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Traffic Growth: Modelling a Global Phenomenon

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Traffic Growth: Modelling a Global Phenomenon

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Foreword

In Australia, as in other countries around the world, traffic growth has been a feature of the post World War Two experience. The automobile and commercial vehicles have multiplied, as living has increasingly been intertwined with mobility.

This report describes an overview of the different patterns of traffic growth in 25 countries, and their determinants. There is a remarkable commonality in these determinants, but the variety of their operations has generated an amazing variety of traffic growth patterns. Understanding the determinants of past and likely future traffic growth is important to understand the needs for infrastructure investment, for congestion amelioration, for the road safety task and many other trends that concern governments and citizens in all the 25 countries.

This project was undertaken by Dr. David Gargett.

Gary Dolman
Head of Bureau
Bureau of Infrastructure, Transport and Regional Economics
March 2012

At a glance

This report examines the trends in the growth of road traffic (vehicle kilometres travelled or vkt) in 25 countries around the world.

Much of the report is technical in nature, dealing with the sources of data, and details of variable construction and modelling. For example, data back to at least 1963 has been assembled for 25 countries on vehicle kilometres travelled by vehicle type, numbers of vehicles by vehicle type, population, petrol prices, consumer prices and unemployment.

The main result of all this data preparation has been the ability to document the consistent and yet varied patterns over time in vehicle kilometres per person in many countries around the globe. After rapid growth in the sixties and seventies, growth in traffic (all vehicle types) per capita has consistently slowed, with many countries approaching saturation.

The main results of the study are models of vkt per capita as a function of real petrol prices, fluctuations in the economy and of a saturating effect of time. Each country is different, but the patterns of the models are amazingly similar. The models explain the common finding around the developed world of a fairly linear trend in total vkt over the past four decades – slowing growth in population has been matched by a declining rate of growth in traffic per person. Lately, there has been a significant effect of the global financial crisis in lowering traffic levels per capital around the world.

The models can be used to provide base-case and scenario forecasts of future trends in traffic growth in the 25 countries. These are useful in a variety of contexts, for instance, in forecasting road fatalities from fatality rates, forecasting traffic growth in cities and needs for infrastructure investment.

Executive Summary

Background

Road transport is the dominant mode of transportation around the world and a vital link that brings people and goods together. Understanding the demands for mobility and their impact on traffic growth is crucial for transport authorities everywhere.

This report describes an approach for modelling traffic growth for each of 25 countries around the world.

The models constructed allow an understanding of the forces underlying traffic growth in each of the countries covered, and also allow forecasts of future trends in traffic growth.

Models were derived for Australia, Austria, Belgium, Britain, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Japan, Korea, the Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, Turkey and the United States.

Patterns of Traffic Growth in Twenty-five Countries

The framework developed in this report is basically:

TRAFFIC = Traffic per person * population

Most countries are at or close to saturation in the amount of vehicle traffic (all types) *per person*.

This means that the future *long-term trend* of *aggregate* traffic growth in most countries will depend only on the growth rate of population.

But in the *short-term*, other influences are important. Traffic in most countries over the last 50 years is shown in the report to have depended also on petrol prices (negatively) and on the unemployment rate (again negatively). Traffic in all countries has also been negatively affected by the global financial crisis (over and above the associated higher rates of unemployment).

This basic pattern of saturation in the long-term trend of traffic per person, modified by changes in petrol prices, by unemployment and by the global financial crisis, was regularly repeated in country analyses. However differences in the paths to saturation in traffic per person, coupled with large differentials in population growth, combined to produce large differences in the patterns and rates of aggregate traffic growth around the world.

The report shows how the models can be used to generate forecasts of traffic growth for each country over the years ahead.

The modelling of the twenty-five countries provides confirmation of the model structures developed for Australia. The variety of traffic growth patterns encountered allows greater confidence among transport professionals that a good understanding of what is happening is possible.

Policy Implications and Conclusion

An understanding of the factors underlying traffic growth forms a crucial underpinning for efforts to cope with growing road traffic, especially in cities around the world. In addition, estimates and forecasts of traffic are necessary for planning, as input to measuring the effects of road safety efforts, and in many other areas.

The current research shows that, for most countries, the most likely long-term path for traffic is for it to grow at the same rate as population. But in the short term there will be moderating influences associated with fuel prices, unemployment, and recovery from the effects of the global financial crisis.

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CHAPTER 1

Modelling World-Wide Trends in Traffic

Road transport is the dominant mode of transportation in Australia and around the world and it is a vital link that brings people and goods together.

In the last 50 years, there has been an enormous expansion in vehicle fleets around the world. Even with limited change in the distance travelled per vehicle, this translates to a corresponding huge growth in traffic levels (vehicle kilometres travelled), according to the following formula:

*Traffic Volume (VKT) = Number of Vehicles * Distance Travelled*

VKT measures the total distance travelled by all vehicles and treats a kilometre travelled by a car in the same way as a kilometre travelled by a heavy truck. It is the best available general measure of traffic volume.

Measuring and understanding traffic growth (VKT) underpins transport planning in the areas of allocating resources, estimating vehicle emissions, computing energy consumption and assessing traffic impact. The estimation of VKT has been required for planning purposes, environmental monitoring, accident analysis, highway fund allocation, and estimation of vehicle emissions. VKT is the best available measure of exposure with which to transform fatalities into a *rate* (i.e. the number of deaths per billion vehicle kilometres driven). In addition, VKT is a widely used international proxy for the pressures of road transport on the environment and human health. VKT estimates can also contribute information necessary to inform infrastructure investment decisions and road safety policy (see BITRE 2010).

