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Equality Between Efficiency and Distribution— A Law-and-Economics Reconceptualization of a Principle of Justice

Andreas Engert
Freie Universität Berlin, ECGI

Freie Universität Empirical Legal Studies Center (FUELS)
Freie Universität Berlin
Fachbereich Rechtswissenschaft
Department of Law
jura.fu-berlin.de/fuels

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ABSTRACT
This chapter sheds light on the principle of equality from the perspective of normative (law and) economics as a theory of justice. In this reconceptualization, equality appears in two forms: On the one hand, specific equal-treatment rules can be derived from the efficiency goal. Law and economics thus offers a novel justification of such rules and their proper scope. On the other hand, equality figures prominently in the just distribution of wealth. To analyze this dimension, normative economics offers the social welfare function as an analytical tool. From the economic perspective, distributional equality is directed at equality in the satisfaction of preferences or needs (as opposed to merit-based approaches). Overall, law and economics favors a functional separation between distributional and efficiency goals: The fair distribution of welfare is to be achieved through tax and social security law, while all other areas of law and their principles of equality are to be oriented toward the criterion of efficiency.

KEYWORDS
equality, equal treatment, efficiency, social welfare function

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Andreas Engert
Freie Universität Berlin, Department of Law
Vant-Hoff-Straße 8
14195 Berlin, Germany
e-mail: andreas.engert@fu-berlin.de

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Prof. Dr. Andreas Engert, LL.M. (Univ. Chicago)

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I. Introduction

Much of the intellectual allure of economics—including for lawyers—lies in its reductionism. Reductionist theories find richness in parsimony. They trace diverse phenomena back to a few basic principles, preferably a single one. If successful, they uncover commonality in difference and hidden association between the seemingly unrelated. The more the central principle proves itself through explaining existing regularities, the more it also becomes a benchmark for identifying and critiquing deviations.

For all their possible benefits, reductionist approaches come at a cost. Much received wisdom can no longer be taken for granted but must be painstakingly deduced from a limited set of principles. Equality in economic theory provides an example. For lawyers and philosophers, it is itself a fundamental principle of justice that neither requires nor lends itself to further justification and only competes with liberty for precedence. By contrast, equality does not count among the first principles of normative (law and) economics. One might be tempted to conclude that equality of form or substance has no significance for law and economics.

This chapter aims to dispel this perception. To demonstrate that law and economics has a concept of equality, one first has to locate equality within the system of normative economics. Lawyers and philosophers traditionally assign equality to distributive justice (iustitia distributiva).[1] This suggests to classify equality as a problem of distribution also in economics. However, it will become apparent that the economic concept of distribution is narrower than the traditional understanding of distributive justice because it relates only to the distribution of monetary wealth. It follows that, from an economic point of view, many equality concerns present themselves as issues of efficiency, not distribution. It is here that the advantage of a reductionist approach best shows itself: reconstructing duties of equal

[1] For the legal perspective, see, e.g., C.-W. CANARIS, *Die Bedeutung der iustitia distributiva im deutschen Vertragsrecht*, Verlag der Bayerischen Akademie der Wissenschaften, München 1997, p. 36; for the philosophical perspective S. GOSEPATH, 'Equality' in E. Zalta (ed.), *Stanford Encyclopedia of Philosophy*, Stanford 2021, section 3, available at: https://plato.stanford.edu/archives/sum2021/entries/equality.

treatment from an overarching goal of economic efficiency provides a justification—rather than a mere assertion—of the imposition of such duties and their limitations.

The chapter begins by recalling the economic distinction between the two normative dimensions of efficiency and distribution (Section II.). The focus will then shift to efficiency justifications for two types of equal-treatment rules.[2] Tying these obligations to an efficiency rationale likely offers the greatest intellectual gain from a law-and-economics account of equality (Section III.). However, the issue of distribution also deserves attention, not least because one can ask whether the economic focus on monetary wealth is too narrow compared with traditional views in law and philosophy (section IV.).

II. The distinction between distribution and efficiency

In normative economics, the distinction between efficiency and distribution remains of fundamental importance. Its role is to carve out a set of issues from the greater problem of social justice[3] that, firstly, is more amenable to universal agreement and, secondly, can be addressed independently of the remaining problems. That distinct set of questions is efficiency. Distributive justice, on the other hand, is said to lack an equally compelling normative yardstick.[4]

Universal acceptability is ingrained into efficiency because it constitutes its primary guidance: A social state is said to be 'Pareto superior' to another state if it makes at least one person better off—according to her own assessment—without impairing the position of any other person.[5] Accordingly, a social state is 'Pareto efficient' if no other state is Pareto superior, i.e., if no other state is preferred by at least one person while leaving everybody else at least equally well off. Thus, Pareto efficiency is defined by possible agreement over changes. Since everyone's potential consent is needed, it reflects the formal equality of all members of society. A distinctive feature is that consent need only be constructive. If everyone is in a

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[2] For the derivation of a third group of equal treatment duties see A. ENGERT, 'Gleichbehandlungsgebote als Vertragshilfe' in *Festschrift für Christine Windbichler*, De Gruyter, Berlin 2020, p. 51.

[3] Properly understood, economic efficiency analysis constitutes a (partial) theory of justice, F. RÖDL, *Gerechtigkeit unter freien Gleichen*, Nomos, Baden-Baden 2015, pp. 78, 84. Many view it, however, as separate from justice, see, e.g., D. MILLER, 'Justice' in E. ZALTA (ed.), *Stanford Encyclopedia of Philosophy*, Stanford 2021, section 4, available at: https://plato.stanford.edu/archives/fall2021/entries/justice.

[4] See section IV.

[5] This is the 'weak' Pareto criterion.

position to agree without suffering a loss or disadvantage, objecting to change can hardly be justified. Withholding consent would seem unconscionable and equivalent to inflicting harm to the potential beneficiaries. The epitome of a Pareto improvement is a contract that requires the actual consent only of the contracting parties. If *A* and *B* agree on an exchange of their goods, *C* should not be able to block the transaction. The core of Pareto efficiency is a denial to grant veto power to unaffected parties.

