

Chapter 13

Department of Transport

13.1 West-Link Toll Bridge

The M50 is a 40km orbital motorway around Dublin, running from the M1 at Dublin Airport to the N11 at Bray. A 3.2km section of the motorway, from the N3 (Navan Road) to the N4 (Sligo Road) includes two side-by-side bridges spanning the River Liffey (West-Link Bridge). This section of the M50 is a toll road. The first bridge opened in March 1990 and the second in September 2003.

This was the second toll scheme in the State. The first was the East-Link toll bridge where tolling rights had been granted to National Toll Roads Ltd (NTR) and which opened in October 1984.

Government Decision

In 1982, NTR had approached Dublin County Council seeking agreement in principle to construct and operate a toll facility across the River Liffey to the west of the city between the N3 and N4 national primary routes. Following discussions and negotiations involving the State, Dublin County Council and NTR, NTR submitted a proposal to Dublin County Council in May 1984.

In October 1984, the Government agreed, in principle, to a proposal from the Minister for the Environment (the Minister) to the conclusion by Dublin County Council of negotiations with NTR¹⁹. The memorandum to Government noted that if the State finances were not so constrained and if substantial capital investment was being put into road improvement then it could afford to forgo the possibility of tolling the road and of private sector investment.

In the circumstances then prevailing and given the relatively underdeveloped state of the national roads, tolling options had to be considered. The memorandum noted that while tolls were not generally applied to ring roads in European countries, the Western Parkway route was one of only a few routes which could potentially provide an economic return to a private investor without the necessity for State subsidies or guarantees. The proposal to Government noted that the proposed project yielded an after tax return of 18% to NTR by comparison with a gross yield at the time from Government bonds in the region of 15%.

The Western Parkway is the section of the M50, approximately 12.2km in length, from the N81 (Tallaght Road) to the N3 (Navan Road). Its construction was completed in 1990 and was funded by the State except for the 3.2km toll road section.

Toll Scheme

The Local Government (Toll Roads) Act, 1979 provided that road authorities may, with the consent of the Minister, make toll schemes for public roads. Section 9 of the Act provided that the road authorities may, with the consent of the Minister, enter into an agreement (Section 9 Agreement) with another party to provide, maintain, manage and operate toll roads²⁰.

In October 1987, Dublin County Council, pursuant to a toll scheme made in 1985 and approved by the Minister in December 1986, entered into a Section 9 agreement (the Agreement) with a private company,

¹⁹ The negotiations were conducted with Conor Holdings Ltd, a private company with a major shareholding in National Toll Roads Ltd.

²⁰ Under the Roads Act 1993, as amended by the Planning and Development Act 2000, the power to levy tolls on national roads, make toll bye-laws and enter into agreements with private investors is now vested in the National Road Authority.

West-Link Toll Bridge Ltd, a wholly owned subsidiary of NTR, under which that company would construct the 3.2km toll road including the first bridge. In return, the company would be granted tolling rights to the road for a period of 30 years after which the road would revert to the State.

Second Bridge Construction

While the construction of a second bridge was not covered by the provisions of the 1987 Agreement, it was recognised from the outset that a second bridge would be built if traffic volumes rose to around 56,000 vehicles per day. In 1985 a senior engineer in Dublin County Council had pointed out that at this volume of traffic, the reduced level of service would make it necessary to construct the second bridge. By 1998, the 56,000 per day traffic threshold had been reached. The bridge was opened in 2003, by which time daily traffic was around 40% above the 56,000 threshold.

Licence Fee

The Agreement provided that NTR would pay a proportion of Gross Toll Revenue (GTR) to the State when the average daily traffic volumes over a year exceeded 27,000. The proportion, referred to as the licence fee, would commence at 30% of the GTR for the first 8,000 vehicles in excess of 27,000 and would rise in accordance with increases in traffic volume measured in intervals or bands as outlined in Table 28.

