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CONTENTS

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EXECUTIVE SUMMARY

The case for stadium and event subsidies is a weak one. The economic arguments in favour of such subsidies do not succeed. Evidence from a variety of sources suggests that government support for stadiums and events is unlikely to contribute to economic growth. Furthermore, subsidies are often directed at pleasing special interests rather than promoting the overall welfare of residents.

Many of the arguments for subsidies postulate significant social benefits from the stadium or event, in excess of the private investment return. However, events and stadiums have recourse to multiple means of finance, including admission fees, corporate sponsorship and donations. All or most of the social benefits from the stadium or event can be captured or 'internalised' through these means. If individuals value the outputs of a stadium or event, markets are likely to find a way of realising the relevant gains from trade.

Some economists cite the 'option value' argument in favour of subsidies. Supposedly stadiums and events offer a value above their market prices, by giving consumers an option for future consumption. The presence of an option value for all goods and services, though, suggests that subsidies will not increase welfare but will only redistribute option values from one sector to another.

Nor do stadium and event subsidies increase the economic health of cities. A variety of studies have found no correlation between stadium subsidies and rates of economic growth, employment, or tax bases. Many stadiums and events lose money. Many of the supposed gains consist of mere expenditure-switching from one area to another.

The related 'multiplier' argument, which forms the basis of many economic impact studies, fails as well. The multiplier argument confuses the switching of expenditure flows with the creation of real economic value. Furthermore, most causes of unemployment will not be remedied by the stimulation of aggregate demand. Even if the multiplier argument were true, all expenditures would involve multipliers, which would remove the case for subsidies to stimulate one particular set of expenditures. Multiplier studies also overestimate significantly the economic benefits by assuming that all dollars spent represent a net creation of value, rather than adjusting for the costs of producing the goods sold. Taken together, these reasons are evidence that trying to exploit the multiplier is a negative-sum rather than positive-sum game.

The political economy of subsidies provides further reasons for scepticism. Concentrated special interest groups have a disproportionate influence over the subsidy allocation process. Voters are poorly informed and have little incentive to exert political influence, given how little is at stake for each voter. It comes therefore as no surprise that subsidies tend to benefit stadium owners, event sponsors, local politicians, and limited groups of fans, rather than the public.

The costs of raising subsidies through the tax system increases the hurdle 'rate-of-return' that those subsidies must satisfy. The estimated costs of using the tax system amount probably to at least 30 cents for every dollar raised. Finally, stadium and event subsidies will tend to exacerbate income inequality, insofar as they have significant economic effects.

1

INTRODUCTION

1.1 Purpose of paper

This study, using traditional standards of economic efficiency and fairness, examines whether stadiums and public events – in the areas of sports, entertainment and culture – should be subsidised. The subsidy issue has assumed increasing prominence as of late, with proposals for such subsidies becoming more common and larger in scope.

The paper is set out in four sections. The remainder of section one surveys the nature of the issue and considers the kind of subsidies that have been adopted or advocated. Section two presents and evaluates the case for intervention, focusing on public goods arguments, 'multiplier' arguments, and other market failure issues, all explained in more detail below. Section three examines the political economy of stadium and event subsidies and the nature of the interest groups that support them. The section presents a 'public choice' analysis of how such subsidies are likely to be applied in practice. The study ends with a brief summary of conclusions.

1.2 Nature of events and facilities

Typically, subsidies are proposed for outputs which are public goods, or ostensibly public goods, at the national or local level. In this context, the notion of 'public good' refers to outputs that produce benefits that suppliers cannot charge for. More specifically, the public good usually has a high profile and generates publicity and economic activity for a nation or local community. By supporting production of the good, the subsidy arguably remedies a market failure and improves the welfare of the community or nation.

Subsidies take several forms, including outright grants, matching funds, and loans at below-market rates of interest. In each case, however, the underlying logic is the same. A government expends funds, with the hope of encouraging the subsidised activity and increasing its supply.

To provide one example from the past, in 1990 the New Zealand government spent more than $30 million on Treaty of Waitangi celebrations. This year the government is spending $44 million to support the APEC (Asia-Pacific Economic Cooperation) leaders meeting in Auckland. This subsidy includes a direct cash grant as well as security for the meetings.

Looking towards the future, the government is planning to spend approximately $20 million on the millennium celebrations for the coming of the year 2000; approximately $16 million of this sum will go towards funding events. The money will support celebrations, as well as projects in science, sport, heritage and the performing and visual arts. More generally, the New Zealand Tourism Board spends approximately $45 million a year promoting New Zealand as a tourist destination.

Central and local governments have contributed funds to support the America's Cup. The America's Cup will bring foreign sailing teams and supporters to New Zealand, where they will spend money on the event and perhaps travelling around the country as well. Central government awarded $10 million to Infrastructure Auckland to build facilities for the Cup event.

Stadiums receive subsidies as well. Several New Zealand stadiums are scheduled for significant upgrades within the next several years, including facilities at Auckland, Hamilton, Tauranga, Rotorua, New Plymouth, Christchurch and Dunedin. In Wellington a new stadium is being built in the former railyards. The total cost is estimated to be $122 million, with the local government sector providing (in loans on favourable terms) up to $50 million of this sum. A new subsidised stadium in Auckland has been proposed as well. New Zealand is hosting the Rugby World Cup in 2003 and the Cricket World Cup in 2004. Sports facilities may need to be upgraded for these events and no doubt there will be proposals for public sector funding.

Wellington spent around $1 million on a bid to host the 2006 Commonwealth Games, although the bid has since been abandoned. Local government contributed about half of this sum, with the remainder being provided by businesses.

Finally, many councils provide subsidies to convention facilities.

The subsidy issue is by no means restricted to New Zealand. In the United States the average subsidy from a host city to its sports team is more than $10 million a year. Canada has subsidised a number of large athletic facilities as well, in some cases to prevent their hockey teams from being drawn to the larger markets of the United States. Most European nations provide extensive subsidies for local arts events and tourism promotion, in addition to stadiums.[1]

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[1] Roger G Noll and Andrew Zimbalist, 'Sports, Jobs, and Taxes: The Real Connection', In *Sports, Jobs, and Taxes: The Economic Impact of Sports Teams and Stadiums*, edited by Roger G Noll and Andrew Zimbalist, Washington, DC, Brookings Institution Press, 1997, p 494.

2

ASSESSMENT OF CASE FOR INTERVENTION

The case for subsidies takes two major forms. The first set of arguments claims a stadium or an event involves public benefits in excess of its private benefits. If these claims hold, private markets will supply fewer stadiums than would be socially optimal, given the difficulty of charging for those benefits. Public intervention could move the local economy to a more prosperous and efficient point by encouraging the production of more stadiums or events. The second set of arguments invokes the potential macroeconomic benefits of subsidies on the local economy. Stadiums and other local events may encourage cumulative 'multiplier effects' with beneficial consequences. The two sets of arguments are, of course, interdependent. Subsidy proponents argue that intervention will stimulate local activity, bringing both external public benefits and multiplier effects.

2.1 Public benefits greater than private benefits

2.1.1 The 'warm glow' argument

The 'warm glow' argument claims that inhabitants of a city or region enjoy having a stadium or event in their locale, even if they are not paying customers. New Zealanders may derive utility from hosting sailing events or from having a sports team or facility in their city, whether or not they watch the event.

