



Motoring Towards 2050

Transport Infrastructure: How much & how can we pay for it?

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Two old problems and two new ones!

1. Shortage of road and rail capacity
2. Climate change
3. Effect of economic recession on need
4. How to pay for new capacity?

Budget 2009: Gvt cap investment to fall from
3.1 % GDP to 1.3%

This year it's the best it will be for over a decade!



The Economy

Transport demand is highly dependent on economic activity

But time horizons are 10..20..30 years... and the economy will recover

Eddington Report tells us what to do on transport for
productivity and competitiveness!

So we have to deal with the argument
that we no longer need to worry about capacity

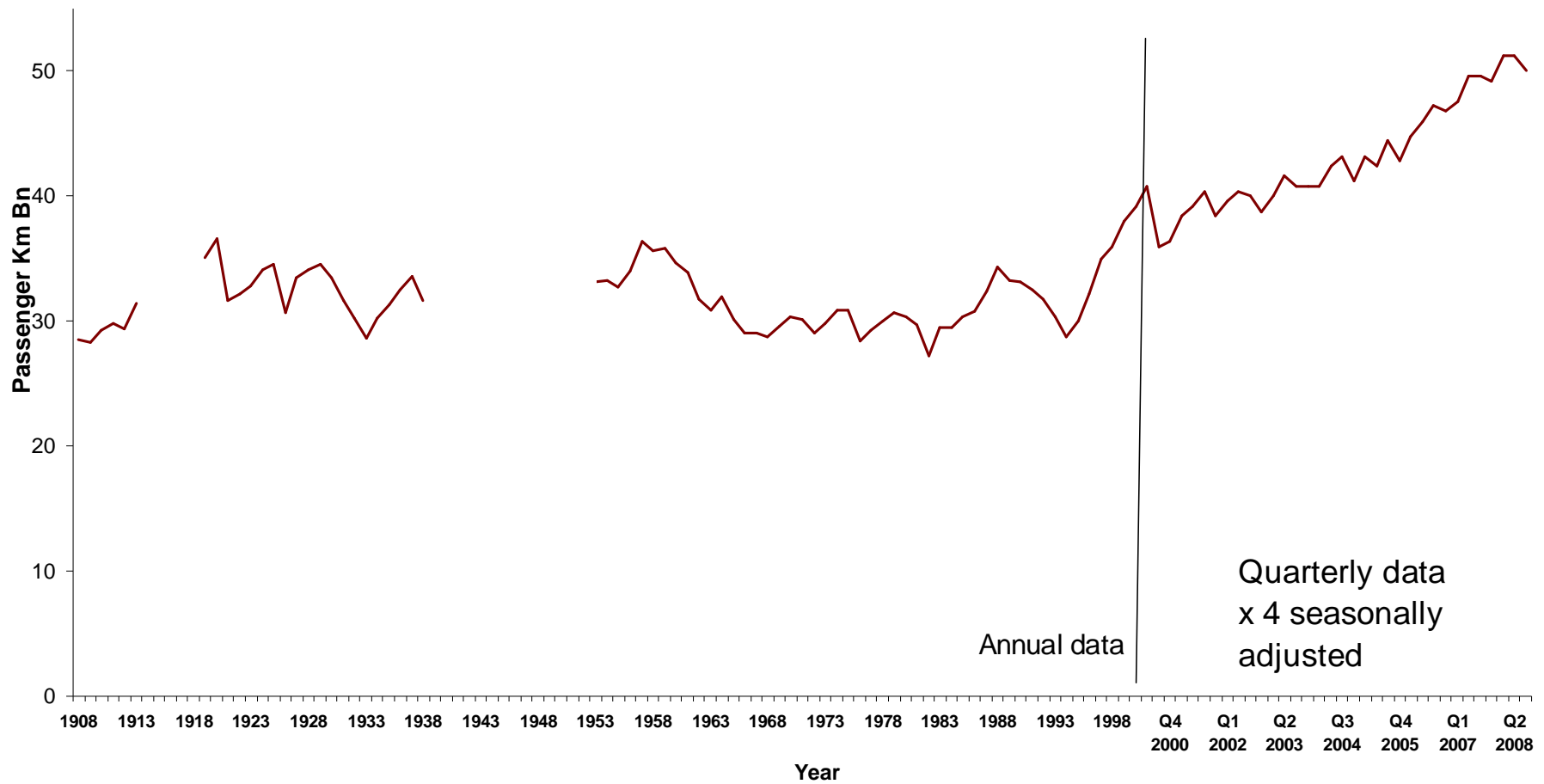
And we have to show how it will be paid for!



