

**AN ECONOMIC ANALYSIS OF THE LIABILITY OF CREDIT RATING
AGENCIES: A POSITIVE INQUIRY FROM A KALDOR-HICKS EFFICIENCY
PERSPECTIVE**

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Abstract: The liability of credit rating agencies ('CRAs') has been subject to critical debate since the global financial crisis of 2008. It has been well documented and argued that the rules governing such impositions have been traditionally framed by reactionary, post-crisis driven reforms which do not necessarily reflect, or capture, in economic terms, the consequentialist aspects of whether they are beneficial to the welfare of wider market participants. This article attempts to highlight, through economic analysis, some of these wider market repercussions, and will aim to do so by providing an analysis of liability rules from a Kaldor-Hicks efficiency perspective. It is hoped that this analysis will add further insight to the question of liability and regulation, chiefly in aiding our ability of determining whether current regulatory reforms on credit rating agencies, principally within the European Union, are sufficiently robust in addressing the problem of poor regulatory incentives.

A. INTRODUCTION

In the aftermath of the global financial crisis in 2008, the liability of CRAs is again in focus.¹ The persistent overrating of subprime mortgage loans – chiefly in the form of packaged securities known as collateralised debt obligations ('CDOs')² – and overconfidence in markets have led to the need to establish stronger liability rules.³ The question of CRA liability is not new.⁴ In fact, since the collapse of Enron in the aftermath of the NASDAQ bubble in 2001, there have been increased efforts to develop and improve the regulatory oversight of CRAs. Public interest theories over financial market regulation is at the centre of these competing

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¹ Bridgette Haar, 'Civil Liability of Credit Rating Agencies – Regulatory All-or-Nothing Approaches between Immunity and Over-Deterrence', University of Oslo Faculty of Law Legal Studies Research Paper Series No. 2013-02 (University of Oslo 2013).

² For an introduction into the root causes of the recent financial crisis, see Edward Kane, 'Incentive Roots of the Securitisation Crisis and its Early Mismanagement' (2009) 26 *Yale Journal on Regulation* 405.

³ *ibid.* See further, Eamonn Moran, 'Wall Street Meets Main Street: Understanding the Financial Crisis' (2009) 13 *North Carolina Banking Institute* 5.

⁴ For a good historical overview, see Nan Ellis, Lisa Fairchild and Frank D'Souza, 'Is Imposing Liability on Credit Rating Agencies a Good Idea?: Credit Rating Agency Reform in the Aftermath of the Global Financial Crisis' (2012) 17 *Stanford Journal of Law, Business & Finance* 176.

theories (amongst other economic theories of regulation),⁵ with the imposition of liability rules forming an important part of the regulatory discussion.⁶

The imposition of liability rules invites normative considerations. Central to the question in economic analysis of law, as is the principal thesis of normative economics, is the rule's efficiency.⁷ For many years, prior to the emergence of neoclassical law and economics, liability rules have largely attracted the weighing of cognate concepts of justice, morality, and rights, which are often known to be loosely associated with the philosophical underpinnings of Kantian ethical theories advocated for in the schools of legal positivism and deontology.⁸ The basis for imposing liability rules and claims in the context of credit rating agencies is no different. Since the financial crisis, many have argued that stricter regulation is necessary, and that agencies should be held accountable for the range of harmful, foreseeable externalities caused by their perceived lack of due diligence.

This article explores many of these considerations, evaluating both within and beyond the normative assignment of rights and duties as is usually argued from a moral standpoint. Principles advanced in the field of law and economics are incorporated, as are the predictive aspects of economic consequentialism,⁹ to assess the efficacy of liability rules governing credit rating agencies from an efficiency perspective. The article begins by considering, in section B, the normative aspects of liability law, in an attempt to explicate the rationale and purpose for utilising the efficiency criterion in the analysis. Sections C and D will apply the Kaldor-Hicks criterion to the CRA context, examining, through positive analysis, several insights overlooked in the consideration of liability rules. This will be done through considering the recent amendments made under Article 35(a) of the European Union Regulation.¹⁰ Section E considers the economic theories of liability, drawing on comparisons between negligence and strict liability regimes, and will subsequently look to evaluate how they would apply in the contemporary context of CRAs. Section G provides an evaluation of

⁵ Charles Goodhart, *Financial Regulation: Why, how and where now?* (Routledge 1998); Richard Posner, 'Theories of Economic Regulation' (1974) 5 *Bell Journal of Economics and Management Science* 335.

⁶ See Mads Andenas and Iris Chiu, *The Foundations and Future of Financial Regulation* (Routledge 2014) 191; see also Charles Goodhart, 'How, if at all, should Credit Rating Agencies Be Regulated?' (2008) LSE Financial Markets Group Paper Series 181, which provides a good historical account.

⁷ Richard Posner, 'Utilitarianism, Economics, and Legal Theory' (1979) 8 *Journal of Legal Studies* 103; see also Richard Posner, 'The Ethical and Political Basis of the Efficiency Norm in Common Law Adjudication' (1980) 8 *Hofstra Law Review* 487.

⁸ HLA Hart, *The Concept of Law* (3rd edn, OUP 2012); see also Ronald Dworkin, *Taking Rights Seriously* (Bloomsbury Academic 2013); John Rawls, *A Theory of Justice* (Harvard University Press 1999).

⁹ Louis Kaplow and Steven Shavell, 'Fairness Versus Welfare' (2001) 114 *Harvard Law Review* 961.

¹⁰ Regulation (EU) 462/2013 of the European Parliament and of the Council of 21 May 2013 amending Regulation (EC) 1060/2009 on credit rating agencies (CRA III).

the various deficiencies and assumptions made in normative economic analysis, before briefly addressing certain potential concerns arising from the article's core assumptions.

B. LIABILITY RULES, EFFICIENCY, AND JUSTICE

1. *Why efficiency?*

The aim and purpose of liability rules may simply depend on one's philosophical conviction. Generally, traditional legal scholars would argue two objectives of liability law: (1) compensation of victims for having unfairly suffered harm, and (2) the need to deter injurers from committing further harm.¹¹ From a strictly deontological perspective, such rules by themselves possess significant moral worth, not necessarily in the purpose to be attained by it, but in the *maxim* according to which the action itself is determined.¹² In the context of CRAs, we can assert that if one rating agency is proven to be negligent or fraudulent *ex post*, investors should be compensated for having unfairly suffered losses through having relied, assuming diligently, on inaccurate ratings. The setting of precedent then may, or may not, incentivise CRAs to produce more accurate ratings.¹³

The recent Australian decision of *Bathurst*¹⁴ is one example that echoed this *moralistic* bend, confirming that CRAs owed a duty of care to investors on the basis that rating agencies *should have known* that potential investors would rely on its opinion when determining the creditworthiness of rated products, in particular when making their decisions to invest. The assumption of foreseeability here is an example of an intuitive moral decree, as the outcome relies heavily on what one perceives to be sufficiently or reasonably foreseeable, and whether one should be penalised on that basis.¹⁵ Whether or not such an approach would be validated by courts in other regions under the common law is yet to be seen.¹⁶

Liability claims under the common law have for long echoed the *Kantian* foundations of moral absolutism,¹⁷ ie that rights and duties specifically defined remain absolute as determined by the moral law. The imposition of statutory liability rules for CRAs imposes,

¹¹ Guido Calabresi and A Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) 85 Harvard Law Review 1089.

¹² Ronald Dworkin, 'Is Wealth a Value?' (1980) 9 The Journal of Legal Studies 191.

¹³ Jacob Kleinlow, 'Civil Liability of Credit Rating Companies: Quantitative Aspects of Damage Assessment from an Economic Viewpoint' (2015) 11 International and Comparative Corporate Law Journal 134.

¹⁴ *ABN AMRO Bank NV v Bathurst Regional Council* [2014] FCAFC 65.

¹⁵ This does not suggest that legal analyses under the rudiments of the common law function entirely on intuitive basis without any moral legitimacy. Rather, it attempts to highlight that the analysis could be more inclusive, particularly to wider and more extensive considerations beyond commonly-held moral intuitions. For a more extensive introduction, see Posner, 'Utilitarianism, Economics and Legal Theory' (n 7).

¹⁶ For an analysis of potential liability claims in the UK, see Kern Alexander, 'Tort Liability for Ratings of Structured Securities Under English Law' (2015) 11 International and Comparative Corporate Law Journal 26.

¹⁷ Kaplow and Shavell (n 9).

for example, a duty not to lie (CRAs), and a right not to be lied to (investors).¹⁸ The question of whether courts should utilise a strictly deontological approach in finding the appropriate assignment of rights and duties is not straightforward. The benefit of normative economic analysis lies in its consequentialist approach of law.¹⁹ The complexity of financial markets means that wider economic considerations are usually pertinent when considering liability rules. Punishing agencies simply on grounds of rights and duties, or morality and justice, may not be as straightforward as it would be in other traditional liability claims such as murder, trespass, or theft, for example. Moral arguments for compensating investor losses are filled with contradictions. In financial markets, aspects of liability rules greatly impact the welfare of *all* market participants, as this article hopes to highlight.²⁰

This is not to suggest that cases of murder, trespass, or theft are less morally arbitrary (in fact, they very often are), but rather that adopting a consequentialist perspective aids our normative analysis of liability.²¹ Efficiency perspectives are relevant not because they replace our deontological foundations of law. Instead, they illuminate conclusive normative directions to anyone for whom ‘efficiency, or the particular concept of efficiency that the particular economist is advancing, happens to be the ruling value’.²² In other words, in determining whether a particular rule or decision is *efficient*, we are then better able to come to a conclusion as to whether that rule or decision is *morally acceptable*.²³ Positive descriptions may further illuminate whether the current liability regime can be explained through the concept of efficiency.²⁴ Explicating these descriptions may then help us redesign our laws to achieve equally valid or even better moral ends, albeit utilising different logical inspections.