This is not a trivial proposition. In fact, *C* might have a plausible reason to oppose the exchange between *A* and *B*. While she suffers no loss, *A* and *B* gain from the transaction, so that their position improves not only relative to the status quo but also in comparison to *C*. This raises the question how the increased wealth should be divided not just between *A* and *B* but also in regard to *C*. Blocking the exchange would afford *C* the power of forcing *A* and *B* to share some of their surplus. If this seems an odd argument from the angle of contract law, imagine *C* is the government representing all fellow citizens of *A* and *B*. The power to tax *A's* and *B's* transaction amounts to granting consent under the condition that they share part of their surplus with the government. Refusing veto power to outsiders becomes a compelling requirement only after bracketing off the problem of distributive justice.

Whether and to which extent *A* and *B* should have to share surplus with other members of society is, by experience, a far more contentious issue than deciding whether the exchange should take place at all. Separating the two questions, therefore, greatly simplifies answering the second question. One can think of the separation as a temporal sequence: Society first agrees on distributive justice by determining initial endowments. In the second step, Pareto-superior changes are effected to realize gains from trade. Given that distribution has been settled beforehand, no-one has reason to object. If needed the process can be repeated: The initial distribution could be founded on certain assumptions about the final distribution after Pareto improvements during the second phase. If these expectations prove incorrect or if conditions change, the question of just distribution can be raised anew—leaving aside that it will hardly ever be possible to reach consensus on what constitutes a just (initial) distribution. What only matters for separating distribution and efficiency is that no conceivable position on distributive matters gives reason to prevent Pareto improvements based on the initial

distribution. Those who consider the final distribution unfair must challenge the initial endowments.[6]

A valid objection to Pareto efficiency is that it provides little guidance for the law. In fact, true Pareto improvements are hardly ever seriously contested in debates over law and policy,[7] arguably because the injustice of doing so would be manifest. To gain practical significance, the Pareto criterion must be relaxed towards the less demanding (and more controversial) Kaldor-Hicks criterion.[8] The consensus required by this test becomes even more hypothetical: Instead of requiring that a change not harm anybody it is now deemed sufficient that those who gain from a change are willing—but do not have to—make up for any losses inflicted on others. If full compensation actually took place, the change would pass the Pareto test. But the Kaldor-Hicks criterion allows compensation to remain a mere possibility, making the losers anything but indifferent to the change. All the test requires is that the gains of the winners outweigh the losses.

Evidently, imposing a loss because it could be—but is not—fully compensated is much harder to justify than the Pareto criterion. Only the gist of the relevant arguments can be given here. First of all, there is no compelling reason to put the onus on the beneficiaries of a 'change' and in favor of 'vested' interests. Instead, it can be conceived of as a selection between two equally possible, symmetric options, such as in the initial assignment of an entitlement to one of two contenders. Viewed from this angle, the Kaldor-Hicks criterion amounts to auctioning the entitlement to the highest bidder.[9] With this reformulation, the Kaldor-Hicks criterion avoids

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[6] The claim is that justice never demands thwarting Pareto gains. It is a different matter whether it can be justified to prevent or jeopardize Pareto improvements in political and economic struggles for a distributive cause.

[7] See R. POSNER, 'The Ethical and Political Basis of the Efficiency Norm in Common Law Adjudication' (1980) 8 *Hofstra Law Review* 487, 489 ('Pareto-superiority is useless for most policy questions'); A. POLINSKY, 'Probabilistic Compensation Criteria' (1972) 86 *Quarterly Journal of Economics* 407, 407 ('crippling as a criterion for undertaking public policies'). This is true even for interventions in the freedom of contract. For example, a minimum wage can reduce employment because reservation prices of potential employers can be below the minimum wage. Nevertheless, abolishing the minimum wage would not constitute a Pareto improvement because it would leave all those employees worse off who achieve higher earnings because of the intervention. To qualify as a Pareto improvement, the reform would need to exclude only those contracts from minimum wage regulation that otherwise would not be entered into.

[8] N. KALDOR, 'Welfare Propositions of Economics and Interpersonal Comparisons of Utility' (1939) 49 *Economic Journal* 549, 550 et seq.; J. HICKS, 'The Foundations of Welfare Economics' (1939) 49 *Economic Journal* 696, 706.

[9] On the equivalence of Kaldor-Hicks efficiency and an auction rule, see J. COLEMAN, 'Efficiency, Exchange, and Auction: Philosophic Aspects of the Economic Approach to Law' (1980) 68 *California Law Review* 221, 241 et seq. Accordingly for a 'wealth maximization rule' R. POSNER, 'The Value of Wealth: A comment on Dworkin and Kronman' (1980) 9 *Journal of Legal Studies* 243, 244.

the criticism of taking rights without compensation—who should be entitled to a right in the first place is what the criterion seeks to determine.

