9 UPDATED ANALYSIS FOR AGENCY MODEL

9.1 Introduction

The OBC for public transport reform recommended the establishment of a single Departmental Agency with responsibility for public transport.

With this model, a range of functions currently carried out by DRD, DOE, NITHC and Translink would be reorganised into the new Agency, which could provide a more integrated approach to public transport and roads issues within DRD.

Table 9.1:
Proposed Agency Functions

Functions Transferred from DRD Core	Functions Transferred from NITHC/Translink	Functions Transferred from DOE	New Functions
Public transport planning	Specification of service level outcomes	Route licensing	Awarding and managing contracts
Concessionary fares	Fares policy		Monitoring operator performance against standards
Fuel Duty Rebate	Part of promotion and marketing of public transport		Specification of bus access arrangements
Door-2-Door and community transport	Specification of integrated ticketing requirements		Specification of customer information requirements
Statutory consultee for land use planning			Securing and management of developer contributions

Source: DRD Detailed Policy Proposals for Public Transport Reform

Our Terms of Reference for the OBC review required us to:

- Review and update the staffing and resource analysis for the Agency, taking account of any updated information available from the Department and Translink, and any new data that may be available from relevant comparator organisations elsewhere;
- Identify and quantify the transitional and implementation costs that will be involved in establishing the new agency in accordance with the timelines set out in the Programme Plan;
- Review and update the analysis provided in the original OBC of the potential monetary costs and benefits of the agency model;
- Review and update the analysis provided in the original OBC of the potential non-monetary costs and benefits of the agency model;
- Review and update the non-monetary risk profile for the agency option; and
- Review the Net Present Values and Sensitivities provided in the OBC to take account of the updated data available from Translink and confirm the estimated potential net annual monetary benefit under the proposed new arrangements.

9.2 Staffing and Resource Analysis

The analysis in the original OBC indicated that the Agency would require 117.3 Full-Time Equivalent (FTE) personnel and incur annual staff costs of around £3.4m.

Of the annual staff costs anticipated:

- £1.9m would be covered by the transfer of existing resources from DRD;
- £0.9m would relate to functions transferred to Government from NITHC/Translink; and
- £0.6m would represent resources for new functions performed by the Agency (such as contract specification and performance monitoring).

The Department has recently developed a new estimate of the staffing resources required to deliver the functions of the Agency. Table 9.2 below presents DRD's new analysis alongside the corresponding figures from the original OBC:

Table 9.2:
DRD Revised Estimate of Agency Staff Numbers and Costs

	ORIGINAL OBC ESTIMATE		DRD REVISED ESTIMATE	
Function	**Number of Staff**	**Estimated Total Cost (2008 Prices)**	**Number of Staff**	**Estimated Total Cost (2010 Prices)**
	FTE	**£'000**	**FTE**	**£'000**
Strategic planning	33	919	17	660
Network design and performance	6	193	In Procurement	
Fares and ticketing	5.3	200	In Monitoring	
Monitoring	9	262	3	204
Promotion and marketing	25	442	4	283
Procurement/contract management	20	656	33	1,237
Capital funding	7	226	7	251
Licensing	1	29	In Network Design	
Statutory consultee role	1	25	In Strategic Planning	
Senior Management Team	10	503	6	431
Modernisation projects	-	-	1	78
Financial management	-	-	9	298
TOTAL	**117.3**	**3,455**	**80**	**3,442**

Source: DRD

DRD now anticipates the Agency will be able to operate with fewer staff than envisaged at the time of the original OBC (around two thirds of the previous estimate).

The Department has used the information from the original analysis as a basis for developing a revised organisational structure for the Agency model. This work has taken place against a background of increased financial constraints being applied across all Government Departments, and with DRD currently reorganising its own business model in order to identify and produce efficiencies in how its services are delivered.

The revised structure has evolved by regrouping some of the functional areas identified in the original OBC and by offsetting some of the cost of the staffing resource in areas such as Marketing against the cost of recruiting staff into specialist priority areas such as Transport Planning.

