Department for Transport

MOT Scheme Evidence-base

November 2008

Points of contact

The Department for Transport has published this evidence-base relating to the MOT scheme for information. However, should you have any comment on it, or if you would like any further information about it, you may wish to contact the Department at the following address

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MOT EVIDENCE-BASE – FOREWORD BY THE SECRETARY OF STATE

This document provides information about the evidence-base for the MOT Scheme.

Its main purpose is to help us reflect on whether or not we carry out MOT testing at the 'right' frequency, or whether there could be a case for reducing the frequency of testing. It also looks at what additional measures could potentially be introduced to help motorists maintain their vehicles in a better way.

EC law currently requires, as a minimum, a first test of cars not less than four years after registration, and subsequent testing not less than every other year thereafter. However, we test cars three years after registration and then annually.

Given the passage of time since testing was first introduced in 1960, and the fact that modern cars are generally more reliable, it is perhaps not unreasonable to ask whether we still have the right balance between the requirement for testing and safeguarding road users against defects which might otherwise go un-noticed.

Following computerisation of the MOT scheme in 2006 we now have a detailed evidence-base which allows us to identify more precisely what benefits come from testing. It also means we can forecast with much more certainty the likely consequences of any changes to the way the MOT scheme operates.

A key question is whether the money and time motorists would save by a reduced test frequency would be outweighed by the consequences. A key concern must be how we would be able to ensure that cars remained in a safe condition in the event that test frequency were to be reduced. And, more directly, whether a reduction in testing frequency would result in a new and unacceptable cost to society as a result of additional road traffic accidents which testing at the current frequency helps avoid.

Our analysis suggests that a significant number of additional road traffic accidents would be likely with reduced test frequency. This is primarily because the annual MOT failure rate is already high (around 35%), and, if we were to reduce test frequency, there is a very real risk that the number of unroadworthy cars would increase significantly. In turn, the number of road casualties would inevitably increase if there were to be an increase in the number of defective cars on our roads.

Clearly any significant increase in road traffic accidents or in the number of road casualties would be a wholly unacceptable outcome; and, for that reason, our view is that the MOT test as it stands is providing valuable overall benefits in a cost-effective manner.

The document also reflects on possible alternative or additional measures to help encourage motorists to maintain their vehicles.

Introduction

1. The purpose of this document is to present an evidence-base about the costs and benefits of MOT-testing cars - which has been a familiar requirement for most motorists in Great Britain since the early 1960s.

2. We have reviewed the available evidence in response to the Davidson Review of the Implementation of European Legislation - which reported in November 2006 - and questioned why we test earlier and more frequently than the minimum requirements of EC law. Our conclusion is that the MOT test - and test frequency in particular - is strongly cost-beneficial, and we therefore have no proposals to make any changes as things stand.

3. The purpose of testing is to help ensure that motorists look after their vehicles in a reasonable way - and this is achieved by checking to see that all key safety systems and components meet at least a minimum acceptable standard once a year, at the time of the test. The level of regulated pollutants in the exhaust emissions is also checked during the test.

4. Most cars are subject to an MOT test once they have reached three years of age, and they are then tested every year thereafter (3.1.1 testing). Some 23 million cars are tested in this way every year at over 18,500 MOT testing stations by 48,000 specifically DfT-authorised personnel, known as Nominated Testers (NTs). The overall level of failure at test is currently around 35%, and MOT testing detects nearly 8.5 million cars with defects each year.

5. This analysis touches on a number of significant issues, such as:

- what the impacts of changing the frequency of testing might be - particularly in terms of the potential savings to motorists in MOT fees and in their time, but also in terms of the potential increased risks to road safety;
- what might change and how if MOT testing frequency were to be reduced - including the behaviour of motorists, other stakeholders and also the implications for garage services, insurance policies and vehicle manufacturer warranties;
- whether in practice there would be cost reductions if MOT testing frequency were to be reduced, given that the requirement for motorists to maintain their vehicles in a roadworthy condition would continue, motorists would still need to be reassured that their car was in a roadworthy condition, either by carrying out a full check themselves or by arranging for such a check to be undertaken; and,
- whether there are things we could do to complement the MOT test and help motorists to maintain their vehicles in a better way.

Purpose

6. MOT testing is required by EC legislation and it will remain central to our approach of helping to ensure that cars are maintained in a roadworthy condition. However, the minimum requirement of European law is that there should be a first roadworthiness test when a car is four years old, and then a test every other year thereafter.

7. In response to the Davidson Review - and as part of our commitment to review regularly the delivery of policy objectives involving a regulatory requirement - we have reviewed MOT testing frequency. We have also looked more widely at our approach to helping motorists fulfil the legal requirements on them with regard to ensuring the roadworthiness of their cars. Our review covered the following issues specifically:

- the frequency of MOT testing, and the costs and benefits, and also the potential consequences of testing at different frequencies; and,
- the additional non-statutory measures that could be followed up alongside MOT testing to help motorists to maintain their vehicles in a better way.

And our purpose here is to explain and share our methodology and conclusions with stakeholders.

8. This document sets out the issues in detail, including the analyses we have made. Its specific purpose is to:

- review the costs and benefits of the scheme as it stands at present;
- explore the likely consequences of varying the frequency of testing by looking at three scenarios in which testing is less frequent; and,
- consider the costs and benefits of other possible options for helping to keep unroadworthy cars off the road

Testing Frequency

9. The tables below summarise the cost/benefit ranges of the various testing frequency scenarios.

10. In each scenario - and also in the case of evaluating the net benefit of the scheme as it stands at present - the net impact arises from the cost-saving to motorists in reducing or eliminating test fees, as compared to the consequences of the forecast increase in the number of unroadworthy cars on the road. In each case the cost-savings to motorists are identified as the money and time savings motorists would be likely to make if testing frequency were to be reduced. Equally, in each case the forecast increase in the number of unroadworthy cars on the road is translated into the risk of additional accidents, resulting in death, injury or damage.

11. Because both the costs and benefits can vary depending on the assumptions that are made, we have presented these elements as ranges with a low (L), medium (M) and high (H) estimate. The remainder of this paper sets out the

assumptions underlying these estimates in more detail. It also explains that the low and high estimates are at the extremes of the possible range, and that the more probable outcome of each option is likely to be nearer to the middle of the range.

12. The tables summarise the net impact of the following scenarios:

- 'BASE CASE' - which considers the costs and benefits of the scheme as it stands (evaluated by looking at what would be the likely outcome of having no testing scheme at all notwithstanding the fact that this would not be an option since it would put us in breach of EC law);
- Scenario 1 - which considers having the first test at year 4, and then an annual test thereafter (4.1.1 testing);
- Scenario 2 - which considers having the first test at year 4, the second at year 6, and then annual testing thereafter (4.2.1 testing);
- Scenario 3 - which considers having the first test at year 4, and then testing every other year (4.2.2 testing, which is the current EU minimum).

13. **TABLE 1** shows the value of the estimated net benefit to society of the 'Base Case'. Where the table indicates that there is a benefit to society (a **YES**), this means that the benefits to society (in reduced accidents) outweigh the costs (in fees and time costs). Evaluation of the range shows that all of the estimates - low, medium and high - show a net benefit to society.

TABLE 1

Scenario	**Base Case (NO change)**		
RANGE	L	M	H
TOTAL VALUE £million	1080	4448	6460
BENEFIT To society YES/ NO	YES	YES	YES

14. **TABLE 2** summarises the comparisons of the costs and benefits of making a change to test frequency - in accordance with Scenarios 1, 2 or 3. Where this table indicates that there is a benefit to society (a **YES**), this means that the benefits to motorists (in terms of savings in fees and time costs) outweigh the costs to society (in terms of increased road casualties). Where this table indicates that there is not a benefit to society (a **NO**), this means that making the proposed change to the scheme would cost more than the benefits the change would be likely to deliver.

TABLE 2

Scenario	1 (making a change)			2 (making a change)			3 (making a change)		
RANGE	L	M	H	L	M	H	L	M	H
TOTAL VALUE	68	67	172	106	191	412	45	887	1523

£million									
BENEFIT To society YES/ NO	YES	NO	NO	YES	NO	NO	YES	NO	NO

15. The detail behind all of the estimates, calculations, and our assessment of the probability of which estimates are the most likely, are included in the detailed discussion in Section 2 of this document, below.

16. It should be noted that our estimates can only show the costs and benefits from different scenarios assuming no behavioural change on the part of motorists in response to any change in testing frequency. The estimates also assume that there are no other changes to promote the need for essential maintenance in order to keep cars properly roadworthy.

Measures to complement and support the MOT - in the event of a reduction in testing frequency

17. In Section 3 of the consultation document we consider whether there may be additional non-statutory measures that could be followed up alongside MOT testing to help motorists to maintain their vehicles in a better way. These measures could sit alongside any of the testing frequency scenarios set out in Section 2. Our objective in Section 3 is to explore and assess these measures.

18. We have considered a wide range of options, including:

- 'Self-regulation' (including what behavioural change we might see in the absence of a statutory test at year 3 for example);
- delivering a more risk-based approach (for instance a testing regime taking into account mileage covered by a car);
- Market-based instruments; and,
- Providing information and guidance.

Potentially each of these could be used - or any combination of them could be used - in conjunction with any of the scenarios for reducing test frequency. The objective would be to deliver the same overall results in terms of roadworthiness, but without the need for mandatory testing at the current level.

SECTION 1: BACKGROUND

Introduction

19. Motorists are required by GB and EU law to maintain their cars in a roadworthy condition. This helps to keep our roads as safe as possible for road users, for example by ensuring that car brakes are working effectively; and it helps to protect the environment, by ensuring that cars are not producing avoidable pollution.

20. In GB the first MOT test is when a car is three years old and then there is an annual test thereafter. The MOT test will remain at the heart of the GB regime for promoting roadworthiness. However, it would theoretically be possible to reduce the frequency of MOT testing while still complying with European law, under which the current minimum requirements is for a first test when a car is four years old, and then for tests to be carried out every other year.

21. This possibility could offer some time and cost-saving benefits to motorists - because in future they would need to have their cars formally MOT-tested less frequently. But a reduction in the frequency of testing in isolation could also have negative impacts on road safety and the environment.

22. We would need to weigh the balance very carefully in considering how we can best ensure that cars are roadworthy, and how frequently they should be MOT-tested. We would also need to be quite sure about whether or not 'the overall system' could be developed in some way - if testing were to be made less frequent - without compromising road safety.