2. A positive and normative description of liability rules

Liability rules are established where there is some perceivable form of market failure which, given high transaction costs, requires the intervention of judges to help foster the transaction that ‘free market transactions would have brought about had they been feasible’.²⁵ In this

¹⁸ For an introduction into the concepts of morality, law and economics, see Kaplow and Shavell (n 10). For a lighter introduction, see Edward Stringham and Mark White, ‘Economic Analysis of Tort Law: Austrian and Kantian Perspectives’ in Margaret Oppenheimer and Nicholas Mercuro, *Law and Economics: Alternative Economic Approaches to Legal and Regulatory Issues* (ME Sharpe 2004) 374.

¹⁹ Kaplow and Shavell (n 9).

²⁰ Eugene Fama, ‘Efficient Capital Markets: A Review of Theory and Empirical Work’ (1970) 25 *Journal of Finance* 383.

²¹ Richard Posner, ‘The Positive Economic Theory of Tort Law’ (1980) 15 *Georgia Law Review* 851.

²² Posner, ‘Utilitarianism, Economics, and Legal Theory’ (n 7) 110.

²³ Posner, ‘The Ethical and Political Basis of the Efficiency’ (n 7).

²⁴ Posner, ‘The Positive Economic Theory of Tort Law’ (n 21).

²⁵ Posner, ‘Utilitarianism, Economics, and Legal Theory’ (n 7) 108.

sense, many commonly accepted moral rights are validated *ex post* by the efficiency criterion. Where they conflict therefore should not necessarily lead us to decide one way or another, but rather exposes the similarities and deficiencies both approaches posit in our normative finding of the best possible solution.²⁶ Positive descriptions of law do not justify that efficiency be the sole criterion, but only that it explicates our logical consistency. A positive theory generates, in other words, empirically testable hypotheses often supported and refuted by our evaluation of the results.²⁷

3. *Assignment of duties and rights*

In assigning rights and duties, the problem of arbitrary assignment abounds. A deontological approach may define our rights through clear assignment of duties, providing it with absolute moral worth on its own.²⁸ Neoclassical law and economics, however, would attempt to define rights and duties more broadly. This article contends that a positive description of CRA liability reveals that many factors have been overlooked. Moral arguments for compensating investor losses are not straightforward. It is hard to bolster the claim that public investors should be awarded rights to compensation simply on grounds of unfairness. Nor is it easy to argue that CRAs should be immune from civil liability claims. Recent literature posits that the arguments can be circular and yet provides no clear, normative conclusions.²⁹ Defining property rights in a way that will maximise wealth *may* help illuminate clearer grounds for judicial decision-making.³⁰ If a particular assignment of rights maximises the welfare of market participants, then the moral claim for that assignment becomes a valid consideration. These considerations need not be viewed as absolute or normatively conclusive.

From a Pareto-efficiency standpoint (a principle explored in this article), the question of CRA liability is straightforward: which allocation of rights maximises wealth?³¹ In order to answer this question, we would have to consider different forms of liability rules to decide on one that truly maximises wealth. The central consideration of this article will be the assignment of rights before and after the enactment and implementation of the European Union Regulation on Credit Rating Agencies ('CRA III').³² The article further extends the

²⁶ Mario Rizzo, 'The Mirage of Efficiency', (1980) 8 Hofstra Law Review 641.

²⁷ Posner, 'Utilitarianism, Economics, and Legal Theory' (n 7) 110.

²⁸ Stringham and White, 'Economic Analysis of Tort Law' (n 18) 374.

²⁹ Ellis, Fairchild and D'Souza (n 4).

³⁰ Kaplow and Shavell (n 9).

³¹ Posner, 'Utilitarianism, Economics, and Legal Theory' (n 7).

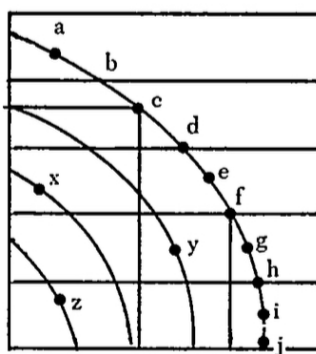
³² CRA III (n 10) art 35(a).

analysis by comparing the regimes of strict liability and negligence.³³ Both paradigms provide different assignment of rights, and lead to rather different allocative outcomes.

C. THE CONCEPTUAL BASIS OF KALDOR-HICKS EFFICIENCY

1. *Pareto-optimality, Pareto-superiority and Kaldor-Hicks efficiency*

To understand the normative basis of Kaldor-Hicks efficiency, it is important first to establish other aspects of efficiency as employed under economic analysis of law.³⁴ Pareto-optimality and Pareto-superiority are central theories that share normative relationships with Kaldor-Hicks efficiency. Both concepts express standards for ranking or describing states of affairs: (i) The Pareto-superiority criterion relates two states of affairs before concluding that ‘one is an improvement over the other if at least one person’s welfare improves while no one else’s welfare is diminished’;³⁵ (ii) Pareto-optimality is a state of allocation where it is impossible to make any one individual better off without making at least one other person worse off.³⁶ The optimality standard ‘relates one distribution to all possible distributions and says, in effect, that no Pareto improvements can be made from any Pareto-optimal state’.³⁷ In other words, Pareto-optimal distributions have no distributions Pareto-superior to them.



The comparisons can be summarised in Figure 1(a):

- I. c is Pareto-superior to x , but Pareto-noncomparable to y .
- II. f is Pareto-superior to y , but Pareto-noncomparable to x .
- III. c and f are Pareto-noncomparable.
- IV. c and f are Pareto-superior to z .

Figure 1(a): Pareto-Optimal distributions.³⁸

As with Pareto-superiority, Kaldor-Hicks efficiency is a relational property states of affairs, and defines a state as efficient if compensation from the largest winners to losers is hypothetically possible. A fuller definition can be provided as the following:

³³ Steven Shavell, ‘Strict Liability versus Negligence’ (1980) 9 *Journal of Legal Studies* 1.

³⁴ Posner, ‘Utilitarianism, Economics, and Legal Theory’ (n 7).

³⁵ Jules Coleman, ‘Efficiency, Utility, and Wealth Maximisation’ (1980) 8 *Hofstra Law Review* 509, 513.

³⁶ *ibid* 512.

³⁷ *ibid* 513.

³⁸ This graph is used for illustration purposes only for the benefit of the reader and is adopted from Coleman (n 35) 517.

One state of affairs (E') is Kaldor-Hicks efficient to another (E) *if and only if* those whose welfare increases in the move from E to E' could fully compensate those whose welfare diminishes with a net gain in welfare.³⁹

It is important to note that Kaldor-Hicks improvements do not require compensation actually be paid, but only that the *possibility of compensation exists*. The theory is such that it need not leave each person at least as well off. In fact, an improvement can often leave individuals worse off. A situation is Kaldor-Hicks efficient *if and only if* no other Kaldor-Hicks improvement from that situation exists.⁴⁰ Were compensation to be paid to losers, however, Kaldor-Hicks distributions would be translated into Pareto-superior ones.

2. *Why Kaldor-Hicks efficiency?*

The normative relationship between Pareto-criteria and Kaldor-Hicks efficiency needs to be further explicated. As elaborated in Posner's *Utilitarianism, Economics, and Legal Theory*, if the rudiments of *wealth maximisation* are applied, both Pareto-criteria share the same ethical justificatory premises of *consent* and *liberty*.⁴¹ This means to say that, as consent forms the operational basis to which market transactions are concluded, formed through the exercise of individual liberty, Pareto-superiority is justified on the basis that actions freely consented to are superior than any other allocation of rights. In effect, the transaction is wealth maximising.⁴² Kaldor-Hicks efficiency equally shares the consent and libertarian criteria. The concept is premised on the basis of hypothetical compensation, and hence a state of Kaldor-Hicks efficiency is arrived at through a series of voluntary transactions. These premises will be discussed further in section D.4 below. However, for the purposes of this section, a brief understanding would help elucidate several important differences, which is important in helping justify the choice between the existing criteria.

The paradigms can be described through the following examples:

- I. Pareto-optimal: *X* and *Y* exchange goods on a mutual basis.⁴³ This is Pareto-optimal as both individuals express consent to the transaction through exercise of liberty.
- II. Pareto-superior: *X* and *Y* do not exchange with one another due to a market failure. *X* is awarded a good, which if awarded to *Y*, would have been inefficient

³⁹ Richard Posner, 'The Value of Wealth: A Comment on Dworkin and Kronman' (1980) 9 *Journal of Legal Studies* 243, 244 (emphasis added).

⁴⁰ Edward Stringham, 'Kaldor-Hicks Efficiency and The Problem of Central Planning' (2001) 4 *The Quarterly Journal of Austrian Economics* 41, 43.

⁴¹ Richard Posner, 'Utilitarianism, Economics, and Legal Theory' (n 7).

⁴² This will be further explored below under section C.3.

⁴³ Coleman (n 35) 533.

given that *Y* would have sold it to *X* anyways. *X*, however, compensates *Y*, and hence is indifferent between his current state and his position originally if awarded the good. This is Pareto-superior, in that the individuals consent by accepting compensation *ex post*.⁴⁴

- III. Kaldor-Hicks: *X* and *Y* do not exchange with one another due to a market failure. *X* is awarded a good, which if awarded to *Y*, would have been inefficient given that *Y* would have sold it to *X*. In this case, however, *Y* is not compensated by *X* or anyone else, and is therefore worse off than he was prior to the assignment.⁴⁵ In this case, the possibility of compensation exists, although no particular transaction has taken place.