Rail traffic growth

(source: Office of Rail Regulation etc)

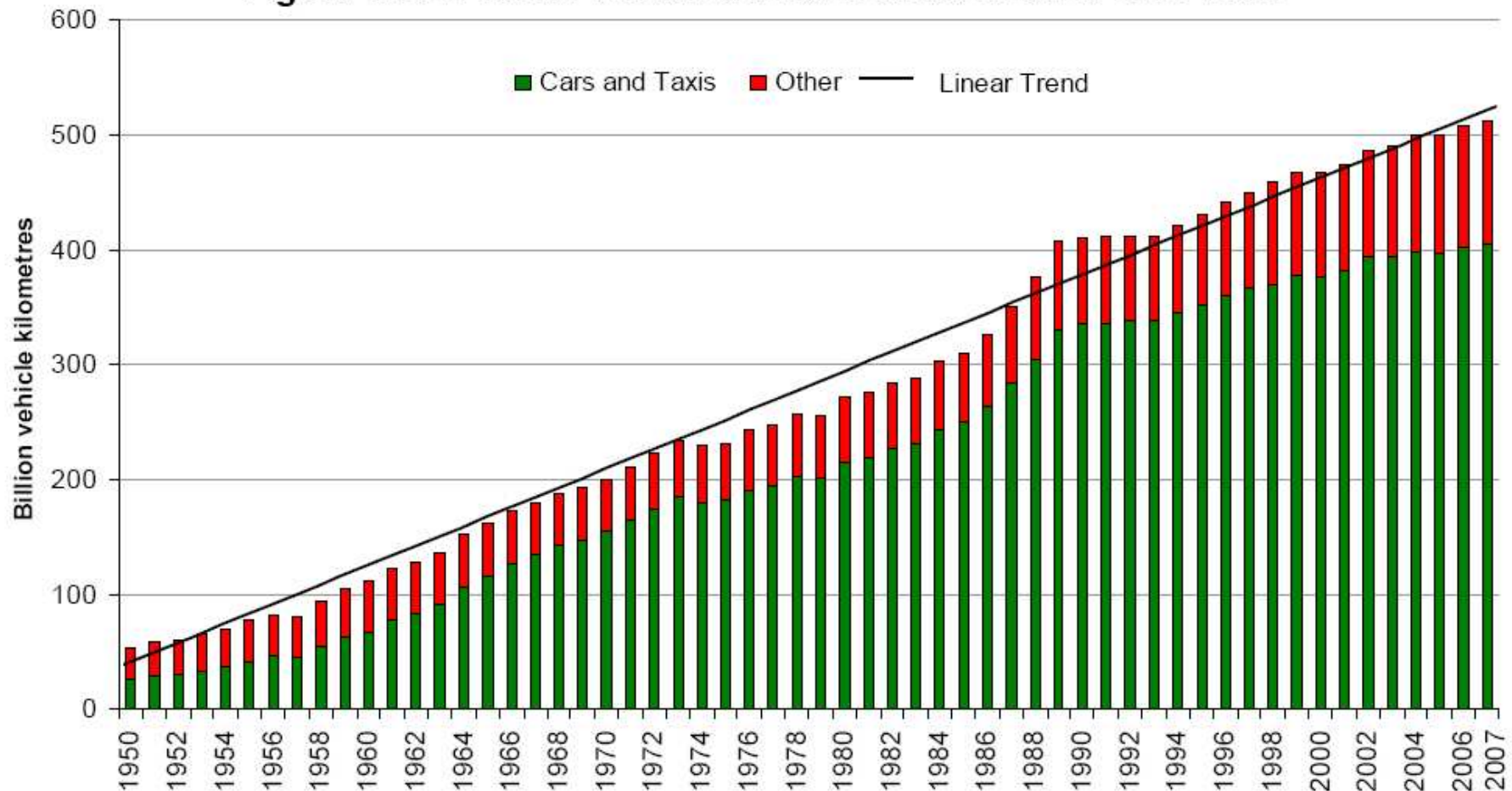
Rail Passenger Km (Bn.) GB 1908 to 2008



Road traffic growth

(source: Road Statistics 2007, DfT)

Figure 1.1 All motor vehicle traffic in Great Britain: 1950–2007