23. The likely behavioural response of motorists to any reduction in MOT test frequency (and the response of other key stakeholders, such as the vehicle maintenance and insurance industries) is uncertain. However, it might potentially be possible to deliver the objective of ensuring that cars are roadworthy in a number of ways apart from mandatory regulatory requirements. There might also be other options which could help to ensure that motorists were looking after their cars in a reasonable way.

Purpose

24. The purpose of this analysis is to:

- review the costs and benefits of the scheme as it stands at present;
- explore the likely consequences of varying the frequency of testing by looking at three scenarios in which testing is less frequent; and,
- consider the costs and benefits of other possible options for helping to keep unroadworthy cars off the road.

Our approach

25. In considering MOT testing frequency, we have presented some key information which sets out the estimated costs and benefits of the scheme as it currently applies to cars - which is for a first test three years after registration and then a test annually thereafter (3.1.1). We have referred to this as 'the Base Case' against which any changes have to be compared. We have also looked at three scenarios under which the test frequency is reduced - whilst remaining within the current minimum frequency of testing which is set by European law.

26. In the discussion of other approaches to helping motorists meet their legal responsibility for ensuring minimum roadworthiness standards we have sought to consider both the practicality and the likely consequential impact of a wide range of measures.

Key background facts about the MOT scheme

27. MOT tests are carried out in over 18,500 MOT testing stations located in England, Scotland and Wales. Testing stations are specifically authorised to conduct MOT tests by the Department for Transport's Vehicle and Operator Services Agency (VOSA), on behalf of the Secretary of State. Tests are actually carried out by up to 48,000 'Nominated Testers', who, again, are specifically authorised by VOSA. VOSA's role in the MOT scheme is to oversee the testing scheme - to ensure it is working in an appropriate manner - which includes checking to ensure that tests are carried out in the prescribed manner and only by authorised personnel. VOSA's costs in all this are met through a small levy on each MOT test pass result recorded by a testing station.

28. The results of all MOT tests have been recorded on a central database since 2006 - and most of the information used in this consultation document relating to the results of MOT tests comes from that source. The cost of providing and maintaining that database is met directly from the levy paid by testing stations for each test pass they record on the database, which is contained within the overall maximum MOT fee that testing stations can charge their customers. The provision of this database service is outsourced (that is run by the private sector under contract with VOSA) and the contract will last until 2015. It is provided on the basis of a minimum number of forecast MOT tests each year. Consequently, in the event that MOT test frequency were to be varied there would be a financial cost-penalty involved - and this has been estimated and allowed for in the cost-benefit calculations.

29. MOT failure rates have fluctuated slightly over the last 15 years or so (see Annex B for details). There is no single factor to account for this. Tyres are no less susceptible to wear now than they were 15 years ago. In some respects tyres wear is more common now - in part because modern tyre with

'more grip' tend to be softer and therefore wear at a faster rate; and, because most modern cars tend to have power steering and drivers expect to be able to turn wheels without moving their vehicle. Equally, the wearing items in braking systems are no less susceptible to wear, even though more modern (disc) braking systems have increasingly been fitted to more modern vehicles. On the contrary, to some extent wear is more likely with modern braking systems, because asbestos-free friction material is harder, and this results in more wear to brake discs and drums.

30. Conversely, it is almost certainly true to say that modern vehicles tend to be 'generally more reliable' than in the past. This is mainly a reflection of the fact that they are less prone to failure of ignition control systems - which have been electronically managed for a number of years now, rather than mechanically controlled. It is probably also true to say that modern vehicles tend to be less susceptible to corrosion. This is mainly a reflection of better manufacturing processes, both in the application of anti-corrosion treatments to the bodywork and in the construction materials used in brake piping, for example.

31. Modern vehicles also tend to have longer service intervals than older vehicles, due both to the increased use of 'sealed for life components', and to the use of more advanced lubricants. It is probably also true to say that manufacturing tolerances have improved, as have manufacturing techniques and materials.

32. However, the MOT test is not really concerned with vehicle reliability, it is mainly concerned to ensure that wearing components are not deteriorated to such an extent as to make the continued use of the vehicle in that condition dangerous. The test often provides an incentive for people to have their vehicles properly checked and serviced every year in order to ensure an MOT pass. Other people may use it as a safety-net which enables them quite simply to keep their car on the road safely and lawfully - and in turn this also helps to ensure that their insurance remains valid. However individuals choose to make use of the test, we know that one-third of all cars tested annually do not pass because they do not meet the minimum required standards. We do not know how many of those that pass do so because their owners have taken pre-emptive action to ensure they do meet the minimum standards, and we hope that comments from consultees may give us further insight about that. So the MOT has a direct effect in identifying and ensuring the rectification of defects in a third of all cars each year. It also encourages a proportion of motorists to ensure that their cars meet the minimum standards in advance of the test.

Key stakeholders

33. In considering the costs and benefits of the MOT scheme and possible options for change, it is of course essential to keep in mind the key stakeholders in the scheme and also the role that they play.

34. Clearly motorists are key stakeholders - with some 23 million cars subjected to MOT testing annually at present. There are two main benefits for motorists. Firstly, the MOT test helps them to keep their own car roadworthy. Secondly, it helps to ensure that other cars on the road are in a roadworthy condition. And, in both respects, that helps to reduce the risk of being involved in an accident resulting from a roadworthiness defect. There are also two main costs to motorists - the cost of the test itself, and also the time-cost of having a vehicle MOT-tested.

35. Although this analysis is focussed on cars, other vehicle classes are also covered by the MOT scheme. These include around 470,000 light goods vehicles of between 3 and 3.5 tonnes (which have an overall MOT failure rate higher than cars - at around 46% as compared with 35% for cars); and, around 860,000 two-wheel vehicles (which have around a 19% overall failure rate). These other classes of vehicle are not considered here.

36. It should also be noted that there are other vehicle classes included within the MOT scheme that are required - by both EU and GB law - to be subject to earlier and more frequent MOT testing than cars. For example taxis (and private hire vehicles) are required to be annually tested from the first anniversary of registration, although in practice most taxis are in fact subject to the testing requirements of local licensing authorities. Such local requirements have to include a roadworthiness check that is at least as stringent as the MOT test. These vehicle classes are therefore also not covered by this analysis.

37. Of course the police also have a significant interest in the MOT scheme - in that they help to enforce the requirement to have a valid test certificate - though generally only when they stop a vehicle for other reasons or when they check documents after an accident. They also have an interest in helping to ensure that vehicles are in a safe condition when they are in use on the road. But Police forces have many competing priorities, and checking on the condition of cars at the roadside is not currently one of the key priorities or targets by which their performance is assessed.

38. Vehicle manufacturers have an interest in vehicle roadworthiness - both because they will want to be able to produce safe, reliable and environmentally-friendly vehicles - and because they want their products to have a good name and be practical to maintain. All manufacturers offer warranties with their vehicles - which are of variable duration, but generally average 3 years. Their recommended standards for vehicle servicing and repair - which owners may or may not choose to continue with after warranty periods have expired - do not necessarily coincide fully with the minimum requirements for MOT testing. Generally speaking they will apply higher standards based on the predicted remaining 'service-life' of a component, whereas the MOT test checks compliance with minimum standards of roadworthiness below which a vehicle may not lawfully be used. A further

difference between manufacturers and periodical testing at present is that manufacturer-recommended service schedules will not necessarily cover all of the items checked in MOT tests - because the former are concerned more with driveability and reliability, whereas the latter are mainly concerned to ensure that at least adequate attention is being given to ensure that the condition of the vehicle has not fallen below a certain level, and that it is not avoidably polluting. In that sense the MOT test is more in the nature of an 'audit' of condition.

39. Vehicle insurers, too, have an interest in vehicle roadworthiness - because the greater the number of unroadworthy vehicles on the road, the greater will be the likelihood of accidents where vehicle un-roadworthiness is either the cause or a contributory factor. In turn this will affect the number of insurance claims due to accidents and in turn the level of insurance premiums. For this reason it is a requirement of insurance policies that motorists do comply with the law in all respects as regards vehicle roadworthiness - both as regards to the condition of the vehicle and as regards to the requirement to ensure that the vehicle has a current MOT certificate (where one is needed).

40. For the avoidance of doubt, the MOT scheme only extends to England, Scotland and Wales (Great Britain). Separate arrangements for testing apply in Northern Ireland - in order to fulfil the requirements for periodical roadworthiness testing of vehicles in the United Kingdom.

SECTION 2: FREQUENCY OF TESTING

Context

41. The proposal to reflect on the frequency of MOT testing formed part of the Davidson Review of the implementation of EU legislation in the UK (which reported on 28 November 2006). The Review looked at areas where UK practice exceeded EU requirements and recommended review and consultation of the MOT regime on this basis (http://www.cabinetoffice.gov.uk/REGULATION/reviewing_regulation/davidson_review/index.asp).

42. There are clearly potential savings for motorists if we were to reduce the frequency of testing - in terms of the cost and time taken up by testing - including the time taken to deliver and collect a vehicle for an MOT test. There are also likely to be potential costs to society generally in the event that the frequency of testing was to be changed - in terms of increased accidents and environmental emissions. This would certainly be true unless there were other compensating changes in approach and market adjustments.

43. In order to show what the possible consequences of changing the frequency of testing might be we have considered a range of possible scenarios. But as a prime comparator, we have firstly considered the benefits of the MOT testing scheme as it stands – which in this analysis we have identified as 'the ‘Base Case’. We have then considered three scenarios which look at progressively reducing the frequency of testing:

- Base Case - which considers the costs and benefits of the scheme as it stands - and can be quantified by looking at what would be the likely outcome of having no testing scheme at all (notwithstanding the fact that this would not be an option since it would put us in breach of EC law);
- Scenario 1 - which considers having the first test at year 4, and then an annual test thereafter (4.1.1 testing);
- Scenario 2 - which considers having the first test at year 4, the second at year 6, and then annual testing thereafter (4.2.1 testing);
- Scenario 3 - which considers having the first test at year 4, and then testing every other year (4.2.2 testing, which is the current EU minimum).

44. Because we cannot know precisely what costs and benefits are associated with MOT testing, we have sought to set out likely ranges for these. In the case of each scenario, a 'low' estimate is included as the lowest possible cost or benefit; and a 'high' estimate as the highest. However, in practice, because these are extreme values it is very unlikely that either the low or high estimate will be a realistic reflection of the actual costs and benefits in real life - and this is simply because they are

necessarily extreme values in a range. The true position is very much more likely to lie within that range, probably around a medium/mid-point value. We have therefore included a mid-point estimate as well as a low and high point.

