

ESSAY  
CLASS ACTION MECHANISMS IN THE COMPARATIVE  
CONTEXTS:  
A LAW AND ECONOMICS PERSPECTIVE

*Jing-Huey Shao\**

ABSTRACT

*Class actions are designed to provide claimants a mechanism by which to enforce their rights with objectives including achieving access to justice, being compensated, and deterring misconduct. The significant impact of class disputes on society brings both common law and civil law countries' attention to the promotion of more efficient enforcement. Through identifying the features of class actions, this study categorizes class action mechanisms into three major types for the purpose of economic analysis: Common Law Type, Civil Law Type A, and Civil Law Type B. A model comprising transaction cost, risk, and incentive, three important factors related to an economic analysis of law, is adopted to evaluate which type of class action is more likely to attain the aforementioned objectives. The results show that Common Law and Civil Law Type B are the two more favorable options with respect to class action designs as Civil Law Type A failed to meet the objectives. However, since class actions reflect some public good nature, a contract failure problem is unavoidable when using private enforcement to pursue public good. While there is no perfect model, non-profit organizations with appropriate governmental intervention are suggested as an option to overcome such restraint.*

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\* Jing-Huey Shao is currently an Associate Professor of Law at National Cheng Kung University. I thank Gerrit De Geest and anonymous reviewers for helpful comments and conversations. I also thank Ministry of Science and Technology, R.O.C., for financial support.

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### *I. INTRODUCTION*

In recent years, class action procedures have flourished across the globe, and are usually accompanied by animated debate and controversy. Individuals, non-profit organizations, and public officials are pursuing remedies for mass harms: injuries caused by defective products or pollution, financial losses resulting from violations of antitrust law, corporate, and securities law, etc. While the United States is renowned for such mechanisms, other countries are developing mechanisms for mass dispute resolution in the form of several variations. Class action or similar mechanisms, such as representative action or aggregate action,<sup>1</sup> are gradually being adopted by many jurisdictions. With many variants around the world, it is necessary to determine how they

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1. Deborah R. Hensler, *The Global Landscape of Collective Litigation*, in *CLASS ACTIONS IN CONTEXT: HOW ECONOMICS, POLITICS AND CULTURE SHAPE COLLECTIVE LITIGATION* 3 (Deborah R. Hensler et al. eds., 2016).

have been performed and whether they are effective in a comparative context. Not surprisingly, due to the complexity of the mechanisms and the difficulties in comparing distinctive jurisdictions, little scholarly work has been done to study how these procedures operate in practice.

While it is important to know how to litigate or defend in a class action in foreign countries as transactions and business are more multi-national and global, transnational litigation adds to the challenges presented by class actions including multi-state plaintiffs or defendants. Knowledge related to different types of class actions around the world now becomes crucial. For instance, courts encounter jurisdiction or enforcement issues regarding litigation arising out of the same facts but involving foreign nationals whose countries enforce different types of class or aggregate procedures. The aforementioned issues require judges to cope with questions as to whether their citizens are bound by the class judgment or settlements arrived at forum state or elsewhere.<sup>2</sup> To address this issue, US federal courts have held that to certify a class including foreign nationals, the court must consider whether foreign courts, having no class action procedure of their own, would enforce US class action judgments.<sup>3</sup> Also, it is common for jurisdictions outside the United States to have courts that deal with whether to recognize or to enforce US court judgments, particularly when they do not have the same type of class action mechanisms to include absent plaintiffs under opt-out designs.<sup>4</sup>

It will undoubtedly be an enormous mission to understand each type of class action at the global level. Hensler, Hodges, and Tzankova have contributed a substantial amount of valuable information and insights into this field from an empirical perspective by collecting national reporters from several countries to establish basic distinctions. Also, there has been literature covering topics as broad as introducing various kinds of class action mechanisms, or as specific as discussing particular issues in certain types of class actions. However, there has not been much

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2. Deborah R. Hensler, *The Future of Mass Litigation: Global Class Actions and Third-Party Litigation Funding*, 79 GEO. WASH. L. REV. 306, 310 (2011).

3. *Id.* at 310. Linda Sandstrom Simard & Jay Tidmarsh, *Foreign Citizens in Transnational Class Actions*, 97 CORNELL L. REV. 87 (2011).

4. Sandstrom Simard & Tidmarsh, *supra* note 3, at 87.

research directly comparing different systems from an economic perspective. Klement and Weinshall-Margel recently put forth a cost benefit analysis of class actions from an Israeli point of view and proposed an analytical framework for evaluating the effectiveness of class actions. Their analysis focuses on whether class actions raise overall net social welfare.<sup>5</sup> One of the features that makes this Essay distinct from previous studies is that it puts the emphasis on the plaintiff side in analyzing one of the major problems with collective actions: access to justice, since there has been relatively little use of the procedure to date in most other countries outside the United States.<sup>6</sup> Since there are many participants in a class action with different economic perspectives, plaintiffs directly influence whether class actions can take place, which implies the effectiveness of access to justice. An economic analysis would be one of the feasible ways to approach this question, especially when obtaining empirical data worldwide is difficult.

The main objectives of class actions that are generally recognized include compensation, deterrence, and access to justice.<sup>7</sup> While access to justice is the threshold question of compensation and the two are usually being discussed together, deterrence is usually categorized as another issue. The deterrence effect of class actions has been commonly accepted in the United States. Conversely, studies regarding the same effect in other jurisdictions are still inadequate. This is especially critical for jurisdictions that have low utilization rate of class actions and where tortfeasors such as enterprises may be under-deterred from their wrongful acts.

Through an economic analysis, it is possible to determine whether these class action mechanisms have met their set goals, while at the same time minimizing costs. For this analysis, instead of using specific countries for comparison, the Author simplified and categorized different types of class action mechanisms into a

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5. Alon Klement & Keren Weinshall-Margel, *Cost-Benefit Analysis of Class Actions: An Israeli Perspective*, 172 J. INSTITUTIONAL & THEORETICAL ECON. 75, 81 (2016).

6. Hensler, *supra* note 2, at 309.

7. Klement & Weinshall-Margel, *supra* note 5, at 82. The objectives of class actions include: (1) enforcing the law and deterring future violations, (2) exercising the right of access to the court, especially for disadvantaged groups or individuals, and (3) providing compensation for injured parties.

few major types according to the features identified by previous studies. Regarding the access to justice and compensation objectives, by outlining the parameters for measuring the costs and benefits relevant to these objectives, the Author assessed the utility for the principals and agents in each type of class action. The framework of this analysis consists of the consideration of transaction costs, risk, and incentive which are based on classical microeconomic literature. With respect to the deterrence effect, the Author referred to the theoretical framework from punishment literature and transform it into explaining class actions. The aforementioned analyses are combined together to examine the merits and limitations in different types of class action mechanisms, followed by discussions and recommendations.