In other areas such as Performance Monitoring, the anticipated staff resource has also been reduced as the result of further policy development indicating that fewer competitive contracts will be awarded than was originally envisaged.

The overall net effect is that the staffing resource has reduced from the original OBC figure of 117.5 to the current estimate by the Department of approximately 80. The complement of 80 is made up of 53 staff to transfer from existing DRD posts with the remaining 27 identified as new posts.

It should also be noted that a recent review of the Regional Planning and Transportation Directorate Group within DRD, which is currently out for staff consultation, has identified the potential for a further reduction in the number of existing DRD posts that will transfer to the Agency.

We have treated the Department's revised estimate of the staff numbers required to deliver the Agency's functions as the base case for our analysis, and included the original OBC estimate as part of our sensitivity analysis within the review.

As part of our review work, we have considered the latest staffing and resource requirements identified by DRD for each of the Agency's core functions (as well as certain 'organising authority' functions Translink will continue to perform after the establishment of the Agency), and benchmarked these for reasonableness against the staff numbers and costs reported by a number of comparable Passenger Transport Executives (PTEs) in Great Britain, based on a survey and review of unpublished information.

The PTEs in question provided us with this confidential and commercially sensitive information on condition of anonymity, and we have therefore not identified individual organisations by name in the report.

Within this benchmarking exercise, we have not included any costs incurred by PTEs in operating and maintaining passenger facilities and bus stops, as we understand the costs of running these facilities are largely covered by fees which PTEs charge to operators.

Tables 9.3 and 9.4 below presents the results of our benchmarking analysis for the Agency:

Table 9.3:
Benchmarking of Staff Costs for Agency and Translink Authority Functions

					PTE 1	PTE 2	PTE 3	PTE 4
Function	**Agency Costs**	**Translink Costs**	**Estimated Total Cost**		**Estimated Cost**	**Estimated Cost**	**Estimated Cost**	**Estimated Cost**
	£'000	**£'000**	**£'000**		**£'000**	**£'000**	**£'000**	**£'000**
Strategic planning	660	401	**1,061**		786	733	934	983
Network design, procurement and contract management	1,237	67	**1,304**		919	1,469	1,285	589
Fares, ticketing and monitoring	204	116	**320**		262	1,581	2,389	1,132
Promotion and marketing	283	1,023	**1,306**		948	1,818	582	927
Financial management	298	-	**298**		Spread across functions above			
SUBTOTAL FOR DIRECTLY COMPARABLE FUNCTIONS	2,682	1,607	**4,289**		**2,915**	**5,601**	**5,190**	**3,627**
Capital funding	251	-	251					
Senior Management Team	431	-	431					
Modernisation projects	78	-	78					
Operation and maintenance of facilities	-	1,075	1,075					
TOTAL FOR ALL FUNCTIONS	3,442	2,682	**6,124**					

Source: DRD, TAS Partnership Ltd and FGS McClure Watters

Our analysis indicates there is a degree of variation among the staff costs which comparable organisations in England and Scotland incur in delivering the functions considered. However, the anticipated staff costs within the Agency and Translink for carrying out these activities are in line with the range identified for the comparator PTEs, in overall terms and for all business areas considered (except fares, ticketing and monitoring, which are discussed in further detail below).

Table 9.4:
Benchmarking of Staff Numbers for Agency & Translink Authority Functions

					PTE 1	PTE 2	PTE 3	PTE 4
Function	**Agency Staff**	**Translink Staff**	**Total Staff**		**Number of Staff**	**Number of Staff**	**Number of Staff**	**Number of Staff**
	FTE	**FTE**	**FTE**		**FTE**	**FTE**	**FTE**	**FTE**
Strategic planning	17	13.4	**30.4**		32	24	34	32
Network design, procurement and contract management	33	2.2	**35.2**		41.5	58	51	24
Fares, ticketing and monitoring	3	3.9	**6.9**		12	74	123	62
Promotion and marketing	4	34.1	**38.1**		31	95	25	38
Financial management	9	-	**9**		Spread across functions above			
SUBTOTAL FOR DIRECTLY COMPARABLE FUNCTIONS	66	53.6	**119.6**		**116.5**	**251**	**233**	**156**
Capital funding	7	-	7					
Senior Management Team	6	-	6					
Modernisation projects	1	-	1					
Operation and maintenance of facilities	-	35.8	35.8					
TOTAL FOR ALL FUNCTIONS	80	89.4	169.4					