What remains to be done is to provide an affirmative justification as to why rights or benefits should be awarded to the highest bidder. One approach is to relate the idea of consensus not to the individual rights and benefits but to adoption of the Kaldor-Hicks criterion as a general rule. Bundling the allocation of different rights is already implied in the use of the Pareto criterion: A typical contract is Pareto superior only if the mutual obligations are viewed as a package. Payment of a price is acceptable to the buyer only in combination with the seller's delivery of the good. In the same vein, one can argue that the consistent application of the Kaldor-Hicks criterion is Pareto superior to the use of other criteria and therefore justified by the more innocuous hypothetical consent required for the Pareto criterion. The claim is that comprehensive adherence to Kaldor-Hicks efficiency makes (almost) all members of society better or at least not worse off even without administering actual compensation payments.[10] The underlying assumption is that gains and losses are distributed randomly and independently across the entire population. Since by definition of the Kaldor-Hicks criterion benefits exceed losses for every change, the law of large numbers ensures a net gain for each individual. Unfortunately, it seems impossible to test this claim empirically. Even a plausibility assessment is difficult not least because one would have to determine a competing allocation of rights and benefits against which the Kaldor-Hicks efficiency would be measured. The alternative arrangement would be a counterfactual if the status quo, as many adherents of law and economics argue, already largely reflects the demands of Kaldor-Hicks efficiency.[11]

The empirical and conceptual difficulties can be avoided by introducing a normative consideration. For that one has to return to the issue of distribution. The compensation of losses caused by the Kaldor-Hicks criterion is the equivalent of a subsequent redistribution of net gains from the 'change'. This suggests the following procedure: Apply the Kaldor-Hicks

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[10] For an intuition and a rigorous analysis of this argument see A. POLINSKY, (1972) 86 *Quarterly Journal of Economics* 407 ('quasi-Paretian compensation criterion'); see also Y.-K. NG, 'Quasi-Pareto Social Improvements' (1984) 74 *American Economic Review* 1033. The argument has been adopted for law and economics in R. POSNER, 'The Ethical and Political Basis of the Efficiency Norm in Common Law Adjudication' (1980) 8 *Hofstra Law Review* 487, 491 et seqq. A recent and more critical assessment can be found in Z. LISCOW, 'Is Efficiency Biased?' (2018) 85 *University of Chicago Law Review* 1649.

[11] For the (controversial) idea that judge-made common law tends towards efficiency, see T. ZYWICKI and E. STRINGHAM, 'Common Law and Economic Efficiency' in F. PARISI (ed.), *Production of Legal Rules, Encyclopedia of Law and Economics*, Edward Elgar Publishing, Cheltenham 2011, p. 107.

criterion consistently and tally the hypothetical compensation payments; use a person's gains to offset her hypothetical compensation claims; and, in the last step, close any remaining balances through taxes or social transfers.[12] Admittedly, it will not be possible to calculate exact balances from concrete Kaldor-Hicks changes because of uncertainties in facts and the lack of a benchmark status quo. Without such a reference point, just distribution can be assessed on its own terms, invoking the separation logic developed above for the Pareto criterion. A practical guideline could be to maintain a stable relative distribution of the societal wealth[13] that is constantly being increased by Kaldor-Hicks efficiency. Insofar as the distribution of wealth can be regulated separately, there is no longer a convincing justice reason to oppose an increase in the total wealth available for distribution.[14]

III. Equality as an implication of efficiency

Most normative work in (law and) economics pursues the implications of Kaldor-Hicks efficiency for specific issues of law and policy. The approach is strictly reductionist: After the question of just distribution has been relegated to a separate debate, any prescriptions must be derived from efficiency as the sole remaining objective. Unlike in doctrinal legal scholarship, pre-existing rules or widespread notions of justice have no independent weight.[15] One attraction of this radical restriction of admissible arguments is that it encourages a precise and imaginative analysis of effects and interdependencies. Seemingly self-evident postulates of justice—such as the rule against theft—often pose astonishing difficulties when they have to be derived from efficiency, but solving such riddles often stimulates thinking about other issues.[16]

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[12] More on taxes and transfers in section IV.2. below.

[13] For example, the Gini coefficient of income and wealth distribution. For implementation through the tax and transfer system, see the text accompanying n. 51 and 52.

[14] This is at least true if principles of justice pay no regard to the strategies needed to assert them in political power struggles, see n. 6 above. If instead one incorporates these strategic considerations, justice may well require to pursue distributional goals in inefficient ways. For a nuanced justification of this approach see L. FENNELL and R. MCADAMS, 'The Distributive Deficit in Law and Economics' (2015) 100 *Minnesota Law Review* 1051, 1083 et seqq. (arguing that inertia and other deficiencies of the legislative process in tax law justify consideration of distributional issues in other areas of the law).

[15] But they can serve as a heuristic. One might presume that especially longstanding legal rules rarely turn out to be inefficient.

[16] See R. HASEN and R. MCADAMS, 'The Surprisingly Complex Case Against Theft' (1997) 17 *International Review of Law & Economics* 367.

In the following, this approach will be brought to bear on rules of equal treatment. To do so, one must abandon the assumption that equality relates to a distribution problem. Instead, duties of equal treatment must be shown to be an outgrowth of Kaldor-Hicks efficiency, that is, a means of maximizing wealth across all members of society. On the one hand, equal treatment can be thought of as an incentive scheme for agents to align their behavior with efficiency (section 1.). On the other hand, it will be argued that anti-discrimination rules—a special type of equal-treatment duties—can encourage efficient investment in human capital such as through education and the formation of skills and attitudes. This line of reasoning also showcases that normative economics can account for particularly sensitive issues of social justice (section 2.).[17]

1. Equal treatment as an incentive scheme

Legal rules for controlling behavior can be classified as incentive schemes from an economic perspective. In this regard, interesting problems arise if actions of an 'agent' cannot be directly rewarded or punished, particularly because important circumstances are known only to the agent but not the 'principal'—the person affected by or charged with guiding her behavior (such as a regulator or court). The claim to be made in the following is that equal treatment rules, in view of the information asymmetry, can serve as the best incentive scheme available and are adopted for this reason, not because of any distributional effects.[18]

a) Key idea

The key idea is the following: An equal treatment requirement forces the agent to extend her decision in a given instance to all other cases that resemble it in a relevant aspect. This is akin to the Kantian test of whether one is willing to accept the maxim of one's actions as 'general law'.[19] The duty of equal treatment transforms this thought experiment into an incentive scheme for the decision-maker: The maxim of her initial decision actually becomes the binding law for her future actions, and she must live with its consequences. This enhances her incentives if she has a general interest in acting efficiently but can be tempted in certain cases

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[17] Other equal treatment rules in contract, labor and antitrust law are considered in A. ENGERT, above n. 2.

