Campaign for Better Transport

The M6 Toll, five years on:

Counting the cost of congestion relief

In December 2003 the M6 Toll opened to traffic. Its promoters promised congestion relief and faster, more reliable journey times for drivers in the West Midlands.

Five years after the toll opened, most of the claimed benefits have failed to materialise or have been wiped out by above-average increases in traffic. The M6 Toll has proven to be a costly way to provide congestion relief.

Traffic on the M6 has returned to pre-toll levels and most journeys are only marginally quicker than in 2003. The cost of the toll has more than doubled and the company running the toll road is losing tens of millions of pounds a year.

Executive summary

The M6 Toll is a 27-mile privately financed tolled motorway which runs around the north west of Birmingham, between junction 3a and junction 12 of the M6. It opened in December 2003 and was intended to relieve congestion on the busiest section of the M6 by providing an alternative route for traffic travelling between the North East and West Midlands.

Five years after it opened, has the M6 Toll been a success? To answer this important question, Campaign for Better Transport looked at a recent Highways Agency report which explores what the M6 Toll's impact has been. We also examined reports by the Transport Select Committee, and annual financial reports from Midland Expressway Ltd, which runs the M6 Toll.

We found that that not only has the toll road not improved transport in the West Midlands, but that drivers who paid the toll were not receiving value for money. The toll's operator was losing tens of millions of pounds each year and the Highways Agency is planning to spend half a billion pounds on congestion relief which the M6 Toll was supposed to have provided.

M6 Toll: bad for the West Midlands

- the toll road has failed to significantly cut congestion on the M6
- traffic which once used the toll is now returning, making congestion worse at peak times
- traffic has increased dramatically at either end of the toll, causing more congestion
- half a billion pounds of additional capacity is planned to relieve congestion on the M6 that the M6 Toll was supposed to deal with

M6 Toll: bad for drivers

- journey times on the M6 are only slightly better than before the toll opened
- outside of peak times, journeys on the M6 Toll are not much faster than on the M6
- average time savings were between 7 and 12 minutes in the opening year
- the cost of the toll has risen sharply each January, well above inflation
- the toll road's operators are exploring ways to charge more at peak times

M6 Toll: bad for investors

- Midland Expressway Ltd has lost around £26 million a year since the toll opened
- revenue has been in steady decline, as traffic on the toll has been falling since 2006
- the toll road's value has plummeted, from A$2.2bn in 2008 to A$412m in 2009
- even when the toll was busiest (when there were major roadworks on the M6), MEL was still losing millions of pounds a year

The M6 Toll has failed to cut congestion or improve journey times

When the M6 Toll was being planned, its promoters argued that it would provide much-needed congestion relief for the M6, improving journey times and making trips more reliable. But five years on, most of these benefits have either failed to materialise or have been steadily undermined as traffic levels rise and congestion returned.

Weekday traffic on the M6 is at, or very close to, 2003 levels

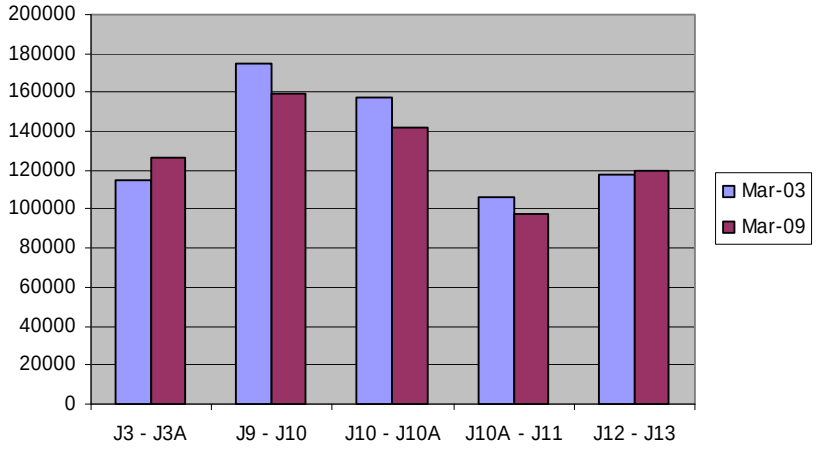


Figure 1 – Average vehicles per day on M6, Monday-Thursday

Although the M6 Toll provided initial congestion relief on the parallel section of the M6, over the past five years the time savings and congestion benefits have been eroded by traffic generated by the toll road or rerouting back to the M6.[1]