NB: Average staff cost of £30,000 assumed for Translink employees

Source: DRD, TAS Partnership Ltd and FGS McClure Watters

Again, our analysis suggests there is variability in the staff numbers which comparable organisations in England and Scotland deploy in delivering the range of functions considered. The anticipated staff numbers within the Agency and Translink for carrying out these activities are lower than the majority of comparator PTEs in overall terms, but similar for all business areas considered except fares, ticketing and monitoring.

Fares, Ticketing and Monitoring

Our work suggests that the Agency's proposed staff levels and costs in these areas are lower than for the PTEs considered.

This reflects a number of distinctive factors relating to PTE areas, including:

- An increased administrative burden arising from deregulated markets and the requirements of competition legislation;
- The complexity of concessionary fare schemes, reimbursement mechanisms and data collection requirements; and
- As the level of monitoring required reflects the relative scales of bus operations in particular locations, and since PTE areas have a higher level of bus usage than Northern Ireland, this will potentially lead to PTEs having a larger staff complement for monitoring than the Agency would require.

A number of the Agency's proposed functional areas are not directly comparable to the activities carried out by PTEs in Great Britain (e.g. capital planning, licensing and acting as a statutory consultee).

The size of the Agency's proposed Senior Management Team is comparable with the PTEs considered in terms of headcount, but information regarding Senior Management Team salaries was not made available by the PTEs.

In overall terms, our work suggests the planned staff cost relating to Agency functions is similar to comparable organisations in England and Scotland, but the anticipated staff numbers are lower. This may reflect a difference in the mix of staff skills and seniority DRD considers necessary in the Agency, relative to PTEs in Great Britain.

Given the results of our benchmarking work and its potential implications for the resource levels required by the Agency, we have examined a number of staffing scenarios within our sensitivity analysis on monetary costs and benefits.

9.3 Monetary Costs and Benefits

9.3.1 Framework for Analysis

Our revised assessment of the monetary costs and benefits of the Agency model has included both organisational and operational costs and benefits.

9.3.2 Organisational Costs and Benefits

As described earlier in the report, we have examined in detail the skills and resources required to discharge the functions of the Agency, and have subsequently developed estimates for the end-state annual monetary cost of these organisational functions.

We have also reviewed the potential end-state monetary costs and benefits which could be derived from improvements in the financial and operational performance of Metro, Ulsterbus and NIR.

9.3.3 Incremental Approach to Costing

Consistent with the original OBC, we have adopted an incremental rather than total costing approach for our analysis in this section, identifying where our work has indicated that cost savings could be achieved or additional expenditure could occur, and the net effect of the potential costs and benefits identified.

In the report, we have examined costs and benefits incremental to the current status quo position, including:

- The costs which the Agency is likely to incur in delivering new functions; and
- The potential operational cost savings identified for the Translink group.

Below, we set out our analysis of potential monetary costs and benefits for the Agency model.

9.3.4 Current Staff Cost of Delivering Agency Functions

Functions that would be the responsibility of the new Agency are currently spread across Translink, NITHC, DOE and DRD. In addition, some of the staffing costs within Translink's non-operating divisions would fall under the operator tier in the new three-level structure (e.g. individual companies' finance and corporate services functions).