[18] A similar efficiency rationale for equal-treatment rules in public law is offered by P. VON RANDOW, 'Equal Treatment Rules and Rent Seeking' in *Festschrift für Baums*, Mohr Siebeck, Tübingen 2017, p. 931.

[19] See. I. KANT, *Grundlegung zur Metaphysik der Sitten*, J. Hartknoch, Riga 1786, p. 52 ('act only according to that maxim by which you can at the same time wish it to become a general law'), English translation available at https://groundlaying.appspot.com.

to sacrifice value maximization for her own private advantage. A prime example of this efficiency rationale is equal treatment of shareholders in corporation law.[20] In fact, legal scholars have acknowledged that here the link to distributive justice is especially tenuous.[21]

b) Full argument

To develop the argument, start from a simple model: Assume an agent *A*, who is entrusted with managing the affairs of an entity *E* and owns a share of θ (with $0 < \theta < 1$) in *E*, for example as a partner or manager with performance-based pay. In relation to outsiders, *A's* share of θ incentivizes her to enter only into transactions that are profitable for *E*. However, a conflict of interest arises if *A* can derive advantages for herself from a transaction. For instance, if *A* consummates a transaction between *E* and herself as counterparty,[22] this may result in a return of π to *A* and a corresponding return of γ for *E*. The transaction is efficient if $\pi + \gamma > 0$. However, *A* will accept it if $\pi + \theta\gamma > 0$. The conflict of interest can cause *A* to inflict a loss on *E* and to deviate from efficiency if, for example, *A* has a 10% stake in *E* ($\theta = 0.1$), her immediate benefit from the transaction is €10 ($\pi = 10$) and *E* loses €20 ($\gamma = -20$).[23]

Avoiding this outcome would be straightforward if the law were able to prohibit inefficient transactions outright.[24] However, there are good reasons against enacting a legal duty to 'only make profitable business decisions' or to enter only into efficient transactions.[25] While courts can attempt to evaluate business decisions, there is a considerable risk of error. As a consequence, a transaction that was profitable and efficient when initiated could well be condemned as a breach of duty if it happens to turn out badly; and vice versa for unprofitable and inefficient transactions. Holding agents liable for violation of such an error-prone

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[20] See, e.g., art. 85 Company Law Directive (EU) 2017/1132.

[21] See D. VERSE, *Der Gleichbehandlungsgrundsatz im Recht der Kapitalgesellschaften*, Mohr Siebeck, Tübingen 2006, pp. 77 et seqq.; C.-W. CANARIS, above n. 1, p. 36.

[22] Self-dealing is the most straightforward example. An analogous analysis applies to a case where *A* receives a benefit from the counterparty or is otherwise under its influence.

[23] *A's* profit from the transaction is $10 + 0.1(-20) = 8$, while the efficiency outcome is $10 - 20 = -10$.

[24] Or if the law were to force *A* to act exclusively in *E's* interest so that she would only carry out transactions with positive γ. Such a rule would also prevent *A* from making inefficient decisions.

[25] Cf. S. MYERS, 'Determinants of Corporate Borrowing' (1977) 5 *Journal of Financial Economics* 147, 157 ('No sane lawyer attempts to write a contract requiring management to "abstain from suboptimal decisions"').

standard can result in excessive litigation or distortion of incentives, particularly towards risk avoidance.[26]

An equal treatment rule can be less costly and more effective. In terms of the simple model, it would require *A* to offer the same transaction to all others who are in a sufficiently similar position. The effect on *A's* incentives depends on the number and size of other counterparties that can claim equal treatment. Assuming the additional parameter $\lambda > 1$ captures the factor by which total transaction volume increases if *A* must make the transaction opportunity available to additional parties; simply put, it is the number of additional cases that are equal to *A's* own transaction. This changes *A's* incentives: whereas her benefit from concluding the transaction used to be $\pi + \theta\gamma$, it now becomes $\pi + \lambda\theta\gamma$. The effect of *A's* decision on *E* increases by the factor λ, which can fully or partially offset *A's* weak incentives from sharing only $\theta < 1$ in *E's* gains and losses. In the example above, *A* would refrain from the harmful transaction if λ were greater than 5.[27]

An example from corporation law can illustrate the incentive effect. *A* could be a shareholder with a stake of θ in the corporation. Consider a transaction with substantial private benefits π with no consideration from the recipients, such as the payment of a dividend. Because of the significant benefits, all other shareholders will insist on equal treatment and claim a transaction of the same size for themselves; hence $\lambda = \frac{1}{\theta}$. With an equal treatment rule in place, *A's* outcome from carrying out the transaction amounts to $\pi + \lambda\theta\gamma = \pi + \frac{\theta}{\theta}\gamma = \pi + \gamma$. The transaction is efficient if $\lambda(\pi + \gamma) > 0$. It follows that *A* consummates the transaction if and only if it is efficient. The dividend example also demonstrates why the equal treatment rule can be superior to attempting to prescribe a specific decision: A dividend to shareholders is efficient if the amount distributed is worth more in the hands of shareholders than for the corporation, that is, if $\lambda\gamma < \lambda\pi$. In order to administer a rule that dividends be paid only when it is efficient, a court would have to evaluate whether the investment opportunities of the corporation are more valuable than investments or consumption by its shareholders. The equal

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[26] These shortcomings have motivated a broad exemption from liability for corporate managers known as the business judgment rule, see H. SPAMANN, 'Monetary Liability for Breach of the Duty of Care?' (2016) 8 *Journal of Legal Analysis* 337; A. ENGERT and S. GOLDLÜCKE, 'Why agents need discretion: the business judgment rule as optimal standard of care' (2017) 13 *Review of Law & Economics* 1; A. ENGERT, 'Why manager liability fails at controlling systemic risk' in B. LOMFELD, A. SOMMA and P. ZUMBANSEN (eds.), *Reshaping Markets*, Cambridge University Press, Cambridge 2016, p. 161.