Due to its high impact on policy decisions, it is critical to be able to measure, model and forecast traffic growth, as represented by VKT.

For the 25 countries included in this study, there are aggregate annual measurements (estimates) of traffic levels (VKT). These are presented in the current report (see Appendix 2).

But to model (and then forecast) traffic growth, a methodology is necessary.

In the present study this is provided by another formula:

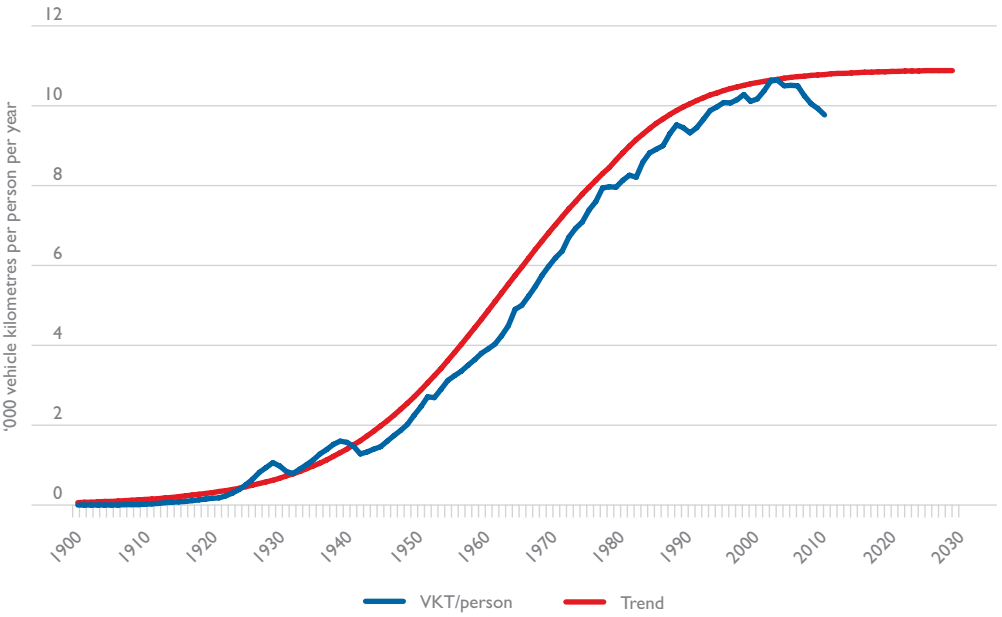
*Traffic Volume (VKT) = VKT per person * number of people*

Demographers can provide an understanding of the dynamics of the population (number of people).

That leaves VKT per person, which is much more tractable to model than aggregate traffic growth. There are common patterns in VKT per person around the world.

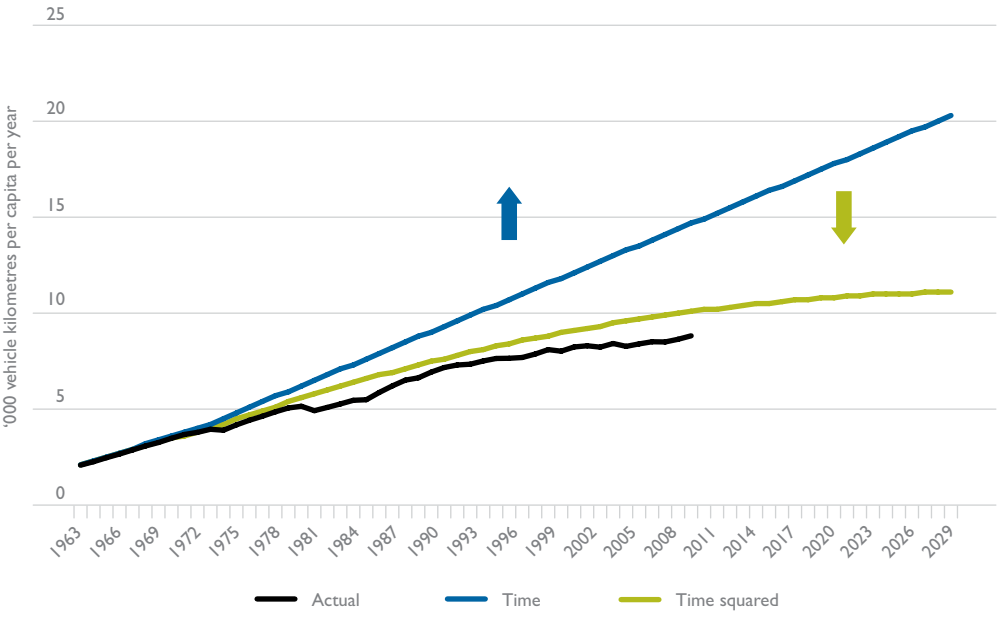
In the extremely long term, VKT per person has followed a traditional S-shaped adoption curve, as can be seen in the Australian data in Figure 1.1.

Figure 1.1 Australian trend in vehicle kilometres travelled per person



But in the period from 1963 (the period of most modelling done in this report), many of the developed countries' saturating trends can be modelled using a curve convex in time, using positive time and negative time squared variables, as illustrated in Figure 1.2 (for Germany).