45. We have illustrated the full possible estimated range of how the overall balance of costs and benefits could look in the detailed discussion of each of the scenarios in the sections that follow. We have done this by balancing the values for maximum costs against minimum benefits, and vice versa. However, given that the combinations of low costs and benefits and high costs and benefits are unlikely in themselves, combinations of high costs and low benefits and low costs and high benefits are even less likely. The high and low points therefore need to be considered very much as representing the extremes of the likely range, rather than as a probable scenario.

46. The tables below summarise the cost/benefit ranges of the various testing frequency options (including low, medium and high scenarios - denoted L, M and H.

47. **TABLE 1** shows the value of the estimated net benefit to society of the 'Base Case'. Where the table indicates that there is a benefit to society (a **YES**), this means that the benefits to society (in reduced accidents) outweigh the costs (in fees and time costs). Evaluation of the range shows that all of the estimates - low, medium and high - show a net benefit to society.

TABLE 1

Scenario	**Base Case (NO change)**		
RANGE	L	M	H
TOTAL VALUE £million	1080	4448	6460
BENEFIT To society YES/ NO	YES	YES	YES

48. **TABLE 2** summarises the comparisons of the costs and benefits of making a change to test frequency - in accordance with Scenarios 1, 2 or 3. Where this table indicates that there is a benefit to society (a **YES**), this means that the benefits to motorists (in terms of savings in fees and time costs) outweigh the costs to society (in terms of increased road casualties). Where this table indicates that there is not a benefit to society (a **NO**), this means that making the proposed change to the scheme would cost more than the benefits the change would be likely to deliver.

TABLE 2

OPTION	1 (making a change)			2 (making a change)			3 (making a change)		
RANGE	L	M	H	L	M	H	L	M	H
TOTAL VALUE £million	68	67	172	106	191	412	45	887	1523
BENEFIT To society YES/ NO	YES	NO	NO	YES	NO	NO	YES	NO	NO

- costs and benefits are shown in millions of pounds.
- both L and H scenarios represent the extreme bounds of what we believe is potentially possible, and therefore these extremes are unlikely to represent the overall impact - which is much more likely to be in the medium range.

49. Unfortunately because of the size and nature of the MOT scheme the cost/benefit ranges tend to be large - and just a percentage point of difference in critical assumptions could of course significantly alter the outcome

50. It should be noted that, throughout the analyses, we have made the assumption that there would be no change in behaviour if the requirement for a test were to be removed or if testing frequency were to be reduced. It may be that that assumption might not be wholly correct in practice - we could not be certain until or unless a change was made. We do know that some people currently take pre-emptive action to ensure that their vehicle passes the test, but we cannot know whether or not they would continue to do so in the absence of a test. We also know that some people currently use the test to find out what is wrong with their vehicle, though again we cannot know what action they would take in the absence of a test requirement. It is for these reasons that we have not attempted to estimate what impact a behavioural change might have on the figures - we have simply used the evidence base as it stands as the best indicator available.

51. At the same time it should also be noted that we have, throughout, regarded the costs as being comprised of both the cost to the motorist of the MOT fee, and also the 'time cost' to the motorist in having to submit a car for testing. These are cost savings that would accrue to motorists if test frequency were to be reduced, and it is the estimated value of these that have been included as 'impacts' in the analyses that follow. It is a separate matter that motorists have a legal obligation to maintain their vehicles in a roadworthy condition. The real difficulty is being able to predict with any certainty whether, in the absence of a statutory test, those motorists who currently take no action to check on vehicle condition would alter their behaviour in the changed circumstances. Also, whether, even if they were to do so, they would be able to arrange such a check more cheaply than the

current costs associated with MOT testing. We have made no assumptions about either of these points in this analysis.

52. In the illustrative cost-benefit tables that follow we have used detailed figures in the calculations, but, given that very large numbers are involved, we have rounded to the nearest million pounds in order to simplify the presentation.

'BASE CASE' - MOT testing as it is currently (3.1.1)

53. MOT testing of cars in Great Britain is carried out on what is currently known as a '3.1.1 pattern or cycle' (namely first test three years after registration and then annually thereafter) - as it has been since 1968. This is more frequently than required by the EU minimum, which is currently to carry out testing on not less than a 4.2.2 pattern (first test four years after registration and then every other year).

54. 4.2.2 is a minimum first prescribed by EU legislation in 1991 at a time when a number of the then EU states did not have any existing periodical testing scheme for cars. There is not a common frequency of testing cars in the EU - 10 out of 26 Member States conduct the first test at year 3 and the majority test more frequently than the EU minimum (the frequency adopted in other Member States is set out at Annex A).

55. It should also be noted that a recent independent study carried out for the EU Commission ('Autofore') has recommended that the current minimum frequency of testing should be strengthened, and that the frequency of testing should be on not less than a 4.2.2.1 pattern. Specifically, the headline recommendation in the Autofore study was that testing should be undertaken annually for cars once they were 8 years old, and that annual testing from when they were 7 years old should be an option that is given serious consideration. The consequences of this study and the impact it might have on the minimum EU-prescribed pattern of testing have yet to be taken forward and debated within the EU.

56. MOT failure rates have fluctuated slightly over the last 15 years or so (see Annex B for details). There is no single factor that might explain this. The overall level of failure at test is currently 36% for cars, and MOT testing detects nearly 8.5 million cars with defects each year. Whilst cars tend to be more reliable and more durable nowadays, vehicle systems and components are in many respects no less susceptible to wear than in the past, and this is what MOT testing checks for.

57. Testing does not guarantee that a car will remain roadworthy for the subsequent 12 months - testing is simply a mechanism to ensure that all cars are maintained sufficiently so that they can be seen to meet not less than a minimum acceptable standard of roadworthiness at least once a year. The responsibility to ensure the roadworthiness of a vehicle throughout the year lies with the vehicle owner.

58. In order to evaluate realistically the case for any change to test frequency, and to help consider the merits of wider approaches to promoting roadworthy vehicles, our approach in this document is firstly to review the costs and benefits of the current testing regime.

Base Case - Motorists and 3.1.1 testing

59. We estimate that the cost to motorists of having cars tested ranges from around £794 million per year to around £1383 million - this includes both the cost of testing and the cost of personal travel time to and from the testing station. If it were possible to stop testing altogether - which it isn't - this is the range of the **BENEFIT** that motorists would gain because of the savings they would personally make in the absence of having to submit their cars for a statutory MOT test.

60. The cost of testing to motorists is not known as a precise figure, because the 'MOT fee' is set by the Department as a maximum that can be charged by vehicle testing stations, and many garages discount the fee either in cash or in the form of special inclusive deals for car servicing, and so on. In this assessment the low estimate of the range represents the scenario where all motorists receive a discounted fee, and the high estimate represents the scenario where all motorists pay the maximum allowable fee. The true picture probably lies somewhere in between, which is why we have also included a mid-range estimate for all costs and benefits in all the calculations in this consultation document. The low estimate we have used for the MOT fee is £30, the mid-range estimate is £45.67, and the high estimate is £50.35.

61. The cost to motorists of personal time is calculated in accordance with the Department's standard recommended method in all transport studies (values of time are detailed in http//:webtag.org.uk).

62. The time estimates used in the calculations here are based on a random sample of post code districts and MOT testing station locations. They also take account of the fact that 85% of all postal districts have at least one testing station within their boundary. The time estimates we have used in the calculations are summarised in the following table:

Journey time estimate - in minutes

Journey	Low	Medium	High
Within postal district	6.3	10	16.5
Outside postal district	30	45	60

63. And the calculation also takes account of the fact that a proportion of people have to make two journeys to a testing station (delivering and collecting their vehicle); some wait whilst the vehicle is being tested; and,

some have to spend further time whilst their vehicle is being retested after an initial test fail. In each of the calculations (both for the evaluation of the Base Case, and for the evaluation of the three scenarios considered), we have made a low, medium and high estimate of the proportion of motorists who take these various actions. We have done so according to the following table:

Four different scenarios considered how a car might be taken to a VTS for an MOT

	Proportion of motorists		
Actions	Low	Medium	High
Deliver car to VTS, carry on with days' business (no waiting), collect car and return home	70%	60%	50%
Deliver car to VTS, return home, no wait during MoT, return to collect car, drive home	15%	15%	15%
Deliver car to VTS, wait for MoT, drive home	10%	17%	23%
Deliver car to VTS, wait for MoT, wait for re-test, drive home	5%	8%	12%

64. Combining these factors gives overall estimates of time summarised in the following table:

(Average, in minutes)	Low	Medium	High
Travel time	26.3	38.5	55.7
Waiting time	10.1	16.9	23.6
Total time	36.4	55.4	79.3

The following assumptions were also made:

- it takes 5 minutes to make a booking for an MOT test (this stays constant for the low, medium and high personal time estimates).
- one third of all first time MOT tests require a re-test.

- MOT tests take on average 60 minutes, and re-tests on average 7.2 minutes.

65. The value of time is than calculated for each of the estimates quite simply by combining the estimated time by the number of vehicles subject to testing in each of the scenarios considered, using also the webtag valuation of personal time, uplifted from 2002 to current cost values.

Consequences of NOT having 3.1.1 testing

66. What is very much harder to quantify precisely is the beneficial effect of keeping 8.5 million unroadworthy cars off the road each year.

67. We do have a number of facts to help us make a reasonable estimate of such benefits - which are very largely comprised of the cost of the accidents that testing helps to prevent, and also the environmental benefit of helping to keep non-compliant cars off the road and hence reducing air quality emissions.

68. The basis we have used for making the estimates in this document is as follows. Essentially what we have done is to make the following calculation:

> *Cost of additional casualties/accidents likely as a result of the absence of testing = cost of accidents currently due to unroadworthy vehicles multiplied by the predicted percentage increase in the number of unroadworthy vehicles likely to be on the road if the requirement for testing were to be eliminated altogether or to be reduced in frequency.*

69. In order to work out the current cost of accidents caused by unroadworthy vehicles, we firstly need to look at the evidence about the involvement of roadworthiness defects in accidents. What we know is that vehicle defects are responsible for causing a minimum of between 2 and 3% of accidents, and a maximum of around 10%. The former estimate comes from the Department's recently published statistical study of accident causation - which is known to be a conservative estimate because it is only based on a limited visual assessment of obvious defects by police officers who attend personal injury road traffic accidents. The 10% estimate comes from a recent in-depth accident-investigation study in Germany which took vehicles involved in accidents and subjected them to a full roadworthiness inspection. A number of other studies point to a figure of around 6%.

70. This means that, out of a total of 2913 fatal accidents in GB in 2005, a minimum of 87 fatal accidents - and a maximum of 291 - were probably caused by unroadworthy cars. By similar proportioning we can estimate the range of serious, slight, and also damage-only accidents. For serious injury

accidents, the range lies between 534 as a minimum and 2503 as a maximum. For slight injury accidents, the range is between 2790 and 17079.

