# THE ECONOMICS OF COMPENSATION AND ITS RELEVANCE TO TAXI DEREGULATION

RESEARCH REPORT PREPARED FOR THE STEERING COMMITTEE FOR THE NATIONAL COMPETITION POLICY REVIEW OF THE TRANSPORT OPERATIONS (PASSENGER TRANSPORT) ACT 1994

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# MAIN FINDINGS

- Claims for compensation may arise frequently during a period of ongoing reform. However, there is a lack of clear and simple guidelines for determining when compensation is appropriate, and what amount should be paid.

- Compensation decisions need to take account of the impacts on the welfare of the whole community, as well as on those adversely affected by a particular change.

- Decisions on compensation hinge on questions of *efficiency* and *fairness*. These questions are often inter-related, as efficiency measures which are widely regarded as unfair, are unlikely to be supported.

- *Efficiency* depends on clear and consistent rules of society so that people can work and invest with a reasonable expectation of being rewarded for their efforts. The question of compensation requires consideration of —

  — Whether the proposed change is within generally accepted bounds of policy, or is arbitrary and inconsistent.
  — The efficiency gains, or net benefits, from the change.
  — The impact on work effort and investment if a change is arbitrary and no compensation is paid.
  — The costs in time and resources of reaching a settlement with those adversely affected.
  — Whether compensation will lead to increased expectations of support from government and deter investors from taking full responsibility for risk.

- An assessment of whether compensation is required from the *fairness* viewpoint requires consideration of whether or not —

  — The efficiency gains are sufficient for those adversely affected to accept the need for change.
  — The measure is part of a non-arbitrary process designed to benefit all parties in the longer term.
  — The adverse impacts on certain parties are out of proportion to the general benefit from the measure.

- In respect of taxi deregulation, the case for compensation appears to be weak on *efficiency* grounds. However, the argument on *equity* grounds for compensating for a significant part of the loss of licence value would appear to be strong when, as will be the case in some areas, this value provides a significant part of an individual licence holder's wealth and expectation of future income.

# 1. INTRODUCTION

An issue in the National Competition Policy (NCP) review of Queensland taxi legislation is whether and to what extent existing holders of taxi licences should be compensated in the event of full or partial deregulation.

The market value of taxi licences is related to restrictions on the number of licences. Should taxi licensing be liberalised, the value of existing licences would be expected to fall. It is likely to be very low if all restrictions on numbers are removed, and if the price of new licences reflects only the costs of the licensing process. Where high prices have been paid for licences, the licence owners face a potentially significant loss in the event of deregulation of taxi licensing.

With deregulation, three questions may arise regarding compensation —

- Is compensation appropriate?
- If so, should this apply to all licences in all circumstances?
- If compensation is to be paid, what amount or proportion of previous value is appropriate?

These questions have been considered at a more general level over several decades by economists and lawyers. However, no hard and fast rules have been developed as to when compensation is appropriate or what level of compensation should be paid. While this paper can not provide a simple formula for resolving the issues, it does provide a framework and guidelines to help the Review Committee to determine an approach which would be both fair and economically efficient. The literature and arguments are considered in more depth in the Technical Appendix to this paper.

While the microeconomic reform process of which the NCP legislative review process is a part is mainly concerned with economic efficiency (although not to the exclusion of other considerations), consideration of compensation must have regard to both efficiency and equity. In practice, the two may be closely linked, particularly if proposed reforms affect the value of property rights in a way which is arbitrary and could not reasonably have been foreseen.

# 2. THE ECONOMIC EFFICIENCY ARGUMENT

The economic problem is how to maximise the overall welfare of the population. The key question in relation to economic efficiency is what arrangements will lead to the greatest value of consumption in the community as a whole for a given distribution of income? Economists identify this as the point at which *no person can be made better off without someone else being made worse off.*

From the point of view of its effect on the overall productivity and efficiency of the economy, the compensation question is therefore — what arrangements provide for the highest value of consumption in the medium to longer term?[1]

One aspect of the compensation issue is the impact on people's willingness to work and invest. Productive effort and investment require a reasonable expectation on the part of the worker or investor that their inputs will be suitably rewarded. Without such an expectation, effort and investment will be less than optimal. Well-defined property rights and clear, consistent and widely-supported rules governing business and commerce are an essential foundation for an efficient and productive economy.

In this context, property can be regarded as the collection of rules in a society which is presently accepted as governing the exploitation and enjoyment of resources - including regulated taxi licences. Arbitrary and unforeseeable acts of government which adversely impact on property owners and which are not compensated for can have important demoralising effects, reducing productive effort and overall economic welfare.