Figure 1.2 A saturating curve fitted using time and time squared



These saturating trends (or saturating S-shaped logistic trends for long, or more quickly developing, or earlier stage country datasets) represent the basic finding from this research on 25 countries around the world. People can only fit so much travel into their days.

The other major finding is that downward deviations from these saturating trends occur when petrol prices or unemployment levels rise.

CHAPTER 2

Modelling Traffic Growth in Twenty-Five Countries

Summary

This chapter presents models of traffic growth in twenty-five countries around the world. The commonalities outweigh the differences in traffic per person patterns.

Effects of saturation trends, petrol prices, unemployment and the global financial crisis were apparent in most countries.

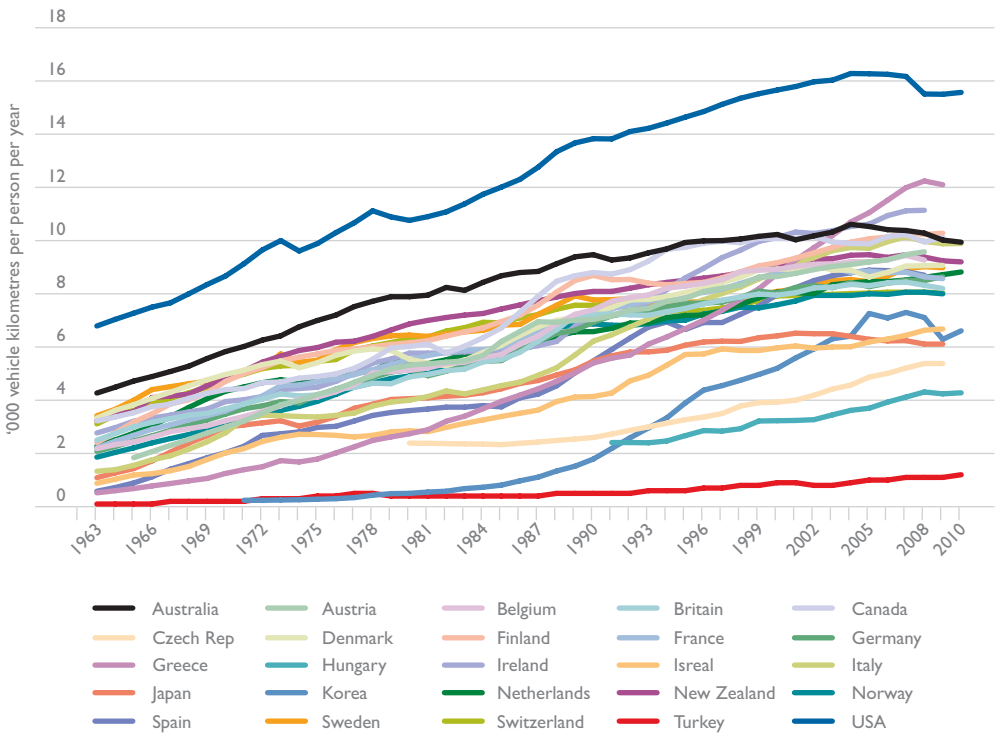
Differences in aggregate traffic growth patterns were more varied than those for per person traffic, due to differences in population growth rates.

2.1 Background

This chapter presents annual models of traffic growth in Australia and each of twenty-four other countries around the world. Traffic per person in each country is shown in Figure 4.1. The United States has the highest level of traffic per capita, followed by Australia and Canada, while Japan, Korea and Israel have the lowest (among the saturating countries). The Czech Republic, Turkey and Hungary are lower still, but they are still in the exponentially growing phase. The VKT/person estimates underlying Figure 2.1 were derived from four sources: Gaudry et. al. (2002), the OECD's International Road Traffic Accident Database (IRTAD), the International Road Federation (IRF) or the International Transport Forum. Corrections were necessary for most countries.

Some countries experienced an early period of faster growth in traffic per person, similar to that in Australia up to 1978. This has been taken into account in the analyses of the countries concerned by including an additional 'time' trend that applies up to a certain date and then turns off (by being held constant).

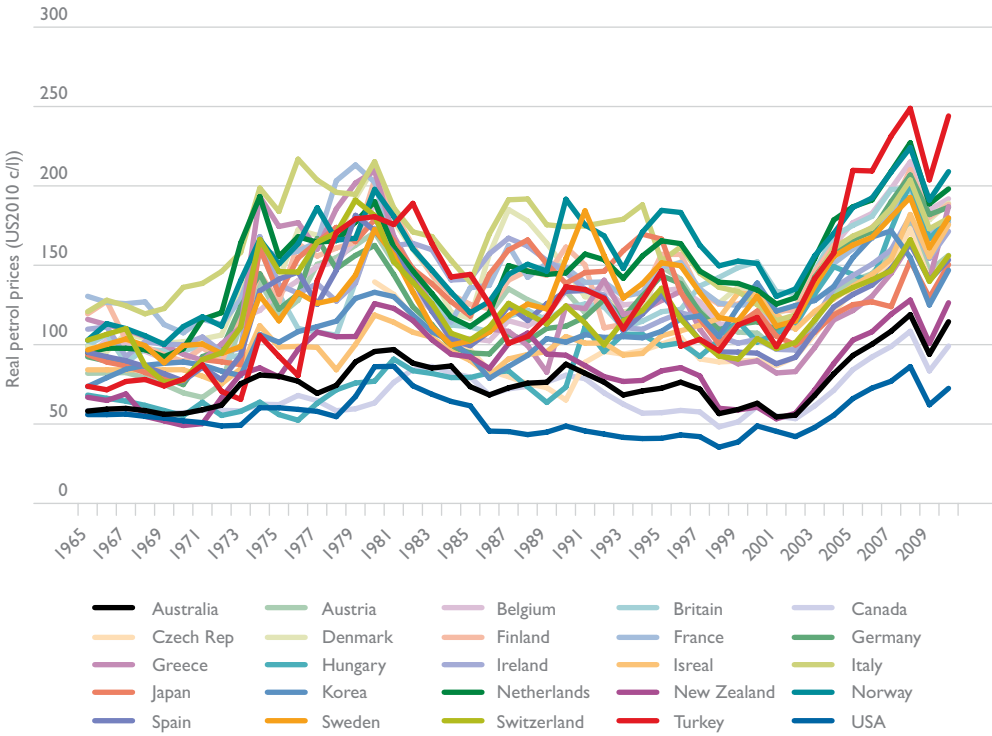
Figure 2.1 Patterns of traffic per person in Australia and other countries