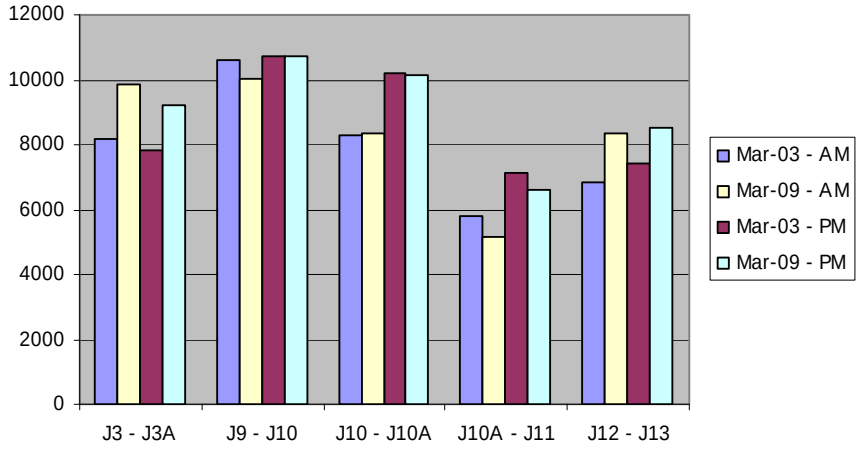


Figure 2 – Average peak-time vehicles per hour on M6, Monday-Thursday

The Highways Agency report notes that by 2008 “flows on the parallel M6 appear to have returned to near pre-M6 Toll opening levels”, although traffic subsequently dipped, due to the recession.[2] Peak-time traffic

[1] All traffic figures have been adjusted by the Highways Agency to take account of background traffic growth.
[2] M6 Toll Five Years After Study, p. 16.

flows on the M6 are also very close to pre-toll levels (see Figure 2), and on Friday (already the most congested day of the week) there is more traffic on the M6 than there was before the toll opened.

Neither has the toll provided congestion relief for other roads in the West Midlands; whilst peak-time traffic has fallen slightly on the A5 (A452 – A461) and A50, it has risen on the M42, A5 (east of M6 J12) and M54 (J1 – M6 J10a). The Highways Agency found that where traffic levels have fallen "the reduction is smaller than was witnessed in 2005, indicating that some traffic is returning to these strategic routes."[3]

More worrying is the increase in traffic on the junctions at either side of the M6 Toll. Figure 2 shows that between junctions 3 and 3a, and 12 and 13, peak-time traffic is between 16% and 22% higher than pre-toll levels. The increased traffic at junctions approaching the toll forced the Highways Agency and the M6 Toll's operator to carry out additional road building to alleviate congestion resulting from the original scheme.

Most journeys on the M6 aren't much quicker…

Broadly speaking, weekday journey times on the M6 are very similar to their pre-toll levels, although there has been some peak-time congestion relief. While there were immediate benefits from shorter journeys, these have been undermined by rising traffic levels and congestion.

