

# TRAFFIC IN GREAT BRITAIN

3rd Quarter 2001

Department for Transport, Local Government and the Regions

Statistics Bulletin (01)8

More detailed information on traffic flow data at selected points on the major road network and vehicle kilometre estimates by type of vehicle and class of road is available for purchase from the Department for Transport, Local Government and the Regions. Enquiries should be made to:

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This bulletin was compiled by Kerrick Macafee. The latest quarterly bulletin can be found at the following website address: <http://www.transtat.dtlr.gov.uk/qbullets/qtraff.htm>. Enquiries about the contents should be made to the above address or ☎ 020 7944 6396

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## Special Note 2001

Figures for 1999 and 2000 have been produced on a new basis and are not directly comparable with earlier figures. In Table 2, the 1999 values are shown on both the original and the new basis and quarterly figures are only shown for the period Q1 1999 onwards. For the other tables in this bulletin, the old values in index number form have been retained for the quarters prior to 2000. The latest index numbers have been derived by applying the latest year-on-year increases to the 1999 index values. The reasons for the changes are described below.

In 2000/2001, steps were taken to improve the quality of DTLR's major road network database used in producing traffic estimates. This was done using a geographical information system (GIS), together with Ordnance Survey (OS) data. One result of this work was that it identified inconsistencies in the road length data supplied by local authorities. Preliminary checks showed that this was mainly due to the variety of methods used by them to calculate road lengths. However, local authorities have useful local knowledge of their roads, particularly recent changes to their classification. Therefore, once the network data had been compiled, it was sent to each local authority for final checking. In some instances, this led to discussions with Government Regional Offices and the Highways Agency in order to establish the correct, up-to-date classification of roads. The end result of this extensive work was a much-improved road network database for the whole of Great Britain. It was decided to use this GIS-based information, rather than data supplied by local authorities, for grossing-up average traffic flows, in order to produce traffic estimates.

The road network data was further refined by information collected by DTLR traffic count contractors on the location of relevant speed limit signs. This enabled DTLR to be more confident about the built-up and non built-up lengths of each section of road. The net result of both these improvements has been a reduction in the estimates of principal road traffic, particularly on built-up roads.

Furthermore, DTLR began a review of the expansion factors used to convert the occasional, 12-hour manual count data to estimates of annual average daily flows. Highways Agency data strongly suggested that the expansion factors for some motorways, particularly the busiest ones in the South East and Midlands regions, were too low. Temporary adjustments to the factors have been made and these adjustments have led to a general upward revision to 1999 and 2000 motorway traffic estimates. Further work will need to be done to refine these estimates over the coming year.

Minor road lengths are now based on OS data, not local authority data, but this has not affected the quarterly minor road *traffic* figures to any extent.

The net result of these improvements has been little change to the estimates of *total* motor vehicle traffic for Great Britain for 1999 and 2000, but some changes to the composition of the overall figure. In general, the new motorway traffic estimates are now higher than before, whilst those for other major roads are lower than before.

The new figures for 1999 and 2000 are already considerably more accurate than those produced for earlier years. In the time available, it has not been possible to consider the changes that ought to be made to estimates prior to 1999. However, adjustments to earlier years will be carefully considered over the coming year, once the review of expansion factors is complete and the 1999 and 2000 values are finalised. It is intended to publish a full set of figures on the new basis in next year's Annual Report.

## SYMBOLS

<b>P</b>	=	provisional figures
<b>..</b>	=	provisional figures not sufficiently accurate to be published

## DEFINITIONS

### Units

**Billion:** One thousand million.

### Roads

**Motorways:** Special roads reserved for certain classes of vehicle.

**Major roads:** 'A' roads.

**Minor roads:** 'B', 'C' and unclassified roads

**Non-Built-Up roads:** Roads with a speed limit of over 40mph.

**Built-Up roads:** Roads with a speed limit of 40mph or less.

### Vehicle types

**Cars:** Includes taxis, passenger vehicles with 15 or less seats and three-wheeled cars. Cars towing caravans or trailers are counted as one vehicle.

