

Appendix 3.7

TEE Tables for Sensitivity Tests

Stafford Western Access Route Traffic Economics Report

Economic Efficiency of the Transport System (TEE) - CORE SCENARIO

Non-business: Commuting	ALL MODES TOTAL	ROAD		BUS and COACH RAIL		OTHER
		Private Cars and LGVs	Passengers	Passengers	Passengers	
User benefits						
Travel time	27,455	27,455				
Vehicle operating costs	1,336	1,336				
User charges	0	0				
During Construction & Maintenance	-234	0				
NET NON-BUSINESS BENEFITS: COMMUTING	28,557	28,791				
<i>(1a)</i>						
Non-business: Other						
User benefits						
Travel time	30,411	30,411				
Vehicle operating costs	2,425	2,425				
User charges	0	0				
During Construction & Maintenance	-266	-266				
NET NON-BUSINESS BENEFITS: OTHER	32,570	32,570				
<i>(1b)</i>						
Business						
User benefits						
Travel time	29,533	15,345	14,188			
Vehicle operating costs	3,184	2,530	654			
User charges	0	0	0			
During Construction & Maintenance	-265	0	0			
Subtotal	32,452	17,875	14,842			
<i>(2)</i>						
Private sector provider impacts						
Revenue	0					
Operating costs						
Investment costs						
Grant/subsidy						
Subtotal	0					
<i>(3)</i>						
Other business impacts						
Developer contributions						
NET BUSINESS IMPACT	32,452					
<i>(5) = (2) + (3) + (4)</i>						
TOTAL						
Present Value of Transport Economic Efficiency Benefits (TEE)	93,579					
<i>(6) = (1a) + (1b) + (5)</i>						

Notes: Benefits appear as positive numbers, while costs appear as negative numbers.
All entries are discounted present values, in 2010 prices and values.

Public Accounts

Local Government Funding	ALL MODES TOTAL	ROAD INFRASTRUCTURE		BUS and COACH		RAIL		OTHER	
		Revenue							
Operating Costs	194		194						
Investment Costs	36,216		36,216						
Developer and Other Contributions									
Grant/Subsidy Payments									
NET IMPACT	36,410								
<i>(7)</i>									
Central Government Funding: Transport									
Revenue									
Operating costs									
Investment Costs									
Developer and Other Contributions									
Grant/Subsidy Payments									
NET IMPACT	0								
<i>(8)</i>									
Central Government Funding: Non-Transport									
Indirect Tax Revenues	2,264		2,264						
<i>(9)</i>									
TOTALS									
Broad Transport Budget	36,410	<i>(10) = (7) + (8)</i>							
Wider Public Finances	2,264	<i>(11) = (9)</i>							

Notes: Costs appear as positive numbers, while revenues and 'Developer and Other Contributions' appear as negative numbers.
All entries are discounted present values in 2010 prices and values.

Analysis of Monetised Costs and Benefits

Noise	- 400	<i>(12)</i>
Local Air Quality	1547	<i>(13)</i>
Greenhouse Gases	- 33	<i>(14)</i>
Journey Ambience		<i>(15)</i>
Accidents	1,798	<i>(16)</i>
Economic Efficiency: Consumer Users (Commuting)	28,557	<i>(1a)</i>
Economic Efficiency: Consumer Users (Other)	32,570	<i>(1b)</i>
Economic Efficiency: Business Users and Providers	32,452	<i>(5)</i>
Wider Public Finances (Indirect Taxation Revenues)	-2,264	<i>(11) - sign changed from PA table, as PA table represents costs, not benefits</i>
Option Values		<i>(17)</i>
Present Value of Benefits <small>(see notes)</small> (PVB)	94,227	$(PVB) = (12) + (13) + (14) + (15) + (16) + (1a) + (1b) + (5) + (17) - (11)$
Broad Transport Budget	36,410	<i>(10)</i>
Present Value of Costs <small>(see notes)</small> (PVC)	36,410	$(PVC) = (10)$
OVERALL IMPACTS		
Net Present Value (NPV)	57,817	$NPV = PVB - PVC$
Benefit to Cost Ratio (BCR)	2.59	$BCR = PVB / PVC$

Note: This table includes costs and benefits which are regularly or occasionally presented in monetised form in transport appraisals, together with some where monetisation is in prospect. There may also be other significant costs and benefits, some of which cannot be presented in monetised form. Where this is the case, the analysis presented above does NOT provide a good measure of value for money and should not be used as the sole basis for decisions.