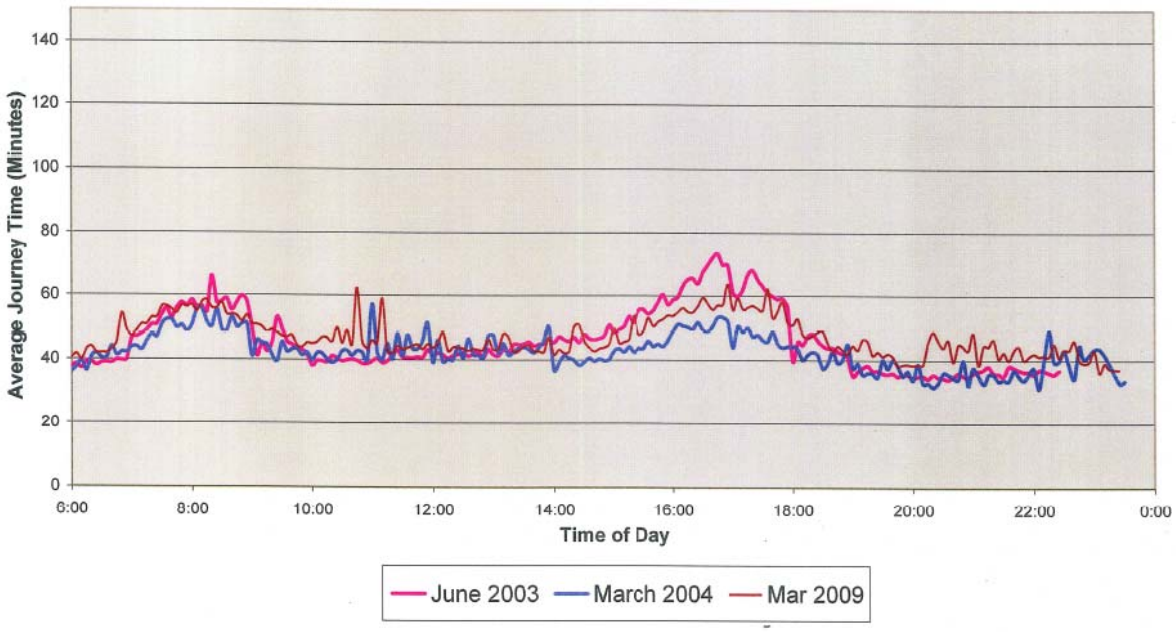


Figure 3 – Northbound journey times on M6, Tuesday-Thursday

Northbound journeys are slightly shorter in the afternoon rush hour, with 15 to 20 minute savings at around 5pm compared with journey times in 2003. However, evening trips are between 5 and 15 minutes longer, and the road remains congested well into the night, indicating that many of the time savings in the afternoon peak may come from people changing their behaviour (i.e. leaving work later) rather than from their switching to the toll road. Conversely, southbound morning journeys take up to ten minutes longer than in 2003, whereas afternoon trips are slightly shorter.

[3] *Ibid*, p. 46.

…the worst delays have cleared up…

Before the M6 Toll opened, certain journeys were particularly likely to suffer delays, such as journeys on Fridays or southbound trips on Sunday afternoon. Five years after the toll road opened, most of these journeys are more reliable, with fewer extreme delays.

Friday journeys, both north- and southbound, show significantly fewer delays, although journey times, and consequently delays, are increasing (see Figure 5, below). The Sunday afternoon peak (caused in part by people driving from the Peak District towards London) has also been smoothed out. However, delays are increasing, suggesting that these benefits are likely to prove merely temporary.