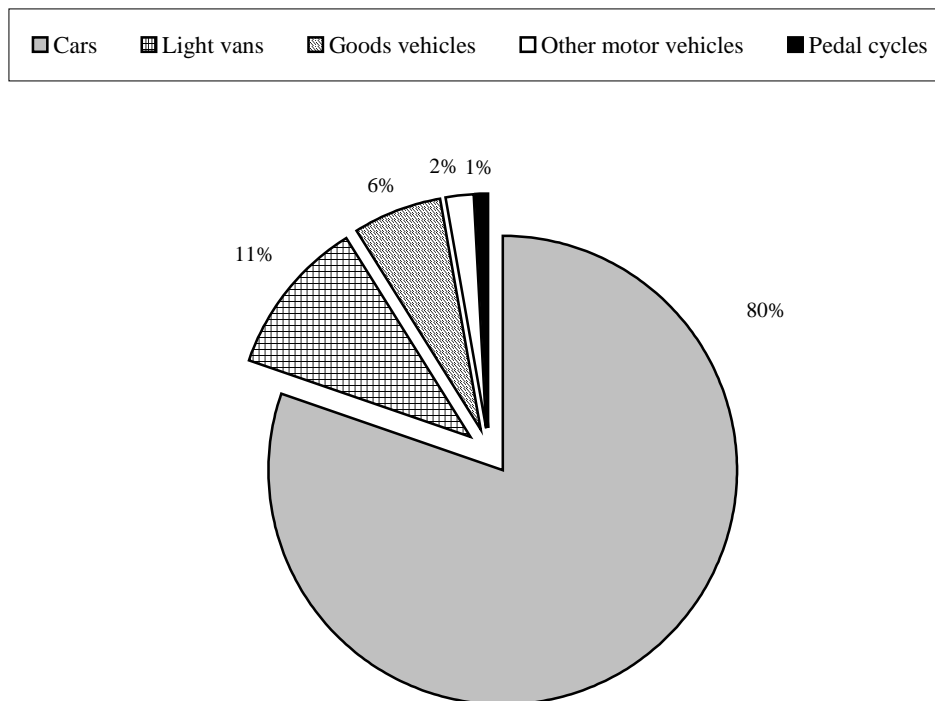
**Light vans:** Goods vehicles not exceeding 3,500kg gross vehicle weight.

**Goods vehicles:** Goods vehicles exceeding 3,500kg gross vehicle weight.

**Other vehicles:** Includes two wheel motor vehicles and large buses and coaches.

- Traffic levels in the third quarter of 2001 were about two per cent higher than in the same quarter of 2000. This rise largely reflects the fact that the 2000 figure was affected by the fuel protests in September. After allowing for this, the underlying growth in traffic in the year to 2001 quarter 3 is estimated at about one per cent.
- Car traffic levels rose by three per cent over the year to the third quarter of 2001. After taking account of the effects of the fuel protest in September 2000, the underlying rise is estimated to be about one per cent.
- Goods vehicle traffic levels were about one per cent lower in the third quarter of 2001 than they were in the same quarter of 2000.
- Please see special note on page 4