On the other hand, an expectation that any policy change which adversely affects the value of property will be compensated for can also be damaging where it leads to inefficient or excessive investment. The expectation of compensation for the effects of a wide range of government policy changes has two adverse effects —

1. It will tend to increase the risk-adjusted rate of return expected from those investments compared with alternative investments where no possibility of compensation is foreseen.

2. It will reduce the incentives for investors to properly evaluate and manage risk.

These effects will encourage investment which is unproductive from the perspective of the overall economy, in that investment will be diverted from opportunities where the real risk-

[1] *Maximising the value of consumption* should not be taken as representing a purely material assessment. If prices properly reflect non-material things of value such as a healthy and sustainable environment, then maximised consumption is the position which gives most satisfaction to members of society in terms of what they value most. Economic theory emphasises maximising the "utility" of each individual - achieving an arrangement in respect of each individual which he or she subjectively prefers to any feasible alternative.

adjusted rate of return is higher. In the case of taxis, if buyers of taxi licences are aware of the possibility of deregulation but believe that government would fully compensate them, then they will pay more for licences than if they acknowledge the risk involved. In effect, such investors pay more for licences because they believe that the government will insure them against the risk of deregulation. However, from an economic perspective, no new goods and services are created by this additional investment.

More importantly, each instance of government accepting private sector risk contributes to a systemic culture of dependence on government and general expectation of compensation following all policy changes, rather than to development of the skills in risk assessment and management which are required for successful business investment.

The costs and benefits of any economic reform process are unlikely to be evenly distributed. In addition, the costs to those directly adversely affected by a particular measure are likely to be more obvious to them than the accumulated benefits from other measures with widespread, but often less apparent, benefits. Claims for compensation may therefore arise frequently during a period of ongoing reform. However, many reforms which generate overall benefits might not be undertaken if everyone adversely affected by that particular reform was to be compensated — apart from financing the actual compensation payments, the process of identifying and assessing claims could be prohibitively costly and time-consuming.

It can therefore be argued that so long as reform policies have longer term benefits which lead to the community as a whole being better off than without reform, and everyone can reasonably expect to benefit from the overall process, then compensation can be a costly and unnecessary impediment to beneficial policies. In a situation of widespread reform, a decision not to provide specific compensation may not have any adverse impact on work effort and investment given the general benefits that are occurring. It would also avoid the encouragement of a culture of compensation and its associated impact on distorting future investments.

However, this would not apply to policy or regulatory changes which are capricious, discriminatory or unforeseeable, or which cause significant costs on some parties which are disproportionate to the benefits. In such cases there may be clear efficiency (as well as equity) grounds for compensation. (See Coase 1958, Michelman 1967.)

The review of taxi licensing is part of a microeconomic reform process which has been under way since 1983. There is significant evidence that, overall, this process is generating longer term benefits for Australians. The rate of productivity growth has increased, and the economy's capacity to adapt positively to changing circumstances — such as the recent Asian crisis — has also increased. Those who have been adversely affected by a particular reform will also have benefited from the broad sweep of reforms, e.g. in terms of lower prices, more variety of goods and services, greater opportunities than would otherwise have existed and, in many cases, increased demand for their goods and services compared to the situation without reform. These considerations argue against the case for widespread compensation.

# 3. THE EQUITY OR FAIRNESS APPROACH

An alternative rationale for compensation is based on considerations of justice or fairness. A seminal paper on compensation by lawyer Frank Michelman addressed the issue of fairness in the light of philosopher John Rawls' theory of "justice as fairness" (Michelman 1967, Rawls 1958).

The fairness approach is primarily concerned with equitable treatment of individuals and ensuring cohesion in society. It aims for social arrangements in which such inequalities as normally arise are generally considered acceptable, including by those adversely affected by a specific regulatory change. This depends on acceptance that the system as a whole is not arbitrary or biased against particular groups, and that, overall, the system is one which benefits all parties in the longer term.

From this point of view, while case-by-case consideration of compensation may be required, specific compensation issues can not be determined without regard to the context provided by broader principles and practices. In respect of deregulation of taxi licences, this would mean taking account not only of specific losses, but of the context in which the deregulation occurred. Broader fairness issues in respect of taxi licence deregulation are also considered in Sections 4 and 5.

# 4. A SIMPLE FRAMEWORK FOR CONSIDERING COMPENSATION ISSUES

The two approaches outlined above may lead to different results in some situations, but in general decisions made under their guidance turn on much the same factors — whether the harm a measure inflicts on individuals is disproportionate to the benefits to the community, the likelihood that those harmed were able to extract balancing concessions, the importance of the measure for efficiency, etc. Both approaches require assurance that society will not act deliberately so as to inflict a painful burden on some of its members unless such action is unavoidable in the interest of long-run, general well-being.