Economic Efficiency of the Transport System (TEE) - LOW GROWTH SCENARIO

Non-business: Commuting	ALL MODES	ROAD	BUS and COACH	RAIL	OTHER	
	TOTAL	Private Cars and LGVs	Passengers	Passengers		
Travel time	14,858		14,858			
Vehicle operating costs	1,035		1,035			
User charges	0		0			
During Construction & Maintenance	-234		0			
NET NON-BUSINESS BENEFITS: COMMUTING	15,659 (1a)		15,893			
Non-business: Other						
User benefits	ALL MODES	ROAD	BUS and COACH	RAIL	OTHER	
	TOTAL	Private Cars and LGVs	Passengers	Passengers		
Travel time	16,412		16,412			
Vehicle operating costs	1,634		1,634			
User charges	0		0			
During Construction & Maintenance	-266		0			
NET NON-BUSINESS BENEFITS: OTHER	17,780 (1b)		17,780			
Business						
User benefits	TOTAL	Goods Vehicles	Business Cars & LGVs	Passengers	Freight	Passengers
Travel time	15,797	8,174	7,624			
Vehicle operating costs	2,076	1,727	348			
User charges	0	0	0			
During Construction & Maintenance	-265	0	0			
Subtotal	17,608 (2)	9,901	7,972			
Private sector provider impacts						
Revenue	0			Freight	Passengers	
Operating costs						
Investment costs						
Grant/subsidy						
Subtotal	0 (3)					
Other business impacts						
Developer contributions						
NET BUSINESS IMPACT	17,608 (5) = (2) + (3) + (4)					
TOTAL	51,047 (6) = (1a) + (1b) + (5)					

Present Value of Transport Economic Efficiency Benefits (TEE)

Notes: Benefits appear as positive numbers, while costs appear as negative numbers.
All entries are discounted present values, in 2010 prices and values

Public Accounts

Local Government Funding	ALL MODES	ROAD	BUS and COACH	RAIL	OTHER
	TOTAL	INFRASTRUCTURE			
Revenue					
Operating Costs	194		194		
Investment Costs	36,216		36,216		
Developer and Other Contributions					
Grant/Subsidy Payments					
NET IMPACT	36,410 (7)				
Central Government Funding: Transport					
Revenue					
Operating costs					
Investment Costs					
Developer and Other Contributions					
Grant/Subsidy Payments					
NET IMPACT	0 (8)				
Central Government Funding: Non-Transport					
Indirect Tax Revenues	1,608		1,608		
TOTALS					
Broad Transport Budget	36,410 (10) = (7) + (8)				
Wider Public Finances	1,608 (11) = (9)				

Notes: Costs appear as positive numbers, while revenues and 'Developer and Other Contributions' appear as negative numbers.
All entries are discounted present values in 2010 prices and values.

Analysis of Monetised Costs and Benefits

Noise	-400	(12)
Local Air Quality	1,547	(13)
Greenhouse Gases	-33	(14)
Journey Ambience		(15)
Accidents	5,457	(16)
Economic Efficiency: Consumer Users (Commuting)	15,659	(1a)
Economic Efficiency: Consumer Users (Other)	17,780	(1b)
Economic Efficiency: Business Users and Providers	17,608	(5)
Wider Public Finances (Indirect Taxation Revenues)	-1,608	(11) - sign changed from PA table, as PA table represents costs, not benefits
Option Values		(17)
Present Value of Benefits (see notes) (PVB)	56,011	(PVB) = (12) + (13) + (14) + (15) + (16) + (1a) + (1b) + (5) + (17) - (11)
Broad Transport Budget	36,410	(10)
Present Value of Costs (see notes) (PVC)	36,410	(PVC) = (10)
OVERALL IMPACTS		
Net Present Value (NPV)	19,601	NPV=PVB-PVC
Benefit to Cost Ratio (BCR)	1.54	BCR=PVB/PVC

Note : This table includes costs and benefits which are regularly or occasionally presented in monetised form in transport appraisals, together with some where monetisation is in prospect. There may also be other significant costs and benefits, some of which cannot be presented in monetised form. Where this is the case, the analysis presented above does NOT provide a good measure of value for money and should not be used as the sole basis for decisions.

