



SECTION 8 ECONOMIC IMPACT ASSESSMENT

Introduction

8.1

We now comment on the economic and social impact of the proposed Stadium investment. The analysis in this section was undertaken by Indecon International Economic Consultants and utilises key assumptions on the project (notably the demand forecasts) estimated by PricewaterhouseCoopers.

8.2

The assessment that follows evaluates the cost of the Stadium project with its economic benefits. It must be understood that the primary rationale for the project is its benefit to the sports infrastructure in Ireland. Such benefits are not amenable to economic evaluation. As such the investment by the State in the Stadium must be seen in broad strategic terms.

8.3

We present estimates of the socio-economic impact of the Stadium project using cost-benefit analysis (discussed Appendix 8.1). The financial costs and benefits of a publicly-funded project are only part of the true social costs and benefits to the economy, which could include non-financial items such as, for example, the additional cost inherent in the use of public funds, and the environmental costs of proceeding with the proposed development. Some of the non-financial items may be difficult to quantify precisely. However, it is useful to consider the social costs and benefits when assessing the socio-economic impact of the proposed National Stadium.

8.4

It is important in cost-benefit analysis to clearly identify the social benefits and social costs which are included in the calculations. We begin by outlining the benefits and costs which have been considered. In placing a value on these costs and benefits we make certain assumptions about their size and impact and these assumptions are also discussed below. Finally we present the results of our analysis.

8.5

Table 8A identifies the main benefits and costs which are addressed in the analysis.

Table 8A
Identification of Main Benefits and Costs of National Stadium

Potential Benefits
Employment Creation Tax Contributions Tourism Benefits Impact on Property Values Sporting Benefits
Main Costs

Capital Costs
Costs of Traffic Congestion
Impact of Disruption to Local Residents

Capital cost of proposed Stadium and Ancilliary Facilities

8.6

Based on the proposed footprint and design of the Stadium, Table 8B below sets out a breakdown of the estimated capital costs of the project. The figures indicate an estimated total capital cost for the proposed 80,000 seat Stadium of £168 million plus ancilliary costs.

Table 8B
Estimated Capital Costs for Proposed 80,000 Seat
National Stadium and Ancilliary Facilities

Item	IR£ million (excluding VAT)
80,000 seater Stadium construction + fit-out	160
Site infrastructure	8

	168
Local infrastructure	13
Professional fees	17
Design contingency	32
Total	230
Source: PricewaterhouseCoopers	

8.7

For the purposes of the cost-benefit analysis we distinguish between sources of capital which are public and those which are financed via private donations. Table 8C presents a breakdown of the capital costs of the proposed Stadium according to the known sources of finance for the project, being public funds, with the balance (£50 million) coming from a private donation. If any additional elements of the capital costs are financed by private sources, for example by sponsorship-related pre-funding, this would improve the socio-economic impact. We understand the Steering Committee believe it may be possible to increase the percentage of funds from the private sector.

Table 8C
Sources of Funding for Proposed Stadium

Sources of capital	IR£ million
Public funding	180

Private donations	50
Total	230

8.8

Only the publicly funded element of the total capital costs are included in the socio-economic cost calculations. This is due to a high marginal socio-economic cost being attached to the use of public funds, which are raised by the government through taxation, the latter having a distortionary impact on the economy. Private donations have no such socio-economic cost. On the benefits side it is necessary to consider the additional employment and other benefits that derive from the total capital cost.

Construction phase and lifetime of proposed Stadium

8.9

The construction phase of the project will be four years from go-ahead to completion. Furthermore, it is normal procedure in assessing large-scale public capital investment projects to consider a finite lifetime for the project. We consider a lifetime of 20 years from the time of completion of construction to be appropriate for the Stadium. The timeframe of the expenditure during construction is set out in Table 8D. This shows that 10% of the capital expenditure is assumed to take place in year 1, while 30% is expected to take place in each of the remaining three years of construction. The benefits arising from this expenditure are assumed to be distributed in the same fashion.