## II. LITERATURE REVIEW

For many years after Rule 23 of US Federal Rule of Civil Procedure was adopted, the United States was not only the center of class action litigation, but was virtually the only jurisdiction that permitted class actions. The opt-out mechanism in conjunction with enormous punitive awards creates a formidable weapon for plaintiffs against defendants in mass disputes. With the power and great incentives that attract numerous entrepreneur lawyers and plaintiffs to file suits in the United States, the potential consequences of such US-style class actions have triggered great controversy. First, plaintiffs' attorneys in class actions are subject to only minimal monitoring by dispersed clients, which raises the specter that the entrepreneurial attorneys serve their own interest at the expense of the client.<sup>8</sup> Also, the aggregation of lawsuits increase the bargaining power of the plaintiffs, which induces frivolous lawsuits that force the defendants to settle to avoid potentially outrageous judgment awards. Some scholars believe the regulatory structure of the US class actions is poorly designed in a number of respects, particularly when applied to "large-scale, small-claim" litigation where the overall liability is large, but the individual interests of the class members are small.<sup>9</sup> With such a

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8. Jonathan R. Macey & Geoffrey P. Miller, *The Plaintiffs' Attorney's Role in Class Action and Derivative Litigation: Economic Analysis and Recommendation For Reform*, 58 U. CHI. L. REV. 1, 3 (1991).

9. *Id.*

significant impact on the landscape of class dispute resolution, certain critical concerns still lie within US class actions.

However, since the comments have turned against class actions in the United States, class actions and other group litigation procedures seem to have gained attention in other parts of the world. Outside the United States, class actions have been authorized in the Quebec province in 1973 and spread to other Canadian provinces in the early 1990s.<sup>10</sup> Australia adopted a federal class action rule in 1992, which was followed by its states in the late 1990s.<sup>11</sup> On virtually every continent, one or more nations have adopted some sort of aggregated or representative litigation procedure.<sup>12</sup> At least twenty-one of the twenty-five largest economies in the world have adopted some type of class action, most in the last twenty years.<sup>13</sup> In the case of jurisdictions that have rejected representative litigation, they also have instituted group litigation procedures to manage mass disputes.<sup>14</sup> Countries have adopted class actions diversely. In other words, these procedures vary considerably regarding who has standing to sue, scope, remedies, and whether the procedure requires or allows class members to opt in or opt out.<sup>15</sup> These variations in key features are included as the parameters used here in the analysis of different class actions.

Our analytical model includes transaction cost, risk, and incentive which are three important factors that are commonly used in microeconomics to evaluate different types of class actions. The issue of transaction cost was initially raised by Ronald Coase in his articles "The Nature of the Firm"<sup>16</sup> and "The Problem of Social Cost."<sup>17</sup> In Coase's view, firms and markets are alternative governance structures that differ in terms of their transaction costs. Transaction cost is viewed as the price mechanism utilized by different governance structures. Henceforth, transaction costs

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10. Hensler, *supra* note 2, at 306.

11. *Id.*

12. Hensler, *supra* note 1, at 3.

13. *Id.*

14. Hensler, *supra* note 2, at 307.

15. *Id.* The variations in key features are: Standing: (1) public officials; (2) licensed associations; (3) private actors. Scope: (1) limited; (2) transsubstantive. Remedies: (1) injunctive or declaratory; (2) damages. Procedure: (1) opt-in; (2) opt-out.

16. R. H. Coase, *The Nature of the Firm*, 4 *ECONOMICA* (NEW SERIES) 386 (1937).

17. R. H. Coase, *The Problem of Social Cost*, 3 *J. L. & ECON.* 1, 2 (1960).

in this Essay are referred to as the “cost of running system”<sup>18</sup> from the plaintiff perspective. While the idea of “transaction cost” conceptualized by Coase is the most rudimentary form of this concept, it has been successively expounded by later economists with amplified theories and evidence. To sort out an unambiguous categorization of the transaction cost for comparative studies, in this study, the classification of transaction costs done by Carl Dahlman in his article “The Problem of Externality” is adopted.<sup>19</sup> Dahlman groups transaction costs into three types based on the different phases of contract-making: search and information cost, bargaining and decision cost, and policing and enforcement cost.<sup>20</sup> Also, the Author refers to the categorization of “cost of justice,” which includes “monetary cost, opportunity cost, and intangible cost” proposed by Gramatikov et al.<sup>21</sup> In a typical class action, particularly if individual loss is small, but the number of people who suffer from the damages and injuries is large, there will be no incentive for an individual to initiate a lawsuit. Hence, with respect to the aforementioned objectives of compensation and access to justice, the threshold question is whether the mechanism can lower the transaction cost more than the benefit it creates, just as Charles Silver believes that transaction cost is a significant parameter in determining collective willingness to enter lawsuit procedures.<sup>22</sup> Hence, this Essay particularly focuses on the plaintiff side since there are still not enough discussions on the relationship between claimants and their attorneys outside the United States.

The other important factors utilized in this Essay are incentive and risk. The very first person to make an incentive analysis of sharecropping was Adam Smith in 1776.<sup>23</sup> Also, Steve Cheung made a systematic incentive, risk, and transaction cost analysis of a contractual arrangement on sharecropping in the late

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18. Aric Rindfleisch & Jan B. Heide, *Transaction Cost Analysis: Past, Present, and Future Applications*, 61 J. MARKETING 30, 31 (1997).

19. Carl J. Dahlman, *The Problem of Externality*, 22 J. L. & ECON. 141 (1979).

20. *Id.*

21. MARTIN GRAMATIKOV ET AL., A HANDBOOK FOR MEASURING THE COSTS AND QUALITY OF ACCESS TO JUSTICE 68 (2010).

22. Charles M. Silver, *Class Actions – Representative Proceedings*, 7600 ENCYCLOPEDIA OF L. & ECON. 194 (1999), <https://reference.findlaw.com/lawandeconomics/7600-class-actions.pdf> [<https://perma.cc/KE5F-BLWN>].