Table 28 Licence Fee Bands

Band	Average Daily Traffic Limit	Proportion of GTR payable to State
	First 27,000	-
1	27,001 to 35,000	30%
2	35,001 to 45,000	40%
3	Over 45,000	50%

In June 2001, the NRA entered into a revised agreement with West-Link Toll Bridge Ltd (the supplemental agreement), under which the company would construct a second bridge in return for a revised toll scheme. The revised scheme added a fourth band to the licence fee structure under which the State would receive 80% of GTR for traffic volumes over an agreed fourth band figure for the relevant year, as set out in the supplemental agreement. The fourth band commenced at 79,000, in 2001, and was to increase in annual tranches to 126,000 by 2020. The 80% threshold has not been reached to date. In 2004, the fourth band would have applied if daily traffic volumes exceeded 88,000. The daily traffic volume for that year was around 84,800.

On the basis of the agreed bands the yield from licence fees achieved and projected is set out in Table 29. The yields for the years from 2005 onwards are based on agreed forecast traffic volumes.

Table 29 Yield from licence fee 1990 to 2020^a

Period	Average daily traffic over the period	Licence fee as proportion of GTR
1990 – 1994	13,500	-
1995 – 1999	42,300	16.7%
2000 – 2004	75,200	25.3%
2005 – 2009	93,000	32.7%
2010 – 2014	105,800	34.8%
2015 – 2020	114,500	36.0%

^a Projected yields are shown in italics.

Taxation

At the time of the 1987 agreement, the rate of Corporation Tax was 50%. It was assumed, at that time, that NTR would not be liable for the payment of municipal rates in respect of the toll road and, at that point, VAT did not apply to toll charges.

There have been a number of changes to taxation and other charges in the period from 1990 to date

- West-Link Toll Bridge Ltd became liable for municipal rates on the toll road from 1992
- VAT has been applied to toll charges since September 2001 following a ruling by the European Court of Justice
- The rate of Corporation Tax has fallen steadily over the period, from 50% in 1987 when agreement was reached to 12.5% from January 2003
- Income tax rates and capital gains tax rates have also changed over this time.

Proceeds of Tolling

Table 30 sets out the GTR at the bridge and the appropriations to the State, excluding Corporation Tax, for the period from 1990 to 2004. €79,672,000 has been received by the State since the facility was put in place. The gross revenue in the period was €310,056,000.

Table 30 Toll Revenue and Licence Fee 1990 to 2004²¹

Year	Gross Proceeds ²²	Licence Fees	Municipal Rates	Appropriations to the State (excluding Corporation Tax)
	€000	€000	€000	€000
1990	1,834	-	-	-
1991	4,046	-	-	-
1992	5,243	-	294	294
1993	5,940	-	309	309
1994	6,719	-	324	324
1995	8,224	-	335	335

²¹ The figures in this table have not been adjusted to 2004 values.

²² Excluding VAT

1996	11,296	-	347	347
1997	20,749	3,043	356	3,399
1998	26,689	5,817	367	6,184
1999	29,668	7,309	378	7,687
2000	31,045	8,079	390	8,469
2001	33,703	9,220	2,875	12,095
2002	36,857	7,585	3,025	10,610
2003	39,369	8,044	3,176	11,220
2004	48,674	15,094	3,305	18,399
Totals	310,056	64,191	15,481	79,672

Source: Department of Transport (the Department), South County Dublin and Fingal County Councils.

Cost of the M50 to date

The West-Link facility provides access to a 40km motorway standard ring road around Dublin, which in turn gives access to all national primary routes out of the capital city.

The construction of the M50 has been, with the exception of the toll road, funded by the State at a cost of around €1.1bn in 2004 values. Toll charges at the West-Link Bridge are expected to be around a further €1.1bn in 2004 values for the period 1990 to 2020, excluding VAT. When account is taken of direct appropriation of funds (€0.44bn) to the State in the form of licence fee, municipal rates and corporation tax the net cost to the public of the current M50 facility, before taking account of income and capital gains tax, is around €1.76bn in 2004 values. These figures do not take account of the cost of a proposed upgrading of these facilities to cater for user demand.

To the extent that the profits available to the shareholders of NTR are distributed, additional income and capital gains tax will accrue to the Exchequer.