Table 9.5 below presents our estimate of current system-wide expenditure on delivering functions that would be the responsibility of the Agency in future:

Table 9.5:
Estimated Current Staff Cost of Agency Functions, March 2010

Organisation	£'000	£'000
Staff costs within DRD		
Public Transport Performance Division	864	
Ports and Public Transport Division	1,019	
Rapid Transit Division	460	
Staff cost for current Agency functions		**2,343**
Estimated staff cost of new functions (see Table 9.6 below)		**1,099**
Current staff cost for Agency functions		**3,442**

Source: DRD

The table above suggests the current staff cost of delivering existing Agency functions is in the region of £2.3m per annum, with a further £1.0m forecast in relation to new functions, yielding a total cost of £3.4m.

The impact of additional administrative costs is included in Table 9.6.

9.3.5 Organisational Costs and Benefits

In Table 9.6 below, we review DRD's staffing estimate for each of the Agency's functions and identify where the resource currently resides for existing functions, and where additional resources are required:

Table 9.6:
Functions and Estimated Staffing Resources for Public Transport Agency

Business Area	Staff Resource to Transfer from DRD	Additional Staff Resource Requirement	Total Cost £'000
Public Transport Planning and Operational Policies	1 x G7 2 x DP 3 x SO 1 x EO2 1 x AO	1 x DP 2 x EO1 1 x EO2 **Transport Planners:** 1 x SPTO 4 x HPTO	660
Specification and Procurement of Public Transport Services/ Award of Contract	1 x G7 2 x DP 3 x SO 3 x EO1 1 x EO2 3 x AO	2 x DP 1 x SO 7 x EO1 4 x EO2	975
Fares Regulation and Performance Reporting including Contract	1 x G7 1 x DP	1 x DP	204
Marketing of Public Transport, Governance and Corporate Services	1 x DP	1 x DP 1 x EO1 1 x EO2	283
Financial Management	1 x G7 1 x DP 2 x SO 1 x EO2 3 x AO 1 x AA	-	298

Business Area	Staff Resource to Transfer from DRD	Additional Staff Resource Requirement	Total Cost
			£'000
Capital Budget Planning	1 x G7 1 x DP 2 x SO 1 x EO2 2 x AO	-	251
Rapid Transit	1 x G7 2 x DP 1 x SPTO 1 x SO 1 x AO	-	261
Modernisation Projects	1 x G6	-	78
Agency Management Board	3 x G5 3 x PS	-	431
TOTAL STAFF	**53**	**27**	**80**
TOTAL STAFF COST			**3,442**
Other miscellaneous costs			150
TOTAL COST			**3,592**

Source: DRD

The analysis above suggests that, of the 80 staff proposed for the Agency, 53 would be personnel transferred from DRD, and 27 would be additional personnel, in areas such as the development of local public transport plans, service specification and performance/contract management.

A recent review of the Regional Planning and Transportation Directorate Group within DRD, which is currently out for staff consultation, has identified the potential for a further reduction in the number of existing DRD posts which will transfer to the Agency.

DRD has not identified specific posts within Translink which could transfer to the Agency. The Department has also indicated that any savings from part posts transferring from Translink to the Agency could subsequently be used to offset additional activities which Translink will have to deliver in the future (e.g. augmenting the Contact Centre to handle enquiries for all operators).

The analysis above excludes the Agency Chief Executive post, pending confirmation of the staff grade considered to be appropriate for this role.

As noted above, the projected annual running cost for the Agency is £3,592,000, covering both existing and new functions. In Section 9.3.5, the cost of the Agency's existing functions was identified as £2,343,000. For the purposes of our analysis, we have therefore assumed

the incremental organisational cost involved for the Agency will be £1,249,000, representing the difference between the cost of current and future functions.

This will represent the additional annual Public Expenditure burden associated with the establishment of the Agency.

In the future, even if an Agency were not to be established, it is expected that some of these incremental costs would also arise in ensuring compliance with EU legislation and delivering new functions envisaged above. However, it is not certain whether other organisational models would deliver the same level of monetary and non-monetary benefits as identified for the Agency. Consideration of other organisational models was outside the scope of this review.