71. In practice, the actual number of accidents **currently** caused by defects is very unlikely to be as low as the low estimate - because of the known significant limitations in the way in which the low estimate was made. The high estimate of 10% has a firmer evidence base, given that it was based on more thorough research (and under a regime of MOT testing on a 3.2.2 frequency). We have therefore also included a mid-range value of 6.5%. The calculations are summarised in the following table:

Total number of incidents in 2005	Fatal accident	Serious injury accident	Slight injury accident	Damage - only accident*
	2913	25029	170793	750000
At 2-3% involvement	87	534	2790	12250
At 6.5% involvement	189	1627	11102	48750
At 10% involvement	291	2503	17079	75000

* The estimate of the number of damage only-accidents is a preliminary estimate from the Association of British Insurers. And in this illustrative calculation we have used the same factor for accident-involvement rates as applies to slight-injury accidents.

72. These accidents, which are caused by vehicle defects, occur **despite** the current requirement for MOT testing - and despite the requirement for motorists to keep their cars roadworthy at all times. However, this is because the MOT test does not guarantee the condition of the vehicle after its test - rather, the purpose of the test is to ensure that vehicle condition has not dropped below a reasonable standard of roadworthiness. Consequently whilst MOT testing cannot guarantee continuous roadworthiness, it does at least ensure once a year that cars with known defects are prevented from being further used on the road until those defects have been rectified. Therefore, in those cases, the MOT test prevents further exposure of the vehicle to other road users and to potential exposure to an accident due to a defect in the vehicle.

73. The value of these accidents and injuries can be established by reference to the Department's standard method of the valuation of the benefits of prevention of road accidents and casualties given in the Department's Highways Economics Note No.1 'The Total Value of Prevention of Road Accidents in Great Britain in 2005' (accessible of the DfTwebsite:http://www.dft.gov.uk/pgr/roadsafety/ea/archive/highwaysecono

micsnoteno11996). The values - which are full costs to society - are given in the following table:

Incident-type	Value in £
Fatal	1,645,110
Serious	188,960
Slight	19,260
Damage-only	1,713

74. In order to make an estimate of the number of additional accidents likely to occur as a result of an increase in the number of unroadworthy vehicles in the absence of testing, we firstly need to know how many vehicles currently using the roads are in an unroadworthy condition.

75. We know from random compliance surveys that, currently, some 8% of all cars have a significant maintenance defect of some description - which means that they should not be in use on the road in that condition (using the most recent 2005 survey results). And so, out of a total of around 26.2 million registered cars on the road (using latest 2006 DVLA data), roughly 2.1 million cars on the road at any one time are significantly unroadworthy. Consequently, and hypothetically, and for the purposes of calculating the benefits of the scheme as it stands, if the MOT test ceased to be a requirement an additional 8.5 million unroadworthy cars could be added to this total. This is the current number of vehicles annually which fail an MOT test. Without an MOT the assumption is that such cars would no longer be detected as being defective - and so they would not be brought up to an acceptable standard of roadworthiness. The result would be an increase of some 400% in the total number of unroadworthy cars on the road (assuming no behavioural change or other market adjustment in the absence of the MOT testing scheme).

76. In practice the 8% figure is likely to be an under-estimate. This is because the inspection that can be carried out in compliance surveys is necessarily very limited - primarily because it is carried out at the roadside rather than as a full roadworthiness assessment. During such a check it is, for example, not possible to carry out any under-vehicle inspection, and only to make a very limited check on the efficiency of the vehicle braking system. At the same time, this likely underestimate is counteracted by the likelihood that the sample may be biased to some extent. In particular, whilst it is intended to be a random sample, there is some evidence that vehicle examiners involved in the surveys inevitably tend to target vehicles which are likely to have defects. Also, because, for practical reasons, the roadside inspection sites cannot be chosen at completely random sites. Whilst recognising these limitations, we have used the figure of 8% as our best evidence of the low estimate of the percentage of cars on the road which are unroadworthy at any particular moment in time.

77. In order to address this likely under-estimation of the number of unroadworthy cars in circulation, we have also used a second approach to estimating the number of unroadworthy cars - which gives us a 'high' estimate of the relevant figure. We have done so by reference to the overall MOT failure rate. Nevertheless, there is a risk that even this is likely to result in a conservative estimate given that many motorists have their cars 'serviced' immediately prior to an MOT test. However, it would be unlikely that all of these vehicles would be unroadworthy throughout the entire year prior to their MOT test - and it seems more likely that the chances of developing a defect increase throughout the year, with the likelihood of a defect developing increasing with elapsed time since the last MOT test. In other words, on average, the random chance of finding a car on the road at any point in the year with a defect that would cause it to fail the MOT test is 18% (half the annual 35% failure rate). We have therefore used the 8% to 18% range to guide us towards the mid and high points in our estimates. But, again, it is prudent to treat the values of 8% and 18% as tending towards the extremes, with the more likely figure being somewhere between the two. We have therefore used a figure of 10% as the mid-range figure, and 12% (rather than 18%) as the upper estimate - taking into account the fact that defects are most likely to occur the longer the elapsed time since the previous MOT test.

78. The next main assumption is that additional unroadworthy cars on the road would be liable to cause a proportionate increase in the number of accidents due to roadworthiness defects. In simple terms this would mean that if the number of unroadworthy vehicles increases by 5%, for example, then the number of accidents caused by unroadworthy vehicles would also increase by 5%.

79. The details of the estimates we have made about increased casualties are summarised in the tables that follow - including low, medium and high scenarios - with the medium scenario being the more likely. As you will see later, in practice we estimate that, if testing were to be stopped altogether, there would be something like an 800% increase in the number of unroadworthy vehicles on the road **once a 'steady-state' had been reached**. In turn, we estimate that this would lead to an increase in the number accidents as summarised in the following table.

Accidents	L	M	H
Fatal	671	1543	1979
Serious	4118	9473	12145
Slight	21517	49494	63454
Damage-only	94,475	217,312	278,606

80. As discussed earlier, we do not know how motorists would respond if the MOT test were to be discontinued, or to be relaxed in respect of the date of the first required test or in respect of test frequency. This lack of definitive information puts a qualification around the cost-benefit analysis - because the cost to society of additional accidents is a critical factor in the determination of whether or not the overall impact of change would be beneficial or detrimental to society.

81. We therefore need to consider whether this uncertainty is likely to be significant, or whether it is unlikely to make any significant difference to the overall cost estimates.

82. Our approach to determining this is as follows: 35% of cars submitted for test currently fail at the first attempt. Of those motorists who submit their cars for test, a proportion have probably decided to use the test to find out what, if anything, may be wrong with their car. Another proportion of motorists probably elect to take the risk that nothing is wrong with their car, and simply hope that their vehicle will pass the test. A third proportion choose to have their vehicles ‘serviced’ beforehand in order to ensure that their car passes first time. The question then is whether, in the event that the test were to be removed altogether, or to be reduced in frequency, any of these groups of motorists would change their behaviour and take alternative steps to ensure that their car was roadworthy. Additionally, whether, in the absence of a test, they would decide no longer to have the pre-emptive annual ‘service’ they currently have undertaken.

83. A proportion of motorists would probably continue to take steps to ensure that their vehicles were roadworthy in the absence of a test. However, ordinary garage 'servicing and repair' costs are generally higher than MOT costs - or at best equivalent. Consequently, even if all motorists were to take such action there may be no overall cost-benefit in such a change, because motorists would still be taking their vehicle to a garage for a check and still be paying for it to be checked.

84. The current overall failure rate at test means that it would be necessary for the proportion of motorists who choose to take action in the absence of a statutory MOT test to exceed 64% in order for there to be a beneficial change in the estimated casualties currently avoided by having a statutory test in place. (In simple terms, this means that, in order for the absence of a statutory test NOT to cause more accidents and road casualties, more than the percentage with cars which currently pass the test first time would have to take alternative action every year in the absence of an MOT test. That is **MORE** than 100% - 36% = 64%).

85. Of course we have no evidence of whether this is likely, or whether it is likely that fewer motorists would take action in the absence of a statutory test. Consequently, we have made no attempt to estimate behavioural change or its effects.

86. There is one further factor that needs to be taken into account. This is the fact that the estimate we are making of the 'base case' (namely the theoretical situation where there was no MOT testing scheme) so far only reflects the situation in the first year after testing had stopped. Of course additional vehicles would be becoming unroadworthy in subsequent years in the event that testing were to be stopped altogether.

87. The process would be cumulative up to a certain point in time. In other words, in the second year after testing had been stopped, not only would there be the risk that the 35% of cars that would have failed the test in the first year would still be on the road - there would also be the risk that an additional 35% of the remaining cars would also have developed roadworthiness defects. This process would continue over the years until a steady state was reached - presumably until the point at which the number of cars that became undriveable and had to be taken off the road equalled the number of newly unroadworthy vehicles. Our estimates of casualty and accident impacts take this factor of accumulation into account.

Costs to motorists of 3.1.1 testing - £ million per year

88. The overall cost of the scheme to motorists is the total amount of time and direct money costs they have to bear. Our estimate of the total costs to motorists - based on the assumptions set out earlier - ranges from £794 million to £1383 million per annum. The table below indicates how these costs are comprised, and also provides our estimates of the total ranges of these costs.

Impacts on	Type of cost	Low	mid	High
Motorist	Cost of MOT test	697	1062	1170
Motorist	Personal time cost	97	150	213
	Total	794	1212	1383

Consequential impacts of 3.1.1 testing - £ million per year

89. The overall impacts of the MOT testing scheme are the total value of consequential savings in accident and air quality emissions. On this basis, we estimate that the overall impact of MOT testing cars on a 3.1.1 cycle would be likely to range between a low of £2463 million per annum and a high of £7254 million per annum. The table below indicates how these costs are comprised, and also provides our estimates of the total ranges of these costs.

Impacts on	Type of impact	low	Mid	high
Society	Value of accidents prevented	2458	5655	7249
Society	Value of air pollution prevented	5	5	5
	Total	2463	5660	7254

Net costs and benefits £ million per year

90. The overall net cost or benefit of the MOT scheme as it stands is the comparison between the two. In making the comparison the value of the cost to motorists is subtracted from the consequential impacts. The result is of net benefit to society if accident and emissions impacts exceed time and money costs to motorists; and of net cost to motorists if their time and money costs exceed environmental emissions and accidents impacts. The extreme range here is from a net benefit to society of £1080 million per annum (i.e. benefits exceed costs by that amount) to a net benefit to society of £6460 million. The table below indicates how these costs are comprised, and also provides our estimates of the total ranges of these costs.