Scope of the Review

Because of public concerns about the operation and cost of the toll road I decided to

- compare the economic cost of the facility with its cost to users
- review the return to NTR
- review the return to government
- consider the options available to the State under its agreement with NTR..

No Cost Benefit Analysis (CBA) was carried out for the West-Link project. The memorandum to Government in 1984 stated that while no CBA had been carried out on the proposed M50, there could be no doubt that given its national importance, the existing traffic congestion and projected traffic flows over the various sections, the investment would provide a substantial real return.

Because of the extended period of the development of the M50 network over the last three decades it is recognised that CBA would not be very informative in this instance and the project may be best viewed as

a measure to remedy a major gap in the roads infrastructure. Accordingly, in the absence of a quantification of the benefits from the project no analysis has been made of the economic value of the facility to users.

Costs to Users

The cost of the facility to users is equivalent to the GTR. This section reviews the outturns on foot of the contracts taking account of the GTR projected originally and those now projected or achieved. Two issues in relation to cost were examined in the course of audit

- what was the relationship between the cost of the infrastructure and the aggregate amount paid by road users
- whether, in negotiating the second bridge contract, a reasonable degree of balance was achieved in at least maintaining that relationship.

Relationship between Project Cost and Charges

I reviewed the relationship between the cost of the facility to the users at the inception of the original agreement with NTR and the outturn expected on the basis of experience to date and current projections.

In comparing the economic cost of the facility with the cost to users all rates and taxation have been excluded. The facility refers to the 3.2km section of the M50 which is a toll road. For the purposes of this comparison no account was taken of the State investment in infrastructure on other parts of the M50 since they did not form part of the tolling scheme.

Analysis of the projections at the negotiation of the original agreement shows that the users would pay around €3.70 for each €1 in whole-life costs²³ when expressed in 2004 values. Expected revenue from toll charges and the whole-life costs of constructing and operating the first bridge at that time are set out in Table 31. The 2004 values of the cash flows set out in that table provide the most realistic basis for comparison because it expresses the cash flows in constant values.

Table 31 Expected Revenues and Whole-Life Costs – Original Agreement

	Original Estimates 1990 - 2020		
	Toll Revenues €m	Whole-Life Costs €m	Ratio of Revenue to Costs
Gross Cash Flows	758	111	6.8 : 1
Cash Flows at 2004 Values	678	182	3.7 : 1

Source: Gross Cash Flows at time of negotiations in 1984 - Department of Transport
Analysis of Gross Cash Flows by Office of Comptroller and Auditor General

By the time the second bridge was being negotiated, the M50 road system had been further developed and the number of users had increased. Because of this increased use, road users were, by then, paying in the

²³ Whole-life costs aggregate capital and running costs of the facility.

aggregate around €5.20 for each €1 in whole life costs. Table 32 sets out the position at the time the contract for the second bridge was being negotiated.

Table 32 Revenues and Whole-Life Costs - 1999

	Outturn and Estimates^a 1990 - 2020		
	Toll Revenues €m	Whole-Life Costs €m	Ratio of Revenue to Costs
Gross Cash Flows	1,332	137	9.7 : 1
Cash Flows at 2004 Values	1,026	197	5.2 : 1

Sources: Gross Cash Flows - Department records, NTR published accounts.

^a Cash Flows combine actual outturn from 1990 to 1998 and projected cash flows for the period from 1999 to 2020. VAT is excluded.

Analysis of Gross Cash Flows by Office of Comptroller and Auditor General

The costs borne by users are a factor of the toll rates and the traffic volumes. These are examined separately in the following sections.

Toll Rates

Under the toll scheme provisions toll charges may not exceed a certain level (maximum tolls). NTR may, however, charge less than the maximum toll if it so chooses. The maximum level is calculated by adjusting a base toll by reference to the Consumer Price Index (CPI)²⁴. The base tolls, in 1990, ranged from 38c (30p) for motor cycles and 76c (60p) for cars up to €4.57 (£3.60) for certain commercial vehicles. The base rate for cars was adjusted upwards following the negotiations for the construction of the second bridge.