**Chart 1: Road traffic in Great Britain by vehicle type in 2000**



**Table 1: Road traffic in Great Britain by vehicle type: Index numbers**

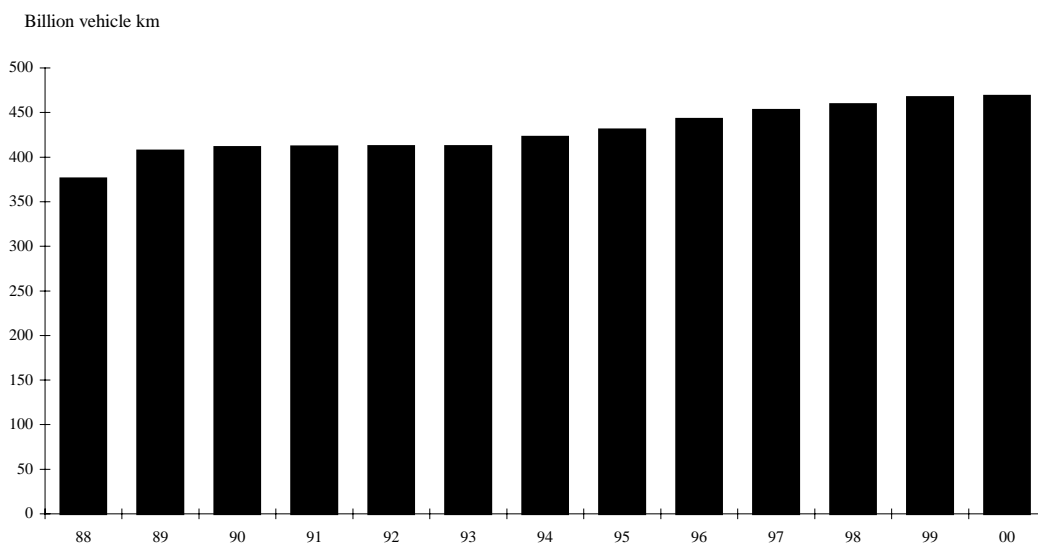
Seasonally adjusted index numbers (1993=100)

		Cars	Light vans	Goods vehicles	Other motor vehicles	All motor vehicles	Pedal cycles
<b>Weights (1993)</b>		<b>338.5</b>	<b>41.1</b>	<b>23.8</b>	<b>8.7</b>	<b>412.2</b>	<b>4.5</b>
(billion vehicle kms)							
1988		90.2	88.0	99.8	118.4	91.1	116.5
1995		104.3	106.5	105.4	100.4	104.5	99.6
1996		107.0	109.6	109.1	103.1	107.3	94.6
1997		109.6	110.8	113.8	102.9	109.8	90.2
1998		111.0	116.8	112.2	101.3	111.4	88.3
1999		112.3	119.7	117.9	109.9	113.3	92.8
2000	*	112.4	122.3	119.9	106.7	113.7	91.5
Seasonally adjusted index numbers (average quarter 1993=100)							
1997	Q1	108.3	108.0	112.1	97.0	108.3	89.9
	Q2	108.7	109.5	113.6	103.4	109.0	90.8
	Q3	109.7	112.0	113.8	106.6	110.1	90.3
	Q4	111.5	114.0	115.1	103.0	111.7	89.9
1998	Q1	111.1	115.0	112.8	96.6	111.3	88.1
	Q2	110.6	115.4	110.8	103.0	110.9	89.0
	Q3	110.1	117.0	111.3	102.5	110.7	88.1
	Q4	112.0	119.8	114.0	103.4	112.7	88.1
1999	Q1	112.2	118.0	118.0	107.6	113.0	90.8
	Q2	111.9	119.9	117.5	111.2	113.0	92.6
	Q3	112.2	120.4	117.3	112.1	113.3	94.3
	Q4	112.7	120.8	119.2	111.2	113.8	93.5
2000	Q1	113.1	120.9	120.4	113.5	114.3	92.6
	Q2	112.7	120.9	119.8	111.2	113.9	92.6
	Q3 *	110.8	123.8	118.9	107.3	112.4	89.9
	Q4	112.7	120.7	119.9	103.3	113.7	90.8
2001	Q1 P	113.0	120.3	118.5	107.1	113.9	..
	Q2 P	113.0	122.5	118.0	107.3	114.1	..
	Q3 P	113.8	124.4	117.9	107.1	114.9	..
Percentage change on previous year							
1996		3	3	3	3	2.7	-5
1997		2	1	4	0	2.3	-5
1998		1	5	-1	-2	1.5	-2
1999		1	2	5	9	1.7	5
2000	*	0	2	2	-3	0.3	-1
1998	Q1	3	6	1	0	3	-2
	Q2	2	5	-3	0	2	-2
	Q3	0	4	-2	-4	1	-2
	Q4	0	5	-1	0	1	-2
1999	Q1	1	3	5	11	2	3
	Q2	1	4	6	8	2	4
	Q3	2	3	5	9	2	7
	Q4	1	1	5	8	1	6
2000	Q1	1	2	2	6	1	2
	Q2	1	1	2	0	1	0
	Q3 *	-1	3	1	-4	-1	-5
	Q4	0	0	1	-7	0	-3
2001	Q1 P	0	0	-2	-6	0	..
	Q2 P	0	1	-2	-3	0	..
	Q3 P	3	1	-1	0	2	..