Economic Efficiency of the Transport System (TEE) - HIGH GROWTH SCENARIO

Non-business: Commuting	ALL MODES	ROAD	BUS and COACH	RAIL	OTHER	
	TOTAL	Private Cars and LGVs	Passengers	Passengers		
User benefits						
Travel time	36,280	36,280				
Vehicle operating costs	1,355	1,355				
User charges	0	0				
During Construction & Maintenance	-234	0				
NET NON-BUSINESS BENEFITS: COMMUTING	37,401 (1a)	37,635				
Non-business: Other	ALL MODES	ROAD	BUS and COACH	RAIL	OTHER	
User benefits	TOTAL	Private Cars and LGVs	Passengers	Passengers		
Travel time	40,086	40,086				
Vehicle operating costs	2,449	2,449				
User charges	0	0				
During Construction & Maintenance	-266	-266				
NET NON-BUSINESS BENEFITS: OTHER	42,269 (1b)	42,269				
Business		Goods Vehicles	Business Cars & LGVs	Passengers	Freight	Passengers
User benefits						
Travel time	40,312	21,527	18,785			
Vehicle operating costs	3,777	2,919	858			
User charges	0	0	0			
During Construction & Maintenance	-265	0	0			
Subtotal	43,824 (2)	24,446	19,643			
Private sector provider impacts				Freight	Passengers	
Revenue	0					
Operating costs						
Investment costs						
Grant/subsidy						
Subtotal	0 (3)					
Other business impacts						
Developer contributions						
NET BUSINESS IMPACT	43,824 (4)					
TOTAL	123,494 (5) = (2) + (3) + (4)					
Present Value of Transport Economic Efficiency Benefits (TEE)	123,494	(6) = (1a) + (1b) + (5)				

Notes: Benefits appear as positive numbers, while costs appear as negative numbers.
All entries are discounted present values, in 2010 prices and values

Public Accounts

Local Government Funding	ALL MODES	ROAD	BUS and COACH	RAIL	OTHER
	TOTAL	INFRASTRUCTURE			
Revenue					
Operating Costs	194	194			
Investment Costs	36,216	36,216			
Developer and Other Contributions					
Grant/Subsidy Payments					
NET IMPACT	36,410 (7)				
Central Government Funding: Transport					
Revenue					
Operating costs					
Investment Costs					
Developer and Other Contributions					
Grant/Subsidy Payments					
NET IMPACT	0 (8)				
Central Government Funding: Non-Transport					
Indirect Tax Revenues	2,258	2,258			
TOTALS					
Broad Transport Budget	36,410 (10) = (7) + (8)				
Wider Public Finances	2,258 (11) = (9)				

Notes: Costs appear as positive numbers, while revenues and 'Developer and Other Contributions' appear as negative numbers.
All entries are discounted present values in 2010 prices and values.

Analysis of Monetised Costs and Benefits

Noise	-400	(12)
Local Air Quality	1543	(13)
Greenhouse Gases	-33	(14)
Journey Ambience		(15)
Accidents	1,255	(16)
Economic Efficiency: Consumer Users (Commuting)	37,401	(1a)
Economic Efficiency: Consumer Users (Other)	42,269	(1b)
Economic Efficiency: Business Users and Providers	43,824	(5)
Wider Public Finances (Indirect Taxation Revenues)	-2,258	(11) - sign changed from PA table, as PA table represents costs, not benefits
Option Values		(17)
Present Value of Benefits (see notes) (PVB)	123,606	(PVB) = (12) + (13) + (14) + (15) + (16) + (1a) + (1b) + (5) + (17) - (11)
Broad Transport Budget	36,410	(10)
Present Value of Costs (see notes) (PVC)	36,410	(PVC) = (10)
OVERALL IMPACTS		
Net Present Value (NPV)	87,196	NPV=PVB-PVC
Benefit to Cost Ratio (BCR)	3.39	BCR=PVB/PVC

Note: This table includes costs and benefits which are regularly or occasionally presented in monetised form in transport appraisals, together with some where monetisation is in prospect. There may also be other significant costs and benefits, some of which cannot be presented in monetised form. Where this is the case, the analysis presented above does NOT provide a good measure of value for money and should not be used as the sole basis for decisions.