The relationship between the normative paradigms are such that they are often interrelated, and at times confused. Coleman, for example, questioned why anyone would choose a Kaldor-Hicks paradigm over a Pareto-superior one: '[i]n what sense can we say losing parties in Kaldor-Hicks wealth improvements, consent to institutions that make them less well-off but are wealth maximising?'⁴⁶ In other words, why would we choose an efficient state in which some individuals are made worse off, and how could that possibly be wealth maximising?

Two further interrelated questions abound. First, would individuals under uncertainty even choose wealth over other social goals to begin with? Second, in pursuing wealth, would they choose the Kaldor-Hicks criterion over other Pareto arrangements? The question of *why* wealth maximisation is a worthy goal in this context will be discussed under section C.3. The second question, being Coleman's enquiry, highlights several important elements. First, the relationship between Kaldor-Hicks and Pareto-superiority is not disparate: as mentioned, were *ex ante* compensation realised, Kaldor-Hicks would be transformed into a Pareto-superior one.⁴⁷ The theory of *ex ante* compensation and principle of consent⁴⁸ leaves market participants in a position whereby they have agreed to the outcome. But even if not, assuming the outcome was rejected, the possibility for realising *ex post* compensation exists. This justifies why the Kaldor-Hicks criterion is less stringent than a Pareto-superior one.⁴⁹ Second,

⁴⁴ *ibid.*

⁴⁵ *ibid.*

⁴⁶ *ibid* 534.

⁴⁷ Posner, 'Utilitarianism, Economics, and Legal Theory' (n 7).

⁴⁸ Posner, 'The Ethical and Political Basis of the Efficiency Norm' (n 7) 494.

⁴⁹ KH-efficiency has more often formed the basis for policy decision-making given its more realistic methodology, as compared to Pareto-superiority and optimality. A reallocation is only a Pareto-improvement if one person is made better off without making any other person worse off. In practice, this is usually impossible. KH-efficiency focuses on potential improvements instead of direct efficiency goals in themselves (ie does a

a system whereby compensation is paid and accepted *ex post*, ie in a Pareto-superior paradigm, is more costly than one in which compensation is not paid, or rather, not yet paid. In wealth maximisation terms, the initial lower costs would maximise the stated goals of efficiency. Under a hypothetical compensatory scenario, one could also expect the overall social costs to be lower, given that claims are made through the test of negligence, not strict liability.⁵⁰ Wealth is maximised under this paradigm assuming only meritorious claims with plausible causes of action arise, with compensation fully provided only when successful.⁵¹

It is important to further explicate the element of consent.⁵² When parties transact, they consent to their losses. In Posner's words, 'if you buy a lottery ticket and lose the lottery, then, so long as there is no question of fraud or duress, you have consented to the loss.'⁵³ This assumption of course is highly simplistic, in the sense that not everyone who transacts agrees to an unlimited amount of losses stemming from any one particular transaction. But it is sufficient to assume that, in most contexts, participants share some form of reciprocal acceptance of liability. The Kaldor-Hicks criterion is most applicable in the CRA context for that reason. When transacting under conditions of uncertainty, one cannot deny that investors are consenting to the possible risks for losses. Saying otherwise would be deceiving oneself over the conditions of financial market volatility. Equally, in providing ratings, we can assume CRAs' consent to the possibility of facing claims for compensation. In explicating the idea of consent, this article finds the Kaldor-Hicks efficiency paradigm as the most appropriate in assessing whether liability rules in the CRA context are wealth maximising.⁵⁴

Finally, note that the choice for opting for Kaldor-Hicks over Pareto-superiority is also a practical one.⁵⁵ The need to measure utility directly is near impossible, and to consider this amongst all groups in society on top of pecuniary allocation will often leave the Pareto-criterion unsatisfied, as there is no way of determining whether the 'utility to the winners of not having to pay compensation will exceed the disutility of the losers of not receiving

transaction improve us toward Pareto-efficiency?). For an introduction into the seminal works of KH-efficiency, see John Hicks, 'The Foundations of Welfare Economics' (1939) 49 *The Economic Journal* 696; Nicholas Kaldor, 'Welfare Propositions in Economics and Interpersonal Comparisons of Utility' (1939) 49 *The Economic Journal* 549.

⁵⁰ The lower cost in wealth maximisation terms is assumed given that there would be a lower number of claims made under a negligence regime compared to a strict liability one, as only meritorious ones with a sufficient probability of succeeding would arise. In the case of the recent financial crisis, for example, if a strict liability regime was adopted in the case of misratings, we can assume that the number of claims would have been extremely large, and hence the estimated social costs likely to be much higher.

⁵¹ Posner, 'Utilitarianism, Economics, and Legal Theory' (n 7).

⁵² *ibid.*

⁵³ Posner, 'The Ethical and Political Basis of the Efficiency Norm' (n 7) 492.

⁵⁴ See Kaldor (n 49); Hicks (n 49).

⁵⁵ Posner, 'The Ethical and Political Basis of the Efficiency Norm' (n 7) 488.

compensation.⁵⁶ In the context of financial markets, Kaldor-Hicks efficiency provides a far more administrable approximation, and hence forms the basis for assessment in this article.

3. *Kaldor-Hicks Efficiency and Wealth Maximisation: A Criteria for Measurement*

As aforementioned, the concept of wealth maximisation is assumed to be society's most efficient goal.⁵⁷ It is separate from utilitarianism in the sense that it is concerned not with the aggregate utilitarian effect of promoting overall happiness, but more with the maximisation of wealth in dollar terms.⁵⁸

Proponents of wealth maximisation do not necessarily answer the question of *why* wealth should be the goal pursued under conditions of uncertainty.⁵⁹ There are various normative and ethical foundations illuminating this question, most of which are beyond the scope of this article,⁶⁰ but 'whether rational choice under uncertainty would dictate the pursuit of wealth as opposed to, say, Rawls' two principles of justice, or to some variant of utilitarianism',⁶¹ is a question that needs to be briefly considered.

The adoption of wealth maximisation alleviates arbitrary initial assignment of rights.⁶² An objection to the moral adjudication of investors' rights and duties is that the assignment often provides no tangible criterion for justifying any one particular allocation of rights. The unified goal for all market participants in the financial sector is, presumably, the pursuit of wealth. There are few reasons one could think of for participating beyond that. The choice of wealth maximisation therefore serves a valuable basis for evaluating efficiency, irrespective of whether it is pursued for intrinsic or instrumental value.⁶³

In defining comparable states of affairs, a criterion for measurement is required simpliciter. The preference for measuring wealth as the desired efficiency criterion in this context is twofold. Wealth provides a more objective assessment in the context of CRAs and financial markets. In defining comparable states of affairs, the objective assessment of costs and benefits to financial market participants are plausible.⁶⁴ Wealth maximisation, unlike utilitarianism or utility, also better avoids the Scitovsky Paradox,⁶⁵ which is a relevant consideration when evaluating the Kaldor-Hicks criterion. Incorporating utility or justice

⁵⁶ *ibid* 491.

⁵⁷ Posner, 'Utilitarianism, Economics, and Legal Theory' (n 7).

⁵⁸ *ibid* 104.

⁵⁹ See however, Posner, 'The Ethical and Political Basis of the Efficiency Norm' (n 7).

⁶⁰ See for eg, Kaplow and Shavell (n 9) Dworkin, 'Is Wealth a Value?' (n 12); Coleman (n 35).

⁶¹ Coleman, 'Efficiency, Utility, and Wealth Maximisation' (n 35), 539.

⁶² Posner, 'The Ethical and Political Basis of the Efficiency Norm' (n 7) 496.

⁶³ See Dworkin, 'Is Wealth a Value?' (n 12).

⁶⁴ Coleman (n 35).

⁶⁵ This means that two states of affairs are Kaldor-Hicks efficient to one another. See Coleman (n 35) 519.

would mean considering a whole host of non-exhaustive factors, which in the context of financial markets would not be necessary, at least in explicit terms.

Let us assume therefore that Kaldor-Hicks efficiency deems outcomes as efficient when monetary wealth is maximised.⁶⁶ The key evaluation is society's willingness to pay in accordance to its assessment of alternative outcomes.⁶⁷ Consider, for example, two parties who enter into a voluntary arrangement that causes pollution to society. The initial arrangement would seem repulsive from a moral standpoint, but it would be considered a Kaldor-Hicks improvement if both parties are willing to compensate the victims of pollution. In Kaldor-Hicks terms, wealth maximisation is realised. Applying this to the context of CRAs would mean a state where both CRAs and investors are willing to pursue their transactions (ie CRAs continue to rate, investors continue relying on ratings), with both parties willing to accept the level of compensation imposed (or not imposed), whether through liability rules or otherwise. Different standards of liability would alter the incentives of both parties to transact, potentially increasing or lowering the wealth of market participants and others.

4. Assignment of property rights under Kaldor-Hicks efficiency

In legal-economic analysis, Kaldor-Hicks efficiency can be utilised as a basis for considering different assignment of rights in finding one paradigm that truly maximises wealth. Say for example we have to decide on a policy of whether to allow the building of a factory in a quiet neighbourhood. Approving the policy would mean assigning new rights and duties to the factory owners (as well as other members). If – having taken into account all other possible costs and benefits to other members of the neighbourhood – they are considered the winners, given that they gain more than other members of the neighbourhood, the *net gain in welfare* is wealth maximising from a Kaldor-Hicks perspective, given the possibility for hypothetical compensation in pecuniary terms.

The analysis can be extended further. Assume we have to decide on a suitable liability regime for compensating workers. The assignment of rights and duties to both owners and workers then depends on the liability regime. A strict liability regime for, say, compensating all injured parties working within a 50-mile radius of the factory, whether caused by the factory or not, may end up forcing the operation of the factory elsewhere, or the closing of their operations altogether.⁶⁸ If this happens then further social welfare may be lost.⁶⁹ The

⁶⁶ See Kaldor (n 49); Hicks (n 49).

