The evolution of efficiency principle: from utilitarianism to wealth maximization

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I. Introduction

Efficiency is a vital normative criterion used for economic analysis of law; however, there is no unanimity of opinion among scholars of law and economics on the definition of efficiency. This paper intends to clarify this confusion by critically reviewing three different definitions of efficiency used in current literature, Kaldor-Hicks principle, Pareto principle and wealth maximization.

Section two critically reviews Karldor-Hicks principle and Pareto principle, two efficiency definitions offered by welfare economists. Due to the imperfect method of measuring utility, Kaldor-Hicks principle has two technical problems, namely the difficulty of interpersonal comparison and "Scitovsky paradox". Moreover, as a costbenefit analysis, it sometimes may conflict with ethics. Conversely, Pareto principle is more morally attractive and also seems to overcome the difficulty of measuring utility. However, Pareto principle is conceptually illogical. It seems impossible to achieve Pareto efficient rule. Furthermore, even Pareto efficient rule were achieved, it might cause unfairness.

Section three examines Posner's wealth maximization theory. According to Posner, the goal of law is to promote total wealth rather than total welfare or utility. The main

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difference between his theory and two previous theories is that he uses wealth rather than utility as a parameter for economic analysis of law.

Section four explores three main criticisms of wealth maximization theory: (1) as a normative legal theory, it is unable to provide a sufficient explanation for the initial assignment of rights; (2) sometimes, wealth maximization legal rule may be conflict with ethics; (3) it fails to reveal true value of wealth.

Section five reaches the conclusion that it is unreasonable to set efficiency as the only goal pursued by law. Although economic analysis cannot appropriately answer the question what the ultimate goal of law is, nor do other schools of jurisprudence. Therefore, it is unfair to criticize economics and law approach on this ground.

II. Utilitarian concepts of efficiency

Historically speaking, efficiency is a normative criterion in welfare economics, which derived from one of influential philosophies, utilitarianism.¹ Utilitarianism argues that happiness is desirable for its own sake, and law maker should seek to maximize total social happiness. Therefore, utilitarian scholars commonly believe that it is worth to sacrifice the interest of minority for promoting the happiness of majority.²

This philosophy had significant impact on classical economics.³ In 1920, Professor Pigou published his famous book "The economics of welfare". Although he did not accept utilitarianism as a theory of ethics, his thesis was fully based on Utilitarian

¹Utilitarianism was pioneered by Jeremy Bentham and fully developed by James Mill and his son, John Stuart Mil. For detail discussion, please see Plamenatz John (1949) "The English utilitarians", Basil Blackwell. ² Ibid

³ Supra note 1, at 110, chapter VII utilitarianism and the classical economists.

ideology.⁴ He defines welfare as utility which represents person's satisfaction derived from consuming goods. In this sense, social welfare is the total amount of individuals' utility in society.⁵ He argues that one of purposes of welfare economics is to explore the impact of different policies on social welfare, and the way to maximize social welfare by policy making. Efficiency is a criterion for such analyses and is normally used in two different senses, Kaldor-Hicks principle and Pareto principle.

A. Kaldor-Hicks principle

A legal rule or a policy is called Kaldor-Hick efficient if the gainers could hypothetically compensate the losers and still have some gain left over.⁶ To illustrate, assume a nuisance case between a rock guitar player and his neighbour, a writer. If the court awarded an injunction to the writer, his satisfaction would be 100 unites of utility, and the player's satisfaction would be 0 unites of utility. On the other hand, if the court awarded the right to play to the guitar player, his satisfaction would be 50 unites of utility and the writer's satisfaction would be zero. Compared with awarding the right to guitar player, the injunction is Kaldor-Hicks efficient, because after

⁴ Little I.M. D. (1963) "A critique of welfare economics", 2nd edition, Oxford Clarendon Press, at.8.