Predictability of journey times

As the network gets closer to capacity

Average journey times increase

Variability of journey times increase.

Quality of service to the user declines

Eddington, DfT research have recognised this

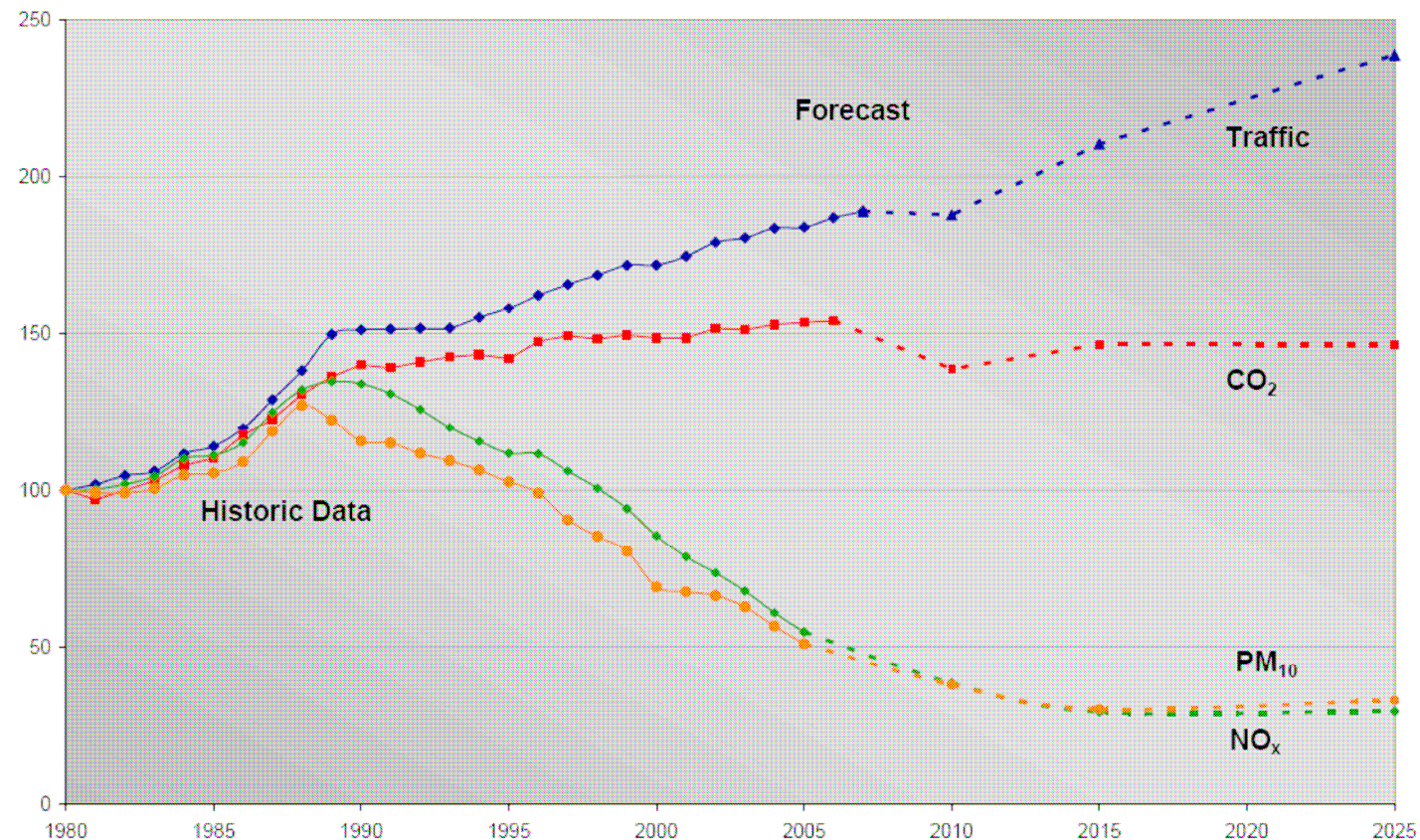
... but have Gvt. or Opposition?