Whether such benefits are quantitatively significant is an open question. Because these benefits do not take the form of expressed market demands, they are difficult to estimate. Many of the individuals who value teams, stadiums, or events are willing to pay a certain sum of money to have the team exist, either in the form of paid admissions or indirectly through watching television programmes and associated advertisements. The desire to have a sports team in one's town, apart from what is embodied in actual market demands, may in fact be small.

In other contexts, analogous benefits have proven to be small or illusory. Many individuals express great concern for a variety of issues, including environmental protection and saving endangered species, to name two examples. Yet when asked how much they would pay for such benefits, the answer typically is low. For similar reasons, the 'warm glow' demands to have an event or stadium in one's town may be low as well, even if individuals express great verbal enthusiasm on the matter.[2]

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[2] See, for instance, R David Simpson, Roger A Sedjo, and John W Reid, 'Valuing Biodiversity for Use in Pharmaceutical Research', *Journal of Political Economy*, February 1996, 104, 1, pp 163–85.

Many 'warm glow benefits' can be internalised without government subsidy. Advertising, donations, and media funding provide three alternative means for taking 'warm glow' benefits into account through markets.

If a sporting event or stadium brings a 'warm glow' to a town, businesses may be interested in funding the event in return for advertising and publicity. Corporations frequently sponsor car races and other sporting events, or festivals of high culture, to achieve wider recognition for their name. It is now commonplace for stadiums to be named after sponsoring corporations. If the townspeople have a positive feeling about a particular event, they will feel good about the sponsoring companies. Advertisers, when deciding whether to support an event, take into account more market demands than simply the demands of event attendees.

Private donations provide another possible means of funding when a 'warm glow' effect is present. Many sporting events receive significant donations from wealthy foundations, large corporations and small local businesses. The world chess championship is often funded in this manner, as are many high culture events, including classical music concerts, ballet and art exhibits. Many private donors are either altruistic or motivated by fame or status. In either case, they will tend to sponsor events that hold a favourable position in the public eye.

Media coverage helps fund, and therefore internalise, these public 'warm glow' values. If the public enjoys knowing that an event or sporting team exists, they will have an interest in watching media coverage of the event or team. The media can charge for this coverage, in the case of cable or pay television, or receive advertising revenue for its presentation, as with network television. These funds, in turn, are paid to the event sponsors, who sell the media rights for a price. It is impossible to judge whether the 'warm glow' benefits can be fully internalised, but there is no *prima facie* reason to expect a market failure in this context.

Corporate sponsorship and media coverage also help fund events where it is difficult to charge the participants. Parades are sometimes cited as a case where many people attend and enjoy the procession, yet it is difficult to charge each person for attendance. Here the organiser of the parade may sell the media rights for income and sell advertising space to corporations, or allow corporations to sponsor floats and processions for a price. Furthermore, it is not obvious that it is impossible to charge for the parade. Some Caribbean and Latin American carnivals charge admission prices for their processions with considerable success, even though they have poorer populations than does New Zealand. It is not difficult to hold parades at locations where access is controlled and a toll can be charged. Charging for associated activities, such as parking, is another way of financing a festival.

Note that in the case of each funding mechanism, government funding may crowd out the relevant private means of producing the public good. If entrepreneurs know that the public sector will step in to make good any finance shortfall, their incentive to solve the problem will be correspondingly weaker. For this reason, the success of private supply may require that governments take a firm stance against continuing discretionary intervention to fund public events.

2.1.2 Option value

A second version of the externalities argument refers to 'option value'. Individuals may wish to have the option of attending a stadium or event, even if they do not actually attend. Markets will take into account the demands of individuals who go, but not the demands of individuals who wanted an option, *ex ante*, of going. If one thousand people attend an event each period, another two thousand may have wanted the option of attending. These other individuals want the event to exist for its insurance value. The existence of the event provides insurance for the possibility that the individual will change their preferences. If these individuals change their minds and decide they want to go, the event will be there for the taking, avoiding the potential costs of disappointment. The argument is that individuals would be willing to pay for this option, yet private markets can only charge those individuals who actually show up to consume the good or service.[3]

The option value argument does not demonstrate the desirability of a subsidy for stadiums and events. Virtually all goods and services have option values, including those that are displaced by stadium or event subsidies. The tax subsidy, by drawing resources away from other sectors of the economy, lowers the option values for consuming these other goods and services. This decline in option values may equal or exceed the increase in option value for consuming the stadium or event outputs. Assume, for instance, that the production of a sporting event draws resources away from the production of peanut butter. Some individuals then face the risk that peanut butter will be hard to find or more expensive when they want it. For the option value argument to demonstrate net benefits for a subsidy, it must be shown that stadiums and sporting events offer superior risk-sharing opportunities, relative to other assets in the economy.

In other words, the associated risks should be viewed from an economy-wide perspective, rather than trying to measure the option value for a single good or service alone. If only one thousand individuals attend each period, then the demands of those thousand are the proper measure of value. It is possible that more than one thousand individuals will come in some periods, but it is correspondingly likely that fewer than one thousand will come as well. The observed number of demanders, one thousand, reflects, on average, how many people will wish to see the event. Having the stadium present as a 'risk protection' device makes sense in the aggregate only if the value of that stadium rises when the value of consumption falls; in other words, if stadium value is more countercyclical than the assets it displaces. The demand for stadiums, however, typically varies positively with income. For this reason, increasing the number of stadiums does not generally provide an economy with superior risk-sharing opportunities. Even if some improvement is possible, that is best measured by the difference in countercyclicality between stadiums and other assets, rather than any option value attached to stadiums *per se*.

Even if we ignore these problems, traditional option values are difficult to measure because we cannot observe the demand to pay for the option. When asked by a pollster,

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[3] For one treatment of option value, see Daniel A Graham, 'Cost-Benefit Analysis Under Uncertainty', *American Economic Review*, September 1981, 71, 4, pp 715–725.

an individual may postulate an option value, but actual demands are difficult to infer from such 'cheap talk', as mentioned above. Nonetheless, the likely insurance value of having a consumption good available for sure is likely to be small. Risk imposes costs on individuals only to the extent that it generates large swings in real income. Yet sports and leisure facilities are relatively small sectors of the economy, approximately one percent, as will be discussed in more detail below. We frequently observe individuals buying insurance to protect against large changes in their wealth (eg, home and fire insurance), but most individuals are very willing to tolerate the risk of small changes at the margin.

2.1.3 The vibrant city

A third version of the argument cites the benefits of a 'vibrant city'. According to this claim, subsidising events and sporting facilities will improve civic image, give citizens a 'better feel' about their town and stimulate commerce. In the long run, the image of a vibrant city may help attract business and residents, or perhaps even international investors.

Note that the vibrant city is distinct from both the warm glow and multiplier arguments, although the effects may complement one another. The warm glow effect postulates citizen utility from the event in question, rather than an economic benefit quantifiable in terms of output. The multiplier postulates second-order benefits from the induced spending in a manner presented by Keynes (see below). The vibrant city argument assumes a first-order increase in real economic activity, simply because the stadium is valuable and not because of any commitment to Keynesian theory of aggregate demand stimulation. The multiplier can be thought of as a more specific version of the vibrant city argument. Evidence against the vibrant city claim counts therefore against the multiplier as well, although the more specific criticisms of the multiplier (see below) do not necessarily count against the vibrant city argument.