Real petrol prices were derived for all countries. As can be seen from Figure 2.2, real petrol prices in the various countries, given the huge swings in world oil prices, have had similar large swings over time. The modelling uses 'real home-currency' petrol prices. Petrol prices, exchange rates and Consumer Price Indices are given in Appendix A.

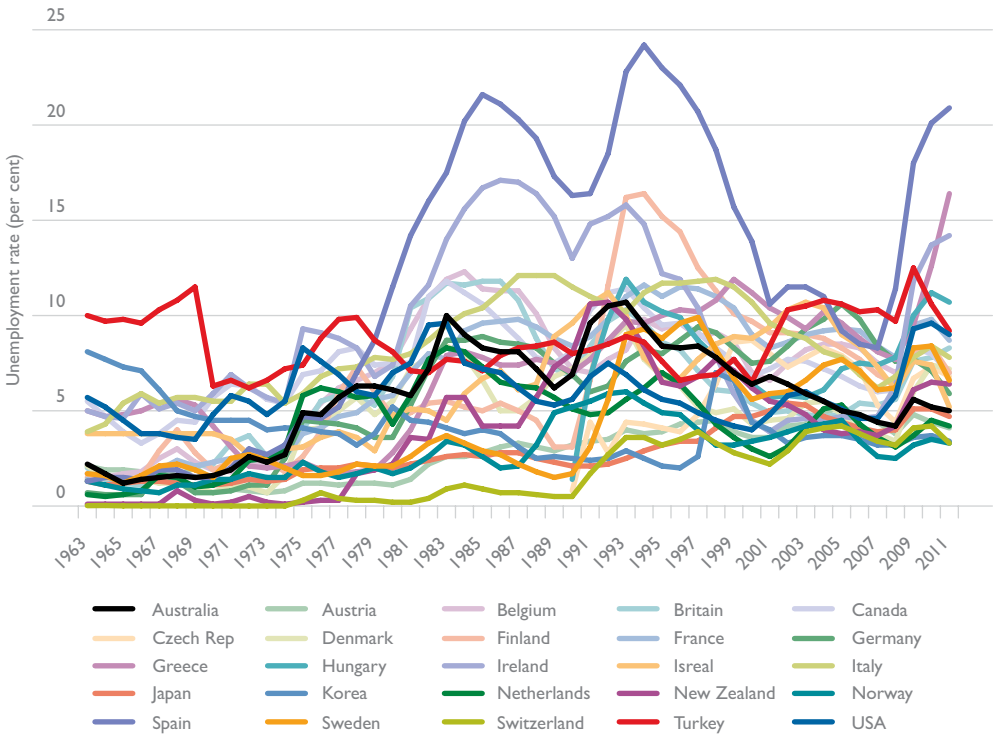
The level of fuel tax is an important influence in moderating the effect of swings in world oil prices on domestic fuel prices. For example, European countries, with their high fuel taxes, are paradoxically more sheltered in percentage change terms from swings in world oil prices. The effect of this on the modelling is that the 'real petrol price' variable should have a lesser effect on traffic per person in high fuel tax countries.

Figure 2.2 Real petrol prices, 25 countries



Unemployment trends have varied widely in the 20 countries over the period. Figure 2.3 shows the different rates of unemployment.

Figure 2.3 Unemployment rates, Australia and 20 countries



The effect of the global financial crisis on traffic levels is apparent in most countries (refer back to Figure 2.1). This effect is independent of the effect of associated increases in unemployment, and has been modelled by dummy variables, generally set at 0.5 in 2008 and then 1.0 until 2011, after which time the effect is assumed to decline to zero by 2021.

The results presented below also include forecasts of traffic growth based on the models fitted. To do this, world petrol prices are assumed to remain constant over the forecast period, unemployment is assumed to decrease to 2015 and then remain constant, and, as explained, the step change downward due to the global financial crisis is assumed to diminish.

2.2 Australia

The quarterly Australian model of BITRE (2011) was re-estimated with annual data from 1963, in order to produce an analysis comparable to that for the rest of the countries.

Figure 2.4 shows the growth of traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.1, the results of the model show significant effects for the petrol price, for unemployment and change in unemployment, and for the GFC. These results are comparable to those from the more detailed quarterly model (see BITRE 2012). The change in unemployment is measured as any positive one-year change in unemployment, and captures the effects of the onset of recessions on travel behaviour.