National Traffic Forecast (DfT, 2008)

Budget 2009: 3.5% economic growth from 2011



Figure 1: Road Traffic and Road Transport Emissions, Past and Forecast



Source: Historic traffic data from DfT (2007); Historic emissions data from DECC (2007); forecasts from the NTM



Future demand for roads

Between 2005 and 2041:

- National population will grow by at least 11%
- Most growth in the E, S and London
- Incomes will double
- Number of cars will increase by 44%
- Road traffic demand up by 43%



Carbon:

Follow through principles of Stern and Eddington

Decide what the price of carbon should be

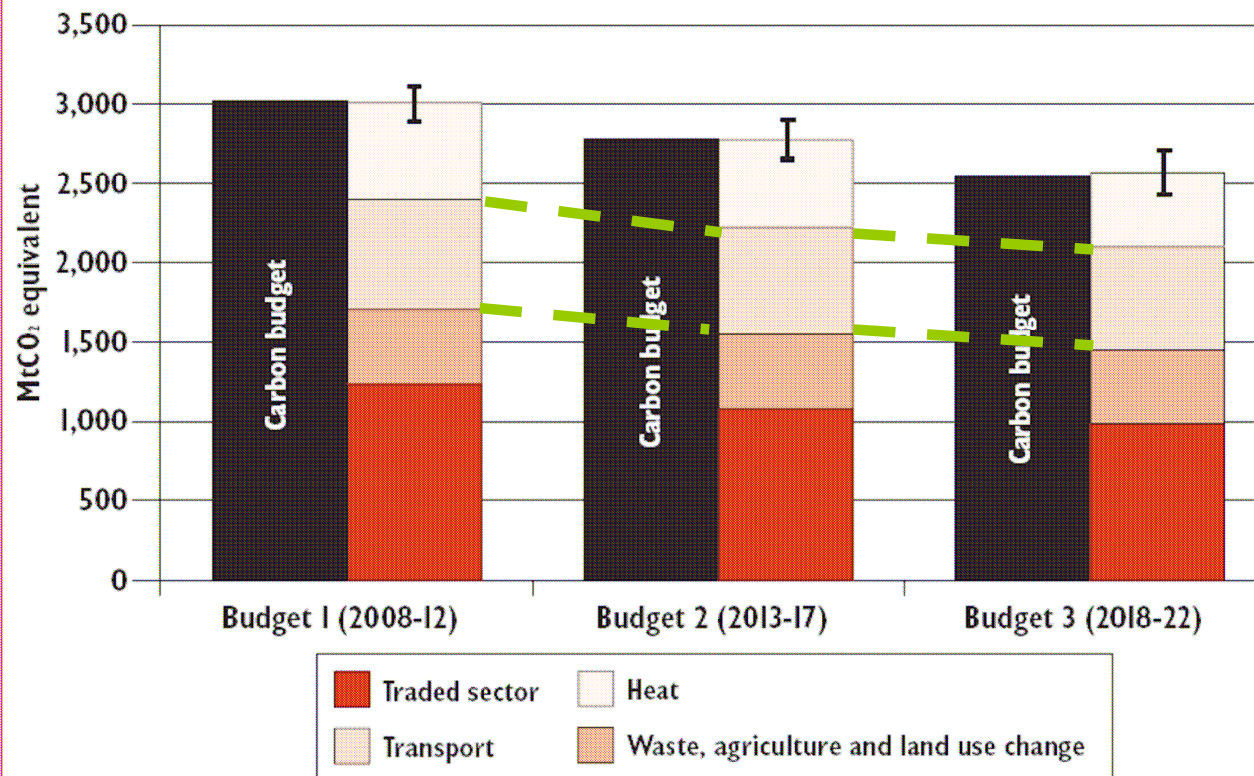
Ensure everybody pays it

Do road and rail appraisals properly **and use them!**

Budget 2009: Official Carbon Budgets

Transport emissions stable

Chart 7.1: Carbon budgets against projected emissions by sector



Source: Department of Energy and Climate Change

Notes: Projected emissions are based on an updated version of the UEP32 emissions projections, adjusted for consistency with Budget economic growth assumptions and improved estimates of policy savings. For further detail, please see Updated Energy and Carbon Emissions Projections, Department of Energy and Climate Change, November 2008.



Stable carbon, growing traffic

Stable transport carbon emissions

Achieved by improved vehicle technology etc.

Implication: **we will need more road capacity!**



On current values

Congestion is a bigger problem than carbon

Carbon in transport will be reduced by

- Implementation of better technology
- Decarbonising surface transport
- More sensible pricing



Investment: For Rail there is a coherent strategy

High Level Output Specification (HLOS)
Statement of Funds Available (SoFA)

Independent Regulator to adjudicate that it all adds up
& that providers are able to finance their activities

- High speed rail proposals will have to be shown to be
- good value for money
 - a good way to increase capacity
 - genuinely good environmentally
 - “affordable” in the context of existing plans