The vibrant city argument is difficult to quantify or find evidence for. Small-scale event subsidies have not received much study in this regard. Even their proponents would not expect to find a discernible statistical impact. Only sports teams and stadiums have received systematic investigation, for the most part with reference to the United States. Studies of the US economy show no significant relationship between whether a city has a sports team and the rate of economic growth in that city. Even if a relationship could be found, the causality might run in the other direction: a city might acquire sports teams because it has a rapid rate of economic growth. Work by Robert A Baade offers an even more negative conclusion. In a series of studies, he finds that cities that use a sports-development strategy have lower rates of growth than cities that do not. He concludes that most of the supposed economic benefits of stadiums consist of no more, in reality, than expenditure-switching from one area or sector to another.[4]

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[4] See Mark S Rosentraub, *Major League Losers: The Real Cost of Sports and Who's Paying For It*, New York: Basic Books, 1997, and Robert A Baade, 'Is There an Economic Rationale for Subsidising Sports Stadiums', Heartland Policy Study, No 13, 23 February, 1987, and Kenneth L Shropshire, *The Sports Franchise Game*, Philadelphia: University of Pennsylvania Press, 1995, p 15.

In the United States, between 1980 and 1995, the population in cities with downtown sports facilities declined more than in cities without such facilities. Rates of job growth declined in equal fashion, whether or not the city had downtown sports facilities. It is hard to draw conclusions from these relationships, since the age of a city may account for both its population decline and its ownership of a stadium; it cannot be inferred that stadiums cause population loss. Nonetheless the correlations do suggest that stadiums are not a significant positive economic force for most cities, relative to other factors.[5]

In the United States, even the large professional sports do not have systematic economic impacts. North American data on counties are grouped by size. In this classification, professional sports never account for more than .08 percent of the jobs in any group of counties. In no single county do sports jobs account for more than four-tenths of one percent of all jobs. Even in the largest counties, professional sports payrolls never exceed one-half of one percent of the private sector's total payroll.[6] In the New Zealand economy sports and leisure activity account for no more than one percent of gross domestic product (GDP).

One study looked at the US baseball strike of 1994 as a controlled experiment in estimating the economic importance of sports for an economy. Before the baseball season starts, most major league teams hold their 'spring training' sessions in Florida, because of the favourable weather there. Spring training brings many teams and visitors into the area for up to a month, for the purpose of playing and watching exhibition games. One study, by the Florida Department of Commerce, estimated that non-resident fans spend up to US$91.5 million in the Florida area during the spring training season. It might have been expected that the relatively small economies of the Florida counties that normally hosted the teams would be hard hit by the strike. John F Zipp, in his study of the strike, found nonetheless no negative economic effects on the cities that otherwise would have been hosting major league baseball teams.[7]

Another controlled experiment has been given by movements in sports teams in California. A study by Jack Sylvan at the University of California, Berkeley, found that the presence of a sports team had no noticeable effect on a region's tax base. Sylvan examined a number of cases where teams shifted from one city to another (there are ten relevant instances of movement), but he could not correlate these changes with either economic activity or the tax base. Sylvan said: 'This refutes the claim by professional sports boosters that sports franchises stimulate the local economy'.[8]

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5 See Mark S Rosentraub, 'Stadiums and Urban Space', in *Sports, Jobs and Taxes: The Economic Impact of Sports Teams and Stadiums*, edited by Roger G Noll and Andrew Zimbalist, Washington, DC, Brookings Institution Press, 1997, pp 204–205.

6 Mark S Rosentraub, *Major League Losers*, pp 142–143.

7 See John F Zipp, 'Spring Training', In *Sports, Jobs, and Taxes: The Economic Impact of Sports Teams and Stadiums*, Washington, DC, Brookings Institution Press, 1997, pp 427–451.

8 See Jack Sylvan, 'Sports Subsidy as an Economic Development', unpublished manuscript, University of California, Berkeley, 1998. On Sylvan, see the *San Francisco Chronicle*, 24 August, 1998, website listing available through Lexis-Nexis, document 6 of 7 under that day's news in the *Chronicle*.

In the United States, the Baltimore 'Camden Yards' stadium is often considered a successful example of a subsidised stadium. Before the new stadium existed, average attendance at a baseball event in Baltimore was approximately 26,000 per game. After the new stadium was built, average attendance was over 45,000 per game. Even in this case, however, the net benefits of the stadium are elusive. An economic study estimated that the gross yearly benefits of the stadium amount to US$3 million while the gross costs are US$14 million a year, for a net cost of US$11 million a year.[9]

Studies of retail sales have failed to discover significant economic impacts for stadiums. Two researchers, Robert A Baade and Richard F Dye, in a study of the United States, found no link between the presence of a stadium and retail activity, even when the measure in question was food and beverage sales. Most likely, stadiums simply redistribute expenditures in the food and beverage area, rather than increasing them in net terms. In another study, Baade writes: 'Do professional sports increase income and create jobs in amounts that justify the behavior of cities? The evidence detailed in this paper fails to support such a rationale. The primary beneficiaries of subsidies are the owners and players, not the taxpaying public'.[10]

By far the most work in this area has been done on stadiums, although the relevant principles and arguments are the same for festivals and local events as well. Systematic studies of cultural festivals are difficult to come by, given their smaller scale and idiosyncratic nature. Nonetheless, cultural events are typically much smaller than large sporting events or major league sports. For this reason and for the more general reasons discussed throughout this study, it is difficult to demonstrate significant positive economic impacts of such events.

One of the seminal studies of the local impact of a cultural festival is by Gazel and Schwer, who examined the economic impact of rock and roll concerts by the Grateful Dead. Grateful Dead concerts are renowned for attracting fans from long distances. For three 1995 concerts in Las Vegas, these authors estimate an economic impact of US$12.5 million. Upon closer examination, however, this figure is simply a measure of expenditures by concert attendees, modified by a multiplier (see below for a consideration of the multiplier). It does not consider how much real economic value the Grateful Dead added to the US economy, or how much more (or less) valuable the concert was to society than alternative uses of funds. This study, like so many other regional impact studies, ignores what is arguably the most basic lesson of economics – policies should be evaluated in terms of their real opportunity costs.[11]

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9 Bruce W Hamilton and Peter Kahn, 'Baltimore's Camden Yards Ballparks', in *Sports, Jobs, and Taxes: The Economic Impact of Sports Teams and Stadiums*, edited by Roger G Noll and Andrew Zimbalist, Washington, DC, Brookings Institution Press, 1997, p 246.

10 See Robert A Baade and Richard F Dye, 'An Analysis of the Economic Rationale for Public Subsidization of Sports Stadiums', *Annals of Regional Science*, July 1988, XXII, 2, pp 37–47, especially p 43. For the second study, see Robert A Baade, 'Professional Sports as Catalysts for Metropolitan Economic Development', *Journal of Urban Affairs*, 1996, 18, 1, pp 1–17.

11 The study is Ricardo C Gazel and R Keith Schwer, 'Beyond Rock and Roll: The Economic Impact of the Grateful Dead on a Local Economy', *Journal of Cultural Economics*, 1997, 21, pp 41–55.