9.3.6 Operational Costs and Benefits

We have used the results of our operator-level comparisons as the basis for identifying the future indicative monetary benefits that could be generated in the future, and have taken a pragmatic approach to estimating the level of efficiency savings that could be generated within each company, to ensure that the figures produced are realistic and achievable. For example:

- If a company performs as the worst of its benchmark group on a certain performance metric, it may not be realistic to assume that it would be able to improve to the point of becoming the best performer in the group in the foreseeable future. Therefore, a realistic but challenging target might be to reach the average performance level for the group, and a more intermediate target could be to perform better than the lowest quarter of the members in the group; or

- For a company performing at an average level within its peer group, a challenging target may be to become the best in the group, while a more intermediate target could be to outperform three quarters of the group members.

As discussed in Chapters 4 to 8, we have examined a range of key financial and staffing metrics for the three companies, many of which are interrelated. We have examined these metrics individually to estimate the impact on cost per passenger if the companies were able to improve their performance by varying degrees. Each of these calculations yielded different estimates of the potential cost savings that could be generated.

For our base case, we have formed a single estimate of potential net monetary benefits by considering the range of potential savings produced by our operator-level analysis.

For the Agency model, we have assumed that the operational savings generated would be consistent with the base case improvements in performance within our operator comparisons in Sections 4 to 8.

It is possible that the cost-effectiveness and cost-efficiency of Translink's lesser-used routes could be improved by greater integration with transport services delivered by Health and

Social Care Trusts and Education and Library Boards. However, detailed consideration of this issue was outside the Terms of Reference for the review.

Table 9.7 below sets out the net financial benefits which we have estimated would arise at operator level under the Agency model.

Table 9.7:
Potential Operational Costs and Benefits

	Metro £'000	Ulsterbus £'000	NIR £'000	Total £'000
Potential savings identified from benchmarking	**3,900**	**8,900**	**1,000**	
Allowances for mitigation factors	(1,550)	(6,069)	(1,100)	
Potential savings after mitigation factors	**2,350**	**2,831**	**-**	
Efficiency (savings)/losses arising in 2009-10	(772)	(353)	(1,436)	
Planned cost savings by 2011-12	(67)	(778)	(105)	
POTENTIAL FUTURE EFFICIENCIES	**1,511**	**1,700**	**-**	**3,211**

Source: FGS McClure Watters

9.3.7 Summary of Costs and Benefits

Table 9.8 below summarises the estimated potential net annual monetary benefits associated with the Agency model, in terms of both organisational structure and operational performance:

Table 9.8:
Summary of Costs and Benefits – Agency Model

Annual net (cost)/benefit	Agency Model £'000
Organisational	(1,249)
Operational	3,211
Total	**1,962**

Source: FGS McClure Watters

As in the original OBC, we have assumed that it could take a period of up to five years in realising the end-state operational savings identified.

9.3.8 Transitional and Implementation Costs

We have assumed one-off organisational transition costs of £365,400 within our monetary analysis, based on the current annual staff cost of the DRD Public Transport Reform team (comprising eight staff).

Our analysis excludes any transition costs which may arise within NITHC/Translink.

Section 9.6 of the report contains further analysis of Net Present Values and key sensitivities for these figures.

9.4 Non-Monetary Costs and Benefits

Not all costs and benefits can be measured in monetary terms, as no market value exists for them. In this section we consider the non-monetary costs and benefits associated with the Agency model.

A 'weighting and scoring' approach has been adopted to illustrate how the model performs against identified non-monetary criteria.

9.4.1 Criteria and Weightings

A qualitative assessment of the Agency model has been carried out through a weighted scoring method using the criteria and weightings identified in Table 9.9 below.

Table 9.9:
Non-Monetary/Qualitative Assessment Criteria and Weightings

Criterion	Weighting
Improving service patronage, accessibility and sustainability	20
Maximising integration of public transport system	20
Setting clear boundaries for policy, ownership, regulation, service specification and operational delivery	25
Establishing effective levers to incentivise and influence performance and outcomes, focusing more closely on the needs of service users	25
Facilitating controlled private-sector involvement in the market where this is appropriate	10
Total	**100**

We have developed weightings for each criterion dependent on our assessment of how important each criterion is to the success of the programme and the impact it will have on the programme's likely beneficiaries. The scores allocated to the Agency model, together with supporting rationale, are identified in Table 9.10 overleaf.