The 1987 and 2001 agreements provide that if the State instructs NTR to charge a toll lower than the maximum toll, then the State would be required to compensate the operator. These provisions effectively guaranteed that the real value of the tolls could be maintained independent of the volume of traffic. Currently, NTR charges less than the maximum rate for large commercial vehicles. Maximum tolls and toll charges in 2005 are set out in Table 33.

Table 33 Toll Charges – West Link Bridge 2005

Vehicle type	Maximum Toll ^a €	Actual Toll ^a €
Motorcycles	0.80	0.80
Motor Cars	1.80	1.80
Buses and Vans	3.10	3.10
Commercial vehicles, 2 axle	6.10	4.50
Commercial vehicles, 3 axle	7.60	5.20
Commercial vehicles, 4 axle	9.20	5.60

^a Inclusive of VAT

²⁴ Annual increases are rounded to the nearest 10c. Value Added Tax is applicable to tolls since 2001. VAT at the prevailing rate is added to tolls prior to rounding.

Impact of Traffic Volumes

Traffic volumes have been considerably greater than anticipated in the estimates that informed the setting of the toll charges. The original estimates had been based on an assumption that only the Western Parkway section of the M50 would be open to traffic and did not take account of the likely impact on traffic volumes when the additional sections would be completed.

From 1990 to 1996, the volume of traffic at the toll road was below the original estimates. In 1991, the first full year of operation, traffic volumes were around 54% of the estimates. Volumes have risen each year and by 1996 were around 91% of the estimates. In 1997, the year following the opening of the section of the M50 from the N3 to the M1, volumes rose sharply to almost 45,600 per day which was around 65% in excess of the original forecast. In 2004, the traffic volume was over 2.5 times the original estimate.

Traffic volumes at the West-Link Bridge, and the original estimates, are set out in Table 34.

Table 34 Average daily traffic volumes 1990 to 2004

Year	Original Proposals	Actual
1990	20,300	6,800
1991	21,300	11,500
1992	22,300	13,800
1993	23,500	15,200
1994	24,600	16,700
1995	25,900	20,000
1996	27,000	24,700
1997	27,700	45,600
1998	28,400	57,500
1999	29,200	63,900
2000	29,900	67,300
2001	30,600	71,100
2002	31,300	74,700
2003	32,000	78,100
2004	32,800	84,800

Whereas toll charges rise broadly in line with inflation, there is no mechanism in the agreements to provide for a reduction in toll charges if volumes exceed the estimates which informed the setting of the base tolls. The increase in the volumes above the original estimates resulted in additional costs to users of €350m in 2004 values giving a higher return to the operator as well as increasing the amount of revenue accruing to the State.

Second Bridge Negotiations

A detailed proposal for the construction of the second bridge submitted by NTR in September 1999, following negotiations between NTR and the NRA, had the following main financial features

- The costs of providing the second bridge would be met through an increase in the toll charge for cars²⁵. The maximum charge for cars under the 1987 Agreement would increase by around 17% from January 2005 with interim increases in the period 2000 - 2004. There was also a proposal that a further 10c be added to the toll, to be paid in full to the NRA. This provision has not been invoked by the State.
- While the existing licence fee structure would continue to apply, a fourth band was to be added in order to reduce the possibility that NTR would make windfall profits in the event that traffic volumes would exceed those projected. The fourth band was to be set at a level that was 6.5% above compromise traffic forecasts agreed between the NRA and NTR.
- Municipal rates were being charged, at that time, on what is known as the “contractors” basis but there were indications that they would be levied in the future on the “profits” basis. Under the profits basis the rateable valuation of the toll road would be far greater. It was proposed that if rates continued to be assessed on the lower contractors basis, the difference between rates assessed on the two bases would be paid by NTR to the NRA, using an agreed formula.

In addition, it was agreed that the toll road must be maintained in a manner that guarantees it will have a residual life of 15 years when it is handed back to the State in 2020.

In December 1999, the Board of the NRA approved the proposal. In doing so it took account of an independent assessment which it had commissioned. The assessment, delivered in November 1999, had noted that the NRA’s negotiating position was constrained by two factors

- the original agreement was not open for negotiation and
- the NRA was not in a position to build the second bridge with either public funds or to procure a competing private sector party to do so as NTR had the sole right to toll that section of the M50.