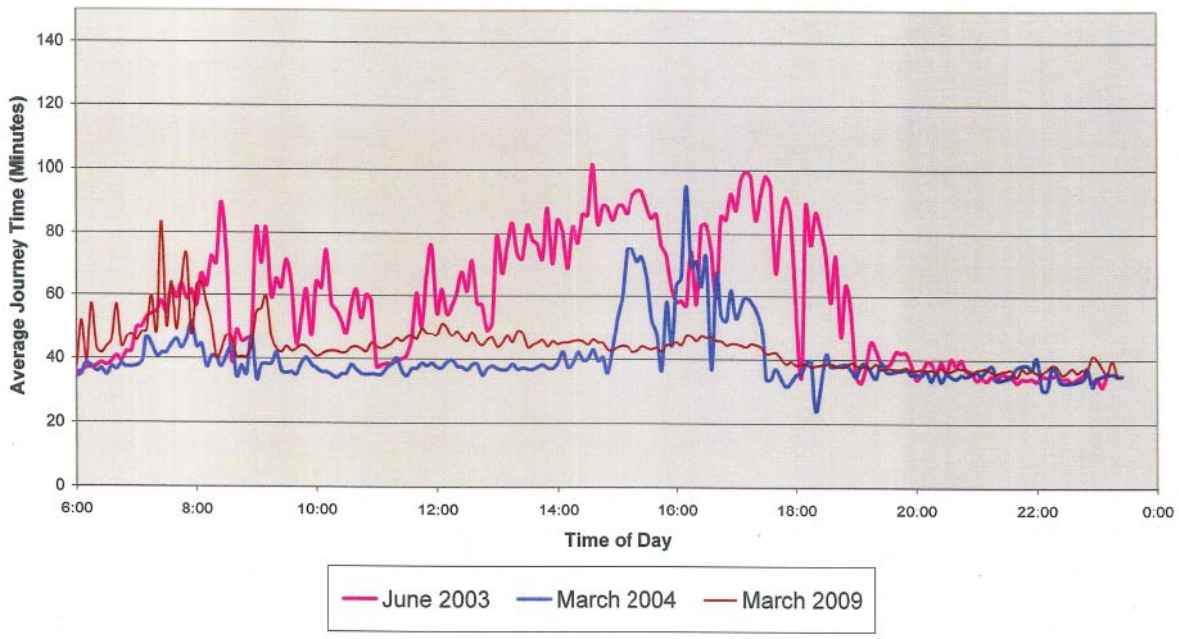


Figure 4 – Southbound journey times on M6, Friday

… but the Highways Agency is planning to spend half a billion pounds on hard-shoulder running

Overall the M6 Toll has, for the moment, made some journeys on the M6 more reliable. However, any gains are being steadily eroded by increasing traffic levels. Although the most extreme delays are now much less likely to occur, the majority of journeys take almost as long as they did before the toll, and in many cases actually take longer.

Worryingly, the M6 Toll has provided so little congestion relief that the Highways Agency has been forced to allocate hundreds of millions of pounds for additional capacity. Following the trial on the M42, the previous Government announced plans to implement hard-shoulder running between junctions 4 and 13 on the M6, although the plans are on hold pending results of the Comprehensive Spending Review this autumn.

Although full costings are not available, the most recent estimate of the cost of implementing hard-shoulder running on J5–J8 and J8–10a ranged from £300m to £500m. It is therefore likely that the total cost would be well over half a billion pounds.

The M6 Toll is poor value for money and a bad deal for drivers

When the M6 Toll opened, drivers were promised faster, more reliable journeys if they paid the £2 charge. However, with journeys on the toll road not being significantly faster than on the M6, and with sizeable price increases every January, paying the toll remains a bad choice for motorists.

Drivers save time in rush hour, but the rest of the time the toll isn't worth paying

Whilst southbound morning journeys can take anything up to 85 minutes on the M6, most off-peak daytime journeys on the M6 take around 40 to 45 minutes, with trips in the afternoon rush hour taking between 50 and 60 minutes. Weekday daytime journeys on the M6 Toll range from between 35 and 40 minutes, with northbound trips on Friday approaching 45 minutes in the afternoon rush hour.