9.4.2 Raw Scores by Criterion

Scores have been allocated according to the level of impact the Agency model will have on the chosen criteria, as articulated below:

Table 9.10:
Rationale for Scoring by Criterion

Criterion	Agency Model
Improving service patronage, accessibility and sustainability	Moving from the existing two-tier structure to a new three-tier framework would create opportunities to make further improvements in service patronage, accessibility and sustainability. The Agency model has therefore been allotted a score of **8/10**.
Maximising integration of public transport system	The Agency model would create opportunities to maintain and build on existing levels of integration within the local public transport system, through areas such as integrated ticketing and provision of timetable and service information to consumers. The Agency would not have a potential conflict of interest as a statutory consultee for land use planning, and would remove any conflicts between NITHC's commercial pressures to compete and its role in integrating services. This option has therefore also been allotted a score of **8/10**.

Criterion	Agency Model
Setting clear boundaries for policy, ownership, regulation, service specification and operational delivery	The Agency model would set clear boundaries between functions for policy (Department level), regulation/monitoring/specification (Agency level) and delivery of services (operator level). The Agency model has therefore been allotted a score of **9/10**.
Establishing effective levers to incentivise and influence performance and outcomes, focusing more closely on the needs of service users	The Agency model would establish a more formal footing in areas such as contracting, with commissioning authorities being able to establish clearer service specifications, link these to defined service outcomes, and monitor performance against contract. Under the Agency model, the Department would have the opportunity to establish effective, system-wide contractual levers over the performance of all operators (Translink and others), through an independent middle tier, provided the contracting arrangements put in place were sufficiently robust. The Agency model will therefore maximise the opportunity to generate gains in value for money and efficiency, and has been allotted a score of **8/10**.
Facilitating controlled private-sector involvement in the market where this is appropriate	In our opinion, the independent middle tier represented under the Agency model would offer the best opportunity to introduce competition into the public transport market where this is considered necessary (provided there is sufficient appetite and capacity from the private sector to enter the market). An Agency that is independent of the operating companies would be better placed than NITHC to determine which areas should be subject to competition, taking account of policy and regulatory considerations. Existing private operators would also benefit from being more integrated into public transport arrangements and could be more willing to enter a marketplace regulated by a third party rather than the existing near-monopoly provider. The Agency model has therefore been allotted a score of **7/10**.

Key to Scoring:

- ***0-3:*** *Little positive impact*
- ***4-7:*** *Moderate positive impact*

- ***8-10:*** *Substantial positive impact*

9.4.3 Weighted Scores by Criterion

The weighted scores for the Agency model are set out in Table 9.11 below:

Table 9.11:
Non-Monetary Weighted Scores for Agency Model

Criterion	Weight	Raw Score	Weighted Score
Improving service patronage, accessibility and sustainability	20	8	16
Maximising integration of public transport system	20	8	16
Setting clear boundaries for policy, ownership, regulation, network design and operational delivery	25	9	22.5
Establishing effective levers to incentivise and influence performance and outcomes, focusing more closely on the needs of service users	25	8	20
Facilitating controlled private-sector involvement in the market where this is appropriate	10	7	7
Total Weighted Score	**100**		**81.5**

Source: FGS McClure Watters

9.5 Risk Assessment

9.5.1 Introduction

Since any appraisal involves making assumptions about various elements of the programme or project in question, a degree of risk and uncertainty is always involved.

This section considers the probability of occurrence and potential impact of areas of non-monetary risk. Risk mitigation strategies are also highlighted.

The treatment of any potential monetary risk and uncertainty is generally best dealt with using sensitivity analysis, which involves varying the value or number of key project inputs which are likely to be subject to the greatest degree of uncertainty. These issues are explored in greater detail in Section 9.6 below.