VAT was imposed on toll charges prior to an agreement being signed and the Board approved an amended proposal taking account of VAT in June 2001.

NTR bore the cost of construction (€27m in 2004 values) and will incur additional running costs of €7m in 2004 values. However, as the extra projected toll revenue of €74m arising from the agreement attracts licence fee at 50%, the bulk of the net toll revenue after taking account of those costs will accrue to the State (€37m). Although it could be argued that the users were already paying aggregate tolls at a level sufficient to remunerate the investment by virtue of volume increases in excess of those originally envisaged, it could also be argued that because there was no mechanism in the 1987 agreement to cover the second bridge financing, the achievement of an overall reduction in the ratio which the cost to users bears to the total costs incurred by NTR, when taken together with a net marginal return of only €3m to NTR, might be viewed as achieving a reasonable negotiating result.

After account is taken of the financial adjustments arising out of the second bridge negotiation, the cost to users by way of toll revenue is around 4.8 times the whole-life costs of the toll road including the two bridges, or around €869m more than the cost when expressed in 2004 values. Table 35 sets out the position following these negotiations.

²⁵ The base level for all other tolls remained at the levels specified in the original agreement.

Table 35 Revenues and Whole-Life Costs including Second Bridge - 2004

	Outturn and Latest Estimates ^a 1990 - 2020		
	Toll Revenues €m	Whole-Life Costs €m	Net Toll Revenue €m
Gross Cash Flows	1,454	170	1,284
Cash Flows at 2004 Values	1,100	231	869

Sources: Gross Cash Flows - Department records, NTR published accounts.

^a Cash Flows combine actual outturn from 1990 to 2004 and projected cash flows for the period from 2005 to 2020. VAT is excluded.

Analysis of Gross Cash Flows by Office of Comptroller and Auditor General

Adjustment of Car Tolls

The figures in Table 35 take account of the impact of adjustments to the toll on cars agreed in the negotiations about the construction of the second bridge in 1999. These adjustments were as follows

- a revised interim toll level for cars of €1.20 applying for the period 2002 to 2004
- calculation of the toll levels from January 2005 by reference to a base level of €1.20 at January 2000 indexed for inflation thereafter.

In addition, the imposition of VAT with effect from September 2001 led to the introduction of certain transitional measures. The charge to the user was increased to €1.30 between September 2001 and December 2003. Because NTR had to remit VAT on the revised toll charge its net toll revenue fell below the previously agreed level of €1.20 for 2002 and 2003. The State compensated NTR in order to maintain the company's VAT exclusive toll revenue at the agreed level.

In addition, it was agreed that the increased toll charge arising from VAT would lead to a certain volume of car users diverting to alternative routes. The proportion which would divert was agreed at around 4%. In order to compensate NTR for the anticipated fall in demand it was agreed that the State would pay additional compensation in 2003. The total compensation paid by the State was €6.4m of which around €0.5m was attributable to compensation in respect of the diversionary effect of the increased tolls.

The transitional arrangements also provided that in 2004 the car toll would further increase to €1.50 giving a toll charge of €1.24 exclusive of VAT. This increase of 4c per car in excess of the charge agreed in 1999 prior to the imposition of VAT resulted in users paying an additional €1m in toll charges in 2004.

Licence Fee Underpayment

The agreements provide that the amount of GTR payable to the State (licence fee) may be audited by the auditor of West-Link Toll Bridge Ltd or by any suitable person as may be agreed by the NRA and West-Link. The agreements also provide that the NRA may request copies of and access to all relevant documentation and records on which the calculation of the licence fee and any deduction therefrom is based. In the event of any disagreement, the matter can be decided by arbitration.

Under this arrangement, the auditor of West-Link Toll Bridge Ltd annually confirms

- the amount of the licence fee
- the turnover upon which that licence fee is based
- the overall traffic volume for the year
- the accuracy of the computation of the licence fee and
- that the computation has been performed in accordance with the Agreement.