## EFFICIENCY VIEWPOINT

From an *efficiency* viewpoint, identification of whether or not compensation for some adjustment might be appropriate requires consideration of —

1. The nature of the adjustment — if the measure taken is not arbitrary or capricious, but within generally accepted bounds of policy, then there are no efficiency grounds for compensation. Whether or not a measure is capricious is a matter of judgment, having regard to the accepted norms of government behaviour.
2. Efficiency gains — the excess of benefits produced by a measure over losses inflicted by it (the additional potential value of consumption).
3. Demoralisation costs — arising from the impacts of a capricious redistribution both on losers and their sympathisers specifically where no compensation is offered, and from the loss of future production reflecting either impaired incentives or social unrest caused by the absence of compensation.
4. Settlement costs — the dollar value of the time, effort and resources which would be required in order to reach compensation settlements sufficient to avoid demoralisation costs arising from a capricious adjustment.
5. Moral hazard costs — the cost of compensation in strengthening a culture of expectation of compensation rather than taking proper account of all risks when investing and assuming responsibility for them.

The net public benefit test should indicate the efficiency of the measure responsible for gains and losses, but would be inconclusive as regards compensation questions. Reasonable decision rules regarding compensation from an economic efficiency viewpoint are —

1. If the lesser of demoralisation costs and settlement costs is greater than efficiency gains, then the measure should not proceed, as there will clearly be no net benefit.

2. Should efficiency gains be sufficient to justify the measure, and the sum of settlement costs and moral hazard costs (the economic costs of compensation) is less than demoralisation costs (the economic costs of not compensating), then there is a basis for compensation to avoid demoralisation costs.

3. However, should efficiency gains exceed settlement costs but settlement costs exceed demoralisation costs, then economic costs are minimised by not paying compensation, and accepting demoralisation costs.

Should economic efficiency rules suggest that no compensation is required, then compensation might still be justified based on fairness considerations.

## FAIRNESS VIEWPOINT

Where *fairness* is the issue, the balancing test is relevantly aimed not at discovering whether or not a measure is efficient, but at whether it is so obviously efficient as to render it acceptable to those adversely affected. So, for example, a minor net public benefit achieved through measures which imposed great and uncompensated damage on some parties is unlikely to be regarded as fair.

An assessment of whether compensation is required from the fairness viewpoint requires consideration of —

1. The broader context — whether or not the measure is part of an overall process which is not arbitrary or discriminatory and is designed to benefit all parties in the longer term.
2. Disproportionate harm — whether or not the adverse impacts on certain parties are out of proportion to the general benefit from the measure. In regard to individual cases, fairness would suggest more compensation where a reform removes someone's livelihood with little prospect of a reasonable alternative than in a case where damage is relatively minor and suitable alternatives exist.

*Fairness might not require compensation if the benefits to society are large, the losses to those adversely affected are relatively minor, the losers will benefit from the general reform process and administrative costs of settlement are high.*

From both economic and equity points of view, compensation practices should fulfil a need which appears to be strongly felt in the Australian community — that in pursuing policies aimed at general improvement, there is an assurance that, over time, there will be an evenness in the distribution of burdens and benefits, so that everyone will be a net gainer in the longer term.

## THE AMOUNT OF COMPENSATION

Where it is judged that compensation is required, the amount of compensation needs to take account of —

1. The actual loss.
2. Benefits previously conferred by regulation.
3. Benefits to the parties from general reform.
4. Benefits to society from the specific reform.
5. Administrative costs.
6. The situation of the affected parties.

In respect of administrative costs, it may that a relatively low cost process which is somewhat arbitrary and confers somewhat higher average compensation is preferred to a complex and costly process which more precisely calculates individual compensation.

In short, judgement will need to be applied on a case-by-case basis in terms of the considerations outlined above.

# 5. COMPENSATION: THE CASE OF TAXI LICENSES

As noted above, the compensation issue requires consideration of a number of issues pertaining to efficiency and fairness. This paper can only provide a general guide to decision-makers — each case must be treated on its merits (while taking account of the broader policy context) to find an outcome which enhances the overall welfare of the community without imposing undue burdens on those adversely affected.

In the light of the above, it is necessary to consider in respect of the efficiency aspects of compensation —

1. The nature of the adjustment — if the measure taken is not arbitrary or capricious, but within generally accepted bounds of policy, then there are no efficiency grounds for compensation.
2. The efficiency gains from proposed liberalisation or deregulation.
3. Demoralisation costs.
4. Settlement costs.
5. Moral hazard costs, entailing inefficient investment.

If a net benefit is expected from deregulation, it might not appear *arbitrary* because it is part of a widespread reform process. However, action by the State Government which removed the value of an investment which had depended on Government policy, and from which Government has benefited, might be considered arbitrary.