9.5.2 Non–Monetary Risks

The issue of programme risk has been assessed by:

- Identifying key programme risks;
- Profiling the identified risks in terms of their probability and likely impact; and
- Considering the measures necessary to mitigate the programme risks identified.

Key areas of non-monetary risk are presented in Table 9.12 below:

Table 9.12:
Non-Monetary Risk Assessment

Risk	Probability of Occurrence	Potential Impact	Mitigation Strategies
Skills risk – Planning: The Agency may not have access to a sufficient pool of skills and expertise within Northern Ireland in relation to public transport planning and specification.	High	Medium	In short term, recruit relevant expertise from comparable settings outside Northern Ireland to establish frameworks and best practice guidance for future. In medium term, develop own talent from within Agency staff. While Translink will currently have skills in relation to network planning and scheduling, we understand that it would be difficult to transfer a separate cohort of staff from Translink to the Agency, since these functions are carried out as part of depot and area managers' existing roles and responsibilities.
Skills risk – Contracting: The Agency may not have access to a sufficient pool of skills and expertise within Northern Ireland in relation to contract management and monitoring of public transport services.	Medium	High	In short term, recruit relevant expertise from comparable settings outside Northern Ireland to establish frameworks and best practice guidance for future. These advisers could also work alongside contract management specialists recruited from other areas of the public sector here. In medium term, develop own talent from within Agency staff

Risk	Probability of Occurrence	Potential Impact	Mitigation Strategies
Management risk: The Agency may face challenges in developing service contracts that are sufficiently detailed and robust to incentivise improved performance from operators.	High	High	As a first step, develop a pro forma service contract after engaging with councils and PTEs in Great Britain and elsewhere on how they structure their own contracts. Update pro forma contracts every three-to-five years to ensure they remain relevant and are fit for purpose.
Legal risk: The proposed new structures may create challenges in demonstrating compliance with relevant laws and regulations, specifically EU Regulation 1370/2007.	Low	High	Put in place appropriate contractual and funding mechanisms that will ensure compliance as highlighted.
Organisational risk: The practical implications of organisational change associated with establishing the Agency may be greater than anticipated.	Medium	Medium	Development of detailed, robust plans for implementation and delivery of new arrangements when policy direction is approved. Planning of an Agency structure could proceed in tandem with any legislative changes that would be required.

9.5.3 Optimism Bias

The Public Transport Reform programme does not contain a significant capital element and it is therefore not appropriate in these circumstances to take account of Optimism Bias for the purposes of the review.

9.6 Net Present Value and Sensitivity Analysis

This section of the review calculates Net Present Values (NPV) for the Agency model and examines the impact of changes to key assumptions.

9.6.1 NPV – Base Case

Section 9.3 above examines the estimated end-state monetary costs and benefits for the Agency model. For the purposes of our NPV analysis, we have assumed that:

- The new Agency model will incur its full additional incremental costs from its first year of existence; and
- Operational benefits will reach their end state in equal increments over a period of five years.

We have considered NPVs over a time horizon of 25 years (in line with the Northern Ireland Guide to Expenditure Appraisal and Evaluation), using a discount rate of 8% per annum.

Detailed NPV calculations are set out in Appendix 4 for the base case and sensitivities considered. Table 9.13 below summarises the NPV for the base case:

Table 9.13:
NPV Analysis – Base Case

Option	NPV £'000
Agency model – base case	15,057

Source: FGS McClure Watters

Our analysis above suggests that, under its base case, the Agency model would produce a positive financial benefit in NPV terms over the 25-year timeline considered.

9.6.2 Sensitivities Examined

To test the robustness of the above analysis, we have calculated NPVs under three sensitivities which reflect variations in key assumptions:

- **Sensitivity 1 - Timing:** Operational costs and benefits take longer to reach their end state than envisaged in the base case, arriving there in equal increments over a period of 10 years instead of five;
- **Sensitivity 2 – Amount:** Operational benefits produced within Translink are lower than forecast in the base case; and

- **Sensitivity 3 - Amount:** Running costs for the new Agency are higher than forecast in the base case.