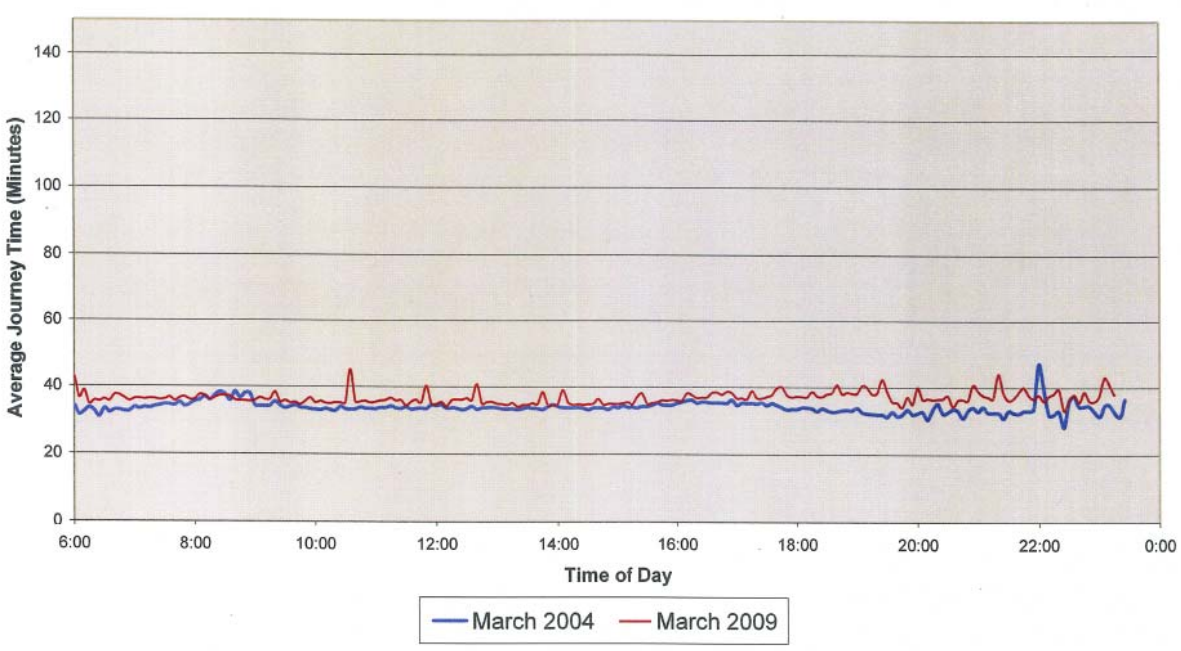


Figure 5 – Northbound journey times on M6 Toll, Tuesday-Thursday

In 2004, when the toll opened, the average time saved by taking the toll road were just 12 minutes for northbound trips, and 7 minutes for southbound trips. Whilst average time savings are likely to have increased because of rising congestion on the M6, the majority of off-peak trips are only slightly faster than on the more congested M6.[4]

We had hoped to be able to compare journey times on the M6 with those on the M6 Toll, but were told by the Highways Agency that the data sets which informed Figures 3 to 5 "were sourced from outside the Highways Agency and are no longer available."

Nonetheless, a visual comparison of Figures 3 and 5 suggests that although there are sizeable savings during the morning rush hour, most off-peak journeys are only around ten minutes quicker than on the M6.

[4] Transport Select Committee, Seventh Report 2005, section 6.
http://www.publications.parliament.uk/pa/cm200405/cmselect/cmtran/218/21809.htm

Traffic on the M6 Toll has fallen sharply as drivers return to M6

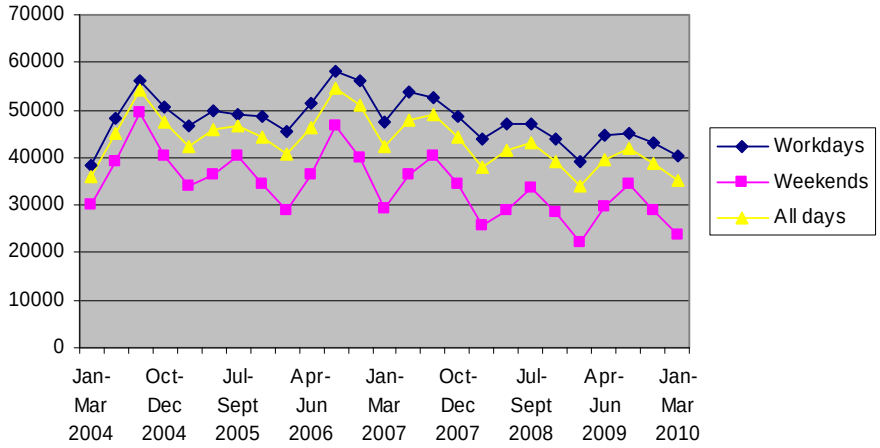


Figure 6 - Average daily traffic levels on M6 Toll

Whilst traffic on the M6 has been rising since the M6 Toll opened, the average daily flow on the M6 Toll has been falling sharply since 2006. The two busiest periods, 2004 and 2006, both correspond with extensive roadworks on the M6, which substantially increased journey times and made the toll road a more attractive option for motorists.

Five years after opening, weekday traffic has fallen by 3-5%; Friday traffic has fallen by 14-15% and traffic on Saturday down 30% compared with 2004.[5] Emerging data from Midland Expressway Ltd shows that provisional traffic figures for 2010 are worse: traffic levels in the second quarter of 2010 fell 9% and weekend traffic is down 23%, compared with the same quarter in 2004.