		A	B	C
If all low costs to motorists were associated with low impacts (A1) - and all high costs to motorists were associated with high impacts (C1)	1	1669 net benefit to society	4448 net benefit to society	5871 net benefit to society
If all high costs to motorists were associated with low impacts (A2) - and if all low costs to motorists were associated with high (C2) impacts	2	1080 net benefit to society		6460 net benefit to society

91. In summary, at one end of the range - where the highest end of the cost range is matched with the lowest end of the impact range - the benefits of the current MOT scheme outweigh the costs by £1080 million per annum. In the converse end of the range scenario - where the lowest

end of the cost range is matched with the highest end of the impact range – the benefits still outweigh the costs, but by £6460 million per annum. In the other three scenarios - with the mid-range in column B being on balance the most likely - the benefits of testing at 3.1.1 currently also outweigh the costs.

Scenario 1 - first test at year 4 instead of year 3 (4.1.1)

92. This Option is intended to explore the potential costs and impacts of deferring the first year of testing by one year - so that the first MOT test would be when a car was four years old.

93. The methodology for assessing the costs and impacts of this option - and those that follow - is exactly the same as before. This includes making the assumption that motorists take no additional alternative action to check on the condition of their vehicles in the absence of a statutory MOT test. And, that those that do currently take action in order to ensure that their vehicle passes the test would continue to do so once the requirement for a first test at year 3 was removed.

94. The failure rate of cars at first test is currently around 22% of the total number of 3-year-old cars tested. Therefore we can say that MOT testing at year 3 currently helps to prevent 577,723 unroadworthy cars circulating on the road each year. So, if testing at year 3 were to cease, there is a risk that there would be a 28% increase in the number of unroadworthy cars on the road.

95. In turn this means that, there would be a risk of an increase in the number of fatal injury accidents ranging between 24 as a low estimate and 71 as a high estimate. For serious injury accidents, the range is between 147 as a minimum and 434 as a maximum. For slight injury accidents, the range is between 769 and 2266 - as summarised in the following table:

Accidents	L	M	H
Fatal	24	55	71
Serious	147	338	434
Slight	769	1,768	2,266
Damage only	3,375	7,762	9,951

Benefits to motorists of 4.1.1 testing - £ million per year

96. The overall cost burden to motorists in having to have their cars tested on a 3.1.1 cycle instead of a 4.1.1 cycle is the total amount of time and direct money costs they incur in currently having to conform to the former rather than the latter. These costs range from £91million to £160 million per annum. Consequently this is also the range of cost savings - or

BENEFITS to motorists - in the event of a change from 3.1.1 testing to 4.1.1 testing.

Impacts on	Type of impact	Low	Mid	high
Motorist	Cost of MOT test	80	122	135
Motorist	Personal time cost	11	17	25
	Total	91	139	160

Costs to society of 4.1.1 testing - £ million per year

97. The costs arising from the change proposed would relate to the additional accident and environmental costs associated with any reduction in testing frequency. These would essentially be the costs of the additional accidents and environmental damage due to the predicted increase in the number of unroadworthy vehicles if testing frequency were to be reduced from 3.1.1 to 4.1.1 testing. On this basis, the overall cost to society of MOT testing cars on a 4.1.1 cycle is estimated to range between a low of £92 million per annum and a high of £263 million per annum.

Impacts on	Type of cost	Low	Mid	high
Society	Value of accidents prevented	88	202	259
Society	Value of air pollution prevented	0	0	0
Society	Enforcement costs	4	4	4
	Total	92	206	263

98. The overall net cost or benefit of making the change proposed is the comparison between the two. And it is necessary, again, to subtract the total benefits of savings to motorists from the total of the costs to society in the event that a change was made and testing was moved to a 4.1.1 cycle.

99. The result would be of net benefit to society if the costs saved by motorists exceed the value of accident and emissions impacts likely to arise as a result of the additional unroadworthy cars detected by testing on a 3.1.1 cycle as opposed to a 4.1.1 cycle. There would be a net cost to society in the converse situation.

		A	B	C
If all low costs to motorists associated with low impacts (A1) - and all high costs to motorists were associated with high impacts (C1)	1	1 cost to society	67 cost to society	103 cost to society
If all high costs to motorists were associated with low impacts (A2) - and if all low costs to motorists were associated with high impacts (C2)	2	68 benefit to society		172 cost to society

100. On this basis, the overall cost-benefit of changing the MOT testing cycle for cars from 3.1.1 to a 4.1.1 cycle - in the absence of any other change - is a range from a net benefit to society of £68 million per annum to a net cost to society of £172 million. In one scenario the benefits of the change to 4.1.1 outweigh the costs (where high costs are associated with high benefits). However, this scenario is at the extreme of the possible range. In the other four scenarios - with the mid-range being the most likely outcome - the likely net costs to society of making a change in test frequency would be greater than the benefits change would bring to motorists.

Scenario 2 - first test at year 4 instead of year 3, then next test at year 6 (4.2.1)

101. This Scenario sets out the potential costs and impacts of deferring the first year of testing by one year - so that the first MOT test would - in future - be when a car was four years old. The second test would be at year 6, and then the vehicle would be tested annually thereafter. So the net result is that, under this option, there would be two fewer MOT tests in the first six years compared with the current test cycle.

102. Given that the total number of cars that fail MOT tests at year 3 and 5 is currently 1,303,106, we can say that MOT testing at years 3 and 5 currently helps to prevent 1,303,106 unroadworthy cars circulating on the road each year. So, if testing at year 3 and 5 were to be abandoned, there is a risk that there would be a 62% increase in the number of unroadworthy cars on the road.

103. In turn this means that, there would be a risk of an increase in the number of fatal injury accidents ranging between 54 as a low estimate and

159 as a high estimate. For serious injury accidents, the range is between 332 as a minimum and 978 as a maximum. For slight injury accidents, the range is between 1734 and 5112, as summarised in the following table:

Accidents	L	M	H
Fatal	54	124	159
Serious	332	763	978
Slight	1734	3988	5112
Damage only	7,612	17,508	22,446

Benefits to motorists of 4.2.1 testing - £ million per year

104. The overall cost of testing cars on a 3.1.1 cycle as opposed to a 4.2.1 cycle is the total amount of time and direct money costs they incur in currently having to conform to the former rather than the latter. These costs range from £179 million to £311 million per annum. Consequently, this is also the range of cost savings - or BENEFITS to motorists - in the event of a change from 3.1.1 testing to 4.2.1 testing.

Impacts on	Type of impact	low	Mid	High
Motorist	Cost of MOT test	157	238	263
Motorist	Personal time cost	22	34	48
	Total	179	272	311

Costs to society of 4.2.1 testing - £ million per year

105. The costs arising from the change proposed would relate to the additional accident and environmental costs associated with any reduction in testing frequency. These would essentially be the costs of the additional accidents and environmental damage due to the predicted increase in the number of unroadworthy vehicles if testing frequency were to be reduced from 3.1.1 to 4.2.1 testing. On this basis, the overall cost to society of MOT testing cars on a 4.1.1 cycle is estimated to range between a low of £205 million per annum and a high of £591 million per annum.

Impacts on	Type of benefit	low	mid	High
Society	Value of accidents prevented	198	456	584
Society	Value of air pollution	0	0	0

	prevented			
Society	Enforcement costs	7	7	7
	Total	205	463	591

Net costs and benefits £ million per year

106. The overall net cost or benefit of making the change proposed is the comparison between the two. It is necessary, again, to subtract the total benefits of savings to motorists from the total of the costs to society in the event that a change was made and testing was moved to a 4.2.1 cycle.

107. The result would be of net benefit to society if the costs saved by motorists were to exceed the value of current accident and emissions impacts likely to arise as a result of the additional unroadworthy cars detected by testing on a 3.1.1 cycle as opposed to a 4.2.1 cycle. There would be a net cost to society in the converse situation.

		A	B	C
If all low costs were associated with low benefits (A1) - and all high costs were associated with high benefits (C1)	1	26 cost to society	191 cost to society	280 cost to society
If all high costs were associated with low benefits (A2) - and if all low costs were associated with high benefits (C2)	2	106 benefit to society		412 cost to society

108. On this basis, the overall cost-benefit of changing the MOT testing cycle for cars from 3.1.1 to a 4.2.1 cycle - in the absence of any other change - is a range from a net benefit to society of £106 million per annum to a net cost to society of £412 million. One scenario shows that for a move to testing at 4.2.1 the benefits exceed the costs (when low costs are matched with high benefits - though this is at the extreme of the range). The other four scenarios show that the net costs to society of making a change would be greater than the benefits to motorists in terms of savings to them.

Scenario 3 - first test at year 4 instead of year 3, then testing every other year (4.2.2)

109. This scenario is intended to explore the potential costs and impacts of deferring the first year of testing by one year - so that the first MOT test would be when a car was four years old. All subsequent tests would then be undertaken every other year, instead of annually as at present. This is the current minimum set by European law.

110. However, the recommendation made recently to the European Commission in an independent report (the Autofore report) is that the minimum level for testing set by EU law should be for first test at year 4, second test at year 6, third test at year 8 and annual testing thereafter (4.2.2.1).

111. The failure rate of cars at year 3 is currently around 22% of the total number of 3-year-old cars tested, so we can say that MOT testing at year 3 currently helps to prevent 577,723 unroadworthy cars circulating on the road each year. Additionally, we need to allow for the cumulative sum total of currently failed cars that would not be identified as having defects if intermediate years of testing were to be dropped. If there was no testing at year 3 and for intermediate years, 4,274,571 cars with defects would not be spotted at MOT tests each year, on the basis of the failures recorded in 2006/2007.

112. In turn this means that, there would be a risk of an increase in the number of fatal injury accidents ranging between 177 as a low estimate and 523 as a high estimate. For serious injury accidents, the range is between 1088 as a minimum and 3210 as a maximum. For slight injury accidents, the range is between 5687 and 16770 - as summarised in the following table:

Accidents	L	M	H
Fatal	177	408	523
Serious	1088	2504	3210
Slight	5687	13080	16770
Damage only	24,968	57,432	73,631

Benefits to motorists of 4.2.2 testing - £ million per year

113. The overall cost burden to motorists in having to have their cars tested on a 3.1.1 cycle as opposed to a 4.2.2 cycle is the total amount of time and direct money costs they incur in currently having to conform to the former rather than the latter. Consequently this is also the range of cost savings - or BENEFITS to motorists - in the event of a change from 3.1.1 testing to 4.2.2 testing.