Tables 9.14–9.16 present the results of the sensitivity analysis we have undertaken for the OBC review.

9.6.3 NPV – Sensitivity 1

Table 9.14:
NPV Analysis – Sensitivity 1

Sensitivity	NPV £'000
Sensitivity 1	9,529
Base case	15,057

Source: FGS McClure Watters

Under this scenario, after flexing the timing of operational costs and benefits, the Agency model still emerges with a positive NPV.

9.6.4 NPV – Sensitivity 2

In this scenario, we have considered the implications in NPV terms of operational gains being lower than forecast in the base case, through a reduction in the potential efficiencies estimated through our benchmarking work.

Our benchmarking work in Sections 5 to 8 highlighted a range of potential efficiency gains for Metro, Ulsterbus and NIR, including a base case and an intermediate scenario reflecting lower efficiency gains than in the base case. These in turn flow through into the overall estimates of potential efficiency savings after mitigation factors. Adjusting the base case estimates to take account of this would have the following impact on operational benefits:

- **Metro (Section 5.2.6):** Reduction of £1.3m, to £0.2m;
- **Ulsterbus (Section 6.2.7):** Reduction of £3.5m, eliminating any potential future efficiencies; and
- **TOTAL**: Reduction of £4.8m to £0.2m.

As with the base case, we have not profiled any additional operational efficiency savings within NIR.

Table 9.15 presents the results of our NPV analysis under these assumptions:

Table 9.15:
NPV Analysis – Sensitivity 2

Sensitivity	NPV/(NPC) £'000
Sensitivity 2	(11,808)
Base case	15,057

Source: FGS McClure Watters

In Sensitivity 2, assuming a lower level of operational benefits than forecast in the base case, the Agency model would produce a Net Present Cost (NPC) in financial terms, but would still deliver a range of other non-monetary benefits as outlined in Section 9.4.

It should be noted that the annual operational benefits included in this sensitivity are set at an extremely prudent level (£0.2m), much lower than anticipated in the base case (£3.2m). It is therefore considered likely that operational benefits actually achieved by Translink will be considerably higher than assumed in this sensitivity.

9.6.5 NPV – Sensitivity 3

It is possible that the additional resources required within the Agency may be higher than the Department has forecast within the base case.

The Department currently anticipates the Agency will require 80 FTE staff and have annual running costs of £3.6m, an average of £44,900 per staff member.

As noted in Section 9.2, the previous OBC estimated that the Agency would require 117.3 FTE staff, compared to the Department's current estimate of 80, 37.3 staff fewer than originally forecast. Since the preparation of the original OBC, the Department has conducted more detailed analysis of the Agency's staffing and resource requirements and is confident that 80 FTE staff will be sufficient to deliver the functions planned for the Agency.

However, as part of our sensitivity analysis, we have considered the financial impact of doubling the incremental running costs associated with the Agency's new functions.

The table below sets out the impact on NPV of changing the base case assumption in this area:

Table 9.16:
NPV Analysis – Sensitivity 3

Sensitivity	NPV £'000
Sensitivity 3	1,724
Base case	15,057

Source: FGS McClure Watters

In Sensitivity 3, assuming that Agency running costs are double the level in the base case, the Agency model again produces a positive NPV, albeit much smaller than in the base case.

As the Department has conducted a significant level of detailed resource planning work on the level of staff required by the Agency in future, it is considered unlikely that actual incremental operational costs will be as high as those considered within this sensitivity.

9.6.6 Summary of NPV and Sensitivity Analysis

Table 9.17 below summarises our NPV analysis for the base case and three sensitivities considered:

Table 9.17:
NPV Analysis – Summary

Sensitivity	NPV £'000
Base case	15,057
Sensitivity 1	9,529
Sensitivity 2	(11,808)
Sensitivity 3	1,724

Source: FGS McClure Watters

9.7 Conclusion

Under the base case and two of the three sensitivities considered, the Agency model emerges with a positive NPV. This suggests that the Agency model is likely to generate net financial benefits even if costs are higher or benefits are lower than forecast.