[27] With $\lambda = 6$, *A's* total gain would no longer be 8 as in n. 23 above, but $10 + 6 \cdot 0{,}1 \cdot (-20) = -2$.

treatment rule spares courts this intricate judgment by ensuring efficient incentives of the shareholder majority.

However, the analysis also reveals the perils of equal treatment as an incentive scheme. Equal treatment magnifies the consequences of the decision in the single case. This can but need not neutralize potential incentives to act inefficiently. If *A's* share θ multiplied by the expansion factor λ remain too small, a harmful, self-interested transaction may still be worthwhile for *A*.[28] The equal treatment rule then not only fails to correct *A's* incentives but also increases the efficiency loss by the factor λ.[29] Given the circumstances, some may consider this at least to be a fair outcome because the opportunity to loot *E* is not reserved exclusively for A. Yet 'equal treatment in value destruction' increases the loss of social wealth. As an incentive scheme, equal treatment can only be justified if it succeeds in pushing *A's* behavior towards efficiency. Settings with high private benefits π and little incentive alignment through θ are particularly risky. The effect of the factor λ is ambiguous: It improves incentives but also magnifies the potential losses.

The dividend example offered particularly favorable conditions for an equal treatment rule: For the corporation, the value of money paid to shareholders does not depend on the recipient. Conversely, a given dividend is worth approximately the same to different shareholders. It follows that γ and π barely differ across transaction partners—all of the latter are 'materially equal' for purposes of applying the equal treatment rule. The simplicity of this assessment compares favorably to any attempt at regulating dividend payments directly, which would require courts to evaluate the corporation's available investment opportunities. The advantage of equal treatment rules is less stark in other instances, especially when determining equality poses greater difficulty. By highlighting incentive alignment as the relevant purpose, efficiency analysis helps to identify what constitutes equality, namely business opportunities that have the same or a similar effect on *E*.

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[28] An example is $\pi = 10$, $\theta = 0.01$, $\gamma = -20$ and $\lambda = 10$. For *A*, the transaction remains privately profitable despite the equal treatment requirement: $10 + 0.01 \cdot 10 \cdot (-20) = 8$.

[29] In the example from n. 28, the efficiency outcome deteriorates from $10 - 20 = -10$ without the equal treatment rule to $10(10 - 20) = -100$ with the rule.

2. Equal treatment as an investment incentive

Explaining equal treatment of shareholders under corporation law as a way of restraining self-dealing and other conflicts of interests may still have intuitive appeal for many lawyers. By contrast, a wealth maximization account of other equal treatment rules will appear more far-fetched. Perhaps this is particularly true for anti-discrimination rules in private law that are often justified by invoking fundamental human rights. This has little in common with a careful balancing of costs and benefits. Nevertheless, economists have not shied away from applying their analytical toolkit to discrimination.[30] A good starting point for exploring the efficiency foundations of anti-discrimination law are incentives to invest.[31] especially in human capital.[32] The potential reward from an economic approach lies, again, in offering a more specific justification that lends itself to deriving more differentiated normative conclusions. In addition, efficiency arguments rest on claims about real-world effects and interdependencies, for example regarding the causes of unequal treatment of different groups. All of this can open up new perspectives for the discourse about anti-discrimination law and policy.

a) Key idea

The efficiency case made here against discrimination is based on preventing a pernicious equilibrium where human abilities and talents lie idle instead of contributing to social wealth. In this account, discrimination results not from dislike or even hatred of the disadvantaged group but from rational use of information: Because the statistical distribution of certain characteristics differs across groups, membership in a group can make a person appear less suitable for a given transaction. As members of the group are less likely to be considered for the type of transaction, a self-fulfilling prophecy can arise. If sought-for characteristics increase market opportunities less for members of the group than for others, cultivating them carries less reward. Anti-discrimination rules seek to unsettle this equilibrium by providing

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[30] See the literature overviews by K. LANG and J.-Y. LEHMANN, 'Racial Discrimination in the Labor Market: Theory and Empirics' (2012) 50 *Journal of Economic Literature* 959; K. ARROW, 'What Has Economics to Say About Racial Discrimination?' (1998) 12 *Journal of Economic Perspectives* 91.

[31] While investment incentives also guide behavior, their analysis belongs to a different strand of economic models than the incentive schemes from the previous section III.1.

[32] The following analysis overlaps in part with A. ENGERT, 'Allied by Surprise? The Economic Case for an Anti-Discrimination Statute' (2003) 4 *German Law Journal* 685, 689 et seqq. and 693 et seqq.

equal market opportunities to the group and thus the incentive to develop the relevant skills and qualities.

b) Full argument

Economists have pursued various explanations for group disadvantages.[33] The argument sketched in the previous paragraph builds on the notion of 'statistical discrimination' as a cause of discrimination.[34] It starts from the general problem of information asymmetries: Markets often suffer from the fact that essential characteristics of persons, goods or services remain unknown to potential counterparties. Information asymmetry entails adverse selection: Poor quality displaces good quality and, as a consequence, valuable opportunities for cooperation remain unused ('lemon market'). To alleviate this problem, market participants strive for information indicative of quality. This can lead employers or landlords to rely on association with a group as a cue to the expected characteristics of a potential employee or tenant. Relying on such 'prejudices' can be rational at the individual level. For historical or other reasons, the relevant characteristic may be more or less prevalent in different groups. This can make group membership an imprecise but still useful piece of information. At the same time, even after exploiting alternative sources of information important characteristics remain hard to assess. For instance, a job applicant's resume, educational achievements and reference letters provide only an incomplete view of professional capabilities. It is even more difficult to evaluate creditworthiness or personal qualities such as integrity, conscientiousness or commitment, which are of obvious importance to employers or landlords.