This rail regime aligns

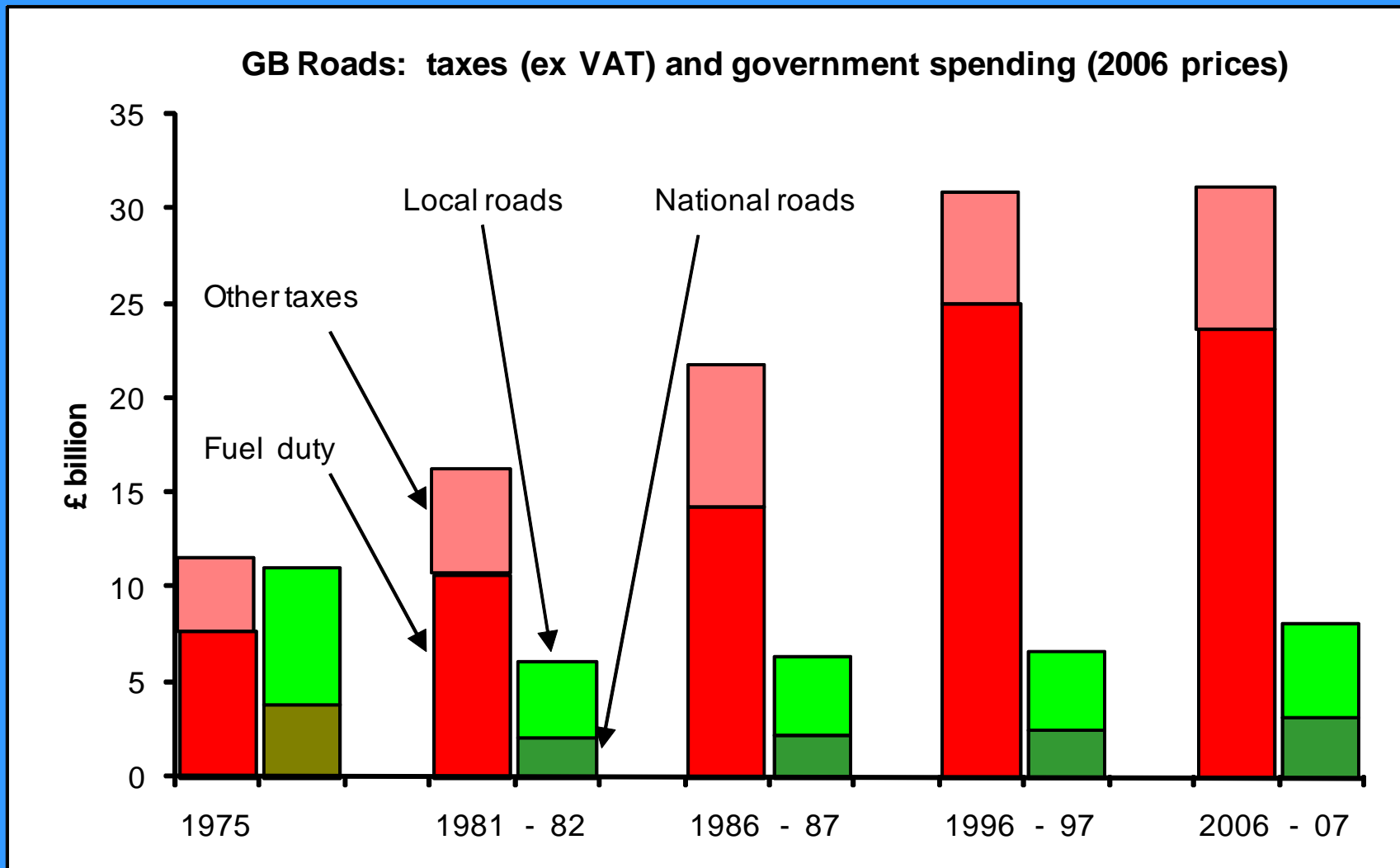
- predicted numbers of users
- charges to users
- sources of funds (fares, taxes)
- investment in capacity

We have NONE of this for roads

There is no HLOS & SoFA for roads!

(Over 85% of passenger and freight movement!)

We do pay for our roads





Efficient Road Pricing:

Replaces existing motoring taxes with

- A carbon tax on fuel
- A distance based charge reflecting
 - congestion
 - harmful emissions
 - road track costs
 - accidents



The RAC Foundation suggestion

Road pricing deals with congestion

Extra capacity restores mobility

Both are needed to do the job – a policy package

600 Lane km pa justified with OR without pricing

This is not excessive by historical standards

Road pricing could yield cash flows to fund the new capacity



Private funding?

There are many locations where new road capacity would be highly profitable....

..... assuming proper road pricing

Even at current traffic levels!



Telecoms, Gas, Electricity, Water, Rail

Consumer pays a fee for use

Fee determined by independent regulator

public interest principles:

economy, efficiency, fair return on capital,
fund capacity investment

Consumer protection: eg Quality of Service is published and debated

**Direct connection between value to consumer and
investment in capacity**

For roads we have little of this.



Governance reform

Some lessons taken from the other public utilities ?

New and independent authorities could be a useful part of future reform.

We need better measures of quality of service & better pricing

This would facilitate the necessary rebuilding of trust between accountable bodies and users.

But it must be national? ... Manchester!



Conclusion

With or without Road Pricing

We need more road capacity

We have to solve governance & “affordability” problems

Neither capacity nor “affordability” problems will be solved under present governance

Reform of pricing and control would liberate the nation’s most valuable infrastructure asset.