Table 8D
Timeframe of Expenditure during Construction Phase

Year	Percentage of capital spending	Capital spending - £ million
1	10%	23
2	30%	69
3	30%	69
4	30%	69
Total	100%	230

Operational details of proposed Stadium

8.10

For figures on the anticipated usage of the Stadium we use the minimum utilisation developed by PricewaterhouseCoopers, that six sporting events will take place each year. Four of these are assumed to have average attendances of 46,250 while the other two events have average attendances of 40,000.

Issue of economic deadweight and displacement

8.11

In assessing the socio-economic benefits accruing from a project it should be noted that the additional benefits flowing from the project will not necessarily equal the total investment in the project, since significant economic activity may occur automatically even in the absence of such development. In other words, it is necessary to consider the economic deadweight that occurs. The deadweight concept discussed in Appendix 8.1 refers to the likelihood that an outcome or benefit would have occurred without the project or investment programme. Displacement refers to the extent to which the project may cause other activities that might have contributed to achieving the desired benefits to be cancelled or reduced. Displacement can occur internally (within the proposed project) or externally (distorting activities elsewhere in the economy). Although quantifying precisely the extent of economic deadweight is difficult, it is worth noting that in general during periods of rapid economic growth the potential for the creation of deadweight is likely to increase.

Social Benefits

8.12

There are a number of issues to be taken into account in assessing the social benefits arising from a large-scale project such as the proposed National Stadium. In summary, the principal benefits are those involving the following:

- Income generated from initial construction of the project, including employment and other factor income;
- Incomes generated through direct employment created during the operational life of the Stadium;
- Income generated through the second-round or induced impacts on the economy of the construction and employment activity at the proposed Stadium;
- Expenditure and incomes generated through the use of the Stadium by visitors from outside the state;
- Exchequer income generated through the tax receipts arising from the initial construction phase of the project, including income tax, national insurance contributions, corporation tax on profits earned by the construction companies, and indirect taxes;
- Exchequer receipts in the form of income taxation arising from operational employment at the proposed Stadium;
- Exchequer revenues generated from expenditure by visitors to the Stadium outside of the Stadium;
- Exchequer revenues arising from the second-round impacts on the economy of the proposed Stadium;
- Tax revenues arising from the corporation tax payments from profits generated during the operational life of the Stadium;
- Increased property values arising from the location of the proposed Stadium.

8.13

In addition there are sporting benefits which, while not readily quantifiable, are usually the main rationale for Stadium investments. A similar point applies to issues such as civic pride and the image of the city.

Direct Incomes generated during construction phase

8.14

The socio-economic benefits arising from a project of this scale begin at the construction phase with the impact of the capital expenditure. A substantial proportion of the capital expenditure will be in the form of incomes paid to construction employees. A key issue relates to what opportunity cost is applied to these incomes. This is discussed further in our analysis.

8.15

We have based our estimates for the additional employment income created during the construction phase of the project on the findings of Henry 1. Henry's modelling of the Irish economy indicated that 1 full-time employee (FTE) was created for each £45,500 spent in construction in 1990. Assuming that construction cost inflation averaged 4% per annum between 1990 and 2000, it then follows that 1 FTE is created per £67,351 spent in construction in 2000 prices. Based on the assumed timeframe of capital expenditure (see Table 8E), this suggests that 341 FTEs are likely to be created during year 1, and 1,024 FTEs in each of the remaining three years of construction.

8.16

Average wages per FTE in construction are estimated at £18,675 in 1998 prices. ² This figure assumes that 50% of employees required during the construction phase of the proposed Stadium are skilled. Adjusting this figure for wage inflation during 1999 and 2000 (assumed at 6% per year) gives an estimate for the average wage in year 2000 of £20,983. Based on this estimate, and the number of full-time employees created, this suggests that additional *gross* employment income would be generated to the tune of £7.2 million in year 1, followed by £21.5 million in each of the remaining three years during construction. We have adjusted these figures downwards, however, by 80% to reflect the opportunity costs of labour. This reduces the estimated direct additional benefit of the Stadium to £1.4 million in year 1, followed by £4.3 million in each of years 2 to 4. While assuming a 80% opportunity cost of labour is high compared to some previous studies we believe it is appropriate given the current low levels of unemployment in Ireland. Indeed there would be a case for assuming a 100% opportunity cost. Our analysis takes account of employment levels in the local catchment area and the need to assess this over the life of the project and not simply the current labour market conditions.