23. See generally ADAM SMITH, *THE WEALTH OF NATIONS* (Edwin Cannan ed., 2003) (first published in 1776).

1960s. Cheung believes that “the choice of contractual arrangement is made so as to maximize the gain from risk dispersion subject to the constraint of transaction costs.”<sup>24</sup> While incentive, risk, and transaction cost are the three basic elements of microeconomics, the fact that law and economics should consider them is usually attributed to Guido Calabresi, who argued that, for accidents, there are primary costs, secondary costs, and tertiary costs, which are believed here to reflect the spirit of incentive, risk, and transaction cost, respectively.<sup>25</sup>

The other objective (deterrence) mainly addresses a problem where violation of a legal duty results in dispersed harm to numerous individuals. When each individual’s loss does not justify pursuing its recovery in court, producers of mass harm might not be sufficiently deterred from violating their legal duties. Class actions address this problem by aggregating small individual claims into “marketable” lawsuits by creating a procedural mechanism that incentivizes representing plaintiffs and attorneys to identify suitable causes of action and to litigate them in court.<sup>26</sup> One of the ways to estimate deterrence value is by observing the change in defendants’ behavior in expectation of being subject to class actions. However, such observations are difficult to obtain.<sup>27</sup> Hence, this Essay refers to the deterrence and punishment literature as the tool for economic analysis. The theory of punishment and deterrence started with Becker presenting his idea about developing an optimal decision to combat illegal behavior, in which the variables are the probability that an offense is discovered and the size of the punishment from the perspective of criminal law.<sup>28</sup> This concept was later applied to civil law schemes, where scholars believed that when there are enforcement errors that enable injurers to externalize social cost, punitive damages are required to align expected liability and social cost, as well as to solve the under-deterrence problem by

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24. Steven N. S. Cheung, *Transaction Costs, Risk Aversion, and the Choice of Contractual Arrangements*, 12 J. L. & ECON. 23, 25 (1964).

25. See generally GUIDO CALABRESI, *THE COST OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* (1970).

26. Klement & Weinsall-Margel, *supra* note 5, at 75.

27. *Id.* at 81.

28. Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169, 170 (1968).

increasing the amount of the sanction.<sup>29</sup> While the enforcement error term may vary from the probability of escaping liability to the probability of punishment, these labels basically indicate similar ideas and serve the same function: to determine punitive multipliers that are intended to be equal to the reciprocal of the enforcement error.<sup>30</sup> Through applying the punitive multipliers to the damage amount, it becomes possible to compare the deterrence effect among different types of class actions.

### III. RESEARCH MODELS

By applying a model consisting of transaction cost, risk, and incentive, we aim to evaluate which type of class action is more likely to attain the objectives of access to courts, compensation, and deterrence. For the first two goals, the costs are estimated against the benefits by separately outlining the parameters for claimants (principals) and attorneys (agents) since they may have different economic perspectives or conflicts of interest. Of the functions, all the constituents of the transaction cost, either pre-litigation or in-litigation, are taken into account. The information cost interlinks two phases of the litigation, which include the cost of searching for an attorney (pre-litigation) and the cost of evidence-collecting (during litigation), as well as costs in association with other information collection efforts. Information cost can also be broken down into the cost for use of information, discovery related costs, witness' compensation, experts' fees, and service for summons. The bargaining cost between a client and her/his attorney usually takes place before the litigation process on the content of legal service agreements. The monitoring cost is indispensable for the client to ensure the subsequent proceeding of the lawsuit. As the litigation proceeds, the court fee contains items ranging from filing fees, translators' fees, notary's fees, to copying and other overheads. Last but not least, attorney fees are in all the phases and procedures of the lawsuit. Encompassing the aforementioned, inclusive utility functions for the principal (claimant) and the agent (attorney) are as follows:

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29. Robert D. Cooter, *Economic Analysis of Punitive Damages*, S. CAL. L. REV. 56, 79 (1982-1983); Mitchell A. Polinsky & Steven Shavell, *Punitive Damages Economic Analysis*, 111 HARV. L. REV. 869, 873 (1998).

30. *Id.*

$$(1.0) U=B-TC$$

$$(1.1) U_p=B_p-TC_p$$

$$(1.2) U_a=B_a-TC_a$$

U denotes the utility in consideration of benefit against transaction cost. B, TC, p and a represent Benefit, Transaction Cost, principal, and agent, respectively. Risk and incentive, although not appearing in the formula in the basic function, are taken into account when evaluating transaction costs and benefits, and appear in later various functions. While the analytic model is fairly straightforward, the variations in different jurisdictions make the constituents of the function highly distinct from one another.

As to the cost part, the Author also outline parameters separately for principal and agent. For principals, because claimants have to search for agents, negotiate with them, and monitor them during the process, the basic function include all the constituents Dahlman listed. Also, because the claimants have to spend time and effort in a general sense, cost of justice is included as well. Litigation costs, which are illustrated as court fees here, is contingent upon whether the jurisdiction adopts American rule or English rule (cost-shifting). Attorney fees are also indispensable to the cost for principals unless it was a contingency fee arrangement. Hence, a more detailed function for principals can be broken down as follows:

Transaction cost for Principal= Information cost+ Bargaining cost+ Monitoring cost +Cost of justice +Court fee+ Attorney fee

$$TC_p= IC_p + BC_p + MC_p +CJ + CF + AF$$

As for agents, the constituents taken into consideration under the framework are basically the same as those for the principals. However, the meaning of each constituent and the results are not the same. Information cost for attorneys mainly refers to the cost during the litigation. Also, although there are bargaining costs when entering into a legal service contract, there is neither a monitoring cost from the attorney side, nor cost of justice or court fees for processing the cases. Therefore, the function for the agent is as follows:

Transaction cost for Agent= Information cost+ Bargaining cost

$$TC_a= IC_a + BC_a$$

With respect to the benefits, for most jurisdictions, principals are the ones who shoulder and care about the case results since they pay the costs and receive the judgment award. In other words, they bear the risk and are incentivized by the benefit against the transaction cost. The expected benefit is the prevailing rate for the litigation multiplied by the judgment award, minus the attorney fee. Here, with “w” denoting the winning rate of the case, the benefit for the principal can be illustrated as follows:

Benefit for Principal=  $w(\text{Judgment award})$

$B_p = w(JA)$

Attorneys in most jurisdictions charge by the case or by the hour regardless of the case outcome. Therefore, the benefit for the agent is comparatively simple, i.e. the fee they receive for their services.