Impacts on	Type of impact	low	Mid	High

Motorist	Cost of MOT test	357	544	600
Motorist	Personal time cost	50	77	109
	Total	407	621	709

Costs to society of 4.2.2 testing - £ million per year

114. The costs arising from the change proposed would relate to the additional accident and environmental costs associated with any reduction in testing frequency. These would essentially be the costs of the additional accidents and environmental damage due to the predicted increase in the number of unroadworthy vehicles if testing frequency were to be reduced from 3.1.1 to 4.2.2 testing. On this basis, the overall cost to society of MOT testing cars on a 4.2.2 cycle is estimated to range between a low of £664 million per annum and a high of £1930 million per annum.

Impacts on	Type of cost	low	Mid	high
Society	Value of accidents prevented	650	1494	1916
Society	Value of air pollution prevented	1	1	1
Society	Enforcement costs	13	13	13
	Total	664	1508	1930

Net costs and benefits £ million per year

115. The overall net cost or benefit of making the change proposed is the comparison between the two. It is necessary, again, to subtract the total benefits of savings to motorists from the total of the costs to society in the event that a change was made and testing was moved to a 4.2.2 cycle.

116. The result would be of net benefit to society if the costs saved by motorists were to exceed the value of accident and emissions impacts likely to arise as a result of the additional unroadworthy cars detected by testing on a 3.1.1 cycle as opposed to a 4.2.2. cycle. There would be a net cost to society in the converse situation.

		A	B	C
If all low costs to motorists were associated with low	1	257 cost to society		1221 cost to society

impacts (A1) - and all high costs to motorists were associated with high impacts (C1)			887 cost to society	
If all high costs to motorists were associated with low impacts (A2) - and if all low costs to motorists were associated with high impacts (C2)	2	45 benefit to society		1523 cost to society

117. On this basis, the overall cost-benefit of changing the MOT testing cycle for cars from 3.1.1 to a 4.2.2 cycle is a range from a net benefit to society of £45 million per annum to a net cost to society of £1523 million. In one scenario the benefits of moving to a 4.2.2 regime would outweigh the costs (where high costs are matched with low benefits - though this is at the extreme of the range). In the other four scenarios the net cost of change to society would be likely to outweigh the benefits to motorists.

SECTION 3: COMPLEMANTARY MEASURES TO HELP ENSURE ROADWORTHINESS.

118. The general idea of this section is that any one of (or any combination of) the options discussed below could be used to help encourage motorists to look after their vehicles properly during any year.

119. Policy objectives can be delivered in a number of ways, for example through the provision of information, market incentives, the deterrent effect of penalties, or through legislation. The market and individual consumers (motorists in this case) tend to respond differently in each case. This section considers whether there are alternative or complementary ways to help deliver the policy objective of ensuring that vehicles are roadworthy.

120. We have considered a wide range of possible options that could perhaps be adopted. These are considered below, and fall into the following main categories (which are not mutually exclusive):

- 'Self-regulation' (including the possibility of behavioural change where testing frequency is less than currently);
- Market-based instruments; and,
- Providing information and guidance.

121. We have also thought about the possibility of 'targeting' MOT testing - so that - perhaps in intermediate years for example - MOT testing could be applied only to those vehicles that are most at risk of being non-compliant with minimum roadworthiness standards.

'Self-regulation'

122. In a sense self regulation already exists because all motorists are already responsible for ensuring that their vehicles are in a roadworthy condition whenever they are on the road. And this is the approach relied upon for safeguarding roadworthiness during the period up to the first mandatory test. Theoretically the same principle could therefore be extended if the date of the first MOT test were to be deferred, or in the event that the frequency of subsequent testing were to be reduced.

123. The benefit of self-regulation would be the reduction in the 'regulatory requirement' for testing. This might benefit those motorists whose vehicles are either regularly maintained to full roadworthiness standards in any case, and perhaps also benefit those whose vehicles do not have defects – perhaps because they do very low mileage.

124. However, it is possible that the benefits of any reduction in regulatory requirement would not necessarily translate into financial or time benefits. This is because, if motorists were to arrange for their cars to be checked in the absence of a formal test requirement, they might well incur similar

costs in any event. This would be both in terms of what they actually pay for such a check, and also in terms of the time spent in having to take their car to be checked.

125. Currently the cost of an MOT test is limited to a maximum set by Government. The evidence is that this is generally lower than garage rates for normal servicing and repair work. So, it could be that even if motorists were to self-regulate at an increased level, and to have their cars checked voluntarily in the absence of a statutory test, they might have to pay normal commercial garage rates instead of rates which are at a currently capped cost under the MOT scheme. In such a scenario the cost to motorists could be higher than now, for delivering exactly the same benefits.

126. However, by linking checking to the risk of defects being present, it might theoretically be possible to reduce the overall cost burden on motorists while maintaining the safety benefits of getting defects corrected.

127. For example, the market might adapt to support the motorist more specifically in the period ahead of the first MOT, and also in between subsequent statutory MOT tests. In particular, perhaps more support for self regulation could be given – in targeted advice from the Government. Alternatively and additionally, vehicle manufacturers and vehicle 'service providers' could perhaps provide more advice about roadworthiness risks which arise with increasing vehicle mileage and age for example; and, they might in future provide more advice about the best ways to mitigate such risks. More focused servicing packages could perhaps also be developed to support the motorist during any year in which a statutory MOT test was not required in the future.

128. The risk of self-regulation is that motorists would not ensure that their vehicles were checked for roadworthiness, and so any defects would not be corrected. Indeed, even with the presence of the testing regime as it stands at present, there is an overall failure rate of 35% at test. The big risk of self-regulation, therefore, is that motorists might undertake even less than they do currently, and so there could be an overall increase in the number of unroadworthy cars on the road - over and above the number of vehicles that currently fail the test. This is especially important to bear in mind because the MOT testing scheme also has a ‘deterrent’ effect as well as a direct effect. As mentioned earlier, this is because a proportion of motorists take pre-emptive action to ensure that their car passes the test first time - by having it checked beforehand to identify items that would fail at test, and then having those items rectified prior to the vehicle being formally presented for test. Inevitably we cannot be certain whether or not such people would continue to take such action in the absence of a test.

129. Of course if the behaviour of motorists were to change with reduced testing frequency then the costs and benefits set out in the previous section might change. **If** motorists were to take **more** positive action - to

check for and remedy roadworthiness defects - despite a reduced test frequency, then the number of unroadworthy vehicles on the road would reduce, and so too would the accident costs. However, **if** motorists took **less** action with reduced testing frequency to check for and remedy defects, then the number of unroadworthy vehicles on the road would increase - and the likely costs to society of any change in testing frequency would be even greater than we have estimated.

130. Of course we would need to consider what additional information might be given to motorists with a view to making them more aware of their responsibility to look after their vehicles and to ensure that they are properly roadworthy at all times. As we observed earlier, this is already a requirement of law irrespective of the current requirement for cars to pass periodical (MOT) roadworthiness tests. And a failure to maintain a roadworthy vehicle already brings with it the risk of prosecution – and also the risk that the motorist will not be indemnified by his insurer in the event of a claim against his policy of insurance (where the motorist holds a comprehensive policy). Additionally, there is also the inevitable risk to their own safety (as a motorist), the risk to their passengers and also to other road users.

131. Most motorists should therefore already be generally very well aware of their responsibilities. Many will also have available to them information from the various motoring associations, from vehicle manufacturers and also from servicing and repair garages.

132. Any change in the frequency of the requirement for MOT testing would naturally have to be adequately publicised - as would the continuing requirement that a vehicle should be roadworthy at all times; and, also the penalties and risks of failing to meet this requirement.

Market-based instruments

133. Any decision about potentially reducing MOT test frequency would need to take account of the likely 'market response' - including in particular how garages, vehicle manufacturers and insurance companies might react.

134. Perhaps in future those motorists who did take regular steps to ensure that their vehicle was roadworthy - either through regular maintenance or servicing - would not then also have to submit their vehicle for MOT testing as well. The general idea might be that motorists who had submitted their car for an 'appropriate accredited service' would automatically qualify for an MOT test pass. However, bearing in mind that modern vehicles tend to have extended service intervals, it would be necessary in some cases for cars to be 'MOT-serviced' **more** frequently than recommended by a manufacturer, in order to provide an equivalent

level of assurance as an MOT does about the maintenance condition of wearing components.

135. The benefit of such an approach might be that those motorists who followed such an approach would not then be paying for a 'service' by a garage and also for an MOT test. The saving might therefore be between £30-£50.35 for each vehicle for each year.

136. However, there are a number of practical difficulties with this idea. The main problem is that an MOT test does not necessarily check the same items as 'maintenance servicing'; and, also not necessarily in the same way. There would therefore need to be some prior changes in the current market to enable this idea to work in practice. In particular, the MOT test assesses for levels of wear in key components that are liable to result in a vehicle being unsafe on the road. Maintenance servicing, on the other hand, tends to focus more on the reliability and performance of the vehicle - although in some cases may also include the provision of advice to customers about potential defects. Whilst there is some overlap between the two, it is not currently sufficient.

137. Of course this idea could only work where an MOT was offered with an appropriate 'accredited service' - an MOT pass could clearly not given with 'just any service', because a 'service' has many meanings, with just an oil change at the lowest level. Consequently it would appear that a prerequisite for this sort of arrangement to work would be that VOSA would have to extend the system that it currently runs in respect of the MOT scheme so that it also covered 'accredited servicing garages' and 'accredited' services.

138. The key issues here appear to be:

- how 'garages' might react to any change in MOT testing frequency, and in particular whether they would respond by offering equivalent checks at an equivalent cost?
- how vehicle manufacturers might react, and in particular what the impact of a change in MOT frequency might be on vehicle warranties and the price of a new car; and
- how vehicle insurers might react to any change in MOT testing frequency, and in particular whether there might be any implications for insurance premiums.

139. For example, if the date of the first MOT test were to be deferred to year 4, perhaps vehicle manufacturers might respond by extending car warranty periods from an average of 3 to 4 years. However, there could be a consequential cost involved, which might tend to increase the cost of new cars. And, even if warranty periods were to be extended, motorists would presumably still have to pay for the cost of rectifying defects in any wearing components (such as in respect of brakes and tyres) as well as any increased cost to offset manufacturer liability for a further year.

