Department for Transport

Value for Money Indicator 2017
Department for Transport

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Scope: Projects that received final ministerial approval in the 2017 calendar year[1]

The value for money indicator reports the proportion of project spending that is assessed to be high or very high value for money, for projects that receive final ministerial approval in a given year.

This indicator is produced as part of the annual update to DfT's single departmental plan (SDP)[2], which monitors the Department's performance against six key objectives:

1. Support the creation of a stronger, cleaner, more productive economy.
2. Help to connect people and places, balancing investment across the country.
3. Make journeys easier, modern and reliable.
4. Make sure transport is safe, secure and sustainable.
5. Prepare the transport system for technological progress and a prosperous future outside the EU.
6. Promote a culture of efficiency and productivity in everything we do.

[1] Transport investments where most or all of the cost is funded by DfT, and whose business case was subject to independent review prior to ministerial approval. These projects represent a sample of all DfT investment in 2017. Sample size may vary each year.
[2] https://www.gov.uk/government/publications/department-for-transport-single-departmental-plan/department-for-transport-single-departmental-plan-may-2018?_sm_au_=iVVSbJr35VKff0Tr

To deliver against these objectives DfT has invested and continues to invest in a wide portfolio of projects. This indicator is intended to provide transparency over the expected value for money – to taxpayers and society as a whole – of these projects.

Note: This indicator is an ex ante assessment of value for money. That is, it reports the value for money that projects are expected to deliver at the time the decision to invest in them is taken. This assessment necessarily makes assumptions about the future, which is inherently uncertain. Though we mitigate this as far as possible in the analysis, the value for money of each project reported here may differ to that achieved in reality i.e. once implemented. An evaluation of the value for money achieved by the projects included within this indicator is not within the scope of this report[3].

The Value for Money Indicator

In 2017, spending on 11 approved projects totalled £672 million – **78 per cent of this approved spending was assessed to be high or very high value for money**. These projects are expected to return at least £2 in benefits for every £1 invested.

The breakdown of approved project spending that falls within each VfM category, as a percentage of total project spending, is shown in Table 1 below.

Table 1. Value for Money Indicator 2017

VfM Category	Poor	Low	Medium	High	Very High	**High & Very High**	Total
Approved Spending	1%	2%	19%	28%	49%	**78%**	100%

It is worth noting that in 2017 four projects could not be included in the Value for Money indicator. These projects are expected to return revenue to the Broad Transport Budget[4] and/or generate costs savings. Consequently, total spend on these projects is "negative" so they cannot be included in the Value for Money Indicator. Additional detail on individual projects and their implication for value for money of the portfolio can be found in Annexes B.

[3] Separate work is undertaken in this area. For more information: https://www.gov.uk/government/collections/social-research-and-evaluation

[4] The public budget available to fund transport schemes.

Annex A: Decision Making and VfM Assessment in DfT

Decision making in DfT

Value for Money (VfM) is an important consideration given DfT's commitment to managing public money. It is not however the sole consideration when determining whether to approve a project.

In DfT, ministers take investment decisions based on the evidence presented in the "Transport Business Case"[5], which follows the 'Five Case' model of decision-making recommended by Her Majesty's Treasury (HMT). Before approving a project, ministers are thus presented with evidence on the extent to which the proposal:

- Is supported by a robust case for change that fits with wider public policy objectives – the 'strategic case'
- Demonstrates value for money – the 'economic case';
- Is commercially viable – the 'commercial case';
- Is financially affordable – the 'financial case'; and
- Is achievable – the 'management case'.

Consideration is given to all five of these cases before reaching a final decision on whether to approve a project.