⁵ It is normally recognized that the term of utility was originated from Adam Smith's distinction between values in exchange and values in use. (Stigler G. (1950) "The development of utility theory I ", The journal of political economy, Vol. 58, No.4 pp 307-327, at 307; Black R. (1989) "Utility", in The new palgrave a dictionary of economics" Newman P. (ed), Vol.4, pp 776-778, at 776.) Adam Smith argues "The word Value, it is to be observed, has two different meanings, and sometimes expresses the utility of some particular object and sometimes the power of purchasing other goods which the possession of that object conveys. The one may be called value in use; the other. Value in exchange. The things, which have the greatest value in use, have frequently little or no value in exchange; and on the contrary, those, which have the greatest value in exchange, have frequently little or no value in use. Nothing is more useful than water: but it will purchase scarce any thing; scarce any thing can be had in exchange for it. A diamond, on the contrary, has scarce any value in use; but a very great quantity of other goods may frequently be had in exchange for it. (Adam S. "The Wealth of Nations, New York: Modern Library, 1937, p28.)

⁶ For general introduction of Kaldor-Hicks efficiency, please see Feldman "Kaldor-Hicks compensation" in Newman P. (2002) "The new dictionary of economics and the law", vol.2, pp417-421; Kaldor N. (1939) "Welfare propositions of interpersonal comparisons of utility", Economic Journal vol.49, pp549-52; Hicks J. (1939) "The foundations of welfare economics", Economic Journal vol.49, pp696-712.

hypothetically compensate the player's disutility, 50 unites, the writer still has 50 unites of utility left over. However, Kaldor-Hicks principle does not require the actual compensation being made by the writer.

Obviously, Kaldor-Hicks principle is a typical cost-benefit analysis. But since there is no perfect mean to measure person's utility, Kaldor-Hicks analysis suffers from the significant technical difficulties. As far as measuring utility is concerned, there are two different schools of welfare economists, cardinal scholars and ordinal scholars; none of them can perfectly measure utility for conducting Kaldor-Hicks analysis.

According to cardinal scholars, person's utility should be measured in size.⁷ Because a person's satisfaction is different in consuming two kinds of goods, for judging which goods can bring more satisfaction, it should first know how much utility the person can acquire from consuming each good. For instance, if a given person could obtain the same level of satisfaction from a bottle of wine and two bottles of beer, cardinal scholars would conclude that the person can obtains twice as much utility from the wine as from the beer.

If cardinal measurement of utility was used, Kaldor-hicks analysis would encounter the difficulty of interpersonal comparison. As utility is defined as satisfaction – a very subjective notion, it is varied from different individuals; the standard for measuring one person's satisfaction cannot be adopted by others. There is no a universal standard for measuring utility. Suppose the government passed a new regulation, which

⁷ For the general discussion on the history of cardinal theory, please see Stigler G. (1950) "The development of utility theory. I", The journal of political economy, Vol. 58, No.4 pp 307-327, at 307; Black R. (1989) "Utility", in The New palgrave a dictionary of economics" Newman P. (ed), Vol.4, pp 776-778, at 776Marshall A (1890) Principle of economics 9th ed. Ed. C. W. Gruillehaud London: Macmillan 1961.

forbade people from smoking in restaurant, it would definitely reduce the happiness of smoking consumers, but increase the happiness of non-smoking consumers. When calculating the influence of the new regulation on personal utility, smoking consumers might calculate the change in their personal utility caused by the new regulation in terms of the quantity of cigarettes reduced in their daily base, but non-smoking consumers might calculate the change in their utility in terms of the level of their health increased in no-smoking restaurants. The results of their calculations would be based on the different standards, and present completely different information. The former shows the decrease in satisfaction from smoking, while the later shows the increase in satisfaction from healthy environment. The changes in their utility caused by the new regulation are incomparable, because it is infeasible to make a comparison between two results calculated on the different bases.⁸ Just as an old adage, you cannot make a comparison between apples and oranges.

In contrast with cardinal scholars, ordinal scholars argue that utility cannot be measured in size, and can only be measured up to 'monotone transformations'.⁹ "This means exactly that utility is ordinal."¹⁰ Ordinal theory rests upon the assumption that person's utility is transitive; if a person prefers good A to good B, which is itself preferable to good C, it can be inferred that he also prefers good A to good C. So it can create a preference index by requesting the person to make a choice among the different goods.