Economic Efficiency of the Transport System (TEE) - FIXED SCENARIO

Non-business: Commuting	ALL MODES	ROAD	BUS and COACH	RAIL	OTHER	
	TOTAL	Private Cars and LGVs	Passengers	Passengers		
User benefits						
Travel time	36,730	36,730				
Vehicle operating costs	2,700	2,700				
User charges	0	0				
During Construction & Maintenance	-234	0				
NET NON-BUSINESS BENEFITS: COMMUTING	39,196	39,430				
<i>(1a)</i>						
Non-business: Other	ALL MODES	ROAD	BUS and COACH	RAIL	OTHER	
User benefits	TOTAL	Private Cars and LGVs	Passengers	Passengers		
Travel time	41,627	41,627				
Vehicle operating costs	2,304	2,304				
User charges	0	0				
During Construction & Maintenance	-266	-266				
NET NON-BUSINESS BENEFITS: OTHER	43,665	43,665				
<i>(1b)</i>						
Business	ALL MODES	Goods Vehicles	Business Cars & LGVs	Passengers	Freight	Passengers
User benefits	TOTAL	Private Cars and LGVs	Passengers	Passengers		
Travel time	39,806	20,687	19,119			
Vehicle operating costs	4,329	3,429	900			
User charges	0	0	0			
During Construction & Maintenance	-285	0	0			
Subtotal	43,870	24,116	20,019			
<i>(2)</i>						
Private sector provider impacts				Freight	Passengers	
Revenue	0					
Operating costs						
Investment costs						
Grant/subsidy						
Subtotal	0					
<i>(3)</i>						
Other business impacts						
Developer contributions						
NET BUSINESS IMPACT	43,870					
<i>(5) = (2) + (3) + (4)</i>						
TOTAL	126,731					
<i>(6) = (1a) + (1b) + (5)</i>						
Present Value of Transport Economic Efficiency Benefits (TEE)	126,731					
Notes: Benefits appear as positive numbers, while costs appear as negative numbers. All entries are discounted present values, in 2010 prices and values.						

Public Accounts

Local Government Funding	ALL MODES	ROAD	BUS and COACH	RAIL	OTHER
	TOTAL	INFRASTRUCTURE			
Revenue					
Operating Costs	194		194		
Investment Costs	36,216		36,216		
Developer and Other Contributions					
Grant/Subsidy Payments					
NET IMPACT	36410				
<i>(7)</i>					
Central Government Funding: Transport					
Revenue					
Operating costs					
Investment Costs					
Developer and Other Contributions					
Grant/Subsidy Payments					
NET IMPACT	0				
<i>(8)</i>					
Central Government Funding: Non-Transport					
Indirect Tax Revenues	3,199		3,199		
<i>(9)</i>					
TOTALS					
Broad Transport Budget	36,410				
<i>(10) = (7) + (8)</i>					
Wider Public Finances	3,199				
<i>(11) = (9)</i>					
Notes: Costs appear as positive numbers, while revenues and 'Developer and Other Contributions' appear as negative numbers. All entries are discounted present values in 2010 prices and values.					

Analysis of Monetised Costs and Benefits

Noise	-400	<i>(12)</i>
Local Air Quality	1547	<i>(13)</i>
Greenhouse Gases	-33	<i>(14)</i>
Journey Ambience		<i>(15)</i>
Accidents	1,798	<i>(16)</i>
Economic Efficiency: Consumer Users (Commuting)	39,196	<i>(1a)</i>
Economic Efficiency: Consumer Users (Other)	43,665	<i>(1b)</i>
Economic Efficiency: Business Users and Providers	43,870	<i>(5)</i>
Wider Public Finances (Indirect Taxation Revenues)	-3,199	<i>(11) - sign changed from PA table, as PA table represents costs, not benefits</i>
Option Values		<i>(17)</i>
Present Value of Benefits <small>(see notes)</small> (PVB)	126,444	$(PVB) = (12) + (13) + (14) + (15) + (16) + (1a) + (1b) + (5) + (17) - (11)$
Broad Transport Budget	36,410	<i>(10)</i>
Present Value of Costs <small>(see notes)</small> (PVC)	36,410	$(PVC) = (10)$
OVERALL IMPACTS		
Net Present Value (NPV)	90,034	$NPV = PVB - PVC$
Benefit to Cost Ratio (BCR)	3.47	$BCR = PVB / PVC$
Note : This table includes costs and benefits which are regularly or occasionally presented in monetised form in transport appraisals, together with some where monetisation is in prospect. There may also be other significant costs and benefits, some of which cannot be presented in monetised form. Where this is the case, the analysis presented above does NOT provide a good measure of value for money and should not be used as the sole basis for decisions.		