The *efficiency gains* are assessed elsewhere, through the public benefit test.

In respect of *demoralisation costs*, these are related to the questions of whether or not the proposed changes are arbitrary, foreseeable and part of a suite of policies with overall benefits. In this respect —

- It is difficult to argue that any changes to taxi regulation would be arbitrary and completely unforeseeable, or that they were not part of a generally beneficial process. The reform process has been quite extensive in the last decade, the question of taxi deregulation has been raised several times in this period and the NCP Agreements were signed by all Australian Governments in 1994.

- It is also difficult for anyone who has bought a licence in recent years to argue that they could not foresee that taxi licences might be deregulated — even though at various times senior politicians have said that licences would not be deregulated, often because of the compensation issue. However, investors may have believed that the risk was low, and the probability of adequate compensation was high — particularly as high licence prices are closely related to the Queensland Government's restrictions on the supply of licences, and have provided extra revenue to the Government on sale of licences.

- Overall, although any uncompensated licence holder would suffer a loss which in some cases would be significant, it seems unlikely that demoralisation costs would be high in terms of the overall impact on productive effort and investment in the community.

The administrative element of any *settlement costs* should be quite low, as licence holders are clearly identified. Their magnitude would depend on whether compensation was to be calculated precisely for each individual case, rather than being determined on a simpler but less precise basis.

The problem of *moral hazard* arising from expectations of compensation would probably be exacerbated if all taxi licence holders were compensated in full, to the extent that an important precedent would be set.

Consideration of the arguments for compensation to taxi licence holders on *efficiency* grounds in the event of full or partial deregulation therefore suggests that any change is unlikely to be regarded as arbitrary in the broader context, demoralisation costs would be modest, and moral hazard costs could be more important. To the extent that this is true, it suggests that the economic efficiency case for compensation is weak. Offsetting this is the consideration that deregulation might be regarded as arbitrary because of the State Government's role in previously restricting supply of licences, although this may be more appropriate to consider as an issue of fairness.

While, overall, the economic efficiency case for compensation might be weak, the argument on *equity* grounds for compensating for a significant part of the loss of licence value would appear to be strong when, as will be the case in some areas, this value provides a significant part of an individual licence holder's wealth and expectation of future income. The case would be less strong where the cost and current value of licences was low, so that only a modest investment was involved and suggesting that few extra licences would be sought if they were not restricted in number.

It is relevant to note that the Queensland Government has contributed to the high prices of licences in certain areas, by restricting supply, and has benefited from them, to the extent that it gained revenue from issuing licences at high prices. In these circumstances, the expectation that the Government considers the licence fee fair value (in a situation of restricted supply) and will not devalue it arbitrarily and without fair compensation is not unreasonable. While any deregulation would not necessarily be arbitrary (being part of a large, long-term reform process and being subject to a public benefit test), the community might reasonably consider that the Government has some responsibility towards licence holders.

In determining compensation in those cases where it appears appropriate, a balance may need to be struck between the degree of precision in determination of appropriate compensation in each case and the administrative costs involved. For a given expenditure, a solution which leaves more with those compensated and less for administrative costs will generally be preferable, subject to compensation being on a reasonable rather than very arbitrary basis.

# TECHNICAL APPENDIX: ECONOMIC AND FAIRNESS ASPECTS OF COMPENSATION

## INTRODUCTION

The costs and benefits of any economic reform process are unlikely to be evenly distributed. In addition, the costs to those directly adversely affected by a particular measure are likely to be more obvious to them than the accumulated benefits from other measures with widespread, but often less apparent, benefits. Claims for compensation may therefore arise frequently during a period of ongoing reform.

However, neither the economic nor the legal literature on compensation provides a framework for clearly determining when compensation is appropriate nor what level of compensation should be paid. Further work is needed in this area.

The general issues surrounding compensation can not be resolved in a short study. The aim of this appendix is to provide some guidance on issues of compensation relating to taxi licence fees should the taxi industry in Queensland be deregulated, or should regulatory changes seriously devalue existing licences. The analysis of this appendix underpins the position taken in the substantive paper.

Legal and economic studies have considered compensation in terms of both economic efficiency and fairness. Major issues of current relevance include how the presence or absence of compensation affects attitudes towards productive labour and investment.

The framework suggested here draws heavily on two seminal papers: economist Ronald Coase's paper *The Problem of Social Cost*[2] and law professor Frank Michelman's paper *Property, utility and fairness: comments on the ethical foundations of "just compensation" law*.[3]

[2] Ronald H Coase, *The Problem of Social Cost*, first published in *The Journal of Law and Economics* in October 1960 and reprinted in *The Firm, the Market and the Law*, University of Chicago Press, 1988. See also the Chapter in the latter work entitled *Notes on the Problem of Social Cost*.