8.17

It is also necessary to subtract taxation from the estimates of gross employment income indicated above, since it is *net* incomes that are considered as a benefit in terms of the additional employment created during construction. Taxation is then treated separately as a benefit accruing to the exchequer. Here we assume that all gross direct employment incomes (after adjusting for the opportunity cost of labour), are subject to an effective tax rate of 25%, implying tax revenues of £0.36 million in year 1, followed by £1.08 million in each of years 2 to 4. This implies that net incomes total £1.1 million in year 1, followed by £3.2 million in each of years 2 to 4.

Second-round or induced impacts of construction activity

8.18

On top of the direct employment incomes generated during construction additional employment incomes will be created as a result of multiplier impacts arising from the downstream effects on the economy of the construction activity. Deane and Henry (1993) ³ calculated that each £1 million spent on construction in 1992 had multiplier impacts amounting to the generation of 24.4 new full-time jobs in indirect and induced employment. We have adjusted this estimate for inflation between 1992 and 2000 (assumed to average 4% per annum), giving a new estimate of 17.8 other jobs per £1 million spent in the construction sector in the year 2000. Based on this multiplier impact, we have estimated that an additional 409 full-time jobs would be created during year 1, and 1,228 jobs in each of years 2 to 4. A detailed analysis of both the direct and indirect/induced employment created during the construction phase of the project is presented in Table 8E below. The figures indicate that a

total of 7,506 full-time jobs could be created from the Stadium project over the four year construction period.

Table 8E
Estimated Direct and Indirect/Induced Employment created during Construction Phase

Year	Direct employment – FTEs	Indirect/induced employment - FTEs	Total – FTEs
1	341	409	750
2	1,024	1,228	2,252
3	1,024	1,228	2,252
4	1,024	1,228	2,252
Total	3,413	4,093	7,506
<i>Source: Indecon calculations based on Henry (1993) and Dean and Henry (1993).</i>			

8.19

We have estimated the additional incomes that are likely to accrue from the indirect and induced employment created on the basis that the projected average annual gross industrial wage in 2000 reaches a level of £17,113. Applying the employment numbers to this figure gives an estimate of the additional *gross* incomes generated through the multiplier impacts arising from construction activity of £7 million in year 1, followed by £21 million in each of years 2 to 4. Again we assume that only 20 per cent of this income represents a benefit of the project, reflecting the assumption of an 80% opportunity cost of labour.

8.20

The tax benefits to the exchequer arising from the additional incomes generated through the multiplier effects amount to £0.35 million in year 1, followed by £1.05 million in each of years 2 to 4. These estimates are also based on the average tax contribution of 25% assumed earlier.

8.21

Subtracting the taxation accruing from the additional incomes generated through multiplier impacts gives a total for after-tax additional incomes generated of £1.1 million in year 1, followed by £3.15 million in each of years 2 to 4. This net income is shown as a benefit arising from the proposed project as indicated in Table 8A in Appendix 8.8.

Non-employment exchequer benefits during the construction phase

In addition to the exchequer benefits that arise from the additional employment incomes generated during the construction phase, further revenues are generated through taxation on construction expenditure. An analysis of the total estimated benefits accruing to the exchequer during the construction phase of the project is presented in Table 8F below. We have assumed that expenditure on construction generates tax revenues equivalent to between 25-30% of expenditure. However, given that some of this tax revenue would have occurred in any event (for example, due to income from labour which has an opportunity cost), we have used a lower figure of 15%. This would indicate an additional tax benefit of £3.5 million in year 1, followed by £10.4 million in each of years 2 to 4.