Regional economic models suffer from these problems more generally. The measures of benefit typically involve some adjusted measure of spending flow, without considering whether real resources have become more valuable or less valuable through the subsidy, as a proper application of economic reasoning would suggest.[12]

It is difficult to argue that stadiums, leisure activities, or cultural festivals are especially conducive to economic growth. These services provide entertainment; in other words, they induce consumers to spend their money more rapidly. Consumption expenditures provide pleasure to the individuals spending the money and therefore should not be faulted; it is not the role of economic policy to increase the rate of economic growth at all costs. Investing in stadiums and festivals, however, is unlikely to raise the rate of economic growth. Stadiums and festivals, to the extent they induce additional consumer spending, cut into savings and cause the rate of economic growth to fall, at least for the nation as a whole. A stadium or event subsidy, in essence, encourages enjoyment and entertainment at the expense of future growth prospects. While policy should be directed at maximising welfare rather than growth *per se*, it should not be argued that stadium subsidies will increase the rate of growth.

Nor are stadiums especially effective ways of creating new jobs for a community. Many of the jobs associated with stadiums are low skill, low paying jobs, rather than jobs that provide an engine for economic growth. Several North American studies have estimated the cost per job to be quite high. One study estimated that a new Baltimore stadium would create 534 jobs, at a cost of US$331,000 per job, if we divide the total expenditures by the number of jobs created. An Arizona stadium was estimated to create 400 jobs at a cost of US$700,000 per job. A proposed New York stadium would create 440 jobs at a cost of US$1.82 million per job. As a means of job creation, stadiums are a poor investment. These North American projects are quite large, relative to their New Zealand counterparts, but they have still not had noticeable effects on local employment.[13]

Another US study found that on average most stadiums are not profitable investments. The study of 14 stadiums found an aggregate net present value of negative US$120 million, where this difference was made up by subsidies. The one profitable stadium in the study, Dodger Stadium in Los Angeles, was privately financed without subsidies.[14]

Stadiums have experienced financial difficulties in Canada as well. The much-heralded 'SkyDome' of Toronto, once called 'the world's greatest entertainment centre,' has recently filed for bankruptcy because it cannot pay its property taxes. The SkyDome opened in 1989, at a cost of C$600 million, with taxpayers picking up two-thirds of that sum. Costs

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12 For a general criticism of regional economic models, see Edwin S Mills, 'The Misuse of Regional Economic Models', *Cato Journal*, Spring/Summer 1993, 13, 1, pp 29–39.

13 See Roger G Noll and Andrew Zimbalist, 'Sports, Jobs and Taxes: The Real Connection', in *Sports, Jobs and Taxes: The Economic Impact of Sports Teams and Stadiums*, edited by Roger G Noll and Andrew Zimbalist, Washington DC, Brookings Institution Press, 1997, p 498.

14 See Dean V Baim, *The Sports Stadium as a Municipal Investment*, Westport, Connecticut, The Greenwood Press, 1994, pp 158–9.

have been higher than expected and revenues lower; today the building is estimated as being worth approximately C$125 to C$150 million.[15]

Stadiums and large-scale public events are especially unlikely to prove profitable in New Zealand. New Zealand has a small population (3.8 million), which is dispersed across a relatively wide geographic area. If the United States and Canada, with their larger concentrations of population, have failed at stadium and event subsidies, New Zealand faces an even harder task of making them work.

The vibrant city argument requires that we compare an event or stadium to the resources it displaces. Typically a healthy urban economy is well diversified and consists of a variety of prosperous activities, including small business, many kinds of commerce, and residential and commercial construction. Stadium and event subsidies draw resources away from these activities and therefore do not necessarily make a net positive contribution to the vibrancy of a city.

If a local government were inclined to spend some money to boost its economy, would a stadium be the most effective means towards this end? Among the competing alternatives are reductions in rates, use of the funds to alleviate regulatory burdens or improve the quality of regulation, improved infrastructure and so on. When compared with these alternatives, the case for subsidising stadiums and other local events appears relatively weak.

Even if external benefits are present, it does not make sense to subsidise the stadium. The stadium is simply an input for some other set of outputs; the external benefits would result from the outputs, never the input. Subsidising the input may or may not encourage production of the desired outputs. For this reason, there can only be a case for subsidising events, never a case for subsidising stadiums.

Furthermore, some stadiums and events would have been provided by the private sector in any case. The subsidy then serves primarily as a transfer to the sponsors and owners of the relevant projects. Net economic benefits of the policy are zero.

Even when stadiums or events produce public benefits, the market may manage to produce the relevant outputs through coordinated action. If a government makes it clear that no subsidy is forthcoming, merchants and other would-be beneficiaries have greater incentive to raise the funds to see the project through. In the charitable world, or to fund events such as the Los Angeles Olympics, matching pledges are often solicited towards this end. An entrepreneur solicits contributions towards some common project, but tells donors that the pledge will be called upon only if other contributors allow the needed total to be reached. Merchants and other beneficiaries can then safely pledge funds without fear of spending money but receiving no project in return. More generally, if the public benefits of the stadium exceed its costs, gains from trade are present and markets will have the opportunity to exploit these gains.

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[15] These figures are taken from *National Post Online*, an online version of a Canadian newspaper; see, for instance, their web posting at http://www.nationalpost.com/story.asp?f=981120 /2034434.htm1.

Finally, even if stadiums and local events bring some external benefits they also bring external costs. Stadiums and local festivals are usually associated with high levels of congestion and traffic problems, at least when an event is starting or finishing. Construction of the stadium may bring traffic problems, road closures, construction noise, pressures on public services and other problems. Many communities strongly oppose stadiums for these reasons, and similar complaints have been levelled against the subsidised APEC meetings scheduled in Auckland for 1999. Some kinds of stadiums, especially large ones, cannot be used for more than a small fraction of the year. The area around these stadiums, rather than becoming a thriving centre of economic activity, becomes a dead zone. The parking lots around these stadiums take up 'dead' space as well. Businesses and residences tend to avoid location next to stadiums of this kind, which may trigger a decline of certain parts of a city or locality. Furthermore, if a stadium fails to make money, it is difficult to find alternative uses for the site, unlike with office buildings, homes, or many other uses of real estate. In this regard stadium investments are especially risky.

External costs also arise when the activity or event in question does not command unanimous support from the populace. The subsidised APEC meeting, for instance, is opposed by some groups that believe that APEC is a symbol of economic globalisation and hostility to labour. Whether or not these complaints are valid, holding the meeting in New Zealand may impose psychic costs on its opponents.

In sum, the external benefits argument is not convincing. Advertising, donations and media coverage will internalise many of the external benefits generated by events and stadiums. There is otherwise no evidence for significant outstanding external benefits. The option value argument relies on one particular reading of welfare economics, at best is likely to be small, and in any case does not favour a subsidy once opportunity cost is taken into account. Given that stadium and event subsidies involve costs (see section 2.4 below), the external benefits do not appear large enough to justify subsidisation with regard to the public interest.

It has never been demonstrated that the New Zealand areas with a higher percentage of sports, leisure activity, and festivals grow systematically faster than the areas with a lower percentage.[16] As in the United States, sports, leisure activities and festivals are small relative to the economy at large, they are not especially well-suited for stimulating growth, and much of the associated economic activity is expenditure-switching, rather than a net creation of value. While the overall evidence is limited, the most serious and systematic studies find consistently that subsidies have no positive economic effects.