[3] Harvard Law Review, 80/6, April 1967.

## COMPENSATION AND SOCIAL WELFARE: THE ECONOMIC ISSUES[4]

The fundamental focus of economics is on improving the welfare of society by maximising the value of consumption. The basic requirements for maximising this value are that households and firms act perfectly competitively, there is a full set of markets and there is perfect information. In such circumstances, a competitive equilibrium would be Pareto efficient: that is, no person can be made better off without someone else being worse off.[5]

Of course, the strict requirements for Pareto efficiency rarely, if ever, exist in practice. The rationale for strong competition policy is that welfare will generally be enhanced by measures which move the economy closer to those requirements; that is, measures which increase competitive behaviour, extend markets and improve information.

While Pareto efficiency maximises overall welfare, it does not ensure that the distribution that emerges from the competitive process accords with prevailing views of equity (whatever they might be). The question of compensation may arise when efficiency-enhancing measures, such as National Competition Policy (NCP) reforms, leave one or more individuals worse off than they were before.

The question then arises as to whether or not individuals adversely affected should be compensated. This can be approached either as an economic efficiency issue or as an issue of equity or fairness.

The economic efficiency problem remains how to maximise overall welfare. It is useful to maintain this focus on maximising output value (or the net community benefit) when considering broader issues of compensation, as in implementation of NCP. As Coase puts it, "When an economist is comparing alternative social arrangements, the proper procedure is to compare the total social product yielded by these different arrangements."[6]

Ideally, any redistribution that is then regarded as necessary would be achieved through measures that did not destroy the efficiency properties, e.g. non-distortionary ("lump-sum") taxes and transfers. Much of welfare economics is based on the assumption that such non-distortionary measures can be carried out.

4 The treatment of welfare economics here draws in part on Atkinson, A B & Stiglitz, J E (1980), *Lectures on Public Economics*, McGraw-Hill.

5 This is a simplified presentation of the First Theorem of Welfare Economics.

6 Compensation cases involve questions of redistribution. Questions of redistribution (who gets what share) can often be more easily resolved if the efficiency question is first resolved so as to have the largest possible cake to share. Pricing mechanisms can often (but not always) resolve both questions simultaneously and optimally.

## COASE'S APPROACH: MAXIMISING WELFARE THROUGH NEGOTIATION

Coase's seminal paper *The Problem of Social Cost* was concerned with those actions of business firms which have harmful effects on others. However, the analysis can also be applied to broader issues of compensation.

Most economists had thought of the question as one in which A inflicts harm on B, and what is to be decided is how A should be restrained. Coase points out that this is wrong — we are dealing with a problem of a reciprocal nature. To avoid the harm to B would be to inflict harm on A. The real question is to avoid the more serious harm, so as to maximise social welfare.

Coase demonstrated that where parties have conflicting interests which occasion an adverse impact on one party, the most economically efficient outcome will arise from a negotiated outcome. An approach of determining fault, damage and appropriate compensation will generally produce a sub-optimal outcome. When the question of compensation arises, the economic efficiency issue is not "Who has been harmed?" but "What arrangement is most efficient from a social perspective?"

Coase stresses the need to take account of opportunity costs and to compare the returns from a given combination of factors with alternative arrangements. Using the pricing system to allocate resources to their highest value use can leave both parties and society better off, and does so at less cost than alternative systems.

An optimal arrangement can rarely be achieved by legal processes — the immediate question faced by the courts is not what shall be done by whom (to achieve a socially optimal outcome) but who has the legal right to do what. But whatever the initial legal rights, it is always possible to modify them by market transactions. Of course, the costs of a market transaction are often sufficiently high to prevent many transactions that would be carried out in the absence of such costs — a rearrangement of rights will take place only when it creates more value than the costs involved in bringing it about.[7]

Coase notes that in cases where some damage is caused (as with taxi deregulation) there will almost always be some gain to offset the harm, allowing scope for a negotiated solution. All social arrangements for dealing with harmful effects of an activity (including any harmful effects of restricted taxi licensing) have costs: the problem is one of choosing the most appropriate arrangement. This requires a detailed investigation of the actual results of handling the problem in different ways, using soundly-based economic analysis. In terms of taxis, both the present system and alternatives have costs and benefits associated with them — the efficiency issue is what arrangement has the highest value.

The message from Coase is that decisions on compensation must have regard for the welfare of society as a whole, and be subject to a net public benefit test.

[7] In general, economists see great value in measures which reduce transaction costs. This was a particular focus of Coase, whose work in this field continues to be of great value.