⁸ For the formal mathematic analysis, please see Alchian A. (1953) "The meaning of utility measurement", American economic review, vol.43, pp26-50.

⁹ In mathematic language, if two sets of numbers (measures) result in the same ranking or ordering of the entities (according to the numbers assigned), then the two sets are monotone transformations of each other. (Alchian A. (1953) "The meaning of utility measurement", American economic review, vol. 43, No. 1 pp 26-50. at 27.)

¹⁰ Alchian A. (1953) "The meaning of utility measurement", The American economic review, vol. 43, No. 1 pp 26-50, at 47.

However, if this approach was used in Kaldor-Hicks analysis, Kaldor-Hicks principle would suffer from a logical inconsistency where two legal rules may be reciprocal Kaldor-Hicks efficient thereby leading to a logical cycle. Economists normally refer to this illogical problem as "Scitovsky paradox".¹¹

Suppose that person A and B has the following preferences. A prefers one unit of goods X and one unit of goods Y to two units of X and zero unit of Y, which itself is preferable to one unit of X and zero unit of Y. While, Y prefers one unit of X and one unit of Y to two units of Y and zero unit of X, which itself is preferable to one unit of X and zero unit of X, which itself is preferable to one unit of Y and zero unit of X. Their preference indexes are summarized in table 1.

Ranking	Person A		Person B	
	Units of X	Units of Y	Units of X	Units of Y
1	1	1	1	1
2	2	0	0	2
3	1	0	0	1

(Table 1)

Now assume there are two legal regimes, regime 1 and regime 2. Table 2 shows the units of X and Y possessed by A and B in the two regimes respectively. In regime 1, A has two units of X and B has one unit of Y. To person A, regime 1 cannot provide him with the highest level of satisfaction, because his best choice is to have one unit of X and one unit of Y; but regime 1 is preferable to regime 2, since he prefers two

¹¹ Scitovsky T. (1994) "A note on welfare propositions in economics", The review of Economic studies, Vol.9, No. 1, pp77-99.

units of X and no Y than one unit of Y and no X. To person B, regime 1 is the worst choice, because having one unit of Y and no X is the last choice in his preference index; regime 2 is preferable to state 1, because he prefers two units of Y and no X than one unit Y and no X.

	Regime 1		Regime 2	
	X	Y	X	Y
Person A	2	0	1	0
Person B	0	1	0	2

(Table 2)

The Paradox is that in Table 2, legal regime 1 is Kaldor-Hicks efficient to legal regime 2, and legal regime 2 is also Kaldor-Hicks efficient to regime 1. In regime 1, if A gives one unit of X to B, he has only one unit of X, his utility is as same as that in regime 2, but B is made better off than regime 2, because one unit of X and one unit of Y is best choice to him. B's utility is better than that in state 2 where he has two units of Y and no X, which is his second best choice. By the same token regime 2 is also Kaldor-Hicks efficient than regime 1, because, if B gives one unit of X to A, his utility is as same as regime 1, but A is made better off than regime. Therefore, Kaldor-Hicks principle fails to provide a logical criterion for economic analysis of law.

In addition, even the difficulty of measuring utility is ignored, Kaldor-Hicks principle is still not appealing normative value which should be pursued by law, because Kaldor-Hicks efficient law may give rise to immoral consequence by sacrificing innocent persons. If the increase in the rapist's utility from committing a rape exceeded the victim's disutility, or the increase in the burglar's utility from committing a burglary were more than the disutility suffered by the victims, the legal rule of making rape and burglary legitimate would be Kaldor-Hicks efficient. Should we accept this evil law? If we take morality and justice into account, the answer is clearly NOT. It is very unreasonable to set Kaldor-Hicks principle as the only goal pursed by law, because Kaldor-Hicks analysis take no consideration of morality and justice, which are of course the vital normative values to be protected by law.