Two recent empirical studies underscore the relevance of these aspects. The first concerns the professional success of female and male lawyers in US law firms during the 2000s. It starts out with the familiar finding of a highly significant gender gap in both income and career advancement. When educational background, work experience, family responsibilities and

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[33] The earliest account explains discrimination with preferences directed against the group (taste-based discrimination), see G. BECKER, *The Economics of Discrimination*, University of Chicago Press, Chicago 1957 (usually cited from the 2nd ed. 1971). For a summary of this approach in the labor markets see K. LANG and J.-Y. LEHMANN, 'Racial Discrimination in the Labor Market: Theory and Empirics' (2012) 50 *Journal of Economic Literature* 959, 970 et seqq. More recently, systematic differences in behavior between groups have received greater attention, such as gender differences in competitive behavior, see: U. GNEEZY, K. LEONARD and J. LIST, 'Gender Differences in Competition: Evidence from a Matrilineal and a Patriarchal Society' (2009) 77 *Econometrica* 1637.

[34] Seminally E. PHELPS, 'The Statistical Theory of Racism and Sexism' (1972) 62 *American Economic Review* 659; K. ARROW, 'The Theory of Discrimination' in O. ASCHENFELTER and A. REES (eds.), *Discrimination in Labor Markets*, Princeton University Press, Princeton 1973, p. 3.

other observable characteristics were incorporated, the gap diminished but continued to remain significant.[35] Yet after performance measures—billable hours with clients and volume of business generated—were included, the differences in income and career success became insignificant.[36] Law firms seemed to reward performance irrespective of gender. More important for the above argument is that gender differences in measured performance largely disappeared if the self-rated intensity of lawyers' career aspirations were included.[37] This suggests, on the one hand, that individual commitment drives performance and, as a result, differences in income and promotion. On the other hand, strong career aspirations seemed more prevalent among male lawyers. This implies that gender provides an (imperfect) indication of the degree of commitment.[38]

The second study relates directly to statistical discrimination. It examines the effects of 'ban-the-box' policies that prevent employers in the US from asking applicants about criminal records prior to an interview. From an employer's perspective, criminal records can point to undesirable traits ranging from lack of work ethics to violent behavior. The aim to better integrate former offenders into the labor market backfired, according to the study: Introduction of the rules appeared to impair the hiring prospects of Black Americans who have a higher incidence of criminal records.[39] This is strong evidence of statistical discrimination—the use of a group characteristic as an indication of hidden characteristics.

Statistical discrimination can be inefficient in itself if the foregone transaction gains for the group outweigh the selection benefits to the discriminating side.[40] However, it is particularly harmful if it makes the acquisition of productive characteristics less attractive to the disadvantaged group. If statistical discrimination reduces the prospect of obtaining an attractive position or suitable housing, it becomes less worthwhile to develop the attributes desired by employers and landlords. The returns on human capital investments diminishes for

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[35] G. AZMAT and R. FERRER, 'Gender Gaps in Performance: Evidence from Young Lawyers' (2017) 125 *Journal of Political Economy* 1306, 1345 et seqq.

[36] G. AZMAT and R. FERRER, 'Gender Gaps in Performance: Evidence from Young Lawyers' (2017) 125 *Journal of Political Economy* 1306, 1347 et seqq.

[37] G. AZMAT and R. FERRER, 'Gender Gaps in Performance: Evidence from Young Lawyers' (2017) 125 *Journal of Political Economy* 1306, 1334 et seqq.

[38] The study did not investigate whether law firms used this information in the hiring process.

[39] J. DOLEAC and B. HANSEN, 'The Unintended Consequences of "Ban the Box": Statistical Discrimination and Employment Outcomes When Criminal Histories Are Hidden' (2020) 38 *Journal of Labor Economics* 321.

[40] See A. ENGERT, 'Allied by Surprise? The Economic Case for an Anti-Discrimination Statute' (2003) 4 *German Law Journal* 685, 694 et seq.

the respective group.[41] For instance, the lower career ambitions of female lawyers in the study summarized above, possibly complemented by a stronger orientation towards family tasks, could result from law firms having this very expectation and therefore limiting the career opportunities of women.[42] The goal of breaking such a self-fulfilling prophecy aligns well with the fairness notion that immutable attributes should not affect the opportunities of individuals or groups if they are unrelated to the pertinent task or transaction.

The final judgement on the efficiency of statistical discrimination, however, depends on the losses suffered by the group from statistical discrimination and, conversely, losses by the opposite market side from banning statistical discrimination and coping with a greater share of less suitable candidates.[43] Even if statistical discrimination discourages the group from developing the asked-for characteristics, the efficiency balancing depends on the size of the various effects.[44] An additional consideration is how well (or how poorly) anti-discrimination laws can be enforced. If statistical discrimination is difficult to prove, they can lead to costly and frustrating litigation without effectively improving the position of the group. The failure of efficiency analysis to offer a clear-cut conclusion may seem disappointing. For law-and-economics researchers, it is an invitation to investigate the relevant variables and to establish at least their orders of magnitude. The efficiency criterion provides and structures a research agenda, rather than producing a definitive precept.

IV. Equality as a principle of distributive justice

Equal treatment can in certain instances—perhaps surprisingly—be a corollary of efficiency. It has also been mentioned in passing that efficiency itself reflects an assumption of formal equality: In maximizing wealth across all members of society, an increase in value has equal weight regardless of whom it benefits; ‘one euro is one euro’. Yet the normative economics of equality do not end with efficiency. Equality inevitably plays a central role in the just

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[41] See the formal model in A. MORO and P. NORMAN, ‘A general equilibrium model of statistical discrimination’ (2004) 114 *Journal of Economic Theory* 1.

[42] As mentioned before, the study produced no evidence of statistical discrimination in this particular instance as gender differences in the rewards to measured performance were insignificant.