## MICHELMAN'S APPROACH: RULES TO ACHIEVE EFFICIENCY AND FAIRNESS

Michelman's comprehensive 1967 paper has been widely referred to in subsequent literature, and remains a major source for consideration of compensation issues. Essentially, Michelman reinforces the widely held and empirically-based view of economists that a consistent, coherent, transparent and non-arbitrary policy and legal regime underpins economic growth, and that arbitrary deviations act against efficient investment and productivity. *The question of compensation will often revolve around whether an action is arbitrary, and whether not to compensate will adversely affect investment and productivity.* Michelman initially approaches the issue from the viewpoint of optimising the welfare of society (the economic efficiency approach), then extends his analysis to considerations of justice and fairness.

There are a number of key questions to consider, as follows — when a social decision to redirect economic resources entails painfully obvious opportunity costs, how shall these costs ultimately be distributed among all the members of society? Shall they be permitted to remain where they fall initially, or shall the government, by paying compensation, make explicit attempts to distribute them in accordance with whatever principles are deemed appropriate? Shall the losses be left with the individuals on which they fall, or shall they be "socialised"?

Michelman does not accept the assumption in preceding literature that case-by-case adjudication should or must be the prime method for refining society's compensation practices. He argues that the only test for compensability is whether it is fair to effect the social measure proposed without granting the claim to compensation for private loss thereby inflicted, and seeks first principles for determining when compensation should be paid, and what amount is appropriate.

## THE PURPOSES OF COLLECTIVE ACTION

The problem of defining the social purposes which justify governmental action arises both when government imposes a tax to finance public development and when government exercises its eminent domain or regulatory powers to over-ride the market-expressed preferences of owners about the use of resources.

Assuming that there exists a social consensus, even a dim one, about such matters, the question of grounds for collective action becomes pivotal for a study of compensation practices. The social purposes involved would include the achievement of economic efficiency where a change in the use of certain resources will increase the net pay-off of goods (however defined or perceived) to society as a whole. This broadly corresponds to the *utilitarian* approach, of seeking to bring about the greatest "utility" (or personal satisfaction) of individuals in a society.

Assuming rational behaviour, a proposed change is efficient if, after negotiated compensations have been promised by those who stand to gain from the proposal to those who stand to lose by it, the proposal can win unanimous approval.[8] In such a case, the losers, being willing to accept the change subject to a certain amount of compensation, indicate that they perceive no loss of welfare; while the gainers, by indicating willingness to pay that amount of compensation, indicate that they value the gains at more than the losers value their losses.

The justification for collectively coerced re-allocations embodied in typical measures involving public investment — for example, the construction of highways, dams and airports — is the extreme difficulty of concluding voluntary arrangements to take account of all costs and opportunities. There are likely at any time to be countless possible projects which would return benefits to society exceeding the total costs to members of society, but which profit-motivated investors cannot be expected to provide because of the difficulty of making people pay for benefits received without resorting to taxation.

However, to insist on full compensation to every interest which is disproportionately burdened by a social measure dictated by efficiency would damage the collective pursuit of efficiency. It would require significant time, effort and information to confirm and value disproportionate effects and deal with claims. This could lead to public decision-makers rejecting some apparently worthwhile proposals because of uncertainty as to the net gain after all compensation claims were dealt with.

Michelman considers that what is required (on both economic efficiency and equity grounds) is an acceptable level of assurance that over the life of a society (and within the expectable lives of any of its members) burdens and benefits will cancel out, leaving something over for everyone, and that society ought, therefore, to proceed to use its resources efficiently, using governmental coercion where necessary and not agonising too much over compensation.

Of course, efficiency is not the only goal. No discussion of any "compensation problem" can go forward (and indeed no such problem can even be detected) unless there are standards which enable us to differentiate between intrinsically acceptable redistributive effects and those which seem, *prima facie*, to call for either compensation or special justification. A designed redistribution by government will surely be regarded as arbitrary unless it has a general and apparent "equalising" tendency — unless its evident purpose is to redistribute from the better off to the worse off.

However, a redistribution which would have been unacceptable if undertaken for its own sake may be tolerated if it is the accidental consequence of a measure claiming the independent justification of efficiency. In Michelman's view to ask why this should be so is one of the most fruitful approaches to the general compensation problem.

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9 This is derived from the Pareto optimum, where a change is regarded as beneficial if it would leave society as a whole better off while being possible to leave no one worse off.

What is required is a clear and convincing statement of the *purposes* of the compensation practice, in a form which shows us how to state with precision the variables which ought to determine compensatability. One element in arriving at this is understanding the nature of property.