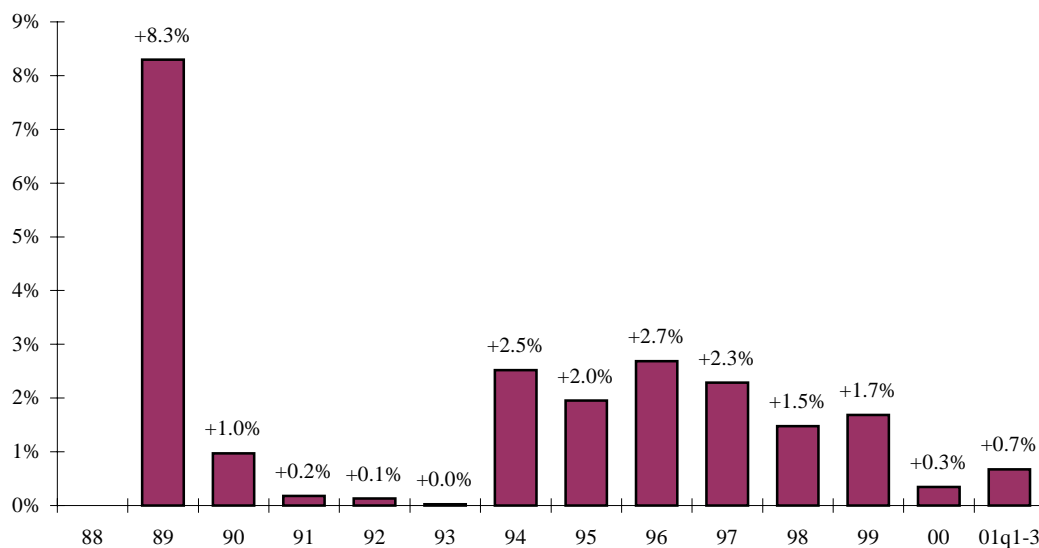
\* Figure affected by September fuel protest

- The current estimate for all motor vehicle traffic in 2000 is 467.7 billion vehicle kilometres.
- In seasonally-adjusted terms, the level of car traffic recovered slightly in the third quarter, possibly because the effects of foot and mouth disease on traffic levels was not so marked as in the previous two quarters.
- Please see special note on page 4