Table 8F
Exchequer Benefits from Construction Expenditure

Year	Taxes on construction expenditure - £ million
1	3.5
2	10.4
3	10.4
4	10.4
Total	34.7
<i>Source: Indecon calculations</i>	

Incomes generated through direct operational employment

8.23

Following completion of the construction phase the operation of the Stadium will generate incomes for both permanent and casual staff. An analysis of the projected wage & salary costs accruing during the operational phase of the proposed Stadium is presented in Table 8G below. The figures indicate a total gross income from operational employment of £899,000 per year. This total includes incomes earned by permanent employees of the Stadium, Stadium event-related staff, contract cleaners, and annual professional fees. Again we assume that only 20 per cent of this income represents an additional social benefit of the Stadium project. After adjusting for the opportunity cost of labour, the additional social benefit of direct operational employment amounts to £0.18 million in each year during the operational life of the Stadium.

Table 8G
Operational Employment Incomes of Proposed Stadium

	Permanent staff	Annual Salary	Number	Total Salaries
	CEO	80,000	1	80,000
	PA to CEO	15,000	1	15,000
	Commercial/ Marketing Mgr	40,000	1	40,000
	Marketing Assistant	15,000	1	15,000
	Operations Mgr	40,000	1	40,000
	Operations Assistant	15,000	1	15,000
	Financial Mgr	40,000	1	40,000
	Head Groundsman	40,000	1	40,000
	Groundsmen	15,000	4	60,000

	Building maintenance	15,000	4	60,000
	Security	15,000	4	60,000
	Accounts assistant	20,000	1	20,000
	Secretarial/ Reception	20,000	2	40,000
A	Total permanent staff		23	525,000
	Other annual costs			
B	Professional Fees	-	-	125,000
C	Total ongoing operational employment incomes per year (A+B)			650,000
	Event-related staff	Cost per item - £	No. required	Total Incomes per Event
	Stewards/turnstile staff	50	300	15,000
	Security	50	160	8,000
	Gardai	120	100	12,000
	Medical	-	-	2,500
	Total			37,500
D	Total event-related employment incomes * 6 events per year			225,000
E	Contract employment:			
	Cleaners	12,000	2	24,000
	Total estimated annual operational employment income (gross) (C+D+E)			899,000

Source: PricewaterhouseCoopers projections

8.24

The estimates provided above for additional annual employment income generated during the operational lifetime of the proposed Stadium are gross, i.e. it is necessary to subtract taxation, which is treated as a separate benefit accruing to the exchequer. The annual taxation (assuming an effective tax rate of 25%) amounts to £0.04 million in each year during the operational phase. This tax revenue accrues as an additional social benefit to the exchequer. After subtracting taxation, the net additional operational employment benefit amounts to £0.135 million per annum.

Multiplier impacts arising from direct operational employment

8.25

In addition to the direct economic benefits of the operational employment income generated by the Stadium, the direct impacts outlined above will also cause significant second-round or induced impacts. Money spent from operational employment incomes will lead to additional private consumption elsewhere in the economy and contribute to further employment creation and further economic benefits. Our estimates of the overall benefits arising during the operational phase include an estimate for such multiplier impacts.

8.26

We have based our estimate on Henry (1993), which show that £1 million of household expenditure in 1990 led to employment creation of 24.5 man years. Adjusted for inflation between 1990 and 2000 (at 2% per annum) we have estimated that £1 million of household expenditure in 2000 would lead to the creation of 20.1 man years of employment. We have then applied a marginal propensity to consume of 0.85 to the net of tax operational employment income to arrive at an estimate of household spending in each year. This gives an estimate of 11.5 new full-time jobs per year created through multiplier impacts. Assuming an average industrial wage of £17,113 in the year 2000 implies an additional gross employment income of £197,142 per year arising from second-round impacts from direct operational employment. Adjusting for an opportunity cost of 80% would imply a net additional social benefit per year of £0.039 million in gross terms. This is equivalent to £0.03 million per year after tax.