[43] Cf. A. ENGERT, ‘Allied by Surprise? The Economic Case for an Anti-Discrimination Statute’ (2003) 4 *German Law Journal* 685, 694 et seq. (offering a sketchy assessment without the aspect of a self-fulfilling prophecy).

[44] See the broad analysis in P. NORMAN, ‘Statistical Discrimination and Efficiency’ (2003) 70 *Review of Economic Studies* 615.

distribution of income and wealth. It has been discussed extensively whether normative economics has anything to say about distributive justice (section 1.). If one answers the question in the affirmative, a closer look at equality in distribution leads again back to the possibility of separating distribution from efficiency (section 2).

1. De distributione est disputandum

Since the 1940s, the prevailing view in economics—in contrast to classical Benthamian utilitarianism—had been that issues of distribution defy scientific analysis and must be left to political struggle. The bedrock of this belief was the doctrine that no rational method existed for 'interpersonal comparisons of utility', that is, for weighting preferences across individuals. This does not affect efficiency because it maximizes monetary value as a common denominator. The verdict applies, however, to the goals that individuals pursue with their wealth and other resources. The contention is that there is no way of determining—with any degree of scientific objectivity—whether one euro is worth more in the hands of the wealthy or the poor, the educated or the uneducated, the selfish or compassionate etc. An English economist from the 1930s gives a remarkable account of the respect for individual autonomy and divergent cultural values that motivates this belief:

> 'I had the strongest bias in favour of utilitarian analysis. […] I was powerfully attracted by the proposition […] that recent developments of the theory of value could be invoked to demonstrate the desirability of the mitigation of inequality. When I look back on that frame of mind, I find it easy to understand the belief of Bentham and his followers that they had found the open sesame to problems of social policy.
>
> But, as time went on, things occurred which began to shake my belief […] I am not clear how these doubts first suggested themselves; but I well remember how they were brought to a head by my reading somewhere […] the story of how an Indian official had attempted to explain to a high caste Brahmin the sanctions of the Benthamite system. "But that," said the Brahmin, "cannot possibly be right. I am ten times as capable of happiness as that untouchable over there." I had no sympathy with the Brahmin. But I could not escape the conviction that […] the difference between us was not one which could be resolved by the same methods of demonstration as were available in other fields of social judgement.'[45]

To the academic researcher, it might seem prudent to abstain from claiming scientific truth in questions of distribution. Yet society and politics cannot avoid the demands for distributive

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[45] L. ROBBINS, 'Interpersonal Comparisons of Utility: A Comment' (1938) 48 *Economic Journal* 635, 635 et seq.

justice. Leaving this call unanswered does not sit well with the normative ambitions of economics. In addition, while efficiency and distribution can be analyzed separately, redistribution feeds back into efficiency: The Kaldor-Hicks criterion operates on reservation prices for entitlements; they in turn depend on individual income and wealth. Efficient allocation thus varies with the distribution of income and wealth.

This interaction alone does not necessitate a unified approach. Efficiency analysis can take distribution as given and maximize wealth on that basis.[46] There is, however, a tradeoff between distribution and efficiency that requires balancing in a common framework. The reason is that redistribution is itself costly in the sense of reducing total wealth. This is not because monetary value changes when it is transferred from one person to another; a mere payment does not affect efficiency. But a government bureaucracy is needed to administer any redistributive scheme, which is costly. Even more consequential is that redistribution impacts incentives and behavior. It dampens activities that trigger payment obligations under the scheme—for example, the generation of taxable income—and it encourages activities or characteristics that are used to identify the beneficiaries.[47] The result, in short, is that to provide one euro to the recipient of a transfer, much more than one euro must be taken from the burdened party.[48]

The efficiency loss does not imply that economics were opposed to redistribution. Since efficiency has been justified by bracketing off distribution, it has no bearing on distributive justice. Therefore, if economics confines itself to efficiency, it can do no more than to quantify the costs of redistribution. It has to refrain from balancing the conflicting goals or at the very least from providing an analytical framework for that purpose. This seems unsatisfactory. Therefore, economists are increasingly setting aside their reservations against interpersonal utility comparisons and construct non-monetary measures of aggregate social welfare. Numerous possibilities have been explored to translate individual preference

[46] Several successive steps could be needed, for example because efficiency leads to uneven wealth increases, distribution is adjusted and triggers new reallocations for efficiency reasons.

[47] In addition to this substitution effect, income effects can work in the opposite direction. The crucial point is that distribution rules never only transfer wealth, but also bring about behavioral changes.

[48] For the US tax system, it has been estimated that the transfer of one dollar from the highest to the lowest income earner causes a burden of 1.77 dollars, N. HENDREN, 'Measuring Economic Efficiency Using Inverse-Optimum Weights' (2020) 187 *Journal of Public Economics* 104198, 9.

satisfaction into measures of utility and to combine them in a 'social welfare function'.[49] Aggregating welfare across individuals enables economics to state a rationale for redistribution based on the diminishing marginal utility of money: For the less well-off, an additional euro provides more satisfaction than for the affluent.[50] A social welfare function then provides the analytical tool to trade off the (decreasing) welfare gains from redistribution against its (increasing) efficiency costs and, on this basis, to determine the optimal level of equalizing income and wealth.