B. Pareto principle

An allocation is Pareto superior (or Pareto improvement) to its alternative if it makes as least one person better off and nobody worse off. An allocation is Pareto optimal if no further allocation can make at least one person better off and nobody worse off.¹²

Pareto superior and Pareto optimality are different in their conceptual functions. The distinction between them is analogous to the difference between "historical principle" and "end-result principle" drawn by Robert Nozick.¹³ According to Nozick, "historical principle" is concerned with the way which the result came about; it

¹² The notion of Pareto efficiency was firstly introduced by Pareto Vilfredo, a famous Italian economist; pleae see Pareto V. (1896) "Cours D' Economie Politique" vol. II, Lausanne: F. Roguge. For discussion about Pareto efficiency in details, please see Coleman J. (1988) "Markets, morals and the law", Cambridge university Press Ch. 3 Efficiency, auction and exchange and Ch.4 efficiency, utility and wealth maximization; Bromley, Daniel W. (1990) "the ideology of efficiency: search a theory of policy analysis" vol. 19 Journal of environmental economics and management pp86-107; Dobbs. I (1981) "externality, efficiency and the Pareto principle" vol. 1, international review of law and economics pp167-181; Mashan Ezra J (1967) "Pareto optimality and the law" vol. 19 Oxford economic papers, pp255-287; Sager L. G. (1980) "Pareto superiority, consent, and justice" vol. 8 Hofstra law review, pp913-937.

¹³ Coleman J. (1988) "Efficiency, auction and exchange", in his book "Markets, morals and the law", Cambridge university Press at 72.

focuses on the historical process of the result rather than the result itself.¹⁴ In contrast, "end-result principle" is concerned with what the result is at the given moment without considering how the result came about. Put another way, "historical principle" seeks to answer the question how a particular results is achieved; while "end-result principle" seeks to answer the question what the result is.

The notion of Pareto superior can be viewed as "historical principle". It emphasises how a particular allocation is achieved. For qualifying as a Pareto improvement, an allocation not only needs to make some persons better off, but also needs to make nobody worse off. It is indicated that nobody is made worse by the change. Thus, it can be affirmatively concluded that Pareto improvement will not make anyone worse off, creating no loser. On the other hand, the notion of Pareto optimality can be viewed as "end-result principle". It describes a situation where the involving parties' total utility is maximized by the allocation, and does not concern with how such an allocation is achieved.

Many law and economics scholars generally use the term, Pareto efficient, in a sense of Pareto superior or Pareto improvement. A typical example of Pareto superior legal rule is the rule of enforcing private transaction. For a transaction takes place, both parties should feel that the value he acquired is worth more than the value he relinquished. Compared with the state before the transaction, both parties are better off after making the transaction. Therefore, the rule of enforcing private is Pareto superior.

¹⁴ Nozick R (1974) "Anarchy, state and utopia", Oxford, Blackwell; excerpted in Penner, Schiff and Nobles (2002) "Jurisprudence & legal theory: commentary and materials" Butterworths, LexisNexis at 754.

At the first glance, Pareto principle is a very attractive ethic axiom. If a legal rule made at least one person better off and nobody worse off, nobody would object to it. Furthermore, the difficulty of measuring utility does not seem to be a problem at all. Applying Pareto principle to the economic analysis of legal rule, it is not necessary to measure each individual's utility, but to investigate whether there is unanimity among all of the involved parties. A Pareto superior rule should be a unanimous rule, because if one of involved parties is not happy to accept the legal rule, it is implied that he feels to be made worse off by the rule, and the condition that nobody is made worse off cannot be met. So, the rule is not Pareto superior.

However, if a careful examination of Pareto principle is made, at least two significant weaknesses can be identified. Firstly, if Pareto efficiency analysis of legal rule is strictly applied, it seems unlikely to achieve Pareto superior legal rule, because almost anything anybody cares to do will draw an adverse reaction from somebody.¹⁵ Recall our guitar player example. Now suppose that there is a group of people who are really hostile to rock music. Their utility would be substantially reduced, if playing rock music was permitted by law. In the proceeding of nuisance case between the player and the writer, they reached the compromise that the guitar player pays £1000 to the writer; in return the writer forbears the claim for the injunction. Is this compromise Pareto efficient? If we consider not only the guitar player and the writer, but also the group of anti-rock music people, clearly it is not. Therefore, if every Pareto efficiency analysis is conducted in this way, no legal rule will be Pareto superior.