Benefit for Agent=Attorney fee

$B_a = AF$

#### IV. TYPES OF CLASS ACTION MECHANISMS

Although class action mechanisms are developed based on their distinct social and economic backgrounds, as well as their legal legacies, they follow a few major models. The Author categorize them herein according to their features instead of rigidly sorting them by their jurisdictions. Based on the critical features identified in previous studies, three types of class actions are highlighted for the purpose of the economic analysis: Common Law Type (US type), Civil Law Type A, and Civil Law Type B, which we believe covers a substantial percentage of the types of class actions.

##### A. Basic Features of Common Law Class Actions

Because class action is comparatively mature in the US legal system, it is referred to as a representative example of the Common Law Type.<sup>31</sup> Rule 23 of the US Federal Rules of Civil Procedure

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31. Deborah Hensler et al., *The Globalization of Class Actions: An Overview*, 622 ANN. AM. ACADEMY OF POL. & SOC. SCI. 7, 10 (2009). See also Amichai Magen & Peretz Segal, *The Globalization of Class Actions National Report: Israel*, GLOBAL CLASS ACTION EXCHANGE, [http://globalclassactions.stanford.edu/sites/default/files/documents/Israel\\_National\\_Report.pdf](http://globalclassactions.stanford.edu/sites/default/files/documents/Israel_National_Report.pdf) [<https://perma.cc/KWF8-F99K>] (last visited Sept. 10, 2019).

specifies the main features of US class actions. To qualify as a class action, a lawsuit must be certified by the court. After the certification, the court appoints a class counsel. Class actions involving damage claims certified under Rule 23(b)(3) are subject to specific notice and opt-out requirements.<sup>32</sup> Additionally, Rule 23(e) and 23(h) stipulate the court's authority to review the settlements and attorney fees of class actions.<sup>33</sup> Beside the stated procedural features of US class actions, the most influential factor that motivates the initiation of class actions by attorneys is the huge financial incentive comprised of enormous punitive awards and contingency fee arrangements that are prevalent in class actions.<sup>34</sup>

### *B. Basic Features of Civil Law Class Actions*

Most of the civil law countries adopt class action mechanisms by using opt-in designs to aggregate claimants, with some minor variations. This is because civil law countries still feel uncomfortable about accepting "absent parties" to be class members with opt-out designs, which is a departure from the traditional civil procedure, especially concerning *res judicata* issues.<sup>35</sup> They offer significantly less compensation as compared to common law countries because civil law countries do not apply punitive damage unless the law specifies that it is necessary to do so. Even if punitive damages are stipulated by law, the damage amount is usually capped by a certain fixed amount or within a specific fixed multiplier of the actual damage. Also, contingency fee arrangements are prohibited or only allowed under restrictions in most civil law countries.<sup>36</sup> Besides the referenced common

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32. See FED. R. CIV. P. 23(b)(3).

33. See FED. R. CIV. P. 23(e)(h).

34. Wallace Wen-Yeu Wang & Chen Jian-Lin, *Reforming China's Securities Civil Actions: Lessons From U.S. PSLRA Reform and Taiwan's Government-Sanctioned Non-Profit*, 21 COLUM. J. ASIAN L. 115, 135 (2008).

35. Jing-Huey Shao, *Class Action Mechanisms in Chinese and Taiwanese Contexts—A mixture of Private and Public Law*, 28 EMORY INT'L L. REV. 237, 279 (2014).

36. See Taipei Bar Association Professional Legal Ethics art. 35, TAIPEI BAR ASS'N, <https://www.lawbank.com.tw/treatise/lawrela.aspx?lsid=FL010136&ldate=20030907&lno=1> [<https://perma.cc/5RLX-2SWC>] (last visited Sept. 10, 2019). Contingency fee arrangements are prohibited in certain types of cases. Even if it is allowed, the Taipei Bar Association capped the total fees that attorneys can charge per case, which substantially limits the revenue of attorneys who represent class actions. See also Charter of the Taipei Bas Association art. 29, TAIPEI BAR ASS'N,

features, the class action mechanisms in civil law countries can further be divided into two types.

### 1. Civil Law Type A

The Civil Law Type A (“Type A”) class action mechanism facilitates the aggregation of claimants by simplifying the filing procedure. If the plaintiff petitions and the court considers it appropriate, the court can issue a public notice for potential claimants to join the lawsuit by registration or by some other similar means.<sup>37</sup> Other than the stated feature, this type of class action is essentially identical to traditional joinder claims or intervention claims used for solving multiple-party disputes.

### 2. Civil Law Type B

The Civil Law Type B (“Type B”) class action mechanism confers non-profit organizations (“NPOs”) or government-sanctioned non-profit organizations (“GSOs”), such as trade unions or labor unions, to bring class actions under special laws.<sup>38</sup> By enjoying the advantages in terms of litigation specified by laws, such as court fee discounts or exemption of securities for injunctions in bringing class actions,<sup>39</sup> the qualified organizations

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<http://www.rootlaw.com.tw/LawArticle.aspx?LawID=A040090030002700-0890901>  
[<https://perma.cc/TG2H-X26S>](last visited Sept. 10, 2019).

37. See Taiwan Code of Civil Procedure art. 44-2, JUDICIAL YUAN REPUBLIC OF CHINA, available at <https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=B0010001> [<https://perma.cc/7KZ4-GD9C>] (Litigants whose common interests have arisen from the same transaction or occurrence may appoint one or more persons from themselves to sue on behalf of them. The court may publish a notice for other persons with the same common interests to join such action within a designated period of time). See also Civil Procedure Law of the People’s Republic of China (promulgated by the Standing Comm. Nat’l People’s Cong., Apr. 9, 1991, art. 55), reprinted in *THE CIVIL PROCEDURE LAW AND COURT RULES OF THE PEOPLET’S REPUBLIC OF CHINA* (Wei Luo ed., 2006) (“Where a case has numerous litigants but the exact number of the litigants is uncertain, the court may issue a public notice to inform those interested persons who are entitled to the claim to register their rights with the court within a designated period of time”).

38. Public officials are utilized in some jurisdictions. See Hensler, *supra* note 1, at 7. However, for the sake of simplicity, we exclude them for the analysis as they have commonalities with GSOs.