140. Perhaps it might be possible for vehicle insurers to take a stronger role in helping to ensure that motorists take a greater responsibility for ensuring that their vehicles remain roadworthy at all times. Of course vehicle insurance policies already require policyholders to keep their vehicles fully compliant with the law in all respects. But potentially there may be other action insurance companies might be able to take to 'incentivise' policyholders with good maintenance records. Perhaps, for example, they might offer discounts for high mileage vehicles with regular maintenance regimes, or discounts for fleets with optimal maintenance provisions. However, this could also impose additional administrative burdens on both motorists and on the insurance industry.

141. There may also be a risk that insurance premiums might increase if the effect of a reduction in the frequency of testing was that more unroadworthy vehicles would be on the road – and hence there were more accidents, and more claims.

Providing information and guidance

142. One way of delivering policy objectives is to provide information on the costs and benefits of action. This can help to ensure that individuals recognise the benefits of acting in a certain way and that they do so voluntarily, rather than as a result of being required to do so by legislation. This section explores how it might perhaps be possible to achieve a sufficient general level of roadworthiness in the car fleet by - for example - combining a reduced frequency of testing with an increase in the promotion of awareness campaigns focussing on the need for cars to receive regular and proper maintenance. This might be funded through a modest increase in the level of the MOT fee.

143. For example, if the date of the first MOT test were to be changed to year 4 (under Scenario 1 considered above), a £3 million per annum publicity campaign explaining the importance of checking for and rectifying roadworthiness defects could be funded by just a £0.15 levy on the MOT fee for the remaining vehicles in the scheme. The key benefit would be the removal of the regulatory requirement for a test at year 3. However, as before, this might not translate into a direct cost saving for the motorist because to deliver the same benefits we would be expecting them to undertake a similar level of activity (a check and rectification of faults) as they currently do. The main benefits might perhaps accrue to those who are able to undertake their own roadworthiness checks and defect rectification – although this would depend on their time costs.

144. The key risk is whether an information and guidance campaign would be as cost-effective as a mandatory testing requirement at the current frequency. For many motorists we might expect that the costs of checking and maintaining their vehicle would be broadly comparable to the current

situation. We would therefore need an awareness campaign to deliver benefits **greater** than those delivered by the current testing regime in order for this strategy to be more cost-effective. In turn, it would be necessary for **more** motorists to take action to keep their vehicle roadworthy as a result of an awareness campaign than the number which do so under the current testing regime. Achieving significant and sustained behavioural change through information campaigns would therefore be challenging.

Roadside Enforcement

145. One way of delivering policy objectives is to take significant action to enforce penalties for non-compliance. At the moment there is limited enforcement activity targeted at improving roadworthiness. Generally speaking enforcement is only carried out by the police when a car has been stopped for other reasons or where there is an obvious and serious defect.

146. The proposal here would be to increase roadside enforcement significantly. This would require there to be significant additional roadside enforcement activity by the police and/or VOSA. The benefits would be that vehicles could possibly be targeted - at least to some extent - for enforcement action at the roadside. The benefit would be that unroadworthy vehicles would be taken off the road until defects had been rectified. Such action could also significantly increase the deterrent effect: motorists would be aware that if their vehicle was not maintained in a roadworthy state there was a real risk that they could be stopped and penalised whilst driving.

147. The risks are that such a step-change in roadside enforcement could not be delivered in practice - at least not without at the same time risking the delivery of other priorities. There is also the further risk that the burden it would place on the motorist might in fact be more significant than that of an annual MOT test.

148. In order to deliver a step-change in roadworthiness enforcement activity the police would either need to re-prioritise resources away from other activities, or they would need additional funding for extra manpower. Alternatively, the task of providing a significant enforcement deterrent could be given to VOSA, who already enforce roadworthiness standards for HGVs and buses. Current resources (which are of course predicated on the existence of an annual MOT test from year 3) provide for a level of enforcement which is the equivalent of checking each individual car once every 325 years. To increase this to checking, say, 5% of the car fleet (on average) every year would require additional funding of roughly £18 million per annum. This would fund a 15 minute check (including time overheads) of 1.3 million vehicles. This level of targeted checking could potentially have a deterrent effect, and would be focussed on vehicles that appeared

to be likely to be below required standards. However, it would obviously result in time costs for those stopped.

149. There are also some practical constraints to the delivery of a step-change in roadside enforcement levels. There are, for example, challenges around targeting vehicles at the roadside. In particular, unlike in the case of compliance with the requirement to hold a policy of insurance to cover third-party risks - where compliance can now be checked quite simply by reading a number-plate - roadworthiness can only be ascertained by a physical check of the vehicle.

150. In addition, pulling over cars to the side of the road for checking generally tends not to be particularly cost-effective, given the limited nature of checking that can be undertaken in such a location.

151. Significantly increasing roadside enforcement could also decrease journey reliability – both for the individual motorist who was subject to a check, and also more broadly in the area where enforcement activity was taking place. This could increase time costs, and hence have an impact on the cost effectiveness of the activity itself, and also on its cost effectiveness in comparison with testing. The point being that whereas motorists can currently choose when and where their MOT test is undertaken - so that it is at a convenient time - they would not have that ability with increased roadside enforcement.

152. Conversely, it is possible that increasing the level of roadside enforcement could have bring additional indirectly related benefits - other then those directly related to improving the general level of roadworthiness of the car fleet. For example, increased enforcement could help to deal with other categories of evasion, such as uninsured driving, unlicensed driving and unregistered or untaxed vehicles. However, the powers to undertake this wider enforcement activity currently lie mainly with the police, and hence these benefits would be highly dependent on the potential for increased police roadside enforcement activity.

'Targeting MOT testing'

153. We have three key objectives in helping to ensure compliance:

- that compliance is as easy and simple as possible for the individual to achieve;
- that the costs of evasion outweigh the benefits, and also that the risks of being caught and penalised are clear; and,
- that enforcement activity is targeted against the non-compliant.

154. The last of these objectives means that we seek to target enforcement activity against those who are at highest risk of being non-compliant. In doing so we hope to reduce the costs for the compliant majority, and more effectively combat evasion.

155. This section considers whether it might be feasible to target MOT testing on those vehicles which are more likely to be non-compliant. Of course it would be necessary to secure an appropriate change to the relevant primary legislation in the Road Traffic Act 1988 in order to allow any such major change away from the current requirements for MOT testing.

156. There is a number of possibilities for a more 'risk-based' approach, including:

- reducing the number of test items (e.g. to omit hardly ever failed items);
- customising testing so that it is more “vehicle-specific” in terms of data on the risk of that specific vehicle type and model having roadworthiness problems;
- the need for testing could be age or mileage-related;
- there could be a ‘light’ MOT test every other year – rather than having to have a full test every year; and,
- the need for testing could be driven by “test history” (e.g. skip a year if there was a pass at the first attempt in the previous year).

157. The potential benefit is that it might be possible to deliver some cost savings to some motorists. Those who would be likely to benefit would be those who already take regular action to ensure that their vehicles are roadworthy; and, those who have low mileage vehicles.

158. The problems are that our current evidence-base is not sufficient to support targeting of testing; and, that targeting, although whilst possibly broadly effective, would miss many high risk vehicles.

159. The frequency of testing and the prescribed list of items to be tested must be at least to the minimum requirements prescribed by EU legislation (in Directive 96/96/EC). Currently this means that all Member States must ensure that the first periodical technical inspection of cars is undertaken at not less than 4 years after registration, and then every other year thereafter. The GB MOT test does not contain any additional items of test that are not prescribed by EU legislation.

160. The frequency of failure for individual test items (**see Annex B**) suggests that, apart from corrosion defects in younger vehicles, there are no test items that could readily be dropped from the test without there being any consequential risk to road safety – and of course the associated costs of increased accidents. Corrosion defects is a test item that is currently a requirement of EU law, and so any change at year 4 and alternative years thereafter could not be made without a change to this legislation. A change could be made for those tests which are more frequent than the EU minimum. However, the cost saving to consumers

would be relatively minor, given that the change is such a small one, and that it would only apply to younger vehicles.

161. The MOT database does provide some indication of failure rates by make and model of vehicle. However, there is no clear evidence-base which would support a reduced test frequency for certain vehicles since most vehicle makes have comparable overall failure rates for most test items. This is because an MOT pass or failure is most likely to be dependent on the following factors, rather than vehicle make:

- whether or not the vehicle is subject to a regular servicing regime, as recommended by the manufacturer;
- the attitude of the owner towards maintenance and towards “driver awareness” about vehicle condition (e.g. tyre maintenance);
- vehicle mileage; and,
- how a vehicle is driven (a vehicle that is driven “hard” is more likely to need more tyre and brake maintenance for example).

162. There is a further complication in that many more modern vehicles are tending to have increasingly extended service intervals. This means that the opportunity for detecting excessive wear is increasingly likely to be at the annual MOT test rather than at a 'service'. Consequently, unless detection of wear could be guaranteed in some other way, the number of accidents caused by roadworthiness defects would be liable to increase if testing frequency were to be reduced.

163. Probably the best way of targeting the MOT test would be to relate the requirement for a first test to mileage covered, given that mileage covered appears to be a key risk factor in roadworthiness. The benefit would be that higher risk vehicles were tested earlier than lower risk vehicles.

164. The key risk is related to the deliverability of a mileage-based system. Currently this would need to rely on a system of self-regulation, supported with on-road enforcement - because ‘recorded mileage’ is not routinely or regularly declared or recorded; and, because there is no external means of verifying mileage (unlike vehicle age which can be ascertained from a number-plate). Odometers (mileometers) are not currently required by law to be fitted or working, and are not in any case 'tamper-proof'. A test system frequency based on mileage would also need new legislative provisions.

165. The potential benefit of a “light” MOT test in intermediate years would primarily be around savings in cost relating to a less stringent test. This would mean that, if the fee for the MOT continues to be capped on the basis of the average time it takes (see section 3) motorists would pay less depending on how many test items could be dropped in intermediate years. The real risk is that vehicles with significant roadworthiness defects

may not always be identified, because previous test history is not necessarily a good indicator of likely subsequent test results.

166. There may be benefits to the motorist of having a “light” test, but it may also be that they are minimal both in terms of direct cost and time cost. We would also need to make provision for cases where garages spotted a significant defect during a ‘light’ test.

ANNEX A

FREQUENCY OF TESTING IN THE EU AND ROAD DEATH RATES

Background

1. The minimum frequency of testing cars (and light goods vehicles) is prescribed by EU Directive 96/96/EC. The *minimum* pattern of testing is firstly, in the fourth year after registration and then every other year (4-2-2).

2. Roadworthiness tests were first required under Directive 77/143/EEC, which originally only applied to commercial vehicles, large passenger carrying vehicles, taxis and ambulances. The Directive was extended to light goods vehicles by virtue of Directive 88/149/EEC; and, to cars, by virtue of Directive 91/328/EEC.