Indirect and induced benefits arising from out-of-state visitors to Stadium

8.27

In addition to the multiplier impacts arising from direct operational employment, the spending of out-of-state visitors to the Stadium will generate further socio-economic benefits. We have estimated the size of these benefits by considering projections for the number of out-of-state visitors that are likely to visit the Stadium during the projected 6 annual events hosted. An analysis of the projections is presented in Table 8H below. Based on the minimum utilisation it is projected that 69,650 out-of-state visitors would attend the Stadium each year. For the purposes of this study we assume that only 25 per cent of these visitors, or 17,413 people, will be additional in that they would not have travelled to Ireland in the absence of the proposed Stadium.

Table 8H
Estimated Proportion of Visitors from Outside the State
Attending Events at National Stadium

Event	Attendance	Proportion From Outside the State	Numbers From Outside the State	Additional out-of-state visitors
4Rugby Internationals	185,000	29%	53,650	13,413
2 gaelic games	80,000	20%	16,000	4,000
Total	265,000	27.8%	69,650	17,413

Source: PricewaterhouseCoopers projections of attendees

8.28

In Appendix 8.3 we present projections for average expenditure per overseas visitor to Ireland based on Bord Failte forecasts. The projected level of spending per foreign visit in 2000 is £462.41. Applying this average spend to the expected number of additional out-of-state attendees gives an estimated revenue of £8.1 million per year. This figure gives an estimate of the benefit to the Irish economy from the out-of-state attendees in each year as a result of the Stadium project.

8.29

According to Henry (1997) 4, 19.99 indirect and induced full-time jobs were created in Ireland in 1995 for every £1 million of foreign tourist earnings. Adjusting this for inflation between 1995 and 2000 (at 2% per annum average) gives an estimate for employment generation of 18.1 new full-time jobs per £1 million generated from foreign tourism revenues in 2000. Applying this to the overall estimate for additional annual revenue of £8.1 million suggests that 147 new full-time jobs would be created in each year during the operational life of the proposed Stadium as a result of the indirect and induced benefits of additional out-of-state visitors. Assuming that the average industrial wage reaches a level of £17,113 by the year 2000, this would imply an annual additional gross income benefit to the economy of £2.5 million. This would amount to a net £1.9 million per year after tax.

Exchequer receipts arising from operational employment

8.30

The additional incomes generated through both the multiplier impacts stemming from direct operational employment (after adjusting for the opportunity cost of labour) and the impact of tourism expenditure will also carry benefits for the exchequer via tax revenues. Based on an average effective tax rate of 25% total tax revenues from these incomes during the operational phase would amount to £0.7 million per year.

8.31

A summary of the estimated exchequer benefits arising during the operational phase of the proposed Stadium is presented in Table 8I below. The figures indicate a total estimated exchequer gain in each year during the operational phase of the proposed Stadium of £0.74 million.

Table 8I
Annual Exchequer Benefits arising during Operational
Phase of Stadium (adjusted for opportunity cost of labour)

Years	Tax revenues from direct operational employment incomes - £ million per operational year	Tax revenues from indirect and induced employment incomes - £ million per operational year	Total exchequer gains - £ million per operational year
5 to 24	0.04	0.7	0.74
<i>Source: Indecon calculations</i>			

Increased property values in the vicinity of the Stadium

8.32

A potential benefit arising from the location of the proposed Stadium which would require consideration would be the impact on property prices in the vicinity of the Stadium. The location of the project in an area which is currently under-developed would be likely to increase the attractiveness of the area for further development and thus increase the long-term economic benefits of the project. We do not currently have an accurate basis on which to

assess the magnitude of this impact. Some indication could be derived by looking at the number of households and commercial premises in the area, assigning some specified increase in average property prices and then aggregating to obtain an indication of the total of increased property values. While this would give an impression of precision there really is no sound basis available for assessing the likely change in the value of property, and so we do not proceed with such an approach.

8.33

An alternative approach used in Bacon (1998) 5 suggested that the proposed national convention centre project would lead to an increase in property values (including the centre itself) of £56.6 million in 1999 prices. This was relative to a capital investment in the project (including the cost of acquiring land) of £104 million. However, in relation to the proposed National Stadium, it is also important to take account of the fact that for some residents and businesses in the immediate vicinity, the Stadium could lead to a reduction in the quality of life and in property values due to congestion and other negative environmental impacts. This is reflected in the planning objections that occur to various other projects of a large-scale nature. On balance, we make a somewhat arbitrary assumption that the net present value of increased property values as a result of the proposed Stadium would be of the order of £30 million in year 2000 prices.