**Chart 2a: Road traffic in Great Britain for all motor vehicles**



**Chart 2b: Percentage change in road traffic for all motor vehicles**



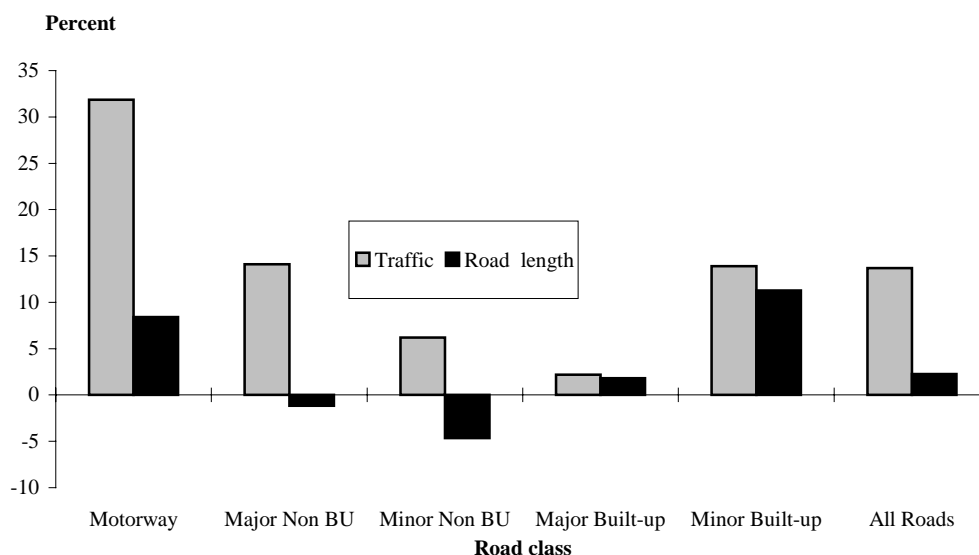
**Table 2: Road traffic in Great Britain by vehicle type**

		Billion vehicle kilometres					
		Cars	Light vans	Goods vehicles	Other motor vehicles	All motor vehicles	Pedal cycles
1988		305.4	36.2	23.8	10.3	375.7	5.2
1995		353.2	43.8	25.1	8.8	430.9	4.5
1996		362.4	45.1	26.0	9.0	442.4	4.3
1997		370.9	45.6	27.1	9.0	452.6	4.1
1998		375.6	48.1	26.7	8.9	459.2	4.0
1999		380.1	49.2	28.1	9.6	467.0	4.2
1999		378.4	49.4	28.8	9.5	466.0	4.1
2000	*	378.7	50.5	29.3	9.2	467.7	4.1
Seasonally adjusted figures							
1999	Q1	94.6	12.2	7.2	2.3	116.2	1.0
	Q2	94.3	12.4	7.2	2.4	116.2	1.0
	Q3	94.6	12.4	7.2	2.4	116.5	1.0
	Q4	94.9	12.5	7.3	2.4	117.0	1.0
2000	Q1	95.3	12.6	7.4	2.4	117.6	1.0
	Q2	95.0	12.6	7.3	2.4	117.2	1.0
	Q3 *	93.4	12.8	7.3	2.3	115.8	1.0
	Q4	95.0	12.5	7.3	2.2	117.1	1.0
2001	Q1 P	95.3	12.5	7.2	2.3	117.3	..
	Q2 P	95.2	12.7	7.2	2.3	117.4	..
	Q3 P	95.9	12.9	7.2	2.3	118.3	..
Unadjusted figures							
1999	Q1	90.7	11.5	7.3	2.0	111.6	0.7
	Q2	95.4	12.2	7.1	2.5	117.2	1.2
	Q3	98.3	12.9	7.2	2.8	121.2	1.4
	Q4	94.0	12.7	7.2	2.1	116.0	0.8
2000	Q1	91.8	12.0	7.5	2.1	113.3	0.7
	Q2	96.0	12.5	7.2	2.5	118.2	1.2
	Q3 *	97.0	13.3	7.3	2.7	120.2	1.3
	Q4	94.0	12.7	7.3	2.0	115.9	0.8
2001	Q1 P	91.7	11.9	7.4	2.0	113.0	..
	Q2 P	96.2	12.7	7.1	2.4	118.3	..
	Q3 P	99.7	13.4	7.2	2.7	122.9	..