3. At the time Directive 91/328/EEC was proposed, not all Member States had national requirements in place requiring roadworthiness testing of cars, and a compromise was agreed on which the requirement was to be introduced. Agreement was reached on the same periodicity of testing as was then required for testing of light goods vehicles under Directive 88/149/EEC - which was testing, as a minimum, on a 4-2-2 cycle.

4. The EU Directive gives Member States freedom to test vehicles more frequently if they wish. Not all Member States test at the same frequency - the frequency with which Member States test is shown in the attached Appendix.

5. The Appendix also contains information about the number of road deaths in each of the Member States over the 5 year period 2000-2004. It provides information about the rate of road deaths both in terms of population and in terms of the vehicle fleet. The rates of road death are also banded to highlight the different frequency of roadworthiness testing in different Member States.

Discussion

6. It is clearly very difficult to identify what effect roadworthiness testing may have on the number of road casualties. And, to demonstrate how many road casualties might be prevented through testing.

7. There is no proven or clear method for determining how many accidents and casualties are saved by virtue of the fact that corrective maintenance has to be undertaken in order to enable failed vehicles to pass a roadworthiness test.

8. Clearly, there are a large number of factors that influence levels of road accidents and casualties. It is known, however, that most accidents are caused by driver error - whether through bad judgement; impairment due to alcohol or drugs; tiredness, or other issues. It is also known that other external factors can affect driver ability and susceptibility to poor driving - for example a less than ideal road layout, for example. What this Annex does - without making any suggestion about causal linkages - is simply to set out trends between accident rates and frequency of testing throughout the EU.

9. Five Member States have a 3-1-1 pattern of car testing or better - Luxembourg, Netherlands, Latvia, the Slovak Republic and GB. The UK (GB) and the Netherlands are among the Member States with the lowest rates of road death. Other Member States with low rates are Finland and Sweden, which have a pattern of 3-2-1 testing. The Member States with the EU-minimum pattern of testing tend to have the highest rates of road death.

10. A number of other factors will have an influence on road deaths - for example the severity of accidents, and the efficiency and effectiveness of the health services in different Member States. So these rates cannot be attributed directly to frequency of roadworthiness testing.

11. In terms of identifying the benefits of testing, clearly very much depends on the attitude of motorists towards routine vehicle maintenance. We do not know what the attitude of motorists would be without the current system of testing (in any one or several years) - and even a survey of attitude - were one to be undertaken - would only indicate what people intended, or said they would do, in the absence of being required to submit their vehicle for a statutory roadworthiness test.

12. That said, we do know from random surveys of fleet condition that - at any one time - some 8% of cars on the road are in a dangerous condition. Consequently, many motorists are either unaware of roadworthiness standards or defects - for whatever reason - or they ignore them for as long as their car continues to be driveable.

Conclusion

13. It is very difficult to identify benefits directly arising from roadworthiness testing.

14. Ensuring that vehicles are brought up to at least a minimum standard of roadworthiness should have a generally beneficial effect on road safety - as a car with properly functioning brakes must surely be 'safer' than one with defective brakes.

15. Determining the optimum frequency of testing is complex - given that the benefits delivered by testing as opposed to alternatives are so heavily dependent on the likely response of motorists in the event that testing were to be removed.

16. The majority of Member States which test at the minimum frequency have introduced MOT testing only relatively recently - Denmark and Ireland as a result of the implementation of Directive 91/328/EEC - and France only a short-time before the adoption of the Directive.

17. Those Member States with MOT testing frequency above the EU minimum generally have lower rates of road death than those which test at the minimum frequency.

APPENDIX

FREQUENCY OF MOT TESTING OF CARS IN THE EU

	1	2	3	4	5	6	7	8	9	10	11
BELGIUM				X	X	X	X	X	X	X	X
DENMARK				X		X		X		X	
GERMANY			X		X		X		X		X
GREECE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SPAIN				X		X		X		X	X
FRANCE				X		X		X		X	
IRELAND				X		X		X		X	
ITALY				X		X		X		X	
LUXEMBOURG			X	X	X	X	X	X	X	X	X
NETHERLANDS			X	X	X	X	X	X	X	X	X
AUSTRIA			X		X	X	X	X	X	X	X
PORTUGAL				X		X		X	X	X	X
FINLAND			X		X	X	X	X	X	X	X
SWEDEN			X		X	X	X	X	X	X	X
UK (GB)			X	X	X	X	X	X	X	X	X
CYPRUS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CZECH REPUBLIC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ESTONIA			X		X		X		X	X	X
HUNGARY				X		X		x			X
LATVIA	X	X	X	X	X	X	X	X	X	X	X
LITHUANIA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MALTA				X		X		X		X	
POLAND			X		X	X	X	X	X	X	X
SLOVAK REPUBLIC			X	X	X	X	X	X	X	X	X
SLOVENIA			X		X		X	X	X	X	X
ROMANIA		X		X		X		X		X	
EU MINIMUM				X		X		X		X	

X denotes statutory roadworthiness test

ROAD DEATHS IN THE EU

	2000	2001	2002	2003	2004	PER 100K POPULATION*	PER 10K VEHICLES*
BELGIUM	1470	1486	1353	1216	1163	14.5	2.6
DENMARK	498	431	463	432	369	8.0	1.7
GERMANY	7503	6977	6842	6613	5842	8.0	1.2
GREECE	2037	1880	1634	1605	1619	19.3	4.0
SPAIN	5777	5517	5347	5400	4749	12.8	2.1
FRANCE	8079	8162	7655	6058	5530	10.2	1.7
IRELAND	418	412	378	337	379	8.4	1.7
ITALY	6649	6691	6736	6065	5625	10.5	1.4
LUXEMBOURG	76	70	62	53	49	11.8	1.5
NETHERLANDS	1082	993	987	1028	804	6.3	1.2
AUSTRIA	976	958	956	931	878	11.5	1.8
PORTUGAL	1877	1670	1655	1542	1294	14.8	3.0
FINLAND	396	433	415	379	375	7.3	1.4
SWEDEN	591	583	560	529	480	5.9	1.1
UK (GB)	3580	3598	3581	3658	3368	6.1	1.2
CYPRUS	111	98	94	97	117	N/A	N/A
CZECH REPUBLIC	1486	1334	1431	1447	1382	14.2	3.2
ESTONIA	204	199	223	164	170	N/A	N/A
HUNGARY	1200	1239	1429	1326	1296	13.1	4.2
LATVIA	588	517	518	532	516	N/A	N/A
LITHUANIA	641	706	697	709	752	N/A	N/A
MALTA	15	16	16	16	13	N/A	N/A
POLAND	6294	5534	5827	5695	5712	14.8	3.5
ROMANIA	n/k	n/k	n/k	n/k	n/k	-	-
SLOVAK REPUBLIC	628	614	610	645	603	N/A	N/A
SLOVENIA	313	278	269	242	274	N/A	N/A

* = Data relates to 2003; n/k = not known

TESTING FREQUENCY

1-3-3
3-1-1
3-2-1
3-2-2
4-1-1
4-2-2

ANNEX B

TRENDS IN MOT FAILURE RATES

1. Overall failure rates for three main MOT test Classes for the last 15 years is shown in the attached Appendix, which also shows overall failure rates for main vehicle safety systems.

2. In practice modern vehicles probably do tend to be 'generally more reliable' than in the past. This is mainly a reflection of the fact that they are less prone to failure of ignition control systems - which have been electronically controlled for a number of years now, rather than mechanically controlled.

3. It is probably also true to say that modern vehicles tend to be less susceptible to corrosion. This is mainly a reflection of better manufacturing processes, both in the application of anti-corrosion treatments to the bodywork and in the construction materials used in brake piping, for example.

4. Modern vehicles also do tend to have longer service intervals than older vehicles, due both to the increased use of 'sealed for life components', and to the use of more advanced lubricants. It is probably also true to say that manufacturing tolerances have improved, as have manufacturing techniques and materials.

5. The key objective of the MOT test does not relate to reliability but to whether wearing components have not deteriorated to such an extent as to fall below minimum standards and hence make the continued use of the vehicle in that condition dangerous. The durability of the wearing components checked at MOT tests do not change significantly over time - and certainly not over the relatively short timescales for which we have detailed test failure data.

6. For example, tyres are no less susceptible to wear now than they were 15 years ago. In some respects tyre wear is more likely now - in part because modern tyres with 'more grip' tend to be softer and therefore wear at a faster rate; and, since most cars tend to have power steering nowadays,

drivers expect to be able to turn wheels without moving the vehicle. Equally, the wearing items in braking systems are no less susceptible to wear, even though more modern (disc) braking systems have increasingly been fitted to more modern vehicles. Again, to some extent, wear tends to be more likely with modern braking systems, because asbestos-free friction material is harder, and this results in more wear to brake discs and drums.

7. Other contributory factors are likely to be random variation due to the sampling methods used prior to the introduction of computerisation into the MOT scheme from mid-2005; and, the fact that VOSA have put increased effort into the training of testers and into the monitoring of test standards over the years.

APPENDIX

TREND IN MOT TEST FAILURE RATES

CLASS IV TESTS (cars)

YEAR	FAIL RATE%	LIGHTS	STEERING	BRAKES	TYRES
2006/07	36.0	24.0	4.0	17.0	12.0
2005/06	32.7	16.4	10.0	11.8	8.0
2004/05	33.0	14.9	11.4	10.6	7.7
2003/04	29.4	15.7	12.3	11.1	8.0
2002/03	31.1	15.8	13.5	12.0	8.2
2001/02	32.0	16.1	13.9	12.4	8.0
2000/01	31.7	15.9	14.4	12.4	8.1
1999/00	33.6	17.6	15.8	13.4	8.9
1998/99	35.7	18.0	16.8	14.3	9.3
1997/98	36.1	18.4	16.8	15.1	9.2
1996/97	36.1	18.6	16.7	14.6	10.0
1995/96	37.3	20.0	17.4	15.4	9.6
1994/95	37.2	20.3	17.3	15.5	9.6
1993/94	N/A	22.5	17.9	16.1	9.3
1992/93	N/A	19.9	17.4	15.4	8.6
1991/92	N/A	16.7	16.7	16.0	9.0

It should be noted that whilst it looks as though failure rates may have been changing quite significantly over the years, no detailed data relating to the whole vehicle parc has been available until after MOT results were first captured on the new centralised MOT computer database. The first full year of test results recorded on the database relates to the 2006/07 financial year. Prior to that overall test results had to be estimated by a sampling technique - which was inevitably open to both sampling and statistical error.