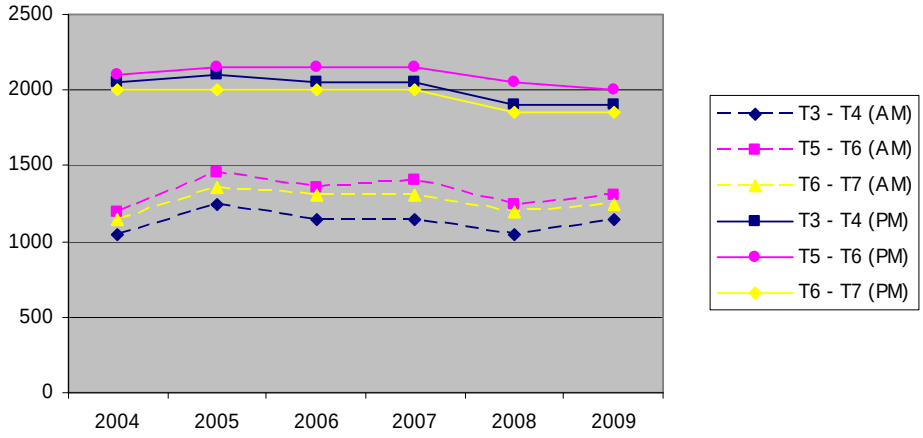


Figure 7 - Average hourly traffic flow, M6 Toll, Northbound

Whilst traffic overall is falling, traffic in the Monday to Thursday morning rush hour has been increasing "on almost all sections monitored" (see Figure 6) since 2008.[6] Afternoon traffic, though higher, has been in decline following the completion of roadworks on the M6 (which attracted more drivers to the toll road).

[5] M6 Toll Five Years After Study, p. 36
[6] *Ibid*, pp. 38-39

Journey times in the AM and PM peaks are similar on both the M6 and M6 Toll, although delays on the M6 continue long into the evening following the opening of the toll road. One plausible theory is that drivers are opting to pay the toll in the morning to get to work on time, but choose to leave work later rather than pay the toll in the evening.

The cost of the toll has more than doubled in five years and is poor value for money

In its first year of operations, the cost of using the toll was set at £2 for cars, and £10 for large vehicles, such as coaches or HGVs. In August 2004 this rose to £3 for cars, but fell to £6 for larger vehicles, and has steadily increased every January since to the current price of £5 for cars and £10 for large vehicles.

Given that, outside of peak times, drivers save roughly 10 minutes by taking the toll, the £5 charge equates to value of time of £30 / hour. [7]

Goods vehicles overwhelmingly reject the toll road

While individual drivers may not value their time sufficiently highly to pay the toll, commercial operators, especially those in the haulage industry, can be expected to make rational economic choices. The Freight Transport Association summarised the haulage industry's approach in their evidence to the public inquiry.

A free-flowing motorway, as promised by Midland Expressway Ltd's representative, was "exactly what the haulage industry requires of the road network". If the M6 Toll were demonstrably more reliable, "companies would will make a straightforward commercial decision as to whether the benefit of using [the M6 Toll]… outweighs the direct cost: the toll charge".[8]

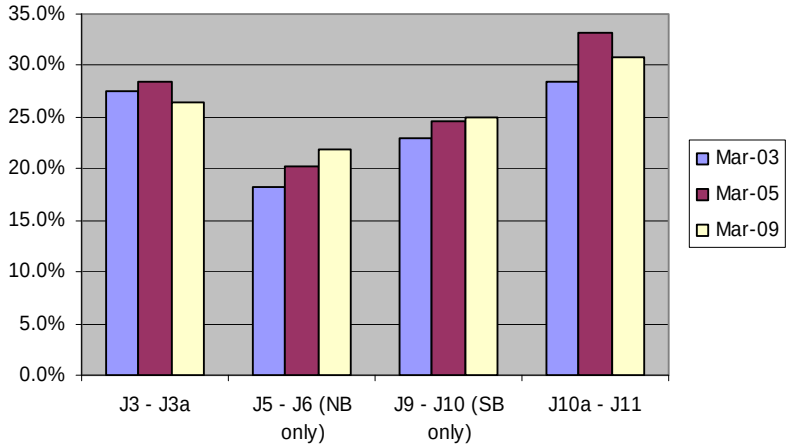


Figure 8 – HGVs as a percentage of traffic on the M6

[7] Interestingly, this is two pounds below the value of time used by the Department for Transport to calculate the benefits of transport schemes, which suggests that the Department's figure is too high and is not an accurate reflection of the value individual motorists place on their time, or that businesses place on the productive time of their staff.