¹⁵ Calabresi G. (1991) "The pointlessness of Pareto: Caring Coase further", Yale law journal, 1211, at 1223-25.

Secondly, even though we can achieve Pareto superior rule by the unanimity of all involved parties, it may pose unfairness. Take *The Port Caledonia and the Anna*¹⁶ as an example. Two large laden sailing vessels were sheltering in Holyhead Harbour from a south-westerly gale. When the defendant, the master of one of them found his vessel had dragged down into dangerous proximity to the other, he signalled for a tug. In response to the signal, a tug came up and her master, the plaintiff, demanded extravagant payment. The agreement was concluded for no other choices for the defendant. This agreement can be viewed as Pareto-efficient, because at the time of concluding the agreement, both parties were made better off without one worse off. The defendant avoided the loss of ship and the plaintiff obtained a good payment. But this contract is concluded involuntarily, the defendant has no choice except for accepting the demand of the claimant. From legal perspective, this Pareto superior agreement is unfair because it harms the fundamental principle of contract law, the freedom of contract.

III. Wealth maximization

Currently, in the field of law and economics, the prevailing concept of efficiency is wealth maximization proposed by Posner.¹⁷ He argues that the ultimate goal of law is to maximize social wealth rather than total utility; the efficient law is one which can maximize social wealth.¹⁸ Therefore, it should use wealth rather than utility as a parameter in the economic analysis of law.

¹⁶ The Port Caledonia and The Anna [1903] p184

 ¹⁷ Posner Richard A. (1979), "utilitarianism, economics and legal theory" The Journal of Legal studies, 8, pp.103-40.
¹⁸ Ibid

Wealth means "the value in dollars or dollar equivalents of everything in society. It is measured by what people are willing to pay for something or, if they already won it, what they demand in money to give it up."¹⁹ In this sense, wealth can be viewed as the value in money – the power of purchasing.²⁰ "Money is the set of assets in an economy that people regularly use to buy goods and services from other people,"²¹ the quantity of the money possessed by a person indicates his capability of buying goods or services in market. More money a person has, wealthier he is, and more powerful his purchasing ability is. It follows that a wealthier person is able to enhance his satisfactions by purchasing more goods or services. So, the increase in a person's wealth indicates the increment of his ability of utility improvement, and the decrease in his wealth reduces his ability of utility improvement.

Compared with measuring utility, measuring wealth sustains no measurement difficulty. The denomination of money is a universal standard for assessing how much the player in the market is willing to buy or sell for a particular good. Thus, it is exactly same to everyone in market. If the price of a bottle of beer is £2, and the price of a bottle of wine is £10, it can be concluded that to everyone in this market, the wine can bring £8 wealth more than the beer does; anyone can derive five times wealth from having a bottle of wine than a bottle of beer, even for the person who is allergic to alcohol. Although the alcohol-allergic person cannot improve his utility by drinking a bottle of wine, but the value of the wine to him is the increase in his purchasing power. If he has the wine rather than the beer, he can sell the wine at £10, which is £8 more than the price of beer; his purchasing power is increased by £8. It is implied that

¹⁹ Supra note 17.

 $^{^{20}}$ Hobbes' view, please see Smith A. "The wealth of nations book I – III" edited by Skinner A. (1999), Penguin classics, at 134.

²¹ Foley (1987) "Money in economic activity" in "The new palgrave a dictionary of economics" Newman P., Milgate M. & Eatwell J. (ed) Macmillan Press, vol.3, at.519.

he is able to improve his utility by using this £8 to exchange more goods he wants. Thus, the difficulty of interpersonal comparison is overcome by measuring wealth.