\* Figure affected by September fuel protest

- Figures on changes in traffic levels by road class are affected by long-term changes in road lengths. Over the last six years, there has been a significant reclassification of roads from non built-up to built-up, particularly minor roads. The apparent rise in minor built-up traffic shown on Table 3 is, therefore, largely the result of highway authorities imposing 40 mph or lower speed limits on previously unlimited roads. Chart 3 shows these trends in graphical terms.
- Motorway traffic rose by four per cent between the third quarter of 2000 and the same quarter of 2001. After allowing for the September 2000 fuel protests, the underlying rise is estimated to be about three per cent.
- Please see special note on page 4

**Chart 3: Percentage change in road traffic and road length for all motor vehicles: 1993 to 2000**



**Table 3: Road traffic in Great Britain by road class: Index numbers**

		Seasonally adjusted index numbers (1993=100)					
		Motorway	Major Non Built-up	Minor Non Built-up	Major Built-up	Minor Built-up	All roads
<b>Weights (1993)</b>		<b>63.9</b>	<b>118.1</b>	<b>45.5</b>	<b>78.0</b>	<b>106.8</b>	<b>412.2</b>
(billion vehicle kms)							
1988		85.3	87.4	106.3	95.7	89.0	91.1
1995		111.0	103.7	98.5	101.4	106.4	104.5
1996		115.4	106.5	101.6	103.9	108.4	107.3
1997		122.0	109.1	106.3	102.2	110.3	109.8
1998		127.3	111.6	106.6	102.0	110.6	111.4
1999		130.9	114.2	106.4	102.3	112.8	113.3
2000	*	131.9	114.1	106.2	102.2	113.9	113.7
Seasonally adjusted index numbers (average quarter 1993=100)							
1997	Q1	120.0	107.1	103.4	101.0	109.9	108.3
	Q2	120.9	107.0	107.2	102.0	109.9	109.0
	Q3	121.6	109.9	108.7	102.9	109.3	110.1
	Q4	125.6	112.4	105.8	102.7	111.8	111.7
1998	Q1	127.2	111.5	106.9	101.8	110.4	111.3
	Q2	126.2	109.8	107.5	101.5	111.2	110.9
	Q3	126.5	110.7	106.5	101.1	110.2	110.7
	Q4	129.2	114.3	105.6	103.8	110.7	112.7
1999	Q1	129.0	113.6	106.6	104.2	112.1	113.0
	Q2	130.3	114.4	106.3	102.3	111.8	113.0
	Q3	132.3	113.9	106.3	100.9	113.5	113.3
	Q4	132.0	114.8	106.8	101.8	113.7	113.8
2000	Q1	132.9	115.0	106.4	102.9	114.1	114.3
	Q2	132.0	114.6	106.5	102.2	113.9	113.9
	Q3 *	131.7	112.0	106.1	100.5	112.9	112.4
	Q4	133.3	115.2	103.1	101.9	113.6	113.7
2001	Q1 P	134.8	115.2	99.8	103.0	113.9	113.9
	Q2 P	134.6	115.4	101.8	102.3	114.2	114.1
	Q3 P	137.3	115.6	107.1	101.1	114.2	114.9
Percentage change on previous year							
1996		4	3	3	3	2	2.7
1997		6	2	5	-2	2	2.3
1998		4	2	0	0	0	1.5
1999		3	2	0	0	2	1.7
2000	*	1	0	0	0	1	0.3
1998	Q1	6	4	3	1	0	3
	Q2	4	3	0	0	1	2
	Q3	4	1	-2	-2	1	1
	Q4	3	2	0	1	-1	1
1999	Q1	1	2	0	2	1	2
	Q2	3	4	-1	1	1	2
	Q3	5	3	0	0	3	2
	Q4	2	0	1	-2	3	1
2000	Q1	3	1	0	-1	2	1
	Q2	1	0	0	0	2	1
	Q3 *	0	-2	0	0	0	-1
	Q4	1	0	-3	0	0	0
2001	Q1 P	1	0	-6	0	0	0
	Q2 P	2	1	-4	0	0	0
	Q3 P	4	3	1	1	1	2
Memo item							
% rise in road length							
'93 to '00							
		8	-1	-5	2	11	2

\* Figure affected by September fuel protest

- Car traffic on motorways was six per cent higher in the third quarter of 2001 compared to the same quarter of 2000. After allowing for the effects of the September 2000 fuel protests, the underlying rise was about four per cent.
- Goods vehicle traffic on all roads fell over the same period, particularly on minor non built-up roads.
- Please see special note on page 4