[8] Freight Transport Association, submission to the M6 Toll public inquiry, p. 12

Five years after it opened, and hauliers have overwhelmingly rejected the M6 Toll, choosing instead to remain on the already congested M6. HGVs make up between 9% and 13% of vehicles on the M6 Toll, but comprise up to a third of vehicles on the M6. This follows sustained accusations by the haulage industry that MEL deliberately set their prices so as to dissuade hauliers from using the toll (see below).

The actual number of heavy goods vehicles on the M6 and the M6 Toll varies from junction to junction. Nonetheless, it is clear that between 90% and 95% of HGVs on the M6 / M6 Toll corridor are on the M6. HGVs have a greater impact on road surfacing than other vehicles, so the Highways Agency is carrying a disproportionate share of the cost of maintaining the M6 / M6 Toll corridor.

	Junction	Number of goods vehicles / weekday
M6	J3 - J3a	33,200
	J5 - J6 (NB only)	13,700
	J9 - J10 (SB only)	19,900
	J10a - J11	30,500
M6 Toll (NB)	M6 J3a - M42 Merge	3,000
	T3 - T4	1,700
	T4 - T5	1,900
	T5 - T6	1,800
	T8 - M6 North	1,300
M6 Toll (SB)	T1 - T2	1,600
	T2 - T3	1,700
	T4 - T5	2,100
	T5 - T6	2,200
	T6 - T7	1,700
	T7 - T8	1,600
	T8 - M6 North	1,400

Table 1 - HGVs on M6 and M6 Toll

The M6 Toll has proven a terrible investment, running at a considerable loss

The coalition Government has suggested that private investment, repaid via tolls, could be a means of funding new capacity during the fiscal crisis. However, the M6 Toll has yet to make a profit, and is actually losing its operating company tens of millions of pounds a year.

Midland Expressway Ltd is losing millions of pounds on the M6 Toll

Midland Expressway Ltd (MEL), which built and operates the M6 Toll, has made an annual operating loss of around £26 million each year since the road opened.[9] The National Alliance Against Tolls (NAAT) estimates that the toll would need to double its annual takings to break even.[10]

2004	2005	2006	2007	2008	2009
£29.4m	£26.5m	£21.2m	£27.9m	£26.7m	£26.1m

Table 2 – Midland Expressway Ltd's annual reported losses

With traffic levels considerably below estimate, MEL and its parent company, Macquarie Infrastructure Group (MIG) has had to dramatically write down the value of the toll road. Robert Bain, an independent

[9] Midland Expressway Ltd., *Annual Report and Financial Statements for the year ending June 2009.* http://www.macquarieatlasroads.com/asset-portfolio/docs/m6toll-financials-jun09.pdf

[10] http://www.notolls.org.uk/m6.htm

consultant and traffic modeller, notes in an article about the under-performance of toll road operators, that the MIG adjusted the value of the M6 Toll from A$2.2 billion in 2008 to A$412m in 2009 (from £1.25 billion to £234m).[11]

To recoup falling profits, MEL has introduced annual above-inflation toll rises, driving more toll users back to the M6. Emphasising the competition between the toll and the M6, Steve Allen, the chief executive of Macquarie Infrastructure Group, told an Australian newspaper that "What we need is to slow down the M6" to make the toll road more attractive.[12]

Toll road operators' needs often conflict with the needs of their users

Many road user groups have raised concerns about the disparity between the needs of the operating company, the region and road users, concerns echoed in the Transport Select Committee's 2005 report into road user charging.[13] The haulage industry, for instance, has accused MEL of setting tolls so as to dissuade hauliers from using their road, to reduce the cost of maintaining the toll road.[14]

MEL's 2009 annual report expresses concern at the introduction of hard-shoulder running (which would reduce congestion on the M6 and make the toll less attractive), and suggests that the company has been lobbying the Highways Agency against it.[15] The company is also very keen to expand the use of electronic 'TAG' technology, because drivers are more willing to accept toll increases when the payment is virtual than when "you have to put your hand into your pocket for the extra".[16]

Midland Expressway Ltd has also been investigating plans for peak pricing, increasing the costs of the toll during the morning and afternoon rush hours, when the parallel M6 is most congested. The morning rush hour is the only time of day when traffic on the toll is growing; increasing prices at this time, when the M6 is most in need of congestion relief, is likely to reverse this trend and drive more traffic back to the M6.