However, wealth is not a proxy to utility and the relation between wealth and utility is uncertain.²² People are not purely wealth maximizers. Although it is a vital element in most people' preference, it is not the only one.²³ It is unfeasible to use the change of one element in person's preference to present the change of that person's overall utility. Moreover, if the value placed on additional units of money falls in a similar manner for different people, and their preferences reflect the principle of diminishing marginal utility of money income, a unit of money is likely to be worth less to a rich man than to a poor one.²⁴ Accordingly, the same amount of wealth change has less effect on the utility of rich persons than that of poor ones. Thus, a comparison of different persons' wealth only indicates the differences in their purchasing powers in a given market or their ability of utility improvement rather than the differences in their utility. Although it can be argued that an increase in a person's purchasing power may enhance his ability of utility improvement, it is by no mean to claim that a given amount of money would increase a same amount of utility to everyone in society.

By arguing that wealth maximization is the goal pursued by law, Posner further advances "auction rule theory" as a normative guideline for assigning right. According to auction rule, the entitlement should be conferred on the person who is willing to offer the highest price to purchase that entitlement.²⁵ Recall our guitar player example. If the guitar player is willing to pay £1,000 to purchase the right to

²²Supra note 17 at 121.

 $^{^{23}}$ Supra note 17 at 122.

²⁴ Dnes A. (2004) "The economics of law property, contracts and obligations" Thomson South-Western published, at 7.

²⁵ Posner R. (1998) "Economic analysis of law, New York: Aspen.

play, and the writer is willing to pay £1,500 to purchase the right to enjoy quiet. "Auction rule" would suggest that the court should award the injunction to the writer, because awarding injunction increases £500 social wealth (£1,500 – £1,000).

Clearly, wealth maximization is a type of cost-benefit analysis. The only difference between it and Kaldor-Hicks principle is that wealth maximization uses wealth as a parameter for the cost-benefit analysis and Kaldor-Hicks principle uses utility. For this reason, many scholars argue that wealth maximization is a revised version of Kaldor-Hicks principle and still a type of utilitarian theory, although Posner himself does not think he is a utilitarian.²⁶

IV. Criticisms of wealth maximization

Although wealth maximization is currently prevailing theory of efficiency,²⁷ it is still attacked by many scholars both from and outside the law and economics field.²⁸ Firstly, wealth maximization encounters the problem of assigning right.²⁹ According to Posner, the assignment of right is based upon the cost-benefit analysis. The right should be assigned to the person who wants to pay it at the most. However, the assignment of the right depends upon its price given by the potential buyers. In order to calculate the value of the right it should have a set of relative prices to the right. In economic theory, price depends on market demand. Therefore, wealth maximization depends on the existence of actual market. Imagine before the specific right was

²⁶ Zerbe (2001) "Economic efficiency in law and economics", Edward Elgar, at.5; Grant R. (1989) "judge Richard Posner's wealth maximization principle: another form of utilitarianism?", Cardozo law review, pp815-45.

²⁷ Dnes Antony W. (1996) "the economics and law", Sweet & Maxwell. at 4.

²⁸ For the criticisms of anti-economic and law scholars, please see Coleman J. (1980) "efficiency utility and wealth maximization" Hofstra Law Review, vol. 8 pp. 509-51; Dworkin R. (1980) "Is wealth a Value?" Journal of legal studies, vol.9, pp.191-226; Dworkin R. (1980) "why efficiency?", Hofstra Law Review, Vol. 8, pp.563-69. Rizzo M. (1980) "the mirage of efficiency", Hofstra Law Review, Vol. 8, pp. 641-58, For the criticisms from the proponents of economic and law, please see Calabresi G. (1980) "An exchange about law and economics: a letter to Ronald Dworkin", Hofstra Law Review, Vol. 8, pp.553-62; Kronman Anthony T. (1980) "wealth maximization as normative principle" Journal of legal studies, Vol.2, pp 227-43.

²⁹ Coleman J. (1980) "efficiency utility and wealth maximization" Hofstra Law Review, vol. 8, pp. 509-51.

assigned to people, everybody had no this right and did not know how much he would like to pay for this right. Therefore, there was no an actual market for the trade of this right. How would the right be assigned according to wealth maximization theory? It fails to explain the initial assignment of right.