Notwithstanding this, my audit established that the amounts paid to the State for the years 2002 and 2003 were incorrectly calculated. Under the 2001 Agreement the compensation paid to NTR should have been treated as an element of GTR because GTR is defined in that Agreement as tolls collected or receivable together with the licence fee credit. This should have resulted in just over €1.8 million extra being paid to the State by way of licence fees. In addition, rounding of the compensation payment per car to the nearest cent by NTR resulted in a further underpayment of €171,000. Details are set out in Table 36.

Table 36 Licence Fee Underpayment 2002 and 2003

	Comptroller and Auditor General Calculation		NTR Calculation		Underpayment €
	€	€	€	€	
Toll Proceeds 2002 and 2003	76,225,477		76,225,477		
Licence Fee Credit	6,260,078				
GTR		82,485,555		76,225,477	
Licence Fee	23,873,880		22,060,335		
Licence Fee Credit	(6,260,078)		(6,431,161)		
Licence Fee payable		17,613,802		15,629,174	
Underpayment					1,984,628

I enquired of the Accounting Officer

- the exact circumstances that gave rise to the non-detection of the underpayment
- what measures have been taken or are proposed to recover it and to monitor and validate future remittances.

In regard to the non-detection of the underpayment, the Accounting Officer informed me that this arose because the checking procedures in the Department had not been adapted to take account of the changed definition of GTR included in the 2001 Supplemental Agreement. This agreement provided that a licence fee credit due to NTR in respect of 2002 and 2003 would be included as part of the GTR for the calculation of the licence fee payable to the State. This was not done by NTR and the error was not identified by NTR's auditors, the NRA or the Department.

In regard to the recovery of the underpayment of the licence fee in respect of 2002 and 2003, she informed me that the Department had taken the matter up with NTR. NTR have accepted that an underpayment has occurred and have undertaken to immediately recoup €2m. In order to assist in confirming the precise amount of the underpayment and to deal with other queries relating to the calculation of the fee, NTR have been asked to provide details and explanations relating to the calculation

of GTR and the licence fees payable thereon back to 1997. When this work has been completed, the provisions in the agreement relating to interest on late payments will be invoked and repayment of the amount underpaid will be secured in full.

In regard to the arrangements for the monitoring and validation of future remittances, the Accounting Officer stated that the provision of a certificate from NTR's auditors confirming the accuracy of the payment is an important part of the control system for the validation of the licence fee. In addition, procedures are in place in the Department for checking the remittances. She assured me that, since the Department of Transport was established, the Department has continually moved to strengthen and improve its financial control systems. However, in light of the seriousness of the error that has arisen in this instance, she has instructed that arrangements for validating the correctness and accuracy of the licence fee payment from NTR be reviewed as a matter of urgency. Decisions on measures to strengthen the Department's arrangements for monitoring and validating future remittances will be taken in light of the outcome of the review which is already underway.

Return for the Private Operator

At the time of the Government decision in 1984 it was estimated, in the proposal by the private operator, that the after tax rate of return on the project would be around 18%.

By 1999, prior to the agreement to construct the second bridge the projected after tax rate of return to NTR for its investment was around 25%²⁶, based on the outturn to that date and the forecasts which informed the negotiations for the second bridge. Following the construction of the second bridge and taking into account the additional investment by NTR as well as the outturn to 2004 and the revised forecasts, the projected after tax return has fallen by around 1% to 24%.

NTR's Distributable Income

Changed tax structures over the period 1987 – 2004 impact on the ultimate distributable income of NTR. In order to examine the effect of these changes, the distributable income of NTR has been calculated under two separate scenarios for the now estimated traffic volumes – firstly, using the taxation structures ruling in 1987 (original scenario) and secondly, using the rates which applied up to 2004 or are projected thereafter (current scenario).

On this basis, the same gross revenue is projected to result in an increase of €141m, in 2004 values, in NTR's distributable income as set out in Table 37.

Table 37 NTR Distributable Income from the West-Link Project (2004 values)

	Current Scenario			Original Scenario		
	€ m	€ m	Share of GTR	€ m	€ m	Share of GTR
Gross Toll Revenue ^a		1,100			1,100	
Costs						
Capital Costs	(131)			(131)		
Operating Costs	<u>(100)</u>	(231)	21.0%	<u>(100)</u>	(231)	21.0%
Direct payments to Government						

²⁶ Internal rate of return for NTR.