Table 2.1 Regression results for predicting Australian traffic per person

Regression Statistics	
Multiple R	0.999102402
R Square	0.99820561
Adjusted R Square	0.997837531
Standard Error	0.088980164
Observations	48

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	8	171.7727547	21.47159433	2711.926335	4.64916E-51
Residual	39	0.308781315	0.00791747		
Total	47	172.081536			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	4.769288763	0.186440349	25.58077579	5.52628E-26	4.392177566	5.146399961
pre70 time	-0.038817049	0.023538859	-1.649062505	0.107168171	-0.086428884	0.008794786
time	0.292938037	0.019784901	14.80614149	1.34651E-17	0.252919299	0.332956775
time squared	-0.003187178	0.000339807	-9.379367941	1.52105E-11	-0.003874503	-0.002499853
petrol price	-0.004794841	0.00126174	-3.800180718	0.000495225	-0.007346952	-0.00224273
unemployment	-0.029688714	0.016964914	-1.750006691	0.087982166	-0.064003492	0.004626064
GFC	-0.085319718	0.015156154	-5.62937775	1.69402E-06	-0.115975934	-0.054663503
chunemployment	-0.063210122	0.02303106	-2.744559885	0.009112462	-0.109794837	-0.016625408
dum6373	-0.2646014	0.098798198	-2.678200658	0.01077759	-0.464439617	-0.064763183

The pattern of traffic per person over time is fairly accurately predicted by the model, as shown in Figure 2.5. Figure 2.6 shows the components of the Australian prediction/forecast.

Figure 2.7 shows that the modelling also produces a fairly accurate prediction of aggregate national traffic levels over the period. Aggregate traffic levels (in billions of vkt per year) result from multiplying the per person numbers of Figure 2.6 by the actual and predicted population of Australia.