⁶⁷ Stringham, 'Kaldor-Hicks Efficiency and The Problem of Central Planning' (n 40) 42.

⁶⁸ This is an extreme example, but is used for the benefit of illustration.

volume of claims *ex post* would also reduce total wealth.⁷⁰ A negligence regime which enables the possibility for injured workers to claim compensation on the other hand leaves open the possibility for valid claims. The operation of the factory would then depend on whether the owners consent to *ex ante* compensation, having considered the relevant law and legal standards. If they do, wealth is maximised, given that every transaction entered into is a potentially Pareto-superior exchange, and the possibility of hypothetical compensation exists.

The model is extreme in the sense that many non-pecuniary factors in the Paretian sense are ignored. For example, the utility or disutility from pollution, happiness levels, or discontentment in general are not measured, partly given the impossibility of the task. Pareto-efficiency would therefore potentially provide a very different result. The article will now turn to consider the application of the Kaldor-Hicks paradigm to the CRA liability context.

D. KALDOR-HICKS EFFICIENCY: APPLICATION TO THE CONTEXT OF CREDIT RATING AGENCIES

1. Rating agencies inside the Edgeworth-Boxley box

The difference between Pareto-optimality, Pareto-superiority, and Kaldor-Hicks efficiency can be usefully summarised by the Edgeworth-Boxley Box⁷¹ in Figure 1(b) below:

⁶⁹ This ultimately depends on whether the losses from forced reallocation (ie higher unemployment, lower productivity in the area etc) outweighs the benefits arising from it (ie lower pollution levels, social externalities, etc).

⁷⁰ This is assuming the factory decides to stay put, instead of reallocating.

⁷¹ The Edgeworth-Boxley Box is a conceptual device to represent the distribution of resources and its efficient allocation among actors. For more details, see Thomas M. Humphrey, 'The Early History of the Box Diagram' (1996) 82 Federal Reserve Bank Richmond Economic Quarterly 37.

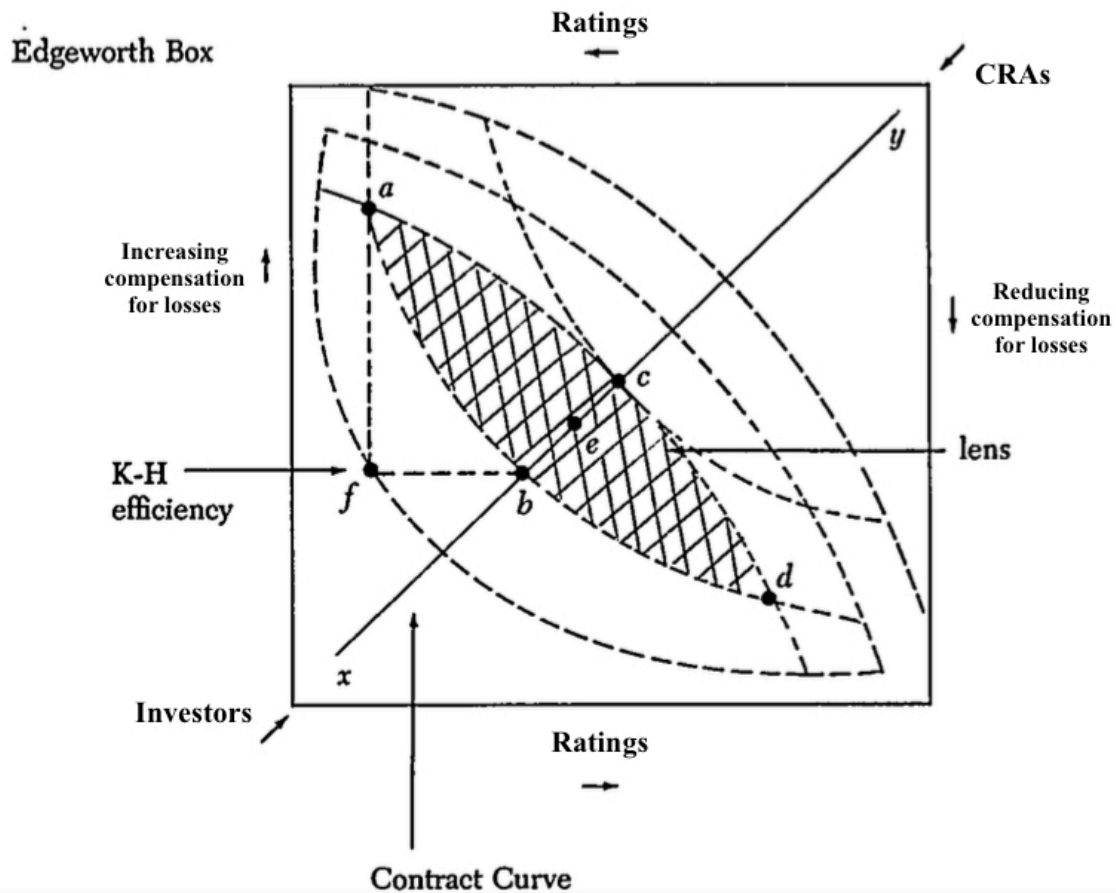


Figure 1(b): Edgeworth-Bowley Box (CRA-investor context).⁷²

Assume a = initial distribution between CRAs' right to rate and investors' right to rate, given initial assignment of rights under the common law context.

- A. The 'right to rate' depends on statutory imposition.⁷³ For CRAs, it would mean greater mandated statutory reliance on ratings, hence the right to rate more financial products. For investors, it would mean the right to rely on personal ratings.⁷⁴

⁷² This model is applied and adopted from Coleman (n 35) 514. See further, Bebchuk, 'The Pursuit of a Bigger Pie: Can Everyone Expect a Bigger Slice?' (1980) 8 Hofstra Law Review 671, 691–694.

⁷³ See Frank Partnoy, 'Overdependence on Credit Ratings Was a Primary Cause of the Crisis' (2009) University of San Diego Legal Studies Research Paper Series 09-015, who argues for the need to move away from mandating reliance on credit ratings for financial products.

⁷⁴ This is an obscure but tenable form of assumed allocation of rights. In reality, both CRAs and investors have absolute rights to these factors (CRAs can rate whatever they want, investors can choose to rely on whichever rating they choose). However, for the benefit of this analysis, we require a feasible means to assume some form of allocative paradigm. We assume therefore with an increase in statutory mandatory reliance on a CRA rating, the right for investors to rely on their personal rating reduces. Likewise, the opposite occurs if statutory reliance is mitigated. The term 'personal rating' could be taken to mean 'personal credit assessment', by whatever means.

- B. The increase and reduction in compensation for losses reflect the relevant CRA liability regime: (i) reducing compensation for losses entails a *less stringent* liability regime; (ii) increasing compensation for losses means a *stricter* liability regime.
- C. In ranking order of preferences, both can be viewed as intrinsic values in themselves: (i) reducing compensation would mean a preference for CRAs toward not wanting to face the prospect of compensating investors; (ii) increasing compensation for investors would mean a preference toward having the option for claiming damages.
- D. The line drawn through *a*, *b*, *d* represents investors' indifference curve with respect to mandatory reliance on ratings and reduction in potential compensation for losses.
- E. The line through *a*, *c*, *d* represents CRAs' indifference curve with respect to investors reliance on personal ratings and increase in potential compensation for losses.
- F. A move from *a* to *b* is Pareto-superior as investors are no worse off (*b* being on the indifference curve), while CRAs are better off (*b* being further from CRA origin).
- G. A move from *a* to *c* is also Pareto-superior as it makes investors better off while CRAs are not worse off.
- H. A move from *a* to *e* is Pareto-superior, making both investors and CRAs better off.
- I. The lens, which forms the shaded area between the indifference curves drawn through *a*, represents all possible Pareto-superior moves from *a*.
- J. The points of common tangency of investors' and CRAs' curves represent Pareto-optimal distributions.
- K. The line *x*, *y* drawn through these points is the contract curve (although in this context there is no actual contract between third party investors and CRAs; however, we can assume the contract curve represents the willingness to rate and to rely on ratings).
- L. Points *b* and *c* represent Pareto-optimal allocations that are also Pareto-superior to *a*.
- M. The move from point *a* to *f* is Kaldor-Hicks efficient, since at *f* CRAs could compensate investors so that investors would be no worse off than at *b*, and CRAs would still be better off than both *a* and *b* (further from their origin).⁷⁵

Paragraph 13 describes wealth maximisation from a Kaldor-Hicks perspective. To further illustrate: at point *a*, investors would have to rely equally on the same amount of mandatory ratings as at *f*, except that they have a greater possibility for claiming compensation for losses at *a* than at *f*. If the liability regime is adjusted so that investors and CRAs move to point *f*, the initial presumption is that investors would lose out given the

⁷⁵ Coleman (n 35) 514.

inability to make the greater number of civil claims they were entitled to at *a*. In actuality, however, investors would *not be worse off* since CRAs could compensate investors to the level at *b* (point of indifference). CRAs, on the other hand, are better off at *f* given the *less stringent* liability regime imposed, which enables them to maximise profits whilst still facing the possibility for hypothetical compensation. *In this sense, wealth is maximised.*⁷⁶

2. Assignment of rights under the CRA III

The article will now turn to consider the assignment of rights under the CRA III. The liability regime as introduced in article 35(a) thereof reads:

Where a credit rating agency has committed, *intentionally or with gross negligence*, any of the infringements listed in Annex III having an impact on a credit rating, an investor or issuer may claim damages from the credit rating agency for damage caused to it due to that infringement.⁷⁷

The provision further reads that investors may claim damages where ‘[i]t establishes that it has *reasonably relied*, in accordance with Article 5a(1) or otherwise *with due care*, on a credit rating for a decision to invest into, hold or divest from a financial instrument covered by that credit rating’.⁷⁸

Article 35(a) of the CRA III makes clear the assignment of property rights to investors and issuers for damages caused by inaccurate ratings. Prior to the imposition of statutory liability rules, civil liability claims by investors against CRAs were rarely successful.⁷⁹ The elements necessary in proving a cause of action in a negligent misrepresentation claim, for example, were difficult given that public investors were generally too far removed from establishing sufficient proximity.⁸⁰ The following points help summarise some of the relevant challenges:

- A. Contractual claims: barred due to lack of privity; issuer-pay model meant that only issuers, not investors, had grounds to bring contractual claims against CRAs.⁸¹
- B. Negligent misrepresentation claims (or other claims arising from a duty of care):
 - I. Duty of care: proving a duty of care requires investors to establish the applicability of one of the following categories: (i) assumption of responsibility,

⁷⁶ Posner, ‘The Ethical and Political Basis of the Efficiency Norm’ (n 7).