## COMPENSATION AND ECONOMIC EFFICIENCY: THE NOTION OF PROPERTY

Bentham (1890) said that property is most aptly regarded as the collection of rules which are presently accepted as governing the exploitation and enjoyment of resources. So regarded, property is "a basis of expectations" founded on existing rules; it is the institutionally established understanding that extant rules governing the relationships among men with respect to resources will continue in existence. Such an understanding is necessary to achieve a minimally acceptable level of productivity, because productive effort and investment require a reasonable expectation on the part of the worker or investor that their inputs will be suitably rewarded. Without such an expectation, such effort and investment will not be forthcoming.

This view is known as the utilitarian theory of property, designed to lead to the greatest utility, or welfare, of individuals in society. More broadly, economists generally regard well-defined property rights and clear, consistent and widely-supported rules governing business and commerce as essential foundations for an efficient and productive economy.

One aspect of the compensation issue is therefore the impact on people's willingness to work and invest. Any unpredictable redistribution is potentially destructive of society's material well-being. A newly conceived redistribution, no matter how accomplished or to what end, is always something of a disappointment to the expectations which are the essence of property. And the very act of redistribution indicates that society may not hesitate to effect like redistributions in the future. The adverse impact of unexpected government policy changes on work effort and investment is known in compensation literature as "demoralisation costs."

As a result, collective allocational decision-making which is deemed unobjectionable in and of itself *might* be deemed impermissible if attended by capricious redistribution.

The problem, then, is to show that while maximising welfare requires respect for property rights and that expectations of reward for effort and investment will not be arbitrarily dashed, it does *not* require payment of compensation in every case of social action. However, it is considered that an imposition is compensable if not to compensate would be critically demoralising — that is, would create such uncertainty and damage to legitimately held expectations that it would lead to withdrawal of labour and investment and consequently lower overall welfare.

## COMPENSATION AND FAIRNESS

The compensation issue can be approached from the viewpoint of justice or fairness without regard to the net efficiency benefits to society, as exemplified by the work of philosopher John Rawls.[9] Rawls considered that under certain conditions social arrangements which damaged the rights of any individual were unjustified even if they created significant benefits for the community as a whole. He defined justice as the special virtue of social arrangements within which such inequalities become acceptable.

Rawls enunciated two principles. The first principle is a general presumption that social arrangements should accord no preferences to anyone, but should assure equal treatment of all. The second principle allows for departures from the first when under an arrangement entailing differences in treatment (a) everyone has a chance to attain to the positions to which differential treatments attach, and (b) the arrangement can reasonably be supposed to work out to the advantage of every participant, and especially to the one in the worst position.

Notably, Rawls' formulation implies that individuals are predominantly risk averse, and gives more importance to equality per se rather than to arrangements which make everyone better off, but to different degrees.

Rawls' principles are most applicable to judging fundamental social arrangements, rather than specific potentially compensable occurrences. However, the principles could be applied by analogy to test the justice of a compensation practice, to support a rule forbidding all efficiency-motivated social undertakings which result in unequal treatment, unless corrective measures (compensation payments) are employed to equalise payments.

Rawls' focus on fundamentals reinforces Michelman's presumption about the inappropriateness of case-by-case adjudication of compensation without regard to the context provided by broader principles and practices.

While Rawl's views differ from the utilitarian approach, *making practical use of this fairness-based approach requires asking much the same questions to determine whether a*

9 See Rawls, J: *Justice as Fairness*, 67 Phil. Rev. (1958), reprinted in *Justice and Social Policy* (F Olafson ed 1961); *Constitutional Liberty and the Concept of Justice*, in Nomos VI: Justice (C Friedrich & J Chapman eds 1963); *The Sense of Justice*, 72 Phil. Rev. (1963).

*compensability decision is fair as were suggested by the utilitarian approach.* An assessment of whether compensation is required from the fairness viewpoint requires consideration of —

1. The broader context — whether or not the measure is part of an overall process which is not arbitrary or discriminatory and is designed to benefit all parties in the longer term; and
2. Disproportionate harm — whether or not the adverse impacts on certain parties are out of proportion to the general benefit from the measure. In regard to individual cases, fairness would suggest more compensation where a reform removes someone's livelihood with little prospect of a reasonable alternative than in a case where damage is relatively minor and suitable alternatives exist.

## FAIRNESS AND COMPENSATION IN ECONOMICS – SOME RECENT DEVELOPMENTS

Although several of the issues in Michelman's paper had been dealt with earlier by Coase and there have been some further theoretical developments in economics, there has been limited attention by economists to the development of a workable framework for determining issues of fairness and compensation. Some of the work that has been done tends to provide support within a framework of formal economic analysis for the approach taken by Michelman, although the economic approach has often favoured zero compensation on efficiency grounds.