Figure 2.4 Traffic per person in Australia

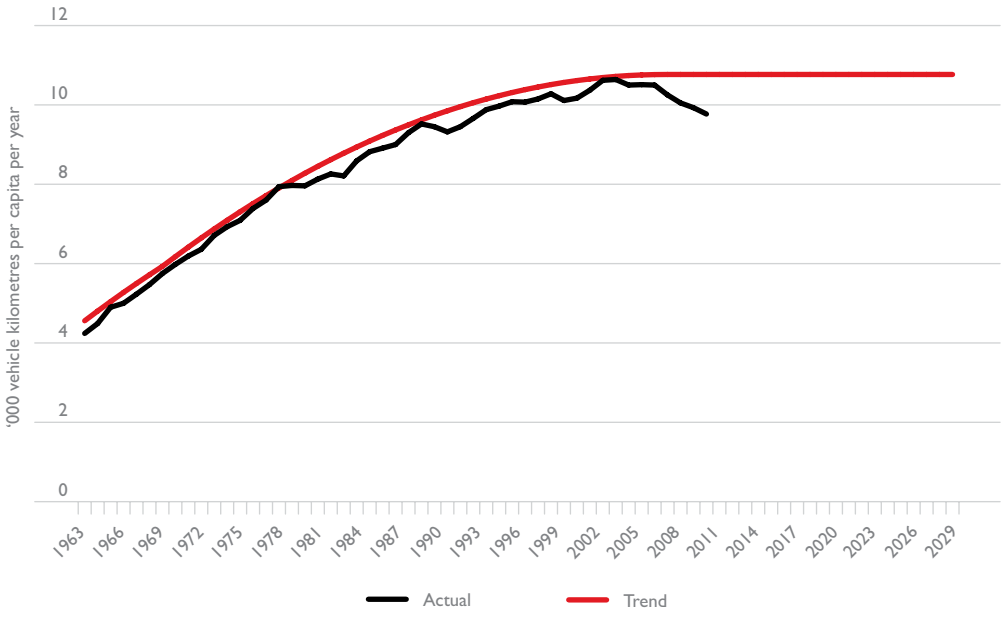


Figure 2.5 Actual/predicted levels of Australian traffic per person

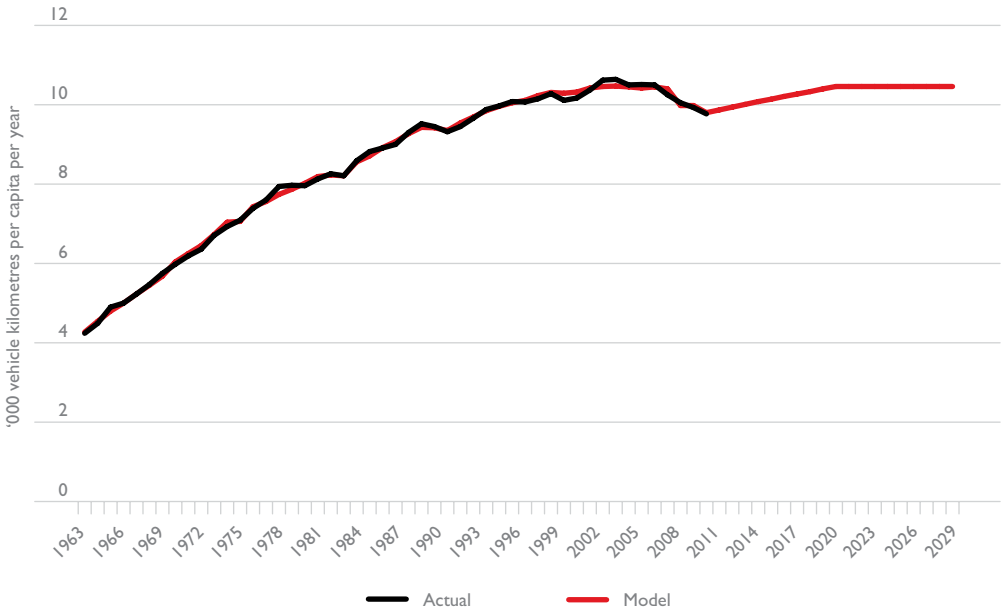


Figure 2.6 Components of predicted levels of Australian traffic per person

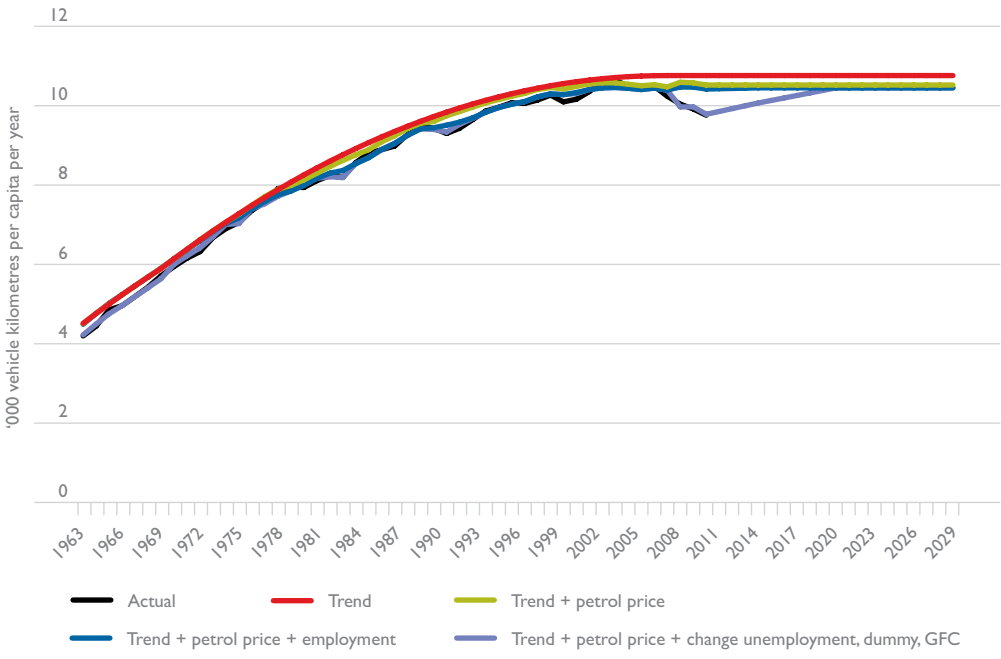
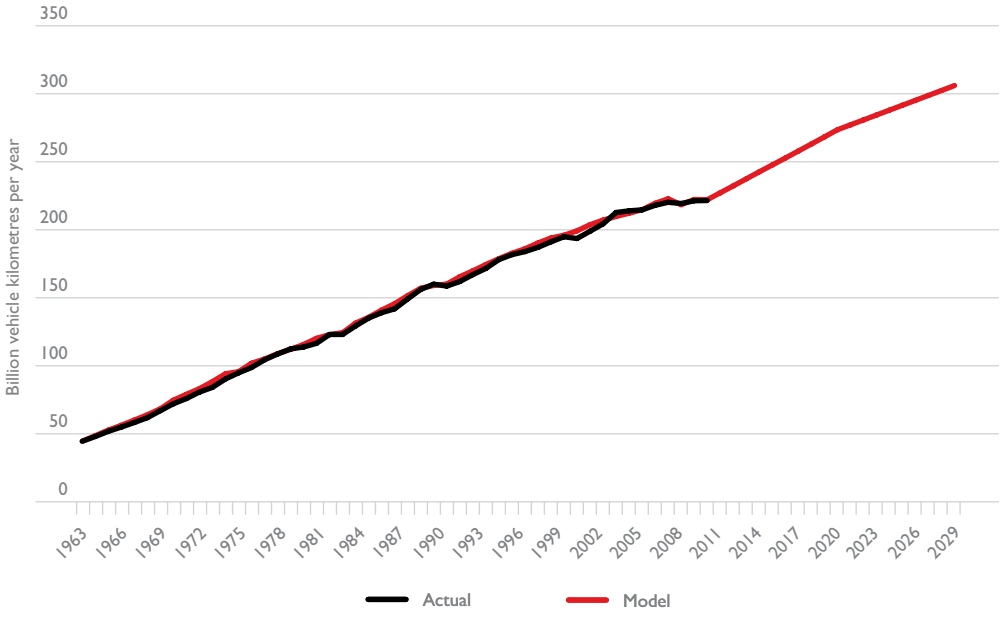


Figure 2.7 Actual/predicted aggregate traffic levels in Australia



2.3 Austria

Figure 2.8 shows the growth of Austrian traffic per person since 1965, and the only very slightly saturating trend fit to it. At some point in the future, it is probable that there will be a flattening-off of the Austrian trend.

As can be seen from Table 2.2, the results of the model show insignificant effects for the petrol price and significant effects for unemployment. The GFC dummy was 0.5 for 2008 and 1.0 from then on.

