p>

Nummer 1a endet auch sechs Monate nach der Rücknahme der Anmeldung zum Klageregister.“	the withdrawal of the registration in the claims registry.”
--	---

\* The law is only translated insofar as is relevant for the purpose of this paper. Omissions are indicated by use of [...].

## II. Additional calculations and tables

- The following table provides calculations relating to the analysis of the rational consumer in Subchapter **B.II.1**.

Litigation value	Expected value at $p_{mda}$ and $p_i = 0.25$	Expected costs at $(1-p_i)$	Expected value at $p_{mda}$ and $p_i = 0.75$	Expected costs at $(1-p_i)$	ac+cc <sup>117</sup>
500	187,5	980,88	562,5	526,96	907,84
1000	375	1406,49	1125	668,83	1.475,32
2000	750	2257,725	2250	952,575	2.610,30
3000	1125	2839,965	3375	1146,655	3.386,62
4000	1500	3422,19	4500	1340,73	4.162,92
5000	1875	4004,445	5625	1534,815	4.939,26
10000	3750	6915,615	11250	2505,205	8.820,82
20000	7500	9202,335	22500	3267,445	11.869,78
30000	11250	10667,325	33750	3755,775	13.823,10
32000	12000	11560,605	36000	4053,535	15.014,14

- The following table provides the results for the rational company as an actor with differing probabilities.

expected $W$	Damage $D$	Reputatio nal	probability_ d=0.5	probability_m da=0.5	number of cases	litigation value $d$
-----------------	------------	------------------	-----------------------	-------------------------	--------------------	-------------------------

<sup>117</sup> supranote 37.

		Damage X			y	
100000	5000	25000	0,1	0,5	100	1000
100000	10000	25000	0,2	0,5	100	1000
100000	15000	25000	0,3	0,5	100	1000
100000	20000	25000	0,4	0,5	100	1000
100000	25000	25000	0,5	0,5	100	1000
100000	30000	25000	0,6	0,5	100	1000
100000	35000	25000	0,7	0,5	100	1000
100000	40000	25000	0,8	0,5	100	1000
100000	45000	25000	0,9	0,5	100	1000
100000	50000	25000	1	0,5	100	1000
100000	5000	5000	0,5	0,1	100	1000
100000	10000	10000	0,5	0,2	100	1000
100000	15000	15000	0,5	0,3	100	1000
100000	20000	20000	0,5	0,4	100	1000
100000	25000	25000	0,5	0,5	100	1000
100000	30000	30000	0,5	0,6	100	1000
100000	35000	35000	0,5	0,7	100	1000
100000	40000	40000	0,5	0,8	100	1000
100000	45000	45000	0,5	0,9	100	1000
100000	50000	50000	0,5	1	100	1000
100000	1000	5000	0,1	0,1	100	1000
100000	4000	10000	0,2	0,2	100	1000



100000	9000	15000	0,3	0,3	100	1000
100000	16000	20000	0,4	0,4	100	1000
100000	25000	25000	0,5	0,5	100	1000
100000	36000	30000	0,6	0,6	100	1000
100000	49000	35000	0,7	0,7	100	1000
100000	64000	40000	0,8	0,8	100	1000
100000	81000	45000	0,9	0,9	100	1000
100000	100000	50000	1	1	100	1000

3. Tabulated results for *Figure 8*.

$L$	$j$	$d$	$y$	$k$	expected value at $p_k = 0.3$ and $p_{mda}$ from 0.1 to 1	expected costs	$ac+cc$
100.000	50.000	1.000	100	500	5.015	23.612	26.236,06
100.000	50.000	1.000	100	500	10.030	20.990	26.237,06
100.000	50.000	1.000	100	500	15.045	18.367	26.238,06
100.000	50.000	1.000	100	500	20.060	15.743	26.239,06
100.000	50.000	1.000	100	500	25.075	13.120	26.240,06
100.000	50.000	1.000	100	500	30.090	10.496	26.241,06
100.000	50.000	1.000	100	500	35.105	7.873	26.242,06
100.000	50.000	1.000	100	500	40.120	5.249	26.243,06
100.000	50.000	1.000	100	500	45.135	2.624	26.244,06
100.000	50.000	1.000	100	500	50.150	0	26.245,06