Baumol, writing in 1982, noted that the work of several economists in developing a novel analytical theory of fairness in the distribution of resources, in contradistinction to the efficiency of their allocation, was primarily philosophical in orientation. It was concerned primarily with the logical underpinnings of an analysis of fair division, rather than with its application. While later developments have sought to operationalise some of the theoretical work, more work is needed in this field.

Baumol's intention was to show how fairness theory could be used to study policy, using rationing as an illustration. He noted that the behavioural relationships and the value judgments on which fairness theory is based are, essentially, those used in the standard welfare analysis of resource allocation. In both, the basic data are consumer preferences and production relationships, and in both the basic value judgment is that the desires of the affected individuals, rather than those of some superior arbitrator, must count. (The latter point is also supported by Michelman, Coase and most of the economics profession.) Rather than assuming altruism as a basis for fairness, Baumol notes that a rule of fairness is a sort of insurance arrangement which selfish people accept to make sure they will not be mistreated, and pay for by providing assurance to others that they, too, will not be mistreated.

Baumol's analysis shows that any problem involving the distribution of a fixed stock of commodities among a fixed number of individuals will always have at least one solution which is Pareto optimal and which each party regards as fair. He concludes that we can not hope for perfect fairness but can aim to rule out those distributions which are in some respect demonstrably unfair. Overall, he concludes that his analysis of rationing has shown that the fairness criterion can be applied to concrete problems.

Blume, Rubinfeld and Shapiro (1984) showed that, under a range of assumptions, it was inefficient to pay compensation when the government destroyed private capital to provide a public good. The cases assessed included –

- If the government project was appropriately evaluated, investors were risk-neutral and any compensation paid is independent of land use, investment is socially efficient, and no compensation is also efficient.
- Compensation at full market value is also inefficient: while socially appropriate investment would take account of the fact that capital is lost if land is taken, compensation reduces the loss and, in effect, allows investors to bear less than the optimal risk.
- If the government's project decision is based on compensation at current market value, then there is an additional private motive to over-capitalise the land, to influence the government's decision.
- Assuming risk aversion on the part of investors does not significantly change the analysis.

Blume et al saw compensation for takings as analogous to unconditional payments for hurricane damage, which induce seaside property owners to inefficiently discount predictable weather losses. Compensation for takings may induce private landowners to place too much private capital on their land. This is known as a moral hazard problem.

Blume and Rubinfeld (1984) subsequently developed a theoretical argument that compensation can improve the efficiency of the land market by eliminating some or all of the risk of government regulation that risk-averse landowners face. However, they cautioned that the administrative and other economic costs of compensation can be substantial, and that a compensation system which implicitly subsidised one form of land use relative to another could distort investors' decision-making. Kaplow (1986) argued that insurance for takings is more efficiently provided in the private market.

Fischel and Shapiro (1989) sought to establish conditions under which government compensation is the rational rule. In the US context, they considered the implications from a constitutional point of view. They found that positive compensation would be the rule chosen if majoritarian government, in which the welfare of the minority was ignored, was anticipated.

Ghosh (1997) notes that a strong criticism of the economic approach to the takings problem is that traditional economic models do not consider demoralisation costs as defined by Michelman. He suggests that this in part due to the difficulty of incorporating political context in simple models, and the impossibility of quantifying them. Most models implicitly assume that demoralisation costs are zero. This assumption provides a way to reconcile the economic prediction of no compensation with Michelman's conclusion: if demoralisation costs are zero, then settlement costs can never be strictly less than demoralisation costs, and Michelman's test for compensation is failed.

Ghosh uses game theory to show that the possibilities of exit by investors to other jurisdictions and competition between states significantly alter traditional conclusions of the optimal compensation rule for takings. His model shows that while exit provides a way to insure against government confiscation, it cannot provide full insurance because of the strategic effect that exit has on the legislative decision to take. However, competition between states in the use of the takings power will limit its exercise as each state internalises the effect of takings on the size of the population in its jurisdiction.

In the Queensland taxi industry case, of course, capital is only mobile to the extent that it can be realised by the sale of a licence. Exit in Ghosh's sense of moving capital investment to another jurisdiction is available only so long as the licence has a market value greater than zero. The current value of the licence will be affected by the assessment of licence-holders and potential licence-buyers of both the likelihood of deregulation and the estimate of what compensation might ensue if the industry is deregulated.

It is considered that while the more recent mathematical treatments of compensation issues have formalised and developed some aspects of the compensation issue, they have less to contribute to practical resolution of compensation issues than the seminal papers of Michelman and Coase. The framework in the main paper is largely based on Michelman's analysis and proposals, amended by standard economic arguments.

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