Table 2.2 Regression results for predicting Austrian traffic per person

Regression Statistics	
Multiple R	0.998935921
R Square	0.997872973
Adjusted R Square	0.997593101
Standard Error	0.114661508
Observations	44

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	234.3803668	46.87607337	3565.462967	1.15421E-49
Residual	38	0.49959593	0.013147261		
Total	43	234.8799628			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	1.837487982	0.127424978	14.42015539	5.41724E-17	1.579529602	2.095446361
Time	0.268913306	0.006748434	39.84825588	1.316E-32	0.255251817	0.282574795
time sq'd	-0.001811719	0.000133241	-13.59731938	3.54691E-16	-0.002081451	-0.001541987
petrol price	-0.001933123	0.001165579	-1.65850867	0.105448104	-0.004292714	0.000426468
unemployment	-0.083371629	0.035677049	-2.336842103	0.024819004	-0.155596037	-0.011147221
GFC	-0.127959843	0.691833717	-0.184957512	0.854246002	-1.528503971	1.272584285

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.9. Figure 2.10 shows the components of the Austrian prediction/forecast.

Figure 2.11 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.8 Traffic per person in Austria

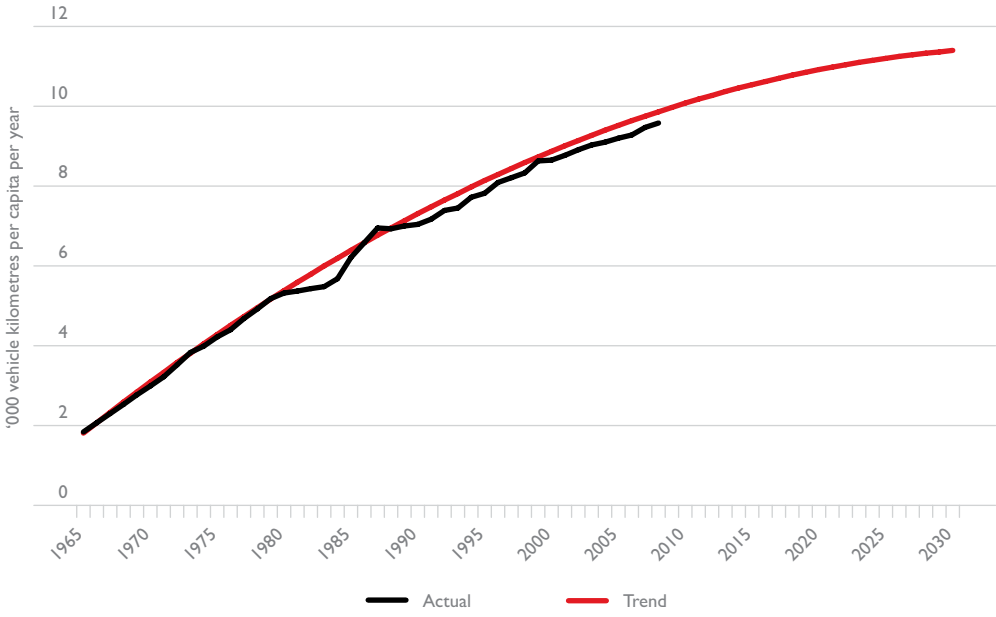


Figure 2.9 Actual/predicted levels of Austrian traffic per person

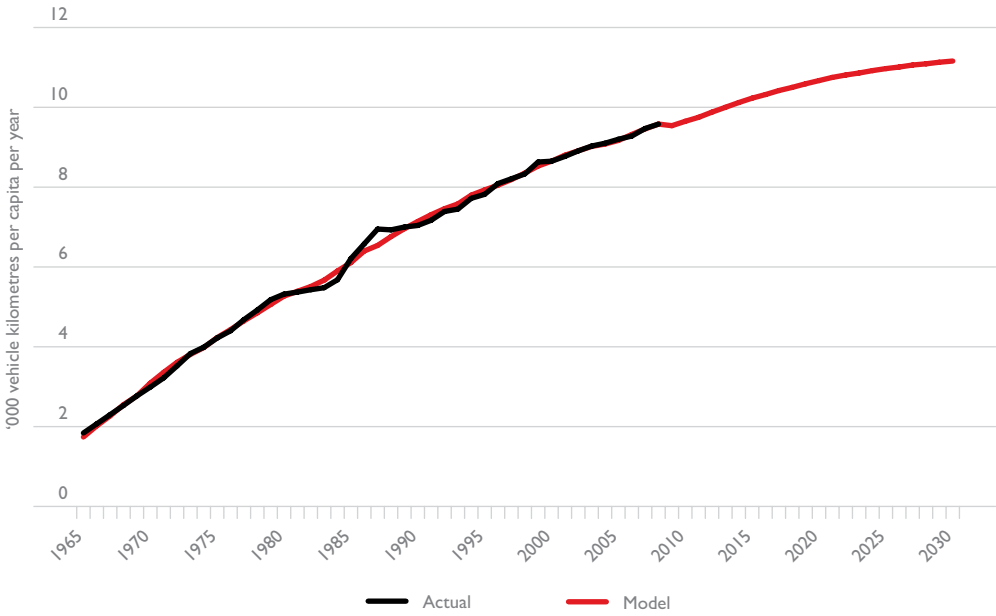
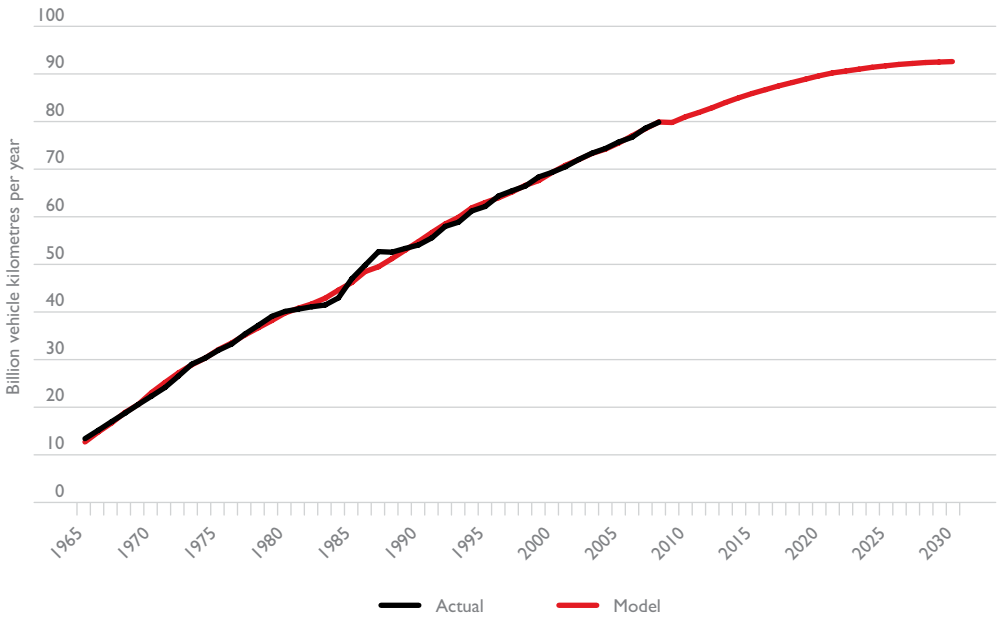


