SCHEME DEVELOPMENT

High Speed Rail Consultation

Summary of the HS2 Economic Case

Department for Transport

Find out here about a summary of the Economic Case for HS2 (London to West Midlands), including:

- how the Economic Case is summarised as a benefit to cost ratio (BCR) of the scheme – the ratio of the total lifetime benefits to the lifetime cost to Government;
- how the main benefits from high speed rail accrue to rail users, especially business travellers;
- how there are further benefits to the national economy arising from improved connections between firms;
- the costs associated with HS2 (London to West Midlands) including capital costs of the line and trains, and the lifetime operating costs associated with running the system; and
- the BCR for HS2 (London to West Midlands) which has been calculated to be 2.0 including Wider Economic Impacts. Every £1 spent by Government generates £2 of benefit.

The Economic Case for HS2 (London to West Midlands)

The economic appraisal of a transport scheme seeks to cover its full economic costs and full economic benefits, and to quantify these in monetary terms. In order to compare costs and benefits occurring at different points in time, our appraisal brings all future year values to a 'Present Value' (PV) in 2009. This is done by adjusting future year values, discounting at 3.5% for the first 30 years from 2009 and 3% for the rest of the appraisal period, in order to reflect the fact that benefits and costs today are valued more highly than those in the future.

The appraisal of quantified benefits and costs is summarised in the 'Benefit Cost Ratio' or BCR. This ratio represents the level of benefit per pound spent by Government.

We estimate that HS2 (London to West Midlands) would deliver significant transport benefits worth £17bn. This would come from both benefits to HS2 (London to West Midlands) passengers from faster, more comfortable journeys and benefits to passengers on the classic rail network from reduced crowding and the re-use of capacity that would be freed up on the West Coast Main Line for regional and local services.

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Whilst over two thirds of users would be leisure travellers, business would generate the greatest proportion of benefits. We estimate that business passengers would gain £11bn directly. In addition we estimate a further £4bn in benefits from Wider Economic Impacts. These are benefits associated with reduced business costs and increases in efficiency as a result of bringing firms closer together.

Against these benefits the costs of constructing and operating HS2 (London to West Midlands) would also be significant. We estimate that the total costs through the appraisal period would be £24bn in present value terms. This would be partially offset by increased revenue which would grow by almost £14bn. This takes account of lost revenue from passengers who switch from existing rail services onto HS2 (London to West Midlands).

Taking account of these revenues, we estimate that the net cost to Government would be around £10bn. As a result the scheme would deliver benefits significantly in excess of costs and a BCR of 2.0 including Wider Economic Impacts. This means HS2 (London to West Midlands) would deliver benefits worth £2 for every £1 spent by Government.

Quantified Costs and Benefits (£ billions) of HS2 (London to West Midlands) (2009 PV / prices) and resulting BCR

		Business	Other
(1)	Transport User Benefits	11.1	6.4
(2)	Other quantifiable benefits (excl. Carbon)	0.4	
(3)	Loss to Government of Indirect Taxes	-1.3	
(4)	Net Transport Benefits = (1) + (2) + (3)	16.5	
(5)	Wider Economic Impacts (WEIs)	4.0	
(6)	Net Benefits including WEIs = (4) + (5)	20.6	
(7)	Capital Costs	17.8	
(8)	Operating Costs	6.2	
(9)	Total Costs = (7) + (8)	24.0	
(10)	Revenues	13.7	
(11)	Net Costs to Government = (9) – (10)	10.3	
(12)	**BCR without WEIs (ratio)** = (4)/(11)	1.6	
(13)	**BCR with WEIs (ratio)** = (6)/(11)	2.0	

Source: HS2 Ltd model

The Economic Case for the Y network

The Government's proposed Y-shaped high speed rail network linking London to Birmingham, Manchester, Leeds, the East Midlands and South Yorkshire, as well as providing direct links to the HS1 line and into Heathrow Airport, would cost £32 billion to construct. Over a 60 year period it would generate benefits of around £44 billion, as well as revenues totalling a further £27 billion. Over the same period costs would be £44 billion. These key figures, when appraised using DfT guidance contribute, to a benefit-cost ratio (BCR) of 2.6.

If you would like more detail on this topic

Please visit our website – http://highspeedrail.dft.gov.uk/ – where you will see the "High Speed Rail: Investing in Britain's Future – Consultation" and all the documentation published alongside it, as well as detailed maps of the proposed route between London and the West Midlands and images and visualisations.