39. For example, Article 52 of Taiwan Consumer Protection Law stipulates, “[i]f a consumer protection group brings a litigation in accordance with Article 50 in its own name, the court fees for the portion of the claim exceeding NT\$600,000 shall be waived.” Consumer Protection Law, art. 52 (Taiwan). Also, Article 53 specifies that the court fee for such litigation shall be exempted. *Id.* art. 53.

provide a more convenient means for potential claimants to opt-in the class. Although this type of mechanism does not exclude other individuals or entities from initiating suits, a qualified organization generally has a more advantageous position to file class actions. Also, these NPOs or GSOs are nominally the plaintiffs in most situations because the jurisdictions of this type of class actions hold that this type of group has standing to sue for mass disputes.<sup>40</sup>

## V. THE ECONOMIC ANALYSIS OF CLASS ACTION MECHANISMS

### A. Common Law Type

For the Common Law Type, once the court has certified a class, the potential claimants who are included in the class simply need to decide whether to opt-out of the class or not.<sup>41</sup> Hence, almost no transaction cost occurs in searching for attorneys, joining the lawsuit, or negotiating among the parties and with the agents. Also, they usually have enormous size classes due to the fact that the claimants have been automatically included in the class,<sup>42</sup> and where attorneys bore the relevant costs for them under contingency fee arrangements, which constitutes positive incentives for them to stay in the class.<sup>43</sup>

On the other hand, under such contingency fee structures, the attorneys for plaintiffs will generally advance the expenses of the class actions and will be reimbursed only if the action is favorable. Hence, they estimate the cost and the expected reward beforehand to determine if the action justifies the risks being undertaken.<sup>44</sup> While contingency fee arrangements associated with punitive awards create a huge incentive to motivate lawyers to undertake large cases, they are subject to very limited monitoring by the disorganized clients (claimants). Hence, by bearing such a substantial litigation risk, US type lawyers can exercise plenary

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40. Antonio Gidi, *Class Actions in Brazil – A Model for Civil Law Countries*, 51 AM. J. COMP. L. 311, 334, 348 (2003). See also Hensler, *supra* note 1, at 7.

41. See FED. R. CIV. P. 23(b)(3).

42. *Id.*

43. Thomas J. Miceli, *Do Contingent Fees Promote Excessive Litigation?* 23 J. LEGAL STUD. 211, 211-12 (1994).

44. John C. Coffee, Jr., *Reforming the Securities Class Action: An Essay on Deterrence and Its Implementation*, 106 COLUM. L. REV. 1534, 1545-47 (2006).

control over important decisions.<sup>45</sup> The contingency fee is usually one-third to forty percent of the judgment award, which is a common practice in the United States. Here, the Author denotes “n” as the contingency fee percentage, “JA<sub>u</sub>” as the generally higher US judgment award, and “w” as the prevailing rate of the case, for which the original functions for principals and agents are as follows:

Benefit for Principal =  $w(\text{Judgment award})$

$B_p = (1-n)w(JA_u)$

$TC_p = 0$

Benefit for Agent = Attorney fee = contingency fee percentage of the judgment award

$B_a = AF = nw(JA_u)$

$TC_a = CF + IC_a$

The contingency fee here is considered the benefit for the attorney, and court fees and other investigations-related information costs are assumed by the agent, so they are taken into account as the transaction costs. Therefore, the utility function can further be illustrated as follows:

(2.1)  $U_p = (1-n)w(JA_u)$

(2.2)  $U_a = nw(JA_u) - CF - IC_a$

The eventual utility for each claimant will end up positive since principals do not have to bear costs when the case is lost, but can receive a share of the judgment award if the case prevails. On the other hand, if the case is lost, all the costs will be borne by the attorneys. This makes it a zero-cost decision for the claimants. Therefore, the attorneys will evaluate the benefit against the possible risks and costs to decide whether to undertake the case, and will reject it if the risk does not justify the gain against the cost. Thus, for the Common Law Type, the class litigation carries little risk for claimants and sets few barriers for entry, which effectively enhances their willingness to claim compensation provided the attorneys are willing to handle the case.

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45. Macey & Miller, *supra* note 8, at 3.

*B. Civil Law Type A*

As previously noted, Type A class actions are essentially consensual group lawsuits adopting opt-in mechanisms. The transaction cost for joining the class is high because each plaintiff has to exert some effort in searching for attorneys and to be included in the lawsuit. Additionally, negotiations among the parties are required to elect the representative plaintiff and the class counsel, which also increases the transaction cost.<sup>46</sup> Therefore, the sizes of the class are usually small, not the tens of thousands of claimants as which are often seen in the common law type.<sup>47</sup> Meanwhile, since the class counsel does not have the same controlling power as that in common law type of class actions, the relevant bargaining costs (BCp & BCa) and the monitoring costs (MCp) between the attorneys and their clients are substantial, too. In terms of incentives, because contingency fee arrangements and punitive damage awards are not common practice, the claimants have comparatively low incentive to file suits even though the information cost (ICp & ICa) is usually not as high as the common law type due to different designs in evidence and civil procedure laws. With respect to the court fees, as most of the civil law countries adopt English rule, where it is allocated in the principal's function and is applied when the case is lost (1-w).<sup>48</sup>

On the other hand, while attorneys do not have the large financial stakes incurred by the common law type, they receive rewards for their legal services without risk by case or by an hourly rate (AF). Therefore, the incentive for the attorneys is positive. According to the aforementioned features, the utility function for Type A can be elaborated as follows:

$$(3.1) U_p = B_p - TC_p = w(JA_v) - IC_p - BC_p - MC_p - CJ - (1-w)CF - AF$$

$$(3.2) U_a = AF - IC_a - BC_a$$

Since principals are responsible for choosing the representatives and for bearing risks ranging from adducing

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46. Taiwan Code of Civil Procedure, Art. 44-2, JUDICIAL YUAN REPUBLIC OF CHINA available at <https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=B0010001> [<https://perma.cc/7KZ4-GD9C>].

47. Hensler, *supra* note 2, at 306; KUO-CHANG HUANG, COLLABORATIVE CASE STUDY PROJECT ON GLOBAL CLASS ACTION & GROUP LITIGATION, Appendix III (2011).

48. Theodore Eisenberg & Geoffrey P. Miller, *The English Versus the American Rule on Attorney Fees: An Empirical Study of Public Company Contracts*, 98 CORNELL L. REV. 327, 327 (2013).

evidence to the result of the case, advancing all the costs is a significantly high entry requirement for the claimants, especially when the prevailing judgment award (JAv) is moderate because of the rarely utilized punitive damage award and petite class size. Therefore, Type A class actions appear to be a poor choice for the claimants.