2.2 The multiplier effect

One common argument for subsidised stadiums and events invokes the so-called 'multiplier' effect. The multiplier effect is an idea taken from macroeconomics, specifically

[16] The New Zealand figures have been provided by Business and Economic Research Limited and University of Otago, 1998, as commissioned by the Hillary Commission.

from the writings of John Maynard Keynes. The claim is that one dollar of expenditure creates more than one dollar's worth of aggregate benefits.

The intuition behind the multiplier effect runs as follows. The individuals who receive the first dollars spent will themselves, in turn, spend some of that money in the local economy. The individuals who receive those funds will also spend some of the money in the local economy, and so on. A given dollar of initial expenditure therefore leads to more than one dollar of eventual spending.[17]

In macroeconomics, the multiplier effect was originally used to rationalise the effectiveness of fiscal policy. Since that time, however, most economists have come to believe that monetary policy is far more potent than fiscal policy, in part because the multiplier argument did not have great force.[18]

It is easy to see how the multiplier argument might be applied to publicly subsidised stadiums and events. If the stadium subsidy brings some amount of expenditures into a city, it could be argued that the net economic effect is greater than those expenditures alone. Those expenditures should be 'multiplied' by some number to obtain the true measure of benefits. Estimates of the multiplier vary greatly with the problem under consideration, but a typical estimate runs in the range between 1.5 and 3.0.[19]

The multiplier argument is not very convincing for several reasons, which we consider in turn. Note that these arguments against the multiplier apply to all or most economic impact studies used to justify stadium and event subsidies, including the two primary estimates of the multiplier used in New Zealand. These multipliers have been used to support studies of the economic impact of the 2006 Commonwealth Games, the Wellington regional stadium complex, Victoria University of Wellington, and the Festival of Japan, to name a few specific examples.[20]

The multiplier effect does not operate when the economy is at full employment. When all resources are already at work, the multiplier simply pushes up prices. Inducing a higher amount of local spending does not help put more resources to work or help create more wealth. The 'multiplier', in this context, simply redirects expenditure flows from

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17 Typically, models of the multiplier simply postulate some multiplier relationship between expenditures and output. The lack of commonly accepted microfoundations for the multiplier, and for Keynesian economics more generally, has been one reason why the theory has fallen out of general favour.

18 On the greater effectiveness of monetary policy, see, for instance, Martin Eichenbaum, 'Some Thoughts on Practical Stabilization Policy', *American Economic Review*, May 1997, 87, pp 236–239, who also summarises the consensus view on why fiscal policy is no longer considered very effective.

19 Mark S Rosentraub, *Major League Losers*, cites a variety of multiplier studies throughout; see also Kenneth L Shropshire, *The Sports Franchise Game*, Philadelphia, University of Pennsylvania Press, 1995, p 14 for citations to numerous multiplier studies.

20 Those two sources are the New Zealand Institute of Economic Research/New Zealand Tourism Board, *Tourism in New Zealand – Regional and National Multiplier Analysis*, Wellington 1992, and Geoffrey V Butcher, 'Regional income, output and employment multipliers: their uses and estimates of them', Vol 4, Cost Benefit Handbook, Economics Division, Ministry of Agriculture and Fisheries, Wellington, 1985.

one sector to another. Because New Zealand has enjoyed moderately high levels of employment in the last decade, the multiplier has only a limited scope to operate.[21]

The applicability of the multiplier argument is unclear even when the level of unemployment is high. The original multiplier argument assumed that spending more money would induce more resources, especially labour, to return to employment. The mechanism driving this improvement, however, has remained ill-specified.

At least three explanations of unemployment suggest a zero or negligible role for the multiplier. First, some individuals may prefer to receive welfare benefits than to work. Second, some individuals have so few skills that no employer believes they can profit by hiring them, even at very low wages. Third, regulatory barriers and minimum wages may prevent some individuals from being employable at a profit.

Western Europe and Japan provide two well-known instances where fiscal policy and government spending have proven ineffective in stimulating the economy or returning labour to work. These economies have deep structural problems in their labour and credit markets. The multiplier is a very blunt aggregate demand instrument that does not address the relevant supply-side problems. Along these lines, New Zealand unemployment was high throughout much of the 1970s and proved resistant to increases in aggregate demand as engineered through fiscal policy.

The multiplier is effective, at most, only for those unemployed resources that suffer from 'money illusion'. That is, some individuals may be out of work because they demand excess nominal wages. The fiscal stimulus, by increasing aggregate demand, helps validate the high level of demanded nominal wages and thus (supposedly) increases employment.

This explanation of unemployment has little relevance to New Zealand. First, most economists no longer believe that money illusion is a significant cause of unemployment. The cost of correcting for money illusion is low, relative to the benefit of finding work. The so-called Phillips curve, which postulates an inverse relationship between inflation and unemployment, has been discredited since the 1970s. More specifically, even if the money illusion argument were conceptually sound, it would not apply to New Zealand, where the rate of inflation has been close to zero for many years now. When the rate of inflation is zero, money illusion does not exist by definition. Finally, it is difficult to believe that subsidising local events will have a significant impact on the rate of inflation (and thus real wages), even if the Reserve Bank were not instructed to meet its stipulated price targets, as has been the case throughout this decade.[22]

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21 For related criticisms of the multiplier, in the context of New Zealand stadium subsidisation, see Bryce Wilkinson, 'Economic Impact Assessments: A Methodological Comment', Capital Economics Limited, 21 September, 1998.

22 Even if nominal wage stickiness were the main problem, the multiplier effect would not provide a first-best solution. In this (counterfactual) world, the Reserve Bank could remedy unemployment by an activist monetary policy, and we would be left with little or no role for fiscal policy. And even if fiscal policy were effective in reducing unemployment, a tax cut might be preferred to additional government spending and subsidisation.

Even a belief in the multiplier does not suggest a strong case for stadium or event subsidies. The traditional Keynesian case for fiscal policy suggests that a fiscal policy stimulus should be sharp, immediate and applied with the proper timing at the critical point of a downturn. None of these conditions fits stadium policies. Stadiums and related events are typically marketed, designed and built over a long time. Stadiums (but not events) may have an unpredictable timing for their final delivery. For this reason, it is unlikely that stadium subsidies will provide an effective form of fiscal policy, even if one ignores the above logical criticisms of the multiplier.

The multiplier argument has other conceptual and empirical problems. Most significantly, it does not establish the presence of a net stimulatory effect. Assume, for instance, that a multiplier effect did operate for stadiums. For similar reasons, multiplier effects would operate for many other kinds of expenditures as well. In fact, multiplier effects might operate for *all* other sectors of the economy.

The presence of a universal multiplier effect will eliminate the effectiveness of subsidies for stadiums and events. The stadium subsidy, by draining tax dollars away from other sectors, would simply redistribute the multiplier effect from one set of sectors to another set. When individuals visit a stadium, they are more likely to eat a restaurant meal before the game starts or after the game ends. At the same time, these individuals become less likely to shop in the local supermarket for a home-cooked meal. Much or all of the supposed stimulus is simply a redistribution from one sector to another.