8.34

It is standard procedure as part of a cost-benefit analysis of this kind to assign a residual or liquidation value to the property concerned. This residual value would be entered as a benefit in the last year of the assigned lifetime of the project (in this case 20 years from exemption of construction). The benefits would arise from the sale of the Stadium building and surrounding facilities. We have assumed for the purpose of this analysis that the value of the property in 2024 equals one third of the initial capital cost of the project i.e. £76.7 million.

Summary of social benefits

8.35

Table 8J summarises the main potential benefits of the project which have been considered in this analysis and the value associated with each. The analysis indicates that after taking into account all the estimated benefits of the proposed Stadium the present value of the benefits totals £138.0 million in 2000 prices.

**Table 8J
Potential Benefits of National Stadium in Present Value Terms**

Benefit		Estimated present value assuming 5% discount rate (£ million)
Employment (excluding tourism benefits)		
- no. of jobs during construction	7,506 (direct and induced)	
- no. of operating jobs	23 permanent, 560 event-related	
Estimated value of employment income (excl. tourism benefits)		21.5

(assumes 80% opportunity cost)	
Tax Contributions	
- estimated total tax receipts	43.3
(NPV of tax contributions shown in Table 1, Appendix 8.3 discounted at 5% per annum)	
Tourism Benefits	
- total estimated tourists	19.4
(assumes that only 25% of total represents additional tourists)	
Sporting Benefits	
- likely to be the main rationale for investment	
- not amenable to quantification	-
Residual value of Stadium	23.8
Increased Property Value in Vicinity of Stadium	30.0
PRESENT VALUE OF TOTAL BENEFITS (assuming 5% discount rate)	138.0

Social Costs

8.36

For the purposes of assessing the economic impact of a project such as a Stadium investment it is necessary to identify the social costs involved before estimating the value of their impacts. A publicly-financed Stadium project is likely to incur a number of social costs. In this analysis we consider two of the main costs, namely:

- a. Capital invested at the construction phase;
- b. Traffic congestion associated with the project.

8.37

It would also be necessary to consider any public funds which might be required to fund any operational deficit. However, based on PricewaterhouseCoopers analysis it is estimated that no such deficits will occur.

Capital invested at the construction phase

8.38

The capital cost of the project which will be funded from the exchequer amounts to £180 million. It is important to note that the capital invested in the project may imply a social cost

greater than the public monies used. This is because raising public money requires taxation and taxation can cause distortions to economic activity. As noted previously, it may be possible to further reduce public sector costs by increasing the percentage of funds from the private sector.

Traffic congestion associated with the project

8.39

In addition to capital costs the other main cost would relate to traffic congestion. It is useful to consider this in some more detail. The implied cost of the extra traffic congestion generated by a new Stadium must be considered as a social cost. The impact of traffic congestion on the surrounding road network is likely to begin with the commencement of construction activity at the proposed site. Thereafter significant congestion may be experienced on days and evenings of major sporting and other events.

8.40

The social costs of congestion arise from the delays incurred. The consequent loss of productivity to businesses from increased delivery times is relatively straightforward to measure. On the other hand there is a notional loss of utility to non-commercial drivers as a result of delays caused by traffic. While Dublin's traffic problems are already widely recognised any additional source of delays will have some, albeit reduced, marginal cost.

8.41

Measures of the social costs associated with traffic delays in Ireland have been calculated by DKM consultants. The cost of lost working time due to traffic delays is estimated at £9.20 per hour while lost non-working time is estimated to cost £3.70 per hour. Both of these figures are at 1994 prices and are inflated at 4 per cent per annum to account for wage inflation.

8.42

By assuming that 50 per cent of vehicle occupants affected by the congestion are on working time we calculate the cost of congestion as £8.16 per hour. Assuming that each vehicle has an average of two occupants this equals £0.27 per minute delay per vehicle.