### C. Civil Law Type B

In Civil Law Type B class actions, the NPOs or GSOs provide convenient means for potential claimants to opt-in the class. Additionally, NPOs or GSOs usually have standing and can be the representative plaintiffs and hire their own counsel, which saves the cost of bargaining and monitoring between claimants and representatives. Also, because these NPOs or GSOs are required to register with the authorities, this to some extent warrants their proficiency. Therefore, the transaction costs for plaintiffs to join the lawsuit are lower compared to those incurred by Type A ( $dICp$  &  $dMCp$ ), as well as the bargaining cost between principals and agents ( $dBCp$  &  $dBCa$ ). More importantly, NPOs or GSOs usually bear the relevant costs for claimants with external public or private funding,<sup>49</sup> which increases the incentive for claimants to join such class actions. Because the risk and costs fall upon NPOs or GSOs, the responsibility that the claimants must bear is rather limited. On the other hand, while bearing costs, NPOs or GSOs enjoy preferential treatment by the special laws regarding court fees ( $d(1-w)CF$ ), and in some areas, are even conferred with power in obtaining evidences with less cost ( $dICa$ ),<sup>50</sup> which is similar to semi-public agencies. Lastly, in most situations, they do not claim fees for their legal services according to special laws such as consumer protection laws or investor protection laws.<sup>51</sup> The utility functions can again be re-illustrated as follows:

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49. Camille Cameron & Jasminka Kalajdzic, *Commercial Litigation Funding: Ethical, Regulatory and Comparative Perspectives*, 55 CAN. BUS. L. J. 1 (2014).

50. See Securities Investor and Future Trader Protection Act art. 34 (Taiwan). When the protection institution files a lawsuit pursuant to Article 28 and applies for a provisional injunction or a provisional attachment, the court may rule security exemption for such action.

51. Kuo-Chang Huang, *Using Associations as a Vehicle for Class Action*, in CLASS ACTIONS IN CONTEXT: HOW ECONOMICS, POLITICS AND CULTURE SHAPE COLLECTIVE LITIGATION 71-72 (Deborah R. Hensler et al. eds., 2016).

(4.1)  $U_p = w(J_{Av}) - dIC_p - dBC_p - dMC_p$

(4.2)  $U_a = AF^* - dIC_a - dBC_a - d(1-w)CF$

\*AF: from public or private funding

The comparison of the three types of class actions for principals and agents can be obtained by referring to the table below:

Table 1: Comparison of the utility functions among types of class actions

Utility	Common Law	Civil Law Type A	Civil Law Type B
<b>Principal</b>	$(1-w)w(J_{Au})$	$w(J_{Av}) - IC_p - BC_p - MC_p - C - (1-w)CF - AF$	$w(J_{Av}) - dIC_p - dBC_p - dMC_p$
<b>Agent</b>	$nw(J_{Au}) - (1-w)CF - IC_a$	$AF - IC_a - BC_a$	$AF^* - dIC_a - dBC_a - d(1-w)CF$

From the comparison, it is quite clear that Civil Law Type A with the highest transaction cost is not ideal among all three types because it produces the lowest utility for principals and agents. The Type B class action, by creating similar benefits, substantially reduces the entry barrier by diminishing the transaction costs for class actions compared to Type A. The Common Law Type and Civil Law Type B are comparatively favorable according to the model, with higher benefits and lower transaction costs under the consideration of risks and incentives. Also, the Common Law Type has more contingencies related to the prevalence of the case and apparently creates higher incentive and risk, while Type B is more certain. However, they are still not perfect models. There are two major concerns for the Common Law Type that need to be addressed. First is the agency cost problem. This stems from a concern that the lack of client monitoring might lead an entrepreneurial attorney “serving his own interest at the expense of the client.”<sup>52</sup> There are several ways to reduce agency costs, such as monitoring, bonding, or ethical obligation.<sup>53</sup> However, studies

52. See Macey & Miller, *supra* note 8.

53. Judith Resnik et al., *Individuals Within the Aggregate: Relationships, Representation, and Fees*, 71 N.Y.U. L. REV. 296, 374 (1996).

have shown that these methods may only have limited functions.<sup>54</sup> Another way to reduce agency costs is to align the incentives of the agent and client, where fee arrangements are the most intuitive and the most common method.<sup>55</sup> Nevertheless, from an economic point of view, contingency fees do not provide a perfect incentive because they externalize all of the costs but generate only part of the benefits to the plaintiffs' attorney.<sup>56</sup> It is believed that this makes it likely for some cases to settle when it is in the interest of class members to go to trial because the attorney can obtain a relatively high fee by settling and avoiding the costs of trial.<sup>57</sup> In terms of other fee arrangements, while hourly fee arrangements also permit opportunists to incur additional fees, because they also encourage externalizing the cost of work, fee-for-service arrangements (by case) also induce attorneys to internalize the cost of additional time spent on the service and externalize the benefits of doing so. While similar problems with the two types of fee arrangements can occur in civil law jurisdictions, the stakes in Common Law Type class actions are generally so large that they magnify the problem. So far, there has not been a perfect shield that can be applied against the abuses caused by the fee arrangements.

In fact, common law countries such as the United States have adopted some other ways to reduce the agency costs problem, one of which is conferring the court more power in litigation procedures.<sup>58</sup> This includes the basic features of the aforementioned common law class actions, such as class certification, appointment of class counsel, and judicial review over settlements and attorney fees. However, while the court is given a stronger role and is entitled to encourage and advise parties, its intervention reduces the benefit brought by advocacy systems.<sup>59</sup> Additionally, judicial review may have problems of inherent bias and uncertainty.<sup>60</sup> In particular, US courts usually

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54. *Id.*

55. *Id.* at 384.

56. *Id.* at 338.

57. Andrew Rosenfield, *An Empirical Test of Class-Action Settlement*, 5 J. LEGAL STUD. 113, 120 (1976). Theodore Eisenberg & Geoffrey P. Miller, *Attorney Fees in Class Action Settlements: An Empirical Study*, 1 J. EMPIRICAL LEGAL STUD. 27, 27-78 (2004).

58. See Macey & Miller, *supra* note 8, at 27.

59. Mathias Dewatripont & Jean Tirole, *Advocates*, 107 J. POL. ECON. 1 (1999).

60. Jonathan R. Macey & Geoffrey P. Miller, *Judicial Review of Class Action Settlements* 1 J. LEGAL ANALYSIS 167 (2009).

review attorney fees by using “lodestar” or “percentage” methods, which are still similar to the hourly fee and contingency fee arrangements.<sup>61</sup> Hence, similar problems are still there. In securities class disputes, the Private Securities Litigation Reform Act (“PSLRA”) was amended to realign the interests of parties by conferring a greater role on institutional investors in litigation in securities class actions.<sup>62</sup> However, the same rationale cannot be fully replicated to other types of class actions when there is usually no specific plaintiff who has a comparatively large stake in other class litigation.