2. The criteria of distributive justice—the separation of efficiency and distribution revisited

With an interpersonal summation of utility and the diminishing marginal utility of money, the market-like 'formal' equality of the efficiency goal—one euro is one euro, no matter who owns it—can be balanced against the 'substantive' equality in the satisfaction of needs. Surprisingly, the edifice of efficiency analysis can remain largely untouched if—and to the extent that—efficiency and distribution remain separable not only analytically but also practically. This animates the proposition, mentioned earlier, that redistribution should be accomplished through taxes and social transfers while all other areas of law and government should aim exclusively at efficiency. This claim seems well founded, at least at the outset: The guiding principle of tax and social transfer laws is to attribute burdens and benefits on the basis of individual capability and need. The tax and social transfer regimes are unique in their comprehensive coverage of an individual's income and wealth and their ability to target differences in the marginal utility of money.[51] Other areas of law can achieve need-based redistribution (far) less precisely. They would have to make rough assumptions as to whether, for example, shareholders are 'typically' wealthier than employees (although shareholders are often employees and vice versa). Redistribution by other means than taxes and social transfers, therefore, are likely to cause a twofold efficiency loss: firstly, because—as has been

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[49] For a very accessible introduction, see M. ADLER, *Measuring Social Welfare*, Oxford University Press, Oxford 2019, pp. 20 et seqq. See also L. KAPLOW and S. SHAVELL, *Fairness versus Welfare*, Harvard University Press, Cambridge 2002, pp. 24 et seqq.; L. KAPLOW, *The Theory of Taxation and Public Economics*, Princeton University Press, Princeton 2008, pp. 41 et seqq.

[50] From an empirical perspective, see, e.g., D. KAHNEMAN and A. DEATON, 'High income improves evaluation of life but not emotional well-being' (2010) 107 *Proceedings of the National Academy of Sciences of the United States of America* 16489.

[51] Certain aspects of family, labor or insurance law come close but these institutions are better explained by mutual insurance and efficient risk allocation than by redistributive goals.

pointed out—any redistribution inevitably reduces wealth and, secondly, because they operate not on income and wealth but regulate specific activities, which become less efficient if the rules are tweaked towards distributive goals.[52]

An important objection to the separability claim is that distributive justice depends not only on needs, that is, on the marginal utility of money.[53] Besides equal preference satisfaction, a just distribution of income and wealth could also consider subjective effort and, in this sense, moral 'merit'. This would suggest that taxes and transfers also depend on the recipient's exertion of effort, such as through labor or other contributions to the good of other individuals or the community. Because tax law does not contemplate the amount of effort, one might infer that, for instance, labor law should be harnessed to ensure a just distribution of income.

To respond to this critique, one first needs to clarify that much of what other theories of justice call 'merit' is already reflected in efficiency analysis. Efficiency requires that efforts be 'rewarded' to the extent that the cost of effort provision exceeds the benefits. Crucially, efficiency is not equivalent to market outcomes. For instance, if existing labor markets fail to put a person's labor to productive use, such involuntary unemployment is an efficiency loss. The resulting inefficiency includes foregone benefits from social integration in a work environment and from job satisfaction; they enter the efficiency calculus insofar as employees would be prepared to pay for them (or require compensation to agree to give them up).[54] In addition, market prices fully recognize the value of labor only if there are property rights in the product. Therefore, market incentives for labor effort are often (far) too weak, particularly for the production of public goods. In response to these often severe market imperfections, economists turn their attention to additional institutions—including laws—that come as close as possible to full efficiency, in light of the real-world constraints.

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[52] This 'double distortion' argument goes back to L. KAPLOW and S. SHAVELL, 'Why the Legal System is Less Efficient than the Income Tax in Redistributing Income' (1994) 23 *Journal of Legal Studies* 667. For the critique, see n. 14.

[53] A related objection is based on specific in-kind needs, such as in the regulation of health risks with different vulnerabilities, see M. ADLER, *Measuring Social Welfare*, Oxford University Press, Oxford 2019, pp. 225 et seqq.

[54] For the non-pecuniary consequences of job losses, see D. SULLIVAN and T. VON WACHTER, 'Job Displacement and Mortality: An Analysis Using Administrative Data' (2009) 124 *Quarterly Journal of Economics* 1265 (documenting a long-term increase in mortality among laid-off workers). When determining the reservation prices of workers for non-monetary benefits, an efficiency analysis also would have to correct for incomplete information and deviations from rationality.

Competing theories of justice likewise have to grapple with an obstinate reality that fails to fully reward individual 'merit'. To compare such theories with efficiency on an equal footing, one can conduct a thought experiment and strip away the real-world constraints impede the implementation of any normative conception. The relevant question then becomes if 'merit' deserves greater reward than what efficient incentives require in such a frictionless world. For example, consider the case of a person who suffers from such severe illness or disability that her labor product and possible work satisfaction—properly valued in money—would sum to a negative amount, such as because her labor would depend on very costly assistance or were intensely agonizing to herself. To induce the person to work anyway, compensation would have to exceed the total economic value of the service rendered. In a labor relation, both parties would want to terminate such an employment. Under conditions like these, it would seem unreasonable and almost perverse[55] to encourage work effort as 'merit'. The example suggests that efficiency analysis absorbs much, if not all, of merit-based distributive justice.

V. Conclusion

The reductionism of economics was introduced as part attraction, part irritation to lawyers and philosophers. The manifold ways to derive equality from the first principles of economics reveal yet another remarkable feature: Lawyers and philosophers tend to expect an economic analysis to deliver unambiguous value judgements and policy advice. This is unfair insofar as jurisprudence and social philosophy, for their part, hardly ever offer unanimous conclusions on any issue of law and justice. Nonetheless, the complaint points to another particularity: Normative (law and) economics is founded on the concepts and theories of positive economics. In consequence, it is open to, and indeed depends on, empirical findings to test its claims and derive more specific prescriptions. In this sense, normative economic analysis is less a 'system' of justice than an ongoing research program. Relying on assumptions and empirical findings that remain subject to revision, it scarcely comes to definitive conclusions. For a theory of justice, openness to real-world effects and changing assessments need not be a disadvantage. Law itself, on the other hand, requires greater stability. As with other theories of justice, normative economics provides an outside vantage point for critical reflection of the law, not a substitute for legal rules and legal doctrine.

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[55] The provocative language is borrowed from L. KAPLOW and S. SHAVELL, 'Fairness versus Welfare: Notes on the Pareto Principle, Preferences and Distributive' (2003) 32 *Journal of Legal Studies* 331, 335 ('pursuit of notions of fairness results in needless and, at root, perverse reduction in individuals' well-being').