**Table 4: Car and goods vehicle traffic by road class: Index numbers**

	Seasonally adjusted index numbers (1993=100)											
	Cars						Goods vehicles <sup>1</sup>					
	Motor- way	Major Non Built up	Minor Non Built up	Major Built-up	Minor Built-up	All roads	Motor- way	Major Non Built up	Minor Non Built up	Major Built-up	Minor Built-up	All roads
<b>Weights (1993)</b> (billion vehicle kms)	<b>49.2</b>	<b>95.2</b>	<b>37.9</b>	<b>65.1</b>	<b>91.1</b>	<b>338.5</b>	<b>7.7</b>	<b>9.0</b>	<b>1.7</b>	<b>3.0</b>	<b>2.4</b>	<b>23.8</b>
1988	83.5	87.0	103.8	94.1	88.7	90.2	97.1	93.5	131.0	111.2	96.1	99.8
1995	111.1	103.2	98.0	101.4	106.6	104.3	110.9	104.3	93.0	103.3	103.4	105.4
1996	114.7	106.1	101.1	103.9	108.6	107.0	119.2	106.5	88.0	105.2	106.2	109.1
1997	121.3	108.9	106.1	102.3	110.5	109.6	126.2	107.5	99.0	102.2	122.0	113.8
1998	127.1	111.3	106.0	102.0	110.4	111.0	127.4	108.8	96.9	98.1	104.4	112.2
1999	128.7	113.0	106.2	102.0	112.5	112.3	140.5	114.6	91.9	96.5	103.5	117.9
2000 *	128.8	112.7	105.6	101.9	113.5	112.4	144.5	116.9	93.8	95.2	102.1	119.9
Seasonally adjusted index numbers (average quarter 1993=100)												
1997 Q1	119.6	107.1	103.3	101.4	110.4	108.3	123.0	106.3	98.8	101.3	121.6	112.1
Q2	119.8	106.7	107.0	102.2	110.3	108.7	127.1	105.9	101.2	101.3	123.2	113.6
Q3	120.9	109.6	108.2	102.7	109.3	109.7	125.1	107.7	101.2	103.9	121.6	113.8
Q4	124.8	112.2	105.7	102.9	111.9	111.5	129.7	110.4	94.1	100.0	119.9	115.1
1998 Q1	127.3	111.4	106.4	101.9	110.6	111.1	126.1	110.4	101.2	100.0	103.5	112.8
Q2	126.5	109.5	107.0	101.3	111.1	110.6	124.0	107.7	96.5	98.6	105.1	110.8
Q3	126.3	110.3	105.8	100.8	109.7	110.1	127.1	106.8	96.5	97.3	105.1	111.3
Q4	128.6	113.8	104.9	103.8	110.0	112.0	131.8	110.8	94.1	97.3	103.5	114.0
1999 Q1	127.4	112.7	106.4	104.0	111.8	112.2	139.6	115.3	87.1	100.0	103.5	118.0
Q2	128.2	113.2	105.8	102.0	111.4	111.9	138.0	115.3	94.1	97.3	101.8	117.5
Q3	130.2	112.7	105.6	100.5	113.2	112.2	140.6	112.6	96.5	94.6	103.5	117.3
Q4	129.1	113.3	107.1	101.4	113.5	112.7	143.8	116.2	91.8	94.6	101.8	119.2
2000 Q1	130.0	113.4	106.7	102.5	113.9	113.1	144.3	117.5	89.4	98.6	103.5	120.4
Q2	129.4	113.0	106.3	101.9	113.7	112.7	142.2	117.5	96.5	96.0	103.5	119.8
Q3 *	127.6	110.7	104.6	99.8	112.2	110.8	145.1	113.8	98.2	92.7	101.4	118.9
Q4	130.7	114.0	103.0	101.9	113.4	112.7	145.7	117.3	91.8	93.6	99.6	119.9
2001 Q1 P	132.7	114.1	100.0	102.7	113.9	113.0	142.4	115.6	83.0	98.6	102.4	118.5
Q2 P	132.5	113.6	101.7	102.0	114.3	113.0	141.2	115.2	89.3	96.0	102.4	118.0
Q3 P	135.0	115.0	106.3	100.5	113.6	113.8	143.6	113.4	93.1	92.7	101.4	117.9
Percentage change on previous year												
1996	3	3	3	3	2	3	7	2	-5	2	3	3
1997	6	3	5	-2	2	2	6	1	13	-3	15	4
1998	5	2	0	0	0	1	1	1	-2	-4	-14	-1
1999	1	2	0	0	2	1	10	5	-5	-2	-1	5
2000 *	0	0	-1	0	1	0	3	2	2	-1	-1	2
1998 Q1	6	4	3	1	0	3	3	4	2	-1	-15	1
Q2	6	3	0	-1	1	2	-2	2	-5	-3	-15	-3
Q3	4	1	-2	-2	0	0	2	-1	-5	-6	-14	-2
Q4	3	1	-1	1	-2	0	2	0	0	-3	-14	-1
1999 Q1	0	1	0	2	1	1	11	4	-14	0	0	5
Q2	1	3	-1	1	0	1	11	7	-2	-1	-3	6
Q3	3	2	0	0	3	2	11	5	0	-3	-2	5
Q4	0	0	2	-2	3	1	9	5	-3	-3	-2	5
2000 Q1	2	1	0	-1	2	1	3	2	3	-1	0	2
Q2	1	0	0	0	2	1	3	2	2	-1	2	2
Q3 *	-2	-2	-1	-1	-1	-1	3	1	2	-2	-2	1
Q4	1	1	-4	0	0	0	1	1	0	-1	-2	1
2001 Q1 P	2	1	-6	0	0	0	-1	-2	-7	0	-1	-2
Q2 P	2	1	-4	0	1	0	-1	-2	-7	0	-1	-2
Q3 P	6	4	2	1	1	3	-1	0	-5	0	0	-1