Another problem that exists in the Common Law Type is the problem of frivolous lawsuits.<sup>63</sup> Since aggregation of a lawsuit increases the bargaining power of the plaintiffs, this turns the table on the defendants, and puts the defendant in the position of being rendered insolvent by a single trial—a large undiversifiable risk.<sup>64</sup> Additionally, because the fee award relates to the recovery of the case, attorneys will be more willing to go after large cases against deep pocket defendants. Taking securities class actions as an example, the evidence indicates that suits tend to correlate with higher quality underwriters, which are associated with higher quality offerings.<sup>65</sup> This correlation demonstrates that something other than merit drives plaintiffs’ attorneys.<sup>66</sup> Furthermore, empirical studies show that most securities-fraud class actions are frivolous.<sup>67</sup> Defendants tend to reach a settlement even if the suits are unmeritorious to control costs and maintain positive publicity. This increases not only the cost of business, but also that of the judicial system. Hence, even though the Common Law Type saves transaction costs related to the initiation of claims, there is still no perfect solution to the problems of how to preserve class benefits and to eliminate frivolous lawsuits.

On the other hand, although Civil Law Type B may mostly be exempt from the aforementioned problems associated with the

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61. Judith Resnik et al., *supra* note **Error! Bookmark not defined.**, at 340.

62. See Wang & Chen, *supra* note 34, at 141.

63. James Bohn & Stephen Choi, *Fraud in the New-Issues Market: Empirical Evidence on Securities Class Actions*, 144 U. PA. L. REV. 903, 979 (1996).

64. See Silver, *supra* note 22, at 204.

65. Stephen J. Choi, *The Evidence on Securities Class Actions*, 57 VAND. L. REV. 1465, 1477-98 (2004).

66. *Id.*

67. Bohn & Choi, *supra* note 63.

Common Law Type, some potential downsides still exist. If the initiation of class actions relies exclusively on these NPOs, GSOs, or even regulators to take the lead, the interests of the general public might go unprotected.<sup>68</sup> First, most of the longstanding NPOs or GSOs, although independent, must operate on modest donations or membership fees.<sup>69</sup> However, their primary tasks and objectives are not to fund protracted litigation, but to conduct some non-profit research or services for the benefit of their members.<sup>70</sup> When resources are limited, they have to prioritize potential activities, and litigation might not be the choice. The absence of class litigation undoubtedly curtails the effects of class actions, including access to justice as well as compensation. Additionally, in some situations, there could be a conflict of interest between the organizations and the claimants that makes the NPOs or GSOs “less appropriate as protectors” of the collective interests of claimants.<sup>71</sup>

#### VI. DETERRENCE EFFECT

In contrast, the US literature generally agrees that the deterrence effect is one of the most important goals of class actions.<sup>72</sup> With the gradual acceptance of punitive damage awards, with rigid and modest application, it is posited herein that the deterrence effect of class actions is reflected to some extent in the civil law context.

To determine whether the class action mechanism effectively deters wrongful acts, the Author applies the formula ( $B = p * S$ ) by Becker used in criminal law for analyzing the deterrence effect and apply it to class actions. Assuming that the defendant commits a wrongful act, the apprehension rate “p” represents the probability of the plaintiffs initiating a lawsuit seeking compensation. Sanction “S” denotes the damage award that the court orders a plaintiff to pay to the defendant. Lastly, benefit “B” would be the benefits that a defendant may obtain by conducting such wrongful acts.

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68. Ianika Tzankova, *Collective redress in Vie d'Or: A reflection on a European Cultural Phenomenon*, in CLASS ACTIONS IN CONTEXT: HOW ECONOMICS, POLITICS AND CULTURE SHAPE COLLECTIVE LITIGATION 128-31 (Deborah R. Hensler et al. eds., 2016).

69. *Id.*

70. *Id.*

71. *Id.*

72. Myriam Gilles & Gary B. Friedman, *Exploding the Class Action Agency Costs Myth: The Social Utility of Entrepreneurial Lawyers*, 155 U. PA. L. REV. 103, 110 (2006).

*A. Common Law Type*

For the common law class actions, especially in the United States, the judgment awards are relatively large, which provides a larger sanction “S.” However, the apprehension rate is more complicated because the mechanism will likely be driven not only by the merits of the case, but also by the allure of a large amount of compensation. If we exclude possible frivolous suits, the “p” would be lower than it should be since lawyers would only undertake cases that are likely to reimburse their costs, which is below the actual number of meritorious cases. Therefore, “p” is uncertain in the common law context. Additionally, to avoid the uncertainty of the litigation outcome, defendants are likely to settle for a smaller amount without going to trial. These factors result in a more contingent or even diluted deterrence effect.

*B. Civil Law Type A*

As for Type A class action, because the transaction costs are too high to create incentives for the claimants to initiate the suit, the “p” is lowest among all types. Further, with less utilized punitive awards and fewer aggregated claims, the sanctions “S” in Type A are much lower than those in the Common Law Type. Hence, the defendants have no incentive to correct their wrongful behavior if the benefit from the violation is greater than the sanction.

*C. Civil Law Type B*

On the other hand, for Civil Law Type B, under the conditions of sufficient funding, NPOs or GSOs are more willing to pursue cases according to the merits of the case rather than the potential costs or rewards since they do not operate for profit. Therefore, the apprehension rate is higher than Type A, or even higher than the Common Law Type, at least in theory. Even though empirically, the United States still holds the highest number of class action cases, the results are influenced by factors beyond the comprehension rate, i.e., a different legal tradition and the legal service environment, etc. Although Type B has the same problem with the comparatively low judgment awards due to infrequent application of punitive damage, its overall deterrence effect is better than Type A because of a higher apprehension rate.