Secondly, wealth maximization still cannot provide an explanation consistent with ethics. It biases against the poor and favours the rich. Wealth maximization asserts that the right should be granted to the person who wants to pay the most for it. If A needs to raise money to maintain his poor family, so wants to sell his right of life at £30,000. B is very rich, but is suffering from a serious heart disease and need a heart for the transplant operation. He would like to pay £70,000 for A's heart. According to wealth maximization, the transaction is permitted because B offers the higher price for A's heart. But it does not appear to be morally right.

Thirdly, as for a normative legal theory, wealth maximization is not desirable for its own sake. Consider the example given by Doworkin.³⁰ In situation 1, D has a book and would like to sell for \$ 2, and A wants to buy this book for \$ 3. In situation 2, T takes the book from B and gives it to A without giving anything to compensate D. according to wealth maximization theory, T's act increases \$1 wealth. But, D is very poor and the book is very important to him, he needs money to purchase food by selling the book. Whereas, A is very rich and the book is of less importance to him and he will rarely read this book. Does T's act really make the society better off? Wealth maximization theory does not provide a convincing account for why the society with more wealth is better than the society with less wealth. Posner defines

³⁰ Dworkin R. (1980) "Is wealth a Value?" Journal of legal studies, 9,pp.191-226, at 197; For Professor Posner's response for Professor Dworkin's criticism, please see Ponser (1980) "the value of wealth: A comment]on Dworkin and Kronman", Journal of Legal Studies vol.2, at 243.

wealth as money; in this sense, wealth maximization amounts to money maximization. However, it does not make any sense to discuss money without considering the benefit derived from the increase in money. In fact, money is only a token; if one has money he can use it to exchange what he wants. If he cannot obtain what he wants by paying money, money is valueless. If a person lives in an isolate society, even he is millionaire. Money is worth nothing to him, because he cannot use money to exchange what he wants in order to obtain his satisfaction. The true value of wealth is the individual's satisfaction derived from it rather than wealth itself. Once social wealth divorced from utility, it loses all plausibility as a component of value.³¹Therefore, wealth maximization theory does not reveal the true value of wealth.

V. Conclusion

In this paper, I briefly review three different concepts of efficiency used by law and economics scholars. Undeniably, none of them is a perfect theory. Compares with the concepts of efficiency offered by welfare economists, wealth maximization seems to be more attractive because wealth maximization analysis of legal rule uses wealth rather than utility as a parameter, so the result of this analysis is more objective and creditable. But, it is unconvincing to assert that wealth maximization is the only goal pursued by law. In addition, sometimes a pure cost and benefit analysis based on wealth maximization is inevitable to conflict with ethics.

³¹ Dworkin R. (1980) "Is wealth a Value?" The journal of legal studies, vol. 9,pp.191-226; Dworkin R. (1980) "why efficiency?" Hofstra Law Review, Vol. 8,pp.563-69.

If we consider why wealth maximization theory confronts with so many criticisms, the answer seems to be that it intends to be an answer for a very sophisticated and insurmountable jurisprudential question – what is the ultimate goal of law. From the age of Aristotle, a lot of philosophers and theorists sought to answer this question. With the proceeding of arguments among them, the jurisprudence becomes more prosperous. However, none of these jurisprudential schools can answer this problem. Dworkin believes that individuals have equal right. The protection for right is the final goal of law. But he still cannot perfectly resolve the question whether it is good for the driver to kill a person on the one hand by swerving the car to avoid killing three persons on the other. If he said that the driver had done wrong, he could not answer the question how the driver should do in this situation. If he said that the driver had acted appropriately, he would still be in dilemma to provide an explanation for the reason why it is appropriate to sacrifice this person's life to save others, if every person's life is equal.

It cannot be denied that each theory of jurisprudences has its own weakness. It is infeasible to use a single legal theory to answer the question of what the final goal of law is. I do not intend to answer this difficult question in this essay; obviously, I am not capable of doing so. But my argument is not that although economics and law approach cannot appropriately answer the question what the ultimate goal of law is, nor do other schools of jurisprudence. Therefore, it is unfair to criticize economics and law approach on this ground.

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