Licence Fee	(285)			(285)		
Corporation Tax	(80)			(291)		
Municipal Rates	<u>(70)</u>	<u>(435)</u>	39.5%	=	<u>(576)</u>	52.4%
Revenue to NTR		434	39.5%		293	26.6%

^a VAT is excluded.

Change in Return to Government

The return to government arising out of the bridge project is not equivalent to the direct payments made to it by NTR. This is because the income distributed by NTR is taxable in the hands of its shareholders and is, therefore, an additional source of revenue.

In order to examine the likely effect of the revenue attributable to government which was projected at the inception of the agreement compared with what is currently estimated, I took account of the following factors

- the changes in municipal rates, corporation tax rates, tax credits on distributions and income tax rates over the period 1987 to 2004
- the projected distribution pattern of the NTR Group as indicated in their financial statements for the years 2001 - 2004.

Assuming total efficiency in tax collection, the estimated overall return to government has altered between 1987 and 2004 as projected in Table 38. The assumption has been made that all previously non-distributed profits will be distributed by way of dividends when the tolling period expires in 2020. In addition, it has been assumed that all shareholders in NTR are liable for income tax at the top rate and that the dividend income is not sheltered from income tax. The income tax revenue shown is the maximum that can accrue to the State under both scenarios.

Table 38 Revenue accruing to Government — West-Link project 1990 to 2020 (2004 values)

	Current scenario - projected share ^a		Original scenario - projected share ^a	
	€m	Share of GTR	€m	Share of GTR
Licence Fee	285		285	
Corporation Tax ^b	80		243	
Municipal Rates	70		-	
Income Tax ^b	<u>136</u>		<u>125</u>	
	571	51.9%	653	59.4%

^a Excluding VAT.

^b Corporation Tax liabilities of NTR and Income Tax liabilities of shareholders have been adjusted for the effect of tax credits on dividends. These credits were abolished in 1999. Under the original scenario, the tax credits apply for the full period.

However, if the company were to be wound up and remaining assets distributed by way of a capital distribution, the tax accruing to the State would be around €22m less in the current scenario and around €4m less in the original scenario than that shown in the table.

Ultimately, after taking account of all tax revenues, the share of GTR accruing to government has fallen by around €82m or 7.5% of GTR. The difference between the share of the revenue expected to accrue to the State and the share that would have accrued under the revenue-sharing understanding at the time of the original agreement has arisen principally due to the fall in the rate of Corporation Tax²⁷. On the other hand, it is projected that revenue of €70m will arise from the imposition of municipal rates with effect from 1992.

There are two ways of viewing this outcome. On the one hand, it is arguable that changes in Corporation Tax rates and other charges imposed by public bodies are part of the normal business risks associated with any project, and that any additional profit, arising from the fall in corporate tax rates, which has accrued to NTR is no more than the benefit accruing to any other business.

On the other hand, it might be considered that commercial agreements involving the State as a party are struck so as to achieve a particular distribution of revenue. Taxation is part of the intended distribution when the State is involved. There may be merit in future partnership arrangements, in putting a mechanism in place to maintain a reasonable distribution in the event of major tax fluctuations in either direction.

Non-reclaimable VAT

VAT has been applied to toll charges since September 2001. The State has, therefore, increased its take at the expense of those road users who cannot reclaim VAT. Analysis carried out by consultants for the NRA indicated that around €99m in 2004 values, in non-reclaimable VAT would be paid by users of the toll bridge and would accrue to the State.

Impact of Upgrading on Revenue Sharing

The NRA currently proposes to upgrade the M50 facilities by widening the carriageways and altering interchange layouts. The traffic volumes accommodated by the M50 are projected to increase as a result of this work. Under the 2001 agreement

- the original sharing arrangement will hold until the traffic projections agreed in 2001 are exceeded by around 6.5%
- thereafter, the State would receive 80% of the GTR for traffic volumes in excess of this level.