The multiplier argument confuses the spending of dollars with the creation of real resources. Simply churning more dollars through a local economy does not necessarily improve economic conditions. If the multiplier effect induces an individual to buy a hot dog at a local vendor, for instance, this expenditure does not create wealth. In the absence of the multiplier, spending on another product would have occurred, with roughly equivalent effects on wealth creation.

Counting the entirety of spending as a net economic benefit leads to gross overestimates of the benefits of subsidies. Take the case where foreign tourists visit New Zealand for a special event. While New Zealanders receive the money of foreign tourists, the foreign tourists receive New Zealand goods and services. The correct measure of benefits (the value-added rate) is the value of what is spent minus the costs of producing those goods and services. If we take the prevailing rate of value-added to be, say, ten percent, common analytical practices will overstate the benefits of foreign tourist spending at least tenfold.

More generally, the multiplier studies assume that unemployed resources have an opportunity cost of zero. Even unemployed labour receives some benefit, often a significant one, from consuming leisure. An unemployed parent will spend more time caring for the children, leisure time may be intrinsically valuable, or the unemployed may receive better jobs if they spend more time searching. All of these factors lower the potential benefits of the multiplier, but they are not taken into account in multiplier studies.

Note also that multiplier analysis will always favour the more expensive project in relative terms. Each extra dollar spent will be 'multiplied' into a larger impact. This may be one reason why multiplier analysis is popular among policy makers, and the studies they commission, although its conceptual foundations are dubious. According to multiplier models, digging a hole and filling it in again will yield greater benefits, the larger the hole.

2.2.1 The multiplier as zero- or negative-sum game

One argument for stadium subsidies claims that visitors are brought in to a city or region from outside areas. Many individuals will travel many hours to see a sports team, for instance, when they might not visit a city for any other reason. Stadium subsidies might therefore allow a city or region to steal business and revenue away from other competing regions.

Even if these benefits are significant at the local level, there is no net gain at a national level. The customers lured to one region are lost to another. In fact, by spending money to lure customers in this fashion, the nation as a whole is worse off. Redistributing the geographic loyalties of customers is a zero- or negative-sum game for the entire polity. The entire nation would be better off if it could commit to a policy of no 'customer-luring' from one region to another. The total amount of wealth and aggregate demand would be no lower, and the country would avoid investing resources in the scramble for local advantage.

Much of the multiplier-induced redistribution may not even benefit the city or region that sponsored the stadium. If a sports fan goes out for dinner and a beer before the game, the beer may come from Germany and the dinner is likely to consist of products imported from many different regions and countries. The restaurant was probably financed by a national bank and the tablecloth may have been imported from Thailand. The owners of the restaurant, especially if they are wealthy, will spend their profits in many different areas on many different items. The bigger a given multiplier effect is supposed to be, the more likely it is to spread beyond the subsidising locality.

A country may experience a net gain if the visitors come from abroad, but New Zealand has a difficult time attracting foreign visitors by subsidising stadiums and events. New Zealand is a relatively isolated country geographically. If a subsidised stadium attracts visitors to New Zealand sporting events, an especially high proportion of them are likely to be coming from within New Zealand.

Furthermore, a subsidised inflow of tourists from abroad has smaller benefits than might at first appear. The net benefit of tourists is not given by the amount of money they spend in a country. Rather, increased tourism, to some extent, crowds out other exports. If more foreigners visited New Zealand, for instance, the demand for the New Zealand dollar would go up and the New Zealand dollar would appreciate. New Zealand exporters would then face less favourable conditions in the world market and would have a harder time selling their goods. For any given price in a foreign currency, New

Zealand would receive fewer New Zealand dollars in return. This example shows that, even in the most favourable case of foreign tourists, multiplier expenditures will partly 'crowd out' other forms of demand and wealth creation. If we subsidise foreign tourism in New Zealand, we may end up with a stronger currency than would be economically optimal, given the costs of raising the currency to that level.

In sum, the positive impact of a stadium or event is best measured by the consumer and producer surplus it provides. If a new stadium involves so many rugby matches a year, so many concerts, and so many public service activities, those outputs, minus the cost of their production, are the closest measure of the value of the stadium, no more and no less.

3

POLITICAL ECONOMY – WHO BENEFITS AND WHO PAYS?

3.1 Concentrated interests and diffuse payers

In New Zealand, both central and local governments provide stadium and event subsidies to the various organisations established by them. The government provides funds for culture and recreation through a variety of departments and ministries, including Conservation, Cultural Affairs, Maori Development, National Library, Women's Affairs and Youth Affairs.

The government also provides direct grants to events and facilities, typically through the Department of Internal Affairs, which, among other things, administers the Millennium Office. Within the Department is the Community Development Group which administers community funding through a series of boards, trusts and schemes that allocate grants to communities. This Group distributed more than $147.5 million to New Zealand communities in the 1997/1998 year.

The main funding agency is the Lottery Grants Board, which oversees the distribution of around $140 million derived from the profits of lotteries in New Zealand. The money goes to eight distribution committees (Youth, Aged, Welfare, Community Facilities, Environment and Heritage, General, Health Research and Science Research) and three agencies (the Hillary Commission for Sport, Fitness and Leisure, the Film Commission and Creative New Zealand).

At the local level, expenditures are autonomous. There are currently 86 local authorities in New Zealand, each of which is administered by either a regional, city or district council. These councils set rates and decide on expenditures, including of course subsidies to stadiums and events.

The decision-making procedures of local authorities have relevance for an evaluation of stadium and event subsidies. We must consider stadium and event subsidies, not in their ideal form as would be implemented by a benevolent ruler, but as they are likely to emerge from real world political processes.

The advocates of stadium and event subsidies typically invoke market failure but often underplay the offsetting costs of potential political failures. The relevant failures in political markets may include the following:

- voters are poorly informed;
- politicians are influenced by self-interested lobbies;

- the concept of 'public interest' is poorly defined;
- politics is often media-driven and captive to oversimplified representations of the issues; and
- many political projects involve concentrated benefits and diffuse costs, which leads to overprovision of services and goods.

The logic of concentrated benefits and diffuse costs is of special relevance for stadium and event issues. The argument here is simple. The individuals who lose from an inefficient subsidy are large in number and each person's loss is relatively small. If a taxpayer loses 50 cents a year to an inefficient stadium or event subsidy, they are not likely to become very upset. The small sum lost will not induce lobbying, political action, or a public campaign against inefficient stadium subsidies. In economic terminology, the free rider problem limits the extent of political lobbying against the subsidy.

The situation of the beneficiaries differs. The beneficiaries typically are small in number and each has a large amount at stake. The relevant beneficiaries include the team, the sponsor of the relevant event and related individuals in project construction and promotion. These individuals will have more incentive to lobby for the subsidy than taxpayers have to lobby against the subsidy. If the subsidy passes, the lobbiers themselves obtain a large share of the benefit. In other words, the free rider problem with lobbying for the subsidy is less severe than the free rider problem with lobbying against the subsidy.[23]

The problems with concentrated benefits and diffuse costs are compounded by asymmetric information. If a new stadium subsidy is being considered, the relevant beneficiaries are typically well informed about the subsidy plans. They spend time attending meetings, offering their input, and they know the ins and outs of the plans relatively well. The taxpayers, in contrast, typically will have little idea about the relevant policy alternatives. They may occasionally read about the possibility of a stadium or event subsidy in the newspaper, but their information generally will be extremely limited. These differences in information spring largely from incentives, as the concentrated beneficiaries have better incentives to become informed. The information differential, of course, will make efficient outcomes harder to achieve. Stadium subsidies will be designed and implemented as special interest groups desire, rather than being in the public interest.