<sup>1</sup> Reliability of estimates of goods vehicles is  $\pm 4$  for all roads and even larger for separate road classes

\* Figure affected by September fuel protest

## ANNEX

### Precision of estimates of percentage change

The numerical results in all the tables in this bulletin depend on data from the Core Census, a sample census of traffic counts at approximately 130 fixed sites randomly selected from the road network. All core sites are automatically operated, with counters providing classified traffic data on a continuous basis.

Traffic estimates published in this Bulletin, together with percentage changes, are therefore subject to a random sampling error. A measure of the precision of the estimates is given by the 95% confidence intervals attached to each estimate; approximate values applicable to percentage changes are shown in the table below. For example, an estimated change of 5% in all motor vehicle traffic on motorways between one quarter and the same quarter of the following year has a 95% confidence interval of  $\pm 2\%$ . This means that the actual change probably lies between 3% and 7%; there is only about a 1 in 20 chance that, due to random sampling error, the true value lies outside this range.

### Estimated 95% confidence intervals for percentage changes in road traffic compared with the same period of previous year

	Quarterly	Annual
All motor vehicles	$\pm 2\%$	$\pm 1.5\%$
Cars	$\pm 2\%$	$\pm 1.5\%$
Light vans	$\pm 3\%$	$\pm 1.5\%$
Goods Vehicles	$\pm 4\%$	$\pm 2\%$
Motorways	$\pm 2\%$	$\pm 2\%$
Major roads	$\pm 3\%$	$\pm 2.5\%$
Minor roads	$\pm 3\%$	$\pm 2\%$

These estimates are based on final traffic data for 1988 and 1989. They may be subject to slight variation from year to year.

Estimates of actual traffic levels are also subject to sampling error. The percentage errors will generally be at least as large as those for corresponding growth rates.