How VfM is assessed in DfT

Consistent with best practice across Government, the following steps are taken in order to assess the VfM of a proposed investment in DfT:

1. Considering a wide-range of possible solutions to an investment requirement, before recommending a specific proposal to ensure that the preferred option offers the best VfM and achieves its wider objectives.
2. Development of the 'without-scheme' option against which the proposal (i.e. the 'with-scheme' option) is compared. This without-scheme case forecasts a state of the world in which the proposed investment does not take place. It does however include any hitherto committed proposals. This is so that the difference between the with- and without-scheme options measures the impacts of the proposed investment, and thus ensures that it is adding value;
3. Measurement of costs and impacts of the scheme. The Department's appraisal guidance (WebTAG)[6] provides a comprehensive and consistent approach for this,

[5] https://www.gov.uk/government/publications/transport-business-case
[6] This is the Department's Transport Analysis Guidance, which provides detailed advice on how to conduct modelling and appraisal of transport proposals. Further information can be found here: https://www.gov.uk/guidance/transport-analysis-guidance-webtag.

using the best available evidence and methodologies. It encourages consideration of a wide range of economic, environmental, and social impacts.

At this point a 'VfM category' can be assigned, taking all of the above into consideration. It is this VfM category that is presented to ministers when making investment decisions.

The VfM category is derived in the first instance from estimates of a scheme's benefit cost ratio (BCR). For costs and impacts that can be monetised, the BCR measures how much benefit can be expected for each unit of cost (investment) i.e. for every £1 invested:

a. Benefits less than £1 indicate **poor** VfM;
b. Benefits between £1 and £1.50 indicate **low** VfM;
c. Benefits between £1.50 and £2 indicate **medium** VfM;
d. Benefits between £2 and £4 indicate **high** VfM;
e. Benefits greater than £4 indicate **very high** VfM.

There may also be scheme impacts which, either because they cannot be monetised or because their monetary value is considered highly uncertain, do not form part of the BCR. These impacts are subsequently considered to ascertain whether they are likely to be sufficiently large to warrant placing the scheme in a different VfM category.

The VfM assessment also includes consideration of risks and uncertainties. Typically, this involves sensitivity analysis to test the impact of changes in the core assumptions and parameters used to derive the scheme's BCR (e.g. different rates of population growth). This is to provide confidence that the proposed scheme will deliver VfM under a range of scenarios (e.g. different levels of travel demand). Some scenarios may suggest a different VfM category, in which case a judgement of likelihood is taken to determine whether the scheme's VfM category should be adjusted accordingly.

The final VfM category is assigned after this step to ensure that all the relevant impacts of a scheme are appropriately reflected in the overall VfM judgement.

<u>Impacts</u>

As noted above, in assessing the VfM of a proposed project, a comprehensive range of impacts are taken into account alongside the net costs to the public sector of the project. These impacts are listed in table 2 below.

The particular nature of a project – in terms of both the mode of transport to which it relates, and the type of investment being made – will determine the relative prevalence of these impacts in the overall VfM assessment. For instance:

- The VfM of a proposal to upgrade to a 'smart' motorway is largely driven by: time savings from reduced congestion; improved reliability; and fuel cost savings (due to driving at a more efficient speed).
- The most significant impacts and VfM drivers of a typical walking and cycling scheme will be: improved journey quality; time savings from reduced congestion (e.g. through switching from car to bicycle travel); and health benefits from increased physical activity.
- A typical rail electrification scheme may entail significant benefits to direct users (e.g. through crowding relief) but its VfM will also be strongly influenced by its wider environmental benefits and reductions in operating costs.

Table 2. Impacts Considered in the VfM Assessment

Economic	Social	Environmental
Travel time savings*	**Accidents**	**Noise**
User charges*	**Physical activity**	**Air quality**
Vehicle operating costs*	Security	**Greenhouse gases**
Indirect tax	Severance	Landscape
Reliability*	**Journey quality**	Townscape
Wider Economic Impacts	Option and non-use values	Biodiversity
Regeneration	Accessibility	Historic environment
	Personal affordability	Water environment

Note: impacts that are routinely monetised are highlighted in bold.

*Benefits to business travellers are reported under 'economic' impacts whereas benefits to commuters and leisure travellers are reported as 'social' impacts.

Annex B: Derivation of the VfM Indicator

Derivation of the VfM Indicator

The VfM indicator is derived by taking the number of approved projects that fall into each VfM category (as defined above), and weighting each project by its cost i.e. approved spending. This helps ensure the Indicator is relative; transformational projects requiring relatively large investments but generate relatively large benefits, should not skew the Indicator away from smaller schemes that generate value, but have relatively lower costs and benefits.