⁷⁷ CRA III (n 10) art 35(a) (emphasis added).

⁷⁸ *ibid* (emphasis added).

⁷⁹ Andenas and Chiu, *Financial Regulation* (n 6) 220–226.

⁸⁰ *Caparo Industries v Dickman* [1990] 1 All ER 568.

⁸¹ See Haar (n 1).

(ii) *Caparo*,⁸² and/or (iii) the incremental test.⁸³ The elements in *Caparo* require establishing (as separate from the standalone tests mentioned in (i) and (iii)):

- A. CRA's assumption of responsibility for investors' reliance on ratings;⁸⁴
 - B. that the loss was reasonably foreseeable,⁸⁵ the relationship was sufficiently proximate, and it was fair, just, and reasonable to impose a duty of care; and
 - C. the incremental test applies, ie that the law should develop novel categories of negligence incrementally and by analogy with established categories.⁸⁶
- II.** Breach of duty: upon establishing a duty of care, investors would then have to prove that CRAs have fallen below the standard of care reasonably expected by a competent rating agency. These have been traditionally difficult given that ratings are regarded as 'opinions', not 'statements of fact'.⁸⁷
- I. Causation: upon establishing duty and breach of duty (of care), proving causation would require investors to establish that 'but for' the ratings the investors would have been better off; the damage caused could be the losses stemming from either:
 - I. the effective yield from rated bonds or securities being too low in relation to risks, which flows from the beginning of purchasing the overrated security; or
 - II. maximum losses (ie principal sum plus expected yield or interest payments) in the wake of default of an overrated bond.⁸⁸

The causation element is difficult for investors to prove given that they would have to establish that reliance on the ratings was *ex ante* reasonable, despite the extra steps taken in the wider context of their due diligence.⁸⁹

With the imposition of statutory liability post-CRA III, the assignment of rights to investors and duties owed by CRAs are clearly enhanced. The breach of investors' property rights to fair and accurate ratings would trigger a plausible cause of action on two possible grounds:

⁸² *Caparo* (n 80).

⁸³ *Commissioners of Customs and Excise v Barclays Bank plc* [2006] UKHL 28 (see Lord Bingham).

⁸⁴ *ibid.*

⁸⁵ *Donoghue v Stevenson* [1932] UKHL 100.

⁸⁶ *Sutherland Shire Council v Heyman* (1985) 157 CLR 424, 481.

⁸⁷ See *Bisset v Wilkinson* [1927] AC 177, *New York Times v Sullivan* (1964) 376 US 254, 269. See also Andenas and Chiu, *Financial Regulation* (n 6) 220–224.

⁸⁸ Kern Alexander, 'Tort Liability for Ratings of Structured Securities Under English Law' (2015) 11 *International and Comparative Corporate Law Journal* 26.

⁸⁹ *McWilliams v Sir William Arrol & Co* [1962] 1 WLR 295 and *Quinn v McGraw-Hill Co Inc* (1999) 168 F3d 331, 336, where the court held that CRA statements 'should have alerted Quinn to the fact that he was responsible for *doing his own homework* about the risks he was assuming' (emphasis added).

- I. Fraudulent misrepresentation⁹⁰ (ie *intentionally* providing false ratings to profit);
or
- II. Negligent misrepresentation (ie miscalculating the assessment for ratings and falling below the expected level of standard of care).

The quantification of losses, as described under the *causation* element earlier, would arise from the failure of CRAs in performing their duties with reasonable care and skill, either from:

- I. The bond or security being overrated, causing pecuniary losses to investors; or
- II. The failure of CRAs to adjust their bond ratings to reflect appropriate market risk.⁹¹

In comparing the previous assignment of rights and duties with the current context, it is clear that several hurdles to make a potential claim have been removed. First, establishing contractual relationships is no longer necessary, given that an avenue for redress exists with the imposition of statutory liability. Second, the regulation makes clear that investors have *property rights* toward reasonable returns from relying on rating information, and that CRAs owe a duty of care when providing such information. Previous arguments claiming that public investors lacked sufficient proximity have therefore been removed. Whether a claim is successful, however, depends on the remaining elements of breach and causation, which requires proving the '*but for*' test and *reasonable reliance*, in that their reliance on ratings was reasonable despite the wider context of their personal credit risk assessment.⁹² The hurdles in proving these elements remain equally challenging, as investors would have to prove they did not *solely* or *mechanistically* rely on credit ratings in their assessment of financial firms or products.⁹³ Third, the regulation enlists a non-exhaustive range of causes for breach of duty under Annex III, which provides investors greater protection of rights.⁹⁴

These are but some examples of factors that have changed in between paradigms. This article makes no attempt to identify all of them. However, a brief summary is provided below:

⁹⁰ Ellis, Fairchild and D'Souza (n 4).

⁹¹ Kleinlow (n 13) 144.

⁹² CRA III (n 10) art 5a(1).

⁹³ *ibid.*

⁹⁴ *ibid* Annex III.

Assignment of rights	Before CRA III	Post-CRA III
Contractual rights	Lack of privity	<i>No longer necessary</i>
Duty of care (negligence)	Must prove: (i) assumption of responsibility; ⁹⁵ (ii) duty reasonably foreseeable, sufficient proximity exists, and fair, just, reasonable to impose duty ⁹⁶	<i>Duty of care owed (statutory duty)⁹⁷</i>
Breach of duty (negligence)	Ratings fall below standard of care; ratings regarded ‘opinions’	<i>Similar standard applies; ratings regarded ‘opinions’</i>
Causation (negligence)	Reliance on ratings ‘reasonable’; personal due diligence conducted.	<i>Similar standard; reliance ‘reasonable’ despite due diligence⁹⁸</i>

Table 1(a): Comparison of pre- and post-CRA III paradigms.

3. Kaldor-Hicks efficiency and CRA III: A positive analysis

A positive inquiry illuminates a relational property of states of affairs,⁹⁹ which if carefully considered, should reveal if one state of affairs (E’) is more efficient than another (E) in Kaldor-Hicks terms, provided that those whose welfare increases in the move from E to E’ are capable of fully compensating the losers, leaving E’ with a net gain in welfare.¹⁰⁰

The interplay of rights and duties in this context would involve considering the allocation of rights between investors and CRAs before and after the implementation of

⁹⁵ *Commissioners of Customs and Excise* (n 83).

⁹⁶ *Caparo* (n 80). See also *Bathurst Regional Council v Local Government Financial Services Pty Ltd (No 5)* [2012] FCA 1200.

⁹⁷ CRA III (n 10) art 35(a).

⁹⁸ Andenas and Chiu, *Financial Regulation* (n 6) 223–225.

⁹⁹ *Coleman* (n 35) 513.

¹⁰⁰ *ibid.*

article 35(a) of CRA III.¹⁰¹ The first point to note and acknowledge in this context would be the initial assignment of investor property rights. The presumption removes the incalculable *ex ante* risks involved with anterior determination of property rights.¹⁰²

In determining whether there has been an investors' net increase in welfare, by explicating the principle of *ex ante* compensation, a positive description reveals very little in terms of *actual* overall net effects. The position of investors prior to the liability regime functions on the same premise of *ex ante* compensation as it would post-CRA III. Participating in financial investments, whether through relying on financial ratings or personal due diligence, incorporates the element of consent.¹⁰³ Financial market volatility is a presumed risk. Any reliance on credit ratings as an external certification functions on the premise of accepting marginal deviations from absolute certainty.¹⁰⁴ Perfect knowledge in our world is often misjudged as a locum for *pretended* knowledge, and any rational investor consents to these risks when incorporating rating information into his credit assessment.¹⁰⁵

The principle of consent reveals a fundamental problem with stringent liability regimes. Reliance on public ratings is even more problematic given that the decision to do so is voluntary. In publishing rating information, investors consent to whichever rating they opt to believe. If CRAs were a publishing company, a reader merely has to avoid reading the section if he or she believes there are grounds for substantial misinformation, or at least, grounds for deviation in opinions, risks and beliefs. But at the same time the principle of consent oversimplifies other important causalities. One may often read news from a reliable publishing company, say the British Broadcasting Channel (BBC), only to find the occasional misinformation. The question therefore is more appropriately addressed as to whether the ultimate suffering of harm for investors was so far removed that 'but for' the inaccuracy of public credit rating, the investor would have been better off.¹⁰⁶

Even if we were unable to elicit express consent in any case, a possibility given that it is a non-contractual reliance,¹⁰⁷ the finding of implicit consent should not be abandoned.¹⁰⁸ In

¹⁰¹ CRA III (n 10) art 35(a).

¹⁰² In other words, investors no longer have to bear the risks of assessing whether they will have an avenue to make a claim, as this is provided for under CRA III (assuming they suffer grave losses stemming from a misrated financial product). See Richard Epstein, 'A Theory of Strict Liability' (1973) 2 *Journal of Legal Studies* 151.