The specifics of this process, with regard to stadium and event subsidies, often work as follows. The local authorities do not always have the competency to assess the quality of project analysis for a proposed subsidy. These authorities, however, do have an interest in expanding the size of local government and therefore they tend to be favourably inclined. Politicians are eager to promote new and popular projects, and they see

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[23] Arguments of this kind were pioneered by Mancur Olson, *The Logic of Collective Action*, Cambridge, Harvard University Press, 1965.

stadiums and events as potential candidates here. Politicians commit political capital to the idea and they commission studies that are essentially marketing devices rather than rigorous scientific research. As supportive politicians move from the early stages of the project to later stages, they have more reputation and time committed to the project and they have lined up special interest groups to share in the benefits of the project. This process remains opaque to voters, who have little incentive to become well informed, for reasons discussed above. Over time the debate may become politicised but politicians, the local bureaucracy and the associated interest groups have developed a stake in the outcome. Unless a very public scandal develops, or negative voter reaction is heavily mobilised, the subsidy often goes through, although it has not won well-informed public support or passed the dictates of scientific scrutiny.

The United States offers many examples where special interest groups have manipulated the subsidy process in their favour, often to the detriment of the public interest. Recent events in the city of Hartford, Connecticut illustrate several of the dangers. The city of Hartford has agreed to provide a professional football team with a US$375 million stadium, rent-free, if the team moves from Boston and agrees to stay in Hartford for 30 years. The deal is considered quite lucrative by many, especially since the enforceability of the 30-year commitment is uncertain. The state of Connecticut has also offered a guarantee worth up to US$17.5 million yearly, if the team is unable to sell its luxury suites and boxes. Although there has been some public opposition to the deal, the proponents have been much better organised and better informed. The deal subsequently fell through only because Boston upped its counter-offer.

The governor promoted the deal by commissioning a private study, which argued that the stadium would pay for itself over the 30 years of the agreement. A non-partisan study issued by the legislature, however, has come to opposite conclusions. Their report concludes that the stadium could cost taxpayers up to US$323 million.[24]

It is common for the political process to overestimate the benefits of stadiums and underestimate the costs. In a variety of cases in the United States, actual costs have come in much higher than proposed costs, sometimes even twice as much or more.[25]

Sometimes stadium subsidies are decided by referenda in the United States, but voters rarely have the opportunity to make well-informed decisions. Subsidy advocates hire public relations and advertising firms to promote the idea, commission pollsters to follow public opinion, pay for biased studies to estimate high net benefits and spread misinformation. John P Blair and David W Swindell provide the following summary of the Cincinnati referendum on a stadium subsidy:

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[24] 'Patriots' Owner Defends Stadium Deal', *New York Times*, Thursday, 10 December, 1998, Washington DC edition, p A28.

[25] For examples of overestimates, see the essays in Roger G Noll and Andrew Zimbalist, *Sports, Jobs, and Taxes: The Economic Impact of Sports Teams and Stadiums*, Washington, DC, Brookings Institution Press, 1997.

> [Voters] did not know what the stadiums would look like, since there were no real plans. They did not know how much the stadiums would cost without those plans. Few voters had any idea about the economic development impact or monetary costs and benefits. Those voters who followed the issue realised that neither team had committed itself to staying in the new facilities and that neither team nor the business community had actually committed any money to the project. However, and most important, voters believed that without passing a tax increase to commit themselves to build stadiums for the Bengals and the Reds [the football and baseball teams, respectively], they would lose their home teams and become a less respected American city.[26]

There has been no systematic study on spending to promote stadium subsidies in referenda. Nonetheless San Francisco and Washington State are two cases that have been investigated. Both referenda passed by tiny margins, which suggests that the role of outside publicity may have been crucial. In San Francisco, stadium subsidy proponents outspent their opponents by a ratio of 25 to 1; in Washington State the ratio was an even more extreme 80 to 1. These sums provide some rough measure of the 'concentration of benefits, diffusion of costs' logic mentioned above.[27]

The funds allocated to the Millennium Celebration in Canada have, for the most part, turned out to be pork barrel expenditures, or for other purposes altogether. One community received a grant to build a wheelchair ramp out of a historic building. A Nova Scotia group received funds to restore a historic waterfront coal shed. An artist on Prince Edward Island has received C$915,000 to produce a 10-metre work of art, amalgamating various Canadian artefacts. In effect, these grants have served as 'rewards' to various local communities in the hope of receiving later political support.[28]

Both theory and evidence suggest that politics will produce too many stadium and event subsidies. The beneficiaries from such subsidies will be more politically active and better informed than the would-be opponents of such subsidies. Many of the would-be opponents – taxpayers and ratepayers for the most part – will not even know that a subsidy is being planned or considered.

For these reasons, it does not suffice to show that stadium and event subsidies are potentially beneficial. Rather, a complete analysis must consider the following questions: if we allow for stadium and event subsidies, which subsidies, and how many, will end up being approved? The logic of government suggests that we will get too many subsidies and that many will be in inefficient form.

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[26] See John P Blair and David W Swindell, 'Sports, Politics, and Economics: The Cincinnati Story', In *Sports, Jobs and Taxes: The Economic Impact of Sports Teams and Stadiums*, Washington, DC, Brookings Institution Press, 1997, pp 297, 313–4.

[27] See Roger G Noll and Andrew Zimbalist, 'The Economic Impact of Sports Teams and Facilities', in *Sports, Jobs and Taxes: The Economic Impact of Sports Teams and Stadiums*, edited by Roger G Noll and Andrew Zimbalist, Washington, DC, Brookings Institution, 1997, p 85.

[28] See National Post Online, 'The millennium is coming, at a cost' at http://www.nationalpost.com/story.asp?f=981218/2113598.htm1.

Many stadiums would have been built anyway, thus implying that the subsidy serves as a mere transfer to the stadium owner, with no corresponding public benefits. In these cases, however, the stadium owner nonetheless has a strong incentive to engage in gaming with the relevant municipality. Owners of the stadiums or teams will solicit offers from competing municipalities, will claim that financial losses are imminent, and will conduct a public relations campaign on behalf of their activities. These 'rent-seeking' expenditures must count as further costs of stadium subsidy schemes. Stadium and event subsidies increase the quantity of resources devoted to political influence, and to that extent drain the productive economy of goods and services. It is difficult to estimate scientifically the costs of rent-seeking, but the quantity of resources devoted to politics and lobbying suggests that the problem is not a small one.

3.2 Costs of compulsion

Ratepayers and taxpayers bear the direct cost of the taxes used to fund stadiums and events. When the subsidies take the form of tax credits or interest forgone, the same cost is borne in indirect form. The government receives less tax revenue than it would otherwise, or receives less interest income, and must make up for this deficiency either by cutting spending, borrowing money, or by raising taxes elsewhere.