Table 39 compares the average daily traffic volumes projected in the 2001 supplemental agreement with the fourth licence fee band above which State will receive 80% of the GTR.

Table 39 Licence Fee – Fourth Band

Year	Current projection ^a	Threshold for fourth band
2005	86,463	92,000
2006	89,872	96,000
2007	93,250	99,000
2008	96,298	103,000
2009	99,183	106,000
2010	102,056	109,000
2011	103,918	111,000
2012	105,889	113,000

²⁷ The nominal rate of Corporation Tax in 1987 was 50%. After taking account of tax credits the effective rate was 38.7%, in cases where a company distributes 100% of profits. The rate stood at 12.5% in 2004.

2013	107,641	115,000
2014	109,545	117,000
2015	111,259	118,000
2016	112,888	120,000
2017	114,423	122,000
2018	115,857	123,000
2019	117,310	125,000
2020	118,518	126,000

^a These are the volumes projected in the 2001 Supplemental Agreement.

The proposed upgrading investment will have the effect of further increasing the revenue accruing to NTR as it is likely that the traffic volumes will then exceed the current projections. While NTR will receive 50% of GTR up to the commencement of the fourth band, additional revenue accruing to NTR will be restricted to 20% thereafter.

Options Available to the State

Under the existing arrangements the State may abolish or reduce tolls or limit any increase in them. However, this would trigger compensation entitlements under the agreement.

Broadly speaking, the provisions are

- If the tolls are reduced, or not increased in line with the indexation mechanism, the State must compensate NTR for the shortfall in toll revenue. The amount of compensation payable over the duration of the agreement is the difference between the reduced toll revenue and the toll revenue in the year before any such adjustment, indexed in accordance with the agreement.
- If tolls are abolished, the compensation is the total amount of toll revenue paid, less the licence fee, in the 12 months immediately preceding the date of the abolition of the tolls. This compensation would be payable in each year for the duration of the agreement and would increase in accordance with the indexation provisions.

The Department has informed me that the NRA is currently in negotiation with NTR on a range of issues affecting the West Link agreement, including a move to barrier free tolling and the funding of the proposed upgrading works on the West Link section of the M50.

Review Methodology and Sensitivity Testing

Review Methodology

Except as otherwise stated, the analysis in this review has been conducted using outturns or projected cash flow data which formed the basis of negotiations. These have been expressed in 2004 present values (2004 values) derived using a rate of 5% (excluding inflation) to adjust the value of pre-2004 estimates or outturns to 2004 levels and to discount post-2004 cash flow projections in order to bring them back to 2004 values.

Impact of Discount Rates

A private operator may use a different discount rate than the State. In order to test the variation in the ratio of revenue to costs at different discount rates, the cash flows were also discounted at 3% and 7%.

Impact on ratio of revenues to whole life costs

In all cases, the ratio of revenue to costs had risen by 1999 from the time of the original contract and had fallen somewhat from the 1999 level following the construction of the second bridge. The ratios of revenue to costs at the various discount rates are set out in Table 40.

Table 40 Ratio of Revenues to Whole-Life Costs

	3% discount rate	5% discount rate	7% discount rate
At time of contract, 1987	4.4 : 1	3.7 : 1	3.2 : 1
Prior to agreement to construct second bridge, 1999	6.3 : 1	5.2 : 1	4.3 : 1
Following construction of second bridge	5.7 : 1	4.8 : 1	4.0 : 1

The ratio of revenue to costs is greater at the lower discount rates because a greater proportion of costs were incurred at the earlier stages of the project while a greater part of the revenues will arise in the later years. The effect of using a higher discount rate is to place a lower value on the later cash flows.

Impact on revenue sharing

There was some difference in the proportion of GTR accruing to government after taking account of all tax revenues and assuming that the State would receive the maximum income tax revenue. The share of GTR expected to accrue to the government at the different discount rates is set out in Table 41.

Table 41 Proportion of revenue accruing to Government 1990 to 2020

	3% discount rate	5% discount rate	7% discount rate
Current projected share	55.2%	51.9%	48.9%
Original projected share	62.5%	59.4%	56.3%