Cost here is defined as the Present Value of Costs (PVC) to the 'Broad Transport Budget' – the public budget available to fund transport schemes. This includes the operational and capital expenditure expected over the lifetime of each scheme; and is adjusted for inflation, discounted to reflect the tendency to prefer the receipt of goods and services now rather than later, and net of any third party expenditure (e.g. from the private sector) and revenues. It also accounts for cost savings that may be realised to the 'Broad Transport Budget'.[7]

The PVC should reflect the public budget available to fund transport schemes, referred to as the 'Broad Transport Budget'. The PVC should only comprise Public Accounts impacts (i.e. costs borne by public bodies) that directly affect the budget available for transport. All other impacts, including operating costs and revenues for private sector transport providers and impacts on wider government finances, should be included in the Present Value of Benefits (PVB).

Costs to both DfT and local authorities have been included in the indicator. This reflects all public money committed to the project and is consistent with how we measure a project's cost in its' VfM assessment.

The proportion of approved spending that falls within each VfM category is subsequently calculated, and presented in Table 1 in the 2017 VfM indicator report. The proportion that is assessed to be high or very high VfM is then used as the VfM indicator.

The 2017 VfM Indicator Explained

All approved projects in 2017 are presented in Table 3, split by the projects that were included in the 2017 VfM indicator and those that were not.

Table 3 shows that three projects were categorised as very high and financially positive VfM. As explained in the main report the 2017 VfM indicator underestimates VfM as these categories cannot be included in the indicator.

[7]Further information can be found in WebTAG unit A1-1: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/712699/tag-unit-a1.1-cost-benefit-analysis-may-18.pdf

One approved project (South Western) has a VfM category of Economically Efficient Cost Saving, which means that cost savings (or revenue returned in excess of costs) outweigh benefit losses, and thus overall public value is increased. Just as for the projects that are very high and financially positive VfM, this project has a negative PVC and is therefore not included in the VfM indicator.

Table 3. Value for Money of DfT Approved Projects in 2017 (Calendar Year)

Projects included in the VfM Indicator			
Project Name	**Project Type**	**Project PVC (£m)**	**VfM Category**
A13 Widening (Thurrock)	Congestion/Capacity	59	High
Bow Street	New Stations Fund	2	High
Highways Maintenance Challenge Fund*	Maintenance	54	Low to Very High[8]
Horden Peterlee	New Stations Fund	7	Medium
Mid Metro Extension Centenary Sq. to Edgbaston	Connectivity	50	Medium
National Productivity Investment Fund*	Congestion/Capacity	317	Low to Very High[9]
Portway Parkway	New Stations Fund	4	High
Public Service Obligation[10] Derry to London 2017	Connectivity	3	Poor
Public Service Obligation[11] Dundee to London 2017	Connectivity	1	Poor
Vehicle to Grid	Research and Development	20	Very High

[8] The Highway Maintenance Challenge fund is a grant allocated to local authorities across the country in order to fund the maintenance of local highways. 15 individual schemes within tranche 1 of this fund – a range of structural repairs and road renewals – have been included in the indicator calculation. These schemes sum to a total cost of £54m; the VfM category for individual schemes ranges from low to very high VfM, with 98% of spending assessed to be high or very high VfM.

[9] The National Productivity Investment Fund is a grant allocated to local authorities across the country. 76 individual schemes have been included in the indicator calculation. These schemes sum of a total of £317m; the VfM category for individual schemes ranges from low to very high, with 73% of spending assessed to be high or very high VfM.

[10] A Public Service Obligation (PSO) is a subsidy granted to a private operator in order to run a service considered to be economically / socially desirable but commercially unviable in the free market. Approval of this subsidy was granted in order to maintain connectivity between Derry and London, allowing for journey times of under three hours by air, and day return trips, which cannot be delivered through any alternative mode of transport.