¹⁰³ Posner, 'The Ethical and Political Basis of the Efficiency Norm' (n 7) 494.

¹⁰⁴ Frank Knight, *Risk, Uncertainty and Profit* (Houghton Mifflin Boston 1921) 232–233.

¹⁰⁵ Andreas Horsch, 'Civil Liability of Credit Rating Companies – Qualitative Aspects of Damage Assessment from an Economic Viewpoint' (2015) 11 *International and Comparative Corporate Law Journal* 107, 120.

¹⁰⁶ Alexander, 'Tort Liability for Ratings of Structured Securities Under English Law' (n 16).

¹⁰⁷ The objection to consent in the CRA context however may be furthered on the basis that explicit or implicit consent cannot be found where no contractual relationship exists. This is valid but not fundamental to our

finding that investors have relied on ratings, they have equally implied their confidence in the ratings, even if they have wavered away from their personal credit assessments. Laziness, oversight, or mechanistic reliance are not grounds for then avoiding personal due diligence in performing credit assessments. Doing so would only bolster the claim that investors consented, at least in part, given their indifference.

Positive analysis therefore reveals that investors are not in a worse position after the crisis by virtue of *ex ante* compensation.¹⁰⁹ In being part of a system of tort rules, a rational investor can be expected to perform accident-avoidance measures without *ex post* compensation.¹¹⁰ If one were to invest based on the conviction of positive ratings, considering the relevant liability regime and factoring plausible liability claims are assumed *ex ante* measures.

However, to explicate the position as such in the context of financial markets would be an oversimplification. The complexity of the credit rating business, as described by many commentators,¹¹¹ posits fundamental problems underlying the theory of *ex ante* compensation. The aggressive desire to profit and conflicts of interest reveal the fundamental problem of consenting to relying on rating information of issuers who themselves pay for the rating by rating agencies.¹¹² The question is whether other forms of external certifications are sufficient to provide grounds for informed decision-making,¹¹³ one that would consolidate the notion of consent. The Kaldor-Hicks criterion has to be modified in this sense, taking into account that *consent* prior to the financial crisis was severely obscured by the motives for financial profiteering.¹¹⁴ The criteria for ‘voluntary exchange’ that is Pareto-optimal between participants is severely weakened in this sense.

4. The obscurity of consent: moving to a Kaldor-Hicks efficient paradigm

analysis. The matter of consent is substantive with varying degrees of form and kind. There are differences of degree between, for example, interpreting explicit contracts to effectuate the intentions of parties, and creating tort duties based on purely hypothetical contracts. The latter involves efficacious judicial intervention, whereas the former is express and agreed. The element consent can exist in both. As long as CRAs and investors understand that ratings are being relied upon, the consensual criterion is fulfilled.

¹⁰⁸ Posner, ‘The Ethical and Political Basis of the Efficiency Norm’ (n 7) 494.

¹⁰⁹ Richard Posner, ‘Epstein’s Tort Theory: A Critique’ (1979) 8 *Journal of Legal Studies* 457, 464.

¹¹⁰ *ibid* 464.

¹¹¹ Eg Iris Chiu, ‘Regulating Credit Rating Agencies in the EU: In Search of a Coherent Regulatory Regime’ (2014) 25 *European Business Law Review* 269; Mads Andenas, ‘Liability for Regulators and Public Authorities’ (2007) *European Business Law Review* 1; John Coffee, ‘Gatekeeper Failure and Reform: The Challenge of Fashioning Relevant Reforms’ (2004) 237 *Columbia Law and Economics Working Paper* 1.

¹¹² See Joshua Krebs, ‘The Rating Agencies: Where We Have Been and Where Do We Go From Here?’ (2009) 3 *Journal of Business, Entrepreneurship and The Law* 133.

¹¹³ Stephen Choi, ‘Market Lessons for Gatekeepers’ (1998) 92 *Northwestern University Law Review* 916.

¹¹⁴ Kane (n 2) 405.

In an ideal world free from transaction costs or information problems,¹¹⁵ in which individuals are rational and knowledgeable, the ‘exercise of liberty leads to Pareto-optimal states of affairs through a series of Pareto-superior exchanges’.¹¹⁶ As mentioned, the state of Pareto-optimality is very difficult, if not impossible, to imagine in the context of financial markets.¹¹⁷ Given the incompleteness of the theory of *ex ante* compensation previously, due to the obscurity of consent, it is fair to presume the existence of market failure by virtue of information asymmetries.¹¹⁸ From a positive perspective, the liability regime under CRA III can be seen as an attempt to correct, or perhaps codify, a pre-existing allocation of rights.

Intervention in markets are based on some notion of market imperfection.¹¹⁹ As underlined by Posner:

The role of government intervention in any case is to mimic or simulate the allocative forces of the free market through the imposition of legal sanctions, thereby providing for the proper allocation of resources that would have taken place under more desirable market conditions.¹²⁰

In a perfectly free market, free from third party and external effects, we can presume that an investor would have the right to rely on ratings, and CRAs the right to provide ratings, and both would exchange Pareto-superior transactions until they achieve a state of Pareto-optimality. An investor would continue to rely on ratings as long as it benefits their investments; a CRA would continue to rate products as long as it continues to be profitable. Both are wealth maximising transactions. Forbidding the transactions, unless assessed on some basis of market imperfection, would reduce both the wealth of society and personal autonomy.¹²¹ The question of assignment of rights from a Kaldor-Hicks perspective therefore is whether the new assignment of rights enhances wealth and provides for a net gain in welfare.¹²²

In considering investors’ previous assignment of rights, the plausibility of *ex ante* compensation and consent are generally weaker given the lack of codification and clarity of avenues for redress. Consenting to reliance on ratings does not mean consenting to excessive

¹¹⁵ Ronald Coase, ‘The Problem of Social Cost’ (1960) 3 *Journal of Law and Economics* 1.

¹¹⁶ Coleman (n 35) 541.

¹¹⁷ Fama (n 20); Leland and Pyle, ‘Informational Asymmetries, Financial Structure, and Financial Intermediation’ (1977) 32 *The Journal of Finance* 371.

¹¹⁸ *ibid.*

¹¹⁹ John Coffee, ‘Market Failure and the Economic Case for a Mandatory Disclosure System’ (1984) 70 *Virginia Law Rev* 717.

¹²⁰ Posner, ‘Utilitarianism, Economics, and Legal Theory’ (n 7) 110.

¹²¹ The question of personal autonomy is quite distinct from wealth maximisation, although the goals often coincide. See Posner, ‘The Ethical and Political Basis of Efficiency’ (n 7) 495.

¹²² Posner, ‘Utilitarianism, Economics, and Legal Theory’ (n 7).

risk-taking.¹²³ Nor does it mean consenting to fraudulent or grossly negligent misconduct. Coleman's argument therefore aids our analysis in highlighting the need to bolster the criteria for consent and acceptance of *ex post* compensation levels.

But a fine distinction needs to be made clear. The enhancement post-CRA III, if any, is provided not from changing the consensual basis on which investors choose whether to rely on ratings. The intervention in the market is merely to mimic the implicit consensual basis of investors of not intending to go so far as to agreeing to any form of fraudulent or negligent misrepresentation.¹²⁴ This can be presumed to be the intention of any rational investor in a free market. The enhancement of wealth therefore lies with the possible realisation of *ex ante* incentives into *ex post* compensation, which, when realised, becomes a Pareto-superior exchange.¹²⁵ In contemporary contexts, therefore, with the codification of investors' property rights and personal obligations, the consensual element is merely codified to reflect an already existing implicit consent, but which provides for greater *ex ante* and, potentially, *ex post* compensation, assuming rational investors take note of both the risks and legal standards applicable when relying on ratings.

But an additional consideration is required. If one were to further consider elements of opportunity cost, the alternatives to investors for external certifications are not great.¹²⁶ Does this imply limitations on an investor's ability to consent freely? And if so, is it still wealth maximising from a Kaldor-Hicks lens for investors to be assigned rights to compensation? The first can be answered simply on the basis that in any market with scarce allocation of resources, sellers and buyers would have to make informed decisions. This is no different from choosing products in any other free market, which provides varying degrees of quality, suppliers, and buyers. Limitation of consent should only be a concern when a transaction is completely, or for the most part, involuntary. In the context of financial investments, in particular with published ratings, this cannot be assumed. Intervention in this context would be analogous to a judge's imputation and rewriting of the parties' intention in a contractual transaction.¹²⁷ But assuming consent is obscured through misrepresentations and overrating, the right to compensation, as under the current regime, maximises investors' wealth from a Kaldor-Hicks lens as they are able to translate their intentions *ex post*.¹²⁸

¹²³ Coleman (n 35) 533.

¹²⁴ CRA III (n 10) art 35(a).

¹²⁵ Coleman (n 35).

¹²⁶ Choi (n 113).

¹²⁷ Posner, 'Utilitarianism, Economics, and Legal Theory' (n 7).

¹²⁸ Coleman (n 35).

To conclude whether wealth is maximised, however, would require considering the rights of investors in tandem with CRAs. The enhanced liability regime equally alters the *ex ante* compensation and incentives for CRAs to rate, reducing their willingness to consent to providing their ratings given the fear of potential liability claims. This is an argument usually brought by many fearing that a liability regime would chill the industry due to the fear of litigation floodgates.¹²⁹ In economic terms, this would depend on how far off the indifference curve the CRA has been led to under the new liability regime (assuming above in Figure 1(b), beyond points *a*, *c*, *d*).