The costs of financing subsidies, however, extend beyond the dollar amount of the subsidy itself. Raising the money for the subsidy involves the distorting costs of taxes. The taxes used to raise revenue typically distort resource allocation by limiting incentives to work and invest and by increasing incentives to consume income in non-taxable form. These costs are often referred to as the 'deadweight loss' of taxation.

Financing the subsidy through borrowing changes, but does not eliminate, these costs. In the short run, government borrowing crowds out some private investment in capital markets, by drawing away funds from other uses and pushing up real interest rates. In the long run, borrowing eventually must be paid off with taxes, in which case the deadweight costs of taxation are borne at some point in the future.

The deadweight costs of taxation are relevant even when the programme is financed through the cutting of expenditure. If the cut expenditure produced valuable benefits, those benefits must be forgone. If the forgone expenditure was wasteful, it should be cut anyway, in which case the subsidy still involves additional taxation or borrowing at the margin.

The deadweight loss of taxation is difficult to estimate with precision and depends on the exact particulars of the tax system and the state of the economy in a given year. There are, however, several estimates for the deadweight loss of taxation in New Zealand. The study by Diewert and Lawrence finds that the marginal excess burden with labour taxation is now 18 percent; the marginal excess burden with consumption taxation is 14 percent (administration and compliance costs are additional). A second report, by McKeown and Woodfield, finds rates of deadweight loss ranging from 24 to 146 percent, depending on assumptions of labour supply elasticity. The study by Gerald Scully finds

the highest estimate for marginal deadweight loss, 264 percent, although this study has come under strong criticism. While no one of these estimates is fully reliable, most economists tend to place the deadweight loss costs between 15 and 50 percent, for most tax systems.[29]

If the correct measure of deadweight loss of taxation is, say, 30 percent, this implies that raising a dollar of revenue costs not only the dollar taken from the taxpayers but also 30 cents in terms of resource misallocation. Because of the taxation, individuals will work, save, and invest less than they otherwise would (depending on the exact form of the tax). Even if stadium subsidies could be shown to produce, say, 25 percent of value in excess of their cost, the investment would still not prove worthwhile if the deadweight costs of taxation were 30 percent.

3.3 Fairness issues

Stadium subsidies do not satisfy equity criteria for economic policy making and in most cases would increase economic inequality. Most of the proposed subsidies are for stadiums or events that are of greatest appeal to middle and high income groups. If we consider most sporting events, for instance, these outputs are of greatest appeal to the relatively wealthy. Tickets for many sporting events are not cheap; rugby and cricket games can range from $15 up to $70, depending on the nature of the event and the quality of the seat. Furthermore, the relatively wealthy are more likely to have the leisure time, or the means of transport, to attend such events. Much of the attendance at sports competitions and related events is tied to tourism and travel, which again favours the relatively wealthy.

Some sporting events are of greater interest to the poor and lower income groups, such as stock car racing and professional wrestling, but stadiums and facilities for these events are typically not nominated for public subsidies. Public subsidies are usually reserved for more 'respectable' activities, such as sailing facilities, rugby, and soccer, or for high culture, in the case of special events and festivals. The restriction of subsidies to these areas, however, implies that the subsidies will exacerbate income inequality.

The recipients of attendance income also tend to be relatively wealthy. In this category we can count stadium owners, sports team owners, sponsors of major events, and athletes and event participants. Insofar as these individuals benefit from stadium subsidies, again the distribution of wealth will become less equal.

The incidence of stadium subsidies will have further negative impacts on income distribution. Because sports teams and related events make a city a more desirable place

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[29] For these studies, see Diewert, W Erwin and Lawrence, Denis A (1994), *The Marginal Costs of Taxation in New Zealand*, report prepared for the New Zealand Business Roundtable by Swan Consultants, (Canberra) Pty Ltd, McKeown, Paul C and Woodfield, Alan E (1995), 'The Welfare Costs of Taxation in New Zealand Following Major Tax Reforms', *New Zealand Economic Papers*, 29(1), pp 41–62, and Scully, Gerald W (1996), 'Taxation and Economic Growth in New Zealand', Revised Inland Revenue Department Working paper No 14, New Zealand. The criticism of Scully is by Sieper, E, 'Formal Review of Scully, G (1996), "Taxation and Economic Growth in New Zealand"'.

to live, rents in that city will increase to a corresponding amount. In other words, the net value of the improvement will be capitalised in land prices. Landowners will be the primary beneficiary of the subsidy, while renters, on average, will not come out ahead. Since the poor tend to rent and since landowners tend to be relatively wealthy, the increase in inequality will be exacerbated.

Subsidies also raise the issue of why some individuals and sectors might be deserving, while others are not. In New Zealand, farmers may ask why the America's Cup should receive a subsidy while the government does not provide comparable subsidies to the farming sector. It is not clear that a government should subsidise one economic sector but not others.

The argument that stadium and event subsidies will increase inequality is not a decisive strike against such policies. For the same reasons that stadiums and events are of relatively minor economic importance, the associated change in inequality is likely to be small as well. Nonetheless, the anti-egalitarian effects of such policies, especially when combined with their efficiency problems, militate further against subsidies. If the subsidies did have significant positive effects, they would also occasion a significant increase in inequality.

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SUMMARY REMARKS – IS THERE A CASE FOR INTERVENTION?

The above arguments suggest that the case for stadium and event subsidies is a weak one. The option value and 'warm glow' arguments do not succeed in demonstrating significant market failure. The supposed macroeconomic benefits turn out, upon examination, to be illusory. Stadium and event subsidies do not have convincing effects on output and employment. Under most plausible scenarios, they simply redistribute outputs from one sector to another. Furthermore, the benefits to a local economy still translate into a zero-sum game for the nation as a whole.

The costs of taxation and the lessons of public choice theory provide further reasons to be sceptical about subsidies for stadiums and events. These subsidies will not generally be administered in the public interest, but rather will be controlled by special interest groups. In many instances, subsidies will be handed out to favoured local businesses, rather than to sources that will most greatly enhance efficiency.

The two most comprehensive book-length treatments of stadium subsidies both take a similarly sceptical view. Mark S Rosentraub entitled his book *Major League Losers*, to refer to those who foot the bill for stadium subsidies. Roger G Noll and Andrew Zimbalist offer the most thorough scholarly treatment in their *Sports, Jobs and Taxes: The Economic Impact of Sports Teams and Stadiums*. In the introduction, Michael H Armacost (president of the Brookings Institution) writes: "In every case, the authors find that the local economic impact of sports teams and facilities is far smaller than proponents allege; in some cases it is negative". The authors themselves write:

> … an industry as localised as a sports team is not likely to generate much local economic development, especially in an entire metropolitan area rather than a city within that area. Stadium subsidies facilitate building expensive monuments to sports that benefit no one and transfer income from ordinary people to highly paid players, owners, and executives.[30]

The burden of proof rests upon those who propose stadium and event subsidies, given their cost, the lack of a clear demonstrated benefit and given that they represent a deviation from egalitarian standards. The case for stadium and event subsidies has not been established and the case against has several strong arguments in its favour.

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[30] See, 'The Economic Impact of Sports Teams and Facilities', in *Sports, Jobs and Taxes: The Economic Impact of Sports Teams and Stadiums*, edited by Roger G Noll and Andrew Zimbalist, Washington, DC, Brookings Institution Press, 1997, pp 88–89.