8.43

A detailed analysis of projected traffic congestion costs of the proposed Stadium is presented in Table 8K below. The analysis shows the estimated impact on existing traffic flows on key roads in the vicinity of the proposed Stadium of the planned 6 annual events. A critical element of the workings is the assumption that the additional traffic introduced while each event takes place at the Stadium results in an average delay per existing vehicle of 5 mins. Our analysis indicates a total estimated traffic congestion cost per event of £29,462. Given the planned 6 events per year at the Stadium this would imply a total estimated annual traffic congestion cost of £176,774. This figure represents as a social cost of the proposed Stadium. Over the 20 year period this amounts to £3.5 million.

**Table 8K
Analysis of Traffic Congestion costs of Proposed Stadium**

	AADT (1996)	Est. 2000 AADT	Estimated hourly traffic
	(grow 1996 at 7% p.a.)		
Traffic figures from NRA via Thorburn Colquhoun Engineers			
N3 (Dublin-Navan)			

Roundabout NW of M50 on Blanchardstown By-Pass	38,552	50,534	2,106
M50 junction	38,848	50,922	2,122
Roundabout SW of M50 at junction with Auburn Avenue	29,219	38,300	1,596
N2 (Dublin-Ashbourne)			
North of M50	12782	16755	698
South of M50	12790	16765	699
Sum of above traffic flows			
	132,191	173,275	7,220
Cost of working time (according to DKM (1994))			
<u>Cost per hour of delay</u>	£ - 1994 prices	£ - 2000 prices	
Working time	9.2	11.6	
Leisure time	3.7	4.7	
Assume 50% of vehicles passing Stadium vicinity are on working time		8.2	
Assume vehicle has average of 2 occupants Costs per hour of delay		16.3	
Cost per minute of delay (pence) per vehicle		0.27	
Assume 5 minute delay per vehicle			
Cost per 5 minute delay		1.36	
Total projected hourly traffic flow in vicinity of proposed Stadium is 7220 vehicles			
Average 3 hourly flow would be 21660 vehicles			
At 5 min delay per vehicle, cost is (£)		29,462 per event	
This is delay to vehicles excluding those going to Stadium			
Estimated traffic costs for 6 events - £		176,774	

Summary of present value of costs and benefits

8.44

An analysis of the present value of the gross socio-economic benefits (excluding capital costs and traffic congestion costs) of the proposed Stadium is presented in Table 8L. The figures indicate a total gross benefit of £138.0 million. The figures in Table 8L do not include any value of the sporting benefits. Such benefits are not readily amenable to economic valuation but are clearly the primary rationale for the project.

8.45

The gross socio-economic benefits need to be compared to the social costs. The estimated public sector capital costs amount to £180 million. This assumes a £50m private sector donation. If the private sector contributions are increased this will result in a corresponding reduction in public sector capital costs. As well as the capital costs the social cost of traffic congestion should be included. The traffic costs are estimated to be £3.5 million. The costs of the project should be evaluated against the economic benefits and of even greater importance against the value attributable to sporting benefits. Such benefits are not amenable to economic valuation but are clearly the primary rationale for the project.

Table 8L
Summary of Present Value of Gross Socio-Economic Benefits of Proposed National Stadium
(excluding capital costs and traffic congestion costs)
£ million (Year 1 prices)

Gross Socio-Economic Benefits		IR£ million - Year 1 prices	
		Discount rate = 5%	
	Additional Employment		
	Construction phase	9.4	
	Direct operational	1.4	
	Multiplier effects (indirect and Induced impacts from above)	30.1	
A	TOTAL	40.8	
	Exchequer Benefits		
B	TOTAL	43.3	
C	Increased property values in Vicinity of Stadium	30.0	
D	Residual value of Stadium	23.8	
	Total gross socio-economic benefits (A+B+C+D)	138.0	

	(A+B+C+D)		

8.46

It is clear that the National Stadium project is being undertaken as a flagship project to showcase what is best about our society. The benefits of this in national terms is not quantifiable. Neither is its impact in terms of boosting morale, enrichment of Irish culture and benefits to young people.