[11] A Public Service Obligation (PSO) is a subsidy granted to a private operator in order to run a service considered to be economically / socially desirable but commercially unviable in the free market. To provide financial support to Dundee City Council to allow for the funding of a Public Service Obligation (PSO). Approval of this subsidy was granted in order to maintain the existing air link between Dundee and London, ensuring journey times of under three hours between the two cities in such a way as to allow a person to make a round trip within a day.

Midland Mainline Key Output 1[12]	Electrification Enhancement	155	Very High
Total = 11		**£672m**	

Projects not included in the VfM Indicator			
Project Name	**Project Type**	**Project PVC (£m)**	**VfM Category**
Reading Green Park	New Stations Fund	Financially Positive	Very High and Financially Positive
South Western	Rail Franchise[13]	Economically Efficient Cost Savings	Economically Efficient Cost Savings
Warrington West	New Stations Fund	Financially Positive	Very High and Financially Positive
West Midlands	Rail Franchise	Financially Positive	Very High and Financially Positive
Total = 4			

Note: figures may not sum due to rounding.

*The business cases for these schemes are developed by the local authorities promoting them, rather than DfT. However they are assessed by and receive final approval from DfT. The projects' costs reported may also include a small proportion of local authority investment.

In 2017 the proportion of project spending that was high or very high VfM was 78 per cent. In 2015 and 2016 the proportion of project spending that was high or very high VfM was 80 per cent and 95 per cent respectively. Emphasis should not be placed on the changes across years, because the indicator can be affected by the number and type of schemes and the size of the PVC for the individual projects approved in any given year. It is therefore not entirely appropriate to compare the individual years' figures, but too look cumulatively across years. This shows that since 2015, 84 per cent of spend has been on projects set to deliver at least high value for money (which means providing benefits to the public worth £2 or more for every £1 invested).

[12] Midland Mainline was approved based on three different scenarios, due to the potential range of outcomes of journey times achieved with various timetables that were provisional at time of approval. Each scenario had different PVCs and VfM categories. The scenario where Midland Mainline is medium VfM reduces the Indicator to 40 per cent. One of the two scenarios with very high VfM will change the Indicator to 72 per cent. The Midland Mainline scenario chosen for reporting here is now considered the most likely outcome from the three modelled scenarios.

[13] The project cost and VfM category reported for the rail franchises in table 3 represent the expected cost / VfM of the change in franchise outputs procured through the competition / direct award, above and beyond the current level of services and committed changes, when the decision it taken to award the franchise. It does not represent the value of the existence of franchise as a whole. The VfM assessment measures the expected impact of this change on passenger benefits (e.g. better journey quality, travel time savings) and wider social and environmental benefits. In awarding the franchise DfT considers both the quality of services that the bidder expects to deliver, and the amount of funding they would require (i.e. subsidy) – or the premium they would be prepared to pay – in order to run these services. This is to ensure that the franchise is awarded to the bidder who will deliver the most economically advantageous tender. A 'financially positive' franchise competition or direct award is where the expected franchise payment is better than that assumed under the existing level of services (and committed changes).

As the VfM indicator is derived by weighting each project by its PVC, this means that even though the significant majority of approved projects for any given year are high or very high VfM, the indicator will be lower if there are some projects with sizeable costs that are lower VfM (poor to medium).

Table 4 illustrates the difference in the spending per VfM category from 2015 to 2017. It gives an indication of how the size of the total PVC for different VfM categories affects the indicator.

The proportion of spending on projects that were medium VfM in 2017 is larger compared to the two previous years and may partly explain why the VfM indicator for 2017 differs from previous years.

Table 4. Total PVC and proportion of spending per VfM category for projects approved 2015-2017

	Proportion of Approved Spending			**PVC (£m)**		
VfM Category	**2015**	**2016**	**2017**	**2015**	**2016**	**2017**
Poor	0%	0%	1%	0	1	5
Low	17%	0%	2%	196	0	15
Medium	3%	5%	19%	36	65	129
High	20%	86%	28%	233	1038	191
Very High	59%	9%	49%	681	103	332
High & Very High	80%	95%	78%	914	1,141	523
Total	100%	100%	100%	1,146	1,207	672