In the pre-CRA III context, mandated reliance on ratings and lack of liability meant that CRAs would have more likely (and quite easily so) consented to the obligation of providing published ratings.¹³⁰ The argument for lack of consent or autonomy in this case therefore is not a very relevant consideration. Although the question of whether CRAs would have consented to current compensation levels may be raised, it is likely that CRAs would have known fairly well that they are liable under the common law for any form of fraudulent or negligent misrepresentation claims, *vis-à-vis* public ratings or otherwise.¹³¹ The assignment and codification of duties under CRA III therefore provides an enhancement of an already existing correction of market imperfection, one that existed under the rudiments of law.¹³²

From a Kaldor-Hicks perspective therefore, the pre- and post-crisis relational states of affairs are not as disparate as it seems. CRA III typifies the consensual basis for the ideal market transaction. Both investors and CRAs under this paradigm would enter into transactions with greater *ex ante* compensation, and arguments discrediting investors' personal consent to market risks or CRAs' consent to liability are of little consequence. Assuming a hypothetical winner in this context is difficult.¹³³ However, in terms of reallocation of rights and duties, investors seemed to have gained more in pecuniary terms (and, potentially, in utilitarian terms, although this is beyond the scope of this article)¹³⁴ than CRAs in this context. These aspects will be considered further from a quantitative perspective below.

E. NEGLIGENCE AND STRICT LIABILITY: A NORMATIVE INQUIRY

¹²⁹ Andenas and Chiu, *Financial Regulation* (n 6) 223.

¹³⁰ Coffee, 'Gatekeeper Failure and Reform' (n 111).

¹³¹ *ibid.*

¹³² *Caparo* (n 80); *Donoghue* (n 85).

¹³³ This requires a quantitative assessment, some aspects of which will be considered below in Section F.

¹³⁴ Posner, 'Utilitarianism, Economics, and Legal Theory' (n 7).

Aspects of negligence and strict liability require brief examination.¹³⁵ The rules' consistency with the ideals of a free market are pertinent to determining whether wealth maximisation as a criterion can be satisfied. The different assignments of rights and duties here alter incentives for partaking in market transactions, and hence are relevant to our discussion.¹³⁶

The importance of this discussion comes from the fact that many arguments for a strict liability regime have been made.¹³⁷ Under strict liability, investors are allocated absolute rights and CRAs the duty to compensate for any resulting losses. This is problematic for several fundamental reasons. The foremost important aspect in this assessment is the principle of causality.¹³⁸ In its simplest terms, the causal paradigm of strict liability would mean: because 'A hit B, A is liable for B's damages'.¹³⁹ The assignment of rights is premised on moral absolutism, and ignores the reciprocal view of causation,¹⁴⁰ which in economic terms, would mean disregarding *efficiency* as a normative criterion.

Reliance on credit ratings for investment decisions forms only part of a host of relevant considerations. The assignment of absolute rights beyond that of the current context would lead to causation errors.¹⁴¹ Market risks and financial losses are formed through a whole host of variable factors. In an even narrower sense, an investment decision cannot be formed solely on a credit rating alone.¹⁴² To assume that credit ratings are the substantial or proximate cause-in-fact would be dismissive of other relevant factors. Brown's *Economic Theory of Liability* positively illuminates the causative context from an efficiency perspective: in any one output, there exists a variety of relevant inputs.¹⁴³

Let us say we take the financial crisis as the relevant output that caused the eventual losses for investors, the probability of avoidance being denoted by $P(X, Y, Z)$.¹⁴⁴ The probability of the financial crisis in any given interval therefore is $1 - P(X, Y, Z)$. Consider X, Y and Z as the relevant inputs that form the probability of avoidance:

¹³⁵ See Robert Cooter, 'Economic Theories of Legal Liability' (1991) 5 *Journal of Economic Perspectives* 11; Mario Rizzo, 'Law Amid Flux: The Economics of Negligence and Strict Liability in Tort' (1980) 9 *Journal of Legal Studies* 291.

¹³⁶ Epstein (n 102).

¹³⁷ The seminal paper being Frank Partnoy, 'Barbarians at the Gatekeepers?: A Proposal For A Modified Strict Liability Regime' (2001) 79 *Washington University Law Review* 491. See also, Frank Partnoy, 'Strict Liability for Gatekeepers: A Reply to Professor Coffee' (2004) 5 *University of San Diego Law and Economics Research Paper Series 1*; Coffee, 'Gatekeeper Failure and Reform' (n 111).

¹³⁸ Robert Cooter, 'Torts as the Union of Liberty and Efficiency: An Essay on Causation' (1987) 63 *Chicago-Kent Law Review* 523.

¹³⁹ Posner, 'Epstein's Tort Theory: A Critique' (n 109) 465.

¹⁴⁰ Coase (n 115).

¹⁴¹ John Brown, 'Toward an Economic Theory of Liability' (1973) 2 *Journal of Legal Studies* 323.

¹⁴² Guido Calabresi, *The Costs of Accident* (Yale University Press 1970).

¹⁴³ Brown (n 141) 323.

¹⁴⁴ There are certainly many more relevant inputs in practice. This is used merely for illustrative purposes.

- I. X – avoidance costs for CRA, ie greater due care with providing ratings, etc;
- II. Y – avoidance costs for investors, ie performing greater due diligence, reviews, etc;
- III. Z – avoidance costs for issuers, ie issuing financial securities that are safe & reliable.

The three inputs (X, Y, Z) are reciprocally causative to the financial crisis. The question from an efficiency perspective is, on which combination of avoidance measures, X, Y and Z, and the resulting probability of an accident, $P(X,Y,Z)$, is the most preferred in terms of minimising social costs?¹⁴⁵ From this perspective one could almost always argue that it should be Z, given the issuer's position with regards to internal information and ability to create safer financial products.¹⁴⁶ As one can imagine, the arguments can be rather circular without empirical data. But just to illuminate a figure for clarity: the value of collateralised debt obligations in the run-up to the financial crisis contributed to more than \$2 trillion in losses and write-downs.¹⁴⁷ Unless we assume that credit ratings are the single, most efficient means of avoiding the probability of the financial crisis, which leads us to the social optimum of least avoidance and expected social costs, a strict liability regime would be substantially more costly.¹⁴⁸

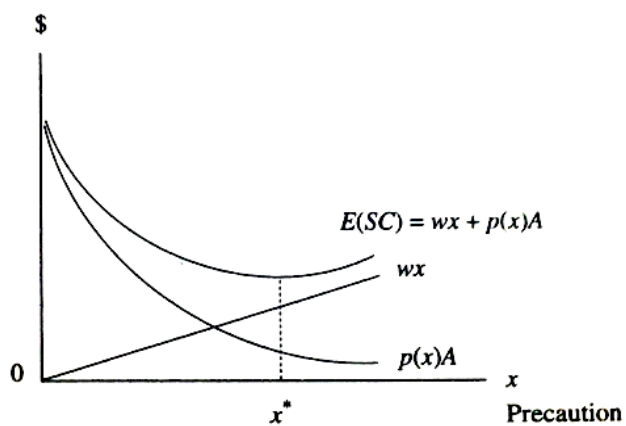


Figure 2(a): Minimising social costs

Under a strict liability regime, CRAs would have to pay for both total costs of precaution [wx] and costs of harm [$p(x)A$]. Under a negligence regime, if the standard of care is set at x^* , there is possibility for bilateral precaution, and CRAs and investors would be incentivised to adopt the efficient level of precaution that minimises the social costs of accident.

¹⁴⁵ Referred as social optimum, Brown (n 141) 325.

¹⁴⁶ Kane (n 2).

¹⁴⁷ David Fickling, 'S&P, RBS Lose Appeal of Ruling Australian Towns Misled' (*Bloomberg*, 6 June 2014) <www.bloomberg.com/news/articles/2014-06-05/s-p-rbs-lose-appeal-on-ruling-they-misled-australian-investors> accessed 25 August 2016.

¹⁴⁸ The social costs of accidents can be summarized as: $E(SC) = wx + p(x)A$; where $E(SC)$: expected social costs, x : level of precaution, w = cost per unit of precaution, $p(x)$: probability of an accident, A : damage which results if the accident occurs. For a basic introduction, see Robert Cooter and Thomas Ulen, *Law and Economics* (Pearson 2014) 219–266.

Figure 2(a): Expected social costs of accidents¹⁴⁹

The internalisation of externalities and minimisation of social costs have equally been argued as more effective under a strict liability regime.¹⁵⁰ This is difficult to establish unless we adopt a non-consequentialist perspective. Strict liability would severely alter the incentives for CRAs to act as gatekeepers and, given the high concentration levels and barriers to entry in the certification market, would lead to a reduction in rating production and efficiency.¹⁵¹ Whether enhanced liability would necessarily lead to more accurate ratings which inherently improve investors' rights is debatable. A socially optimal level of screening accuracy can only be truly incentivised by a competitive screening process, which requires enhancing competition levels.¹⁵² One also needs to consider the increased probability of frivolous claims that would be made by investors, given the inefficient level of care that would arise with the ability to 'free ride' on ratings without being liable for investment losses (see Figure 2[a]).¹⁵³ If the sum of these costs exceeds the net welfare derived from a strict liability regime, the system would serve no means toward achieving the wealth maximisation criterion.¹⁵⁴

With the current assignment of property rights, provided the courts can decide the optimal level of care that induces efficient bilateral precaution, both investors and CRAs could be induced to internalise the appropriate amount of costs and increase levels of precaution.¹⁵⁵

The social cost function for bilateral precaution can be illustrated as the following:

$$SC = w_v x_v + w_i x_i + p(x_v, x_i)A^{156}$$

¹⁴⁹ This illustration is taken from Cooter and Ulen, *Law and Economics* (n 148) 188. See also Guido Calabresi, *The Costs of Accident* (Yale University Press 1970).