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[11] 'In support of user-paid tolls', *PPP Bulletin*, http://www.robbain.com/In%20Support%20of%20User-Paid%20Tolls.pdf
[12] 26 August 2005. http://www.theage.com.au/news/business/morgan-takes-the-chair-at-biodiem/2005/08/26/1124562983424.html
[13] Transport Select Committee, Seventh Report 2005, section 6. http://www.publications.parliament.uk/pa/cm200405/cmselect/cmtran/218/21809.htm
[14] See, for example, the December 2007 press release by the Freight Transport Association: http://www.e-couriernews.co.uk/content/view/850/1/
[15] http://www.macquarieatlasroads.com/asset-portfolio/docs/m6toll-financials-jun09.pdf
[16] Steve Allen, 26 August 2005. http://www.theage.com.au/news/business/morgan-takes-the-chair-at-biodiem/2005/08/26/1124562983424.html

Conclusion: no one wins from new toll roads

As the full impact of the financial crisis becomes apparent, councils across the UK are being encouraged to look into new ways to finance link roads, bypasses and other road-building projects. The Secretary of State for Transport, Philip Hammond, and Under-Secretary of State in charge of Strategic Roads, Mike Penning, have both expressed an interest in using private finance, backed up by tolls, to fund new capacity.

But the only example of a private toll motorway in the UK, the M6 Toll, has been a colossal and expensive failure. Any initial benefits were soon eclipsed by rising traffic levels, and, as this report has shown, journey times have scarcely improved. Despite above-inflation toll increases, Midland Expressway Ltd, the M6 Toll's operators, have reported annual loses of around £26 million.

Still desperate to reduce congestion, the Highways Agency planned to commit half a billion pounds rolling out hard-shoulder running on the M6. This was deferred pending the Comprehensive Spending Review, but is undoubtedly the best indicator of the toll road's failure to cut congestion by any meaningful amount.

We need to learn the lesson of the M6 Toll

The failure of the M6 Toll to deliver congestion relief has been widely accepted by organisations that support and oppose road building. The Road Haulage Association (RHA) neatly summarised the problem in their submission to last year's inquiry by the Transport Select Committee into the strategic road network:

> *"A national asset that was constructed in the face of substantial environmental opposition because rising traffic forecasts decreed it a necessity is actually taking less traffic than envisaged—and by a considerable margin. Meanwhile the road it was supposed to relieve is to have spent upon it large sums of money to stop it seizing up! This is not the way to run an integrated sustainable transport system where assets are used properly."*[17]

Nonetheless, the case continues to be made for additional capacity funded by tolls. In the same submission, the RHA proposed widening and tolling sections of the A14, the M42/A42 Birmingham–Nottingham Link, the M6 between Birmingham and Manchester and much of the A1 and A34. And tolling is not just proposed for national trunk roads: local authorities, such as Devon County Council, have proposed introducing tolls as a means of funding otherwise unaffordable local road schemes.[18]

Proponents of tolling imagine that new capacity can be provided in return for very marginal usage costs. The RHA explained that "Road hauliers would see the availability of a free-flowing road as compensation for a user payment" and be willing to pay a toll in exchange for new and widened roads.

But, as we have seen from the M6 Toll, even a completely unregulated private operator cannot make money from toll roads. A regulated operator with fewer freedoms over the level of charges (as proposed by motoring organisations) would find it even harder to make a profit, unless supported by covert or overt taxpayer subsidies.

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[17] Memorandum from the Road Haulage Association (RHA) (MRN 17)
http://www.publications.parliament.uk/pa/cm200910/cmselect/cmtran/505/505we20.htm

[18] Mixed receptions on moves to make drivers pay, Herald Express, 2 August 2010 http://www.thisissouthdevon.co.uk/news/Talks-bypass-toll-roadMixed-reception-moves-make-drivers-pay/article-2478478-detail/article.html

Instead of promoting toll roads as a viable alternative to central Government money, the Department for Transport should use what little money remains in its coffers to maintain the roads we have and provide people with viable alternatives to car use. Toll roads are not, and will never be, a solution to congestion on Britain's roads, no matter how attractive they may appear to cash-strapped politicians desperate to deliver otherwise unaffordable road schemes.

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