Table 2: Comparison of deterrence effects among types of class actions

	The Common Law Type	Civil Law Type A	Civil Law Type B
<b>Apprehension rate (p)</b>	· Median (excluding the rate of frivolous suits) /Largely influenced by S	· Lowest (TAC and INC analyses both indicate a low likelihood to initiate the suit)	· High (the agent is less likely to be influenced by private interests)
<b>Sanction (S)</b>	· High	· Low	· Low

In conclusion, with the low sanction and the lowest apprehension rate, Type A class actions have failed to achieve the objective of deterrence. In contrast, the Common Law Type and Civil Law Type B, with higher apprehension rates, appear to be the two better choices for the deterrence objective. However, which one is more cost efficient, and which one is better for improving behavior? While the Common Law Type has higher compensation but a lower and more unpredictable apprehension rate, Civil Law Type B has lower compensation but a higher apprehension rate. The formula shows that enforcement effort (apprehension rate) and sanctions are substitutes, meaning a lower level of enforcement effort can be offset by increasing sanctions, which economizes enforcement costs.<sup>73</sup> Therefore, the Common Law Type saves more enforcement costs if not considering the costs wasted on frivolous claims. However, scholars argue that when individuals observe this probability with some random error, for example, like the uncertain “p” in the Common Law Type, it may be optimal to employ less than the maximum feasible sanction with a greater probability of apprehension.<sup>74</sup> While raising the probability is costly, it may improve behavior.<sup>75</sup> Therefore, because Civil Law Type B is more ascertainable with regards to the “p” and “S,” it is less risky and is more suitable for improving behavior even though the cost is higher.

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73. Becker, *supra* note 28, at 169.

74. Lucian Arye Bebchuk & Louis Kaplow, *Optimal Sanctions when Individuals Are Imperfectly Informed about the Probability of Apprehension*, 21 J. LEGAL STUD. 365, 368 (1992).

75. *Id.*

*VII. CONCLUSIONS AND RECOMMENDATIONS**A. Market/Contract Failure*

From the foregoing economic analysis, Civil Law Type A seems to fail in achieving all of the objectives of the class action mechanism. In contrast, although the Common Law Type and Civil Law Type B appear to be more favorable options, they exhibit some deficiencies. In the Common Law Type, the problems of attorney fee abuses and frivolous lawsuits have imposed social costs on the public by entrepreneurial lawyers in the guise of class actions. Type B still appears to have the issues of not providing enough access to justice in class disputes when resources are limited, which diminishes the other functions offered by class actions.

These unsolved problems in the Common Law Type and Type B of class actions imply the issue of contract failure. Contract failure, as described by Hansmann, "is likely to be a problem if consumers seek to purchase public goods/service from profit-seeking producers."<sup>76</sup> The literature indicates that class actions do reflect to some extent the public good and public policy because: (1) it takes longer to resolve class actions than most other types of litigation and (2) class actions require the court to play a more active monitoring role.<sup>77</sup> In class actions, regardless of whether they are injunctive suits or damage suits, the benefited parties usually go far beyond the party that brings the suit, which echoes the viewpoint that "the efficiency in private enforcement is not the same as efficiency in producing the social utility of enforcement."<sup>78</sup>

*B. Suggested Solutions*

When facing contract failure problems, academics suggest that NPOs are likely to be the more suitable suppliers.<sup>79</sup> This is

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76. Henry B. Hansmann, *The Role of Nonprofit Enterprise*, 89 *YALE L. J.* 835, 849 (1980). See generally RICHARD A. MUSGRAVE & PEGGY B. MUSGRAVE, *PUBLIC FINANCE IN THEORY AND PRACTICE* (1976) (noting that public goods means it costs no more to provide the good to many persons than it does to provide to one person because one person's enjoyment of the good does not interfere with the ability of others to enjoy it at the same time; second, once the good has been provided to one person, there is no way to prevent others from consuming it).

77. See Coffee, Jr., *supra* note 44, at 1534.

78. See Wang & Chen, *supra* note 34.

79. Hansmann, *supra* note 76, at 838.

because, in contrast to profit-driven lawyers, NPOs, by nature, prohibit the distribution of profits – the “non-distribution constraint,” which makes an NPO lack the incentive to exploit consumer welfare.<sup>80</sup> Hence, an NPO is a better institutional design “for solving the contract-failure problem in the production of public goods and services.”<sup>81</sup>

However, non-profit organizations will not voluntarily address contract/market failure and provide support for class actions,<sup>82</sup> similar to the previously identified issue of inadequate enforcement problem with Type B. This justifies government intervention, which mandates that market participants establish NPOs or GSOs to fulfill the need for law enforcement.<sup>83</sup> Meanwhile, there might be concerns about whether using GSOs or NPOs will reduce the benefits of advocacy systems.<sup>84</sup> In theory, only when information collectors are the “judge and the party” at the same time will this type of problem arise.<sup>85</sup> The Author believe that Civil Law Type B could be exempt from this problem because GSOs or NPOs are still advocates as long as they are independent from any of the parties in the proceedings. Additionally, although non-profits might be expected to operate less efficiently than for-profits,<sup>86</sup> the disparity in behavior is not overwhelming if proper legal restraints or monitoring devices are applied.<sup>87</sup>

Another possible criticism might be that government support may undermine the independence of NPOs or GSOs because of potential financial connections and political intervention.<sup>88</sup> However, this concern could be solved by a certain degree of independence from finance and politics, where NPOs or GSOs will

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80. *Id.*

81. Yu-Hsin Lin, *Modeling Securities Class Actions Outside the United States: The Role of Non-Profit In The Case of Taiwan*, 4 N.Y.U. J. L & BUS. 143, 186 (2007).

82. Lester M. Salamon, *Partners in Public Service: Government-nonprofit Relations in the Modern Welfare State* 35-36 (1995).

83. *Id.*

84. Dewaterpont & Tirole, *supra* note 59.

85. See Rosenfield, *supra* note 57.

86. See Armen A. Alchian & Harold Demsetz, *Production, Information Costs, and Economic Organization*, 62 AM. ECON. REV. 777, 790 (1972).

87. See Hansmann, *supra* note 76. For example, state corporation law commonly makes it difficult for entrepreneurs to take stock in firms they create as a means of providing compensation for their future services.

88. Michael Lipsky & Steven Rathgeb Smith, *Nonprofit Organizations, Government, and the Welfare State*, 104 POL. SCI. Q. 625, 629 (1989).

be more likely to be exempt from interventions from the government. Currently, Germany, Japan, Korea, and Taiwan have adopted this type of class action mechanism.<sup>89</sup> Relevant issues in the ensuing practice are worth observing and further study.

Based on previous studies and an economic analysis, this Essay presents a comparative economic analysis of the major types of class actions and group litigation at the global level. Making comparisons of the different legal systems is a great challenge, and the Author believes there is no perfect model that can fully illustrate every feature of all of the systems. However, it is still important to take this first attempt to provide information as a preliminary picture of an economic analysis of “class action family trees,” which is important for transnational litigation, recognition, and enforcement. Additionally, it may provide some insights for countries, in accordance with their backgrounds and needs, to choose or to conduct reform regarding class dispute resolution.

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89. See Lin, *supra* note 81.