¹⁵⁰ Frank Partnoy, 'Barbarians at the Gatekeepers?: A Proposal For A Modified Strict Liability Regime' (2001).79 Washington University Law Review 491.

¹⁵¹ Choi (n 113).

¹⁵² *ibid.*

¹⁵³ This would severely enhance CRA's expected liability costs, potentially deterring them from rating further.

¹⁵⁴ For an economic analysis of the optimal level of care for CRAs, see Kleinlow (n 13).

¹⁵⁵ Cooter and Ulen, *Law and Economics* (n 148) 193-196.

¹⁵⁶ This notation is taken from Cooter and Ulen, *Law and Economics* (n 148) 193.

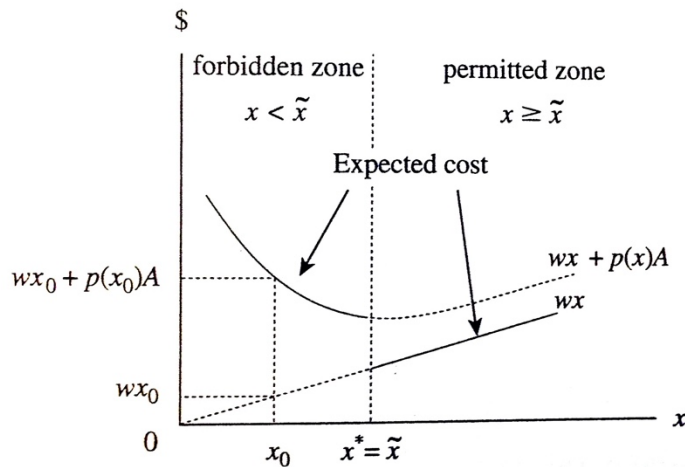


Figure 2(b): Functions
 $w_x + p(x)A$: social cost (SC)
 $w_v x_v$: cost of taking precaution (investor)
 $w_i x_i$: cost of taking precaution (CRA)
 $p(x_v, x_i)A$: cost of expected harm
 x^* : socially efficient level of precaution
 \tilde{x} : legal standard

Figure 2(b): Expected costs with a discontinuity at x^* ¹⁵⁷

Assuming the legal standard is set at the efficient point at $x^* = \tilde{x}$ the negligence rule can provide perfect compensation for investors and incentivise efficient level of precaution from both investors and CRAs. The expected social cost can therefore be minimised at this level.¹⁵⁸

From a normative standpoint, the negligence regime better satisfies the Kaldor-Hicks criterion. The expected costs ($w_i x_i + p(x_i)A$), assuming CRAs incorporate the assessment of *ex ante* compensation and potential liability claims, would incentivise CRAs to increase their level of precaution to the socially efficient level of precaution, x^* .

F. QUANTITATIVE ASPECTS OF THE KALDOR-HICKS CRITERION

From a quantitative aspect, we can see that the reallocation of rights has enabled investors to make stronger claims against CRAs. In the US, scores of investors have filed suits since the regulatory amendments brought under the Dodd-Frank Wall Street Reform and Consumer Protection Act 2010, with a good number reaching financial settlements.¹⁵⁹ In Australia, the *Bathurst* case resulted in a successful claim by investors for compensation of USD 18.8 million.¹⁶⁰

¹⁵⁷ This illustration is taken from Cooter and Ulen, *Law and Economics* (n 148) 193.

¹⁵⁸ *ibid.*

¹⁵⁹ See eg Timothy Martin, 'Moody's to Pay Calpers \$130 Million to Settle Lawsuit' (*Wall Street Journal*, 9 March 2016) <www.wsj.com/articles/moodys-to-pay-calpers-130-million-to-settle-lawsuit-1457554312> accessed 25 August 2016; Aruna Viswanatha and Karen Freifeld, 'S&P Reaches \$1.5bn Deal With US, States Over Crisis-Era Ratings' (*Reuters*, 3 February 2015) <www.reuters.com/article/us-s-p-settlement-idUSKBN0L71C120150203> accessed 25 August 2016.

¹⁶⁰ *Bathurst Regional Council* (n 96); *ABN AMRO* (n 14).

Investors in the EU have yet to make a successful claim against a CRA. Nevertheless, the enhanced liability regime under CRA III clearly establishes the possibility for *ex post* compensation. The resulting greater probability for *ex ante* compensation (ie willingness to consent to the risks for relying on ratings, given greater clarity and confidence with avenues for redress) incentivises investors to continue relying on ratings, provided they do so non-mechanistically and with due care. In pecuniary terms, the ability to rely should help them make better investment decisions to gain greater financial yields in the long run.

For the sake of this analysis let us assume further that both factors (ie increase in compensation and reliance on ratings) are independent points of preferences. An increase in the possibility for claiming compensation does not necessarily lead to more investors relying on more ratings, given that some may prefer to maintain steady portfolios and perform their own due diligence. In this case, reliance on ratings may remain static. From a Kaldor-Hicks perspective, however, investors' wealth would still be improved, given the enhanced possibility for *ex ante* compensation compared to the previous allocation of ratings. In Figure 1(b), this would be a movement from point *x* to point *a*, which represents an increase in hypothetical compensation and movement away from the investor's origin.

The improvement for CRAs depends on whether the reallocation of enhanced duties to them would incentivise them to fall somewhere on the indifference curve (Figure 1(a): points *a*, *c*, *d*). There are potential arguments to be made that the enhanced liability regime may in fact have bolstered the legitimacy of CRAs.¹⁶¹ Regulation retained in mandating the requirements for rated products post-2008 has led to CRAs remaining confident of their role as an intermediary in the market.¹⁶² Recent profits reveal this level of indifference, as annual profits for the 'Big Three' have risen by 4% annually since 2010.¹⁶³ Hence, although enhanced *ex post* liability is made possible, CRAs are willingly engaging with the ratings of mortgage-backed securities and corporate bonds, a market largely shared by the 'Big Three' (90%).¹⁶⁴ We can therefore infer that most agencies have remained rather indifferent to the possibility of *ex ante* compensation.

G. EVALUATION

¹⁶¹ The Economist, 'Undue Credit: Regulation is Helping the Very Firm it is Designed to Tame' (*The Economist*, 30 May 2015) <www.economist.com/news/finance-and-economics/21652364-regulation-helping-very-firms-it-designed-tame-undue-credit> accessed 25 August 2016.

¹⁶² Frank Partnoy, 'Overdependence on Credit Ratings Was a Primary Cause of the Crisis' (2009) University of San Diego Legal Studies Research Paper Series 09-015.

¹⁶³ The Economist (n 161).

¹⁶⁴ *ibid*.

The Kaldor-Hicks criterion therefore reveals that the reassignment of rights is efficient. The proposition for wealth maximisation, however, must again be considered. The question of whether we are truly achieving a better and more wealthy state with *ex ante* considerations is pertinent. How can such a reassignment bring any benefits in real terms? And how could a state of assignment that produces losers be considered wealth maximising?¹⁶⁵

The argument falls back on the normative ground that justifies Pareto-superior exchanges. Actions freely consented to involve the exercise of liberty, and any such transaction that involves the exercise of liberty are wealth maximising.¹⁶⁶ One cannot approximate how or why wealth would be maximised otherwise. In the presence of a market failure barring potentially Pareto-superior exchanges, legal intervention is required to mimic free market transactions, or otherwise provide avenues for *ex post* compensation, or, in the case of Kaldor-Hicks efficiency, ensuring *ex ante* compensation. As illustrated, assuming the legal standard of care is imposed at an efficient level, parties incorporate their expected costs of care and harm in justifying whether a particular transaction is to be concluded. The consequentialist means of risk estimation provides that any one transaction can be wealth maximising, unless market failures, presumably via information problems or transaction costs, intervene.

The question of Kaldor-Hicks efficiency producing only empty wealth improvements therefore is answered on this basis of liberty and consent. Wealth does not mean producing anything of intrinsic value, but is instrumental to the achievement of other values.¹⁶⁷ Why would an investor rely on a rating, unless he would want to achieve greater returns on his investments? The initial transaction is wealth maximising in leading to the latter. If reliance on the rating does not lead to any greater intrinsic value, the former decision was wealth maximising on the basis of being exercised with liberty and consent.

H. CONCLUSION

This article has revealed that the CRA III regime is efficient from a Kaldor-Hicks perspective. The problem may be reduced to the theory of *ex ante* compensation. Wealth is maximised not when parties merely have the liberty to contract, but when they have the liberty to contract with full consent of the risks involved. In this analysis, consenting to risks pre-CRA III is, as mentioned, obscured by the complexity and aggressiveness of CRAs, in

¹⁶⁵ Coleman (n 36).

¹⁶⁶ Posner, 'Utilitarianism, Economics, and Legal Theory' (n 8).

¹⁶⁷ *ibid.*

particular with the misratings of mortgage-backed securities. To assume that these transactions satisfied the wealth maximisation criterion is an oversimplification. This is where we can assume that the post-CRA III position has improved the CRA-investor transaction. The reassignment of rights not only maximises the wealth of investors through possible *ex post* compensation, but bolsters the *ex ante* compensation of parties through clearer avenues of redress. But to truly constitute a wealth maximisation transaction in a Kaldor-Hicks sense, we must identify some net gain in welfare. This is possible if we are willing to accept that an assignment of rights to investors to bolster *ex ante* compensation outweighs CRAs' reduction in ability to publish ratings, with or without consent to compensating investors' losses. In pecuniary terms, this could perhaps be a straightforward assessment, as both parties are collectively wealthier *ex post*. But if not, then the assignment of rights is arguably justifiable on a Rawlsian basis: we intuitively assume that investors should be afforded greater protection against CRAs. From an economic standpoint, a positive analysis of the rule's efficiency not only validates that normative assignment, but aids our ability in potentially finding a more effective one.

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