Figure 2.10 Components of predicted levels of Austrian traffic per person

Figure 2.11 Actual/predicted aggregate traffic levels in Austria



2.4 Belgium

Figure 2.12 shows the growth of Belgian traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.3, the results of the model show significant effects for the petrol price (lagged), unemployment and the GFC. A time trend has been included that increases up to 1973 and then is held constant.

Table 2.3 Regression results for predicting Belgian traffic per person

Regression Statistics	
Multiple R	0.999244324
R Square	0.998489219
Adjusted R Square	0.998262602
Standard Error	0.101826465
Observations	47

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	274.1090103	45.68483504	4406.063276	8.83872E-55
Residual	40	0.414745156	0.010368629		
Total	46	274.5237554			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	2.654062753	0.162886774	16.29391199	2.93995E-19	2.324856307	2.983269199
Time trend	0.386818413	0.019192257	20.15492047	1.47157E-22	0.348029416	0.425607411
time sq'd	-0.003524895	0.00033992	-10.36976624	6.7077E-13	-0.0042119	-0.00283789
lag petrol price	-0.006139252	0.001586714	-3.869160126	0.000393487	-0.009346122	-0.002932383
unemployment	-0.084020836	0.014099553	-5.959113254	5.39543E-07	-0.112517096	-0.055524576
GFC	-0.221677356	0.094974861	-2.334063504	0.024701607	-0.413628708	-0.029726004
timeless73	-0.181463802	0.016838465	-10.77674258	2.13789E-13	-0.215495609	-0.147431996

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.13. Figure 2.14 shows the components of the Belgian prediction/forecast.

Figure 2.15 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.12 Traffic per person in Belgium

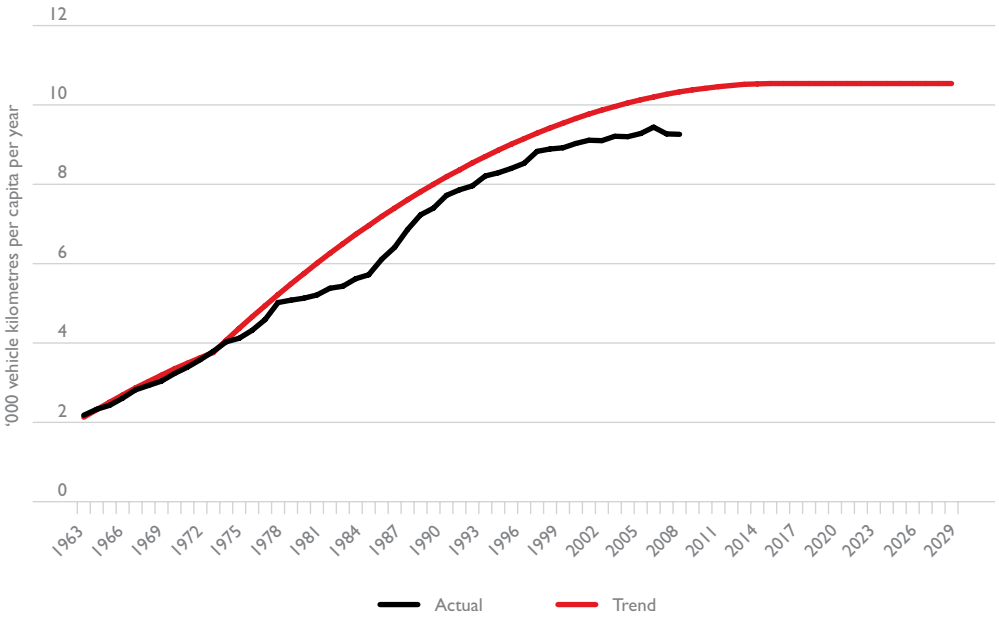


Figure 2.13 Actual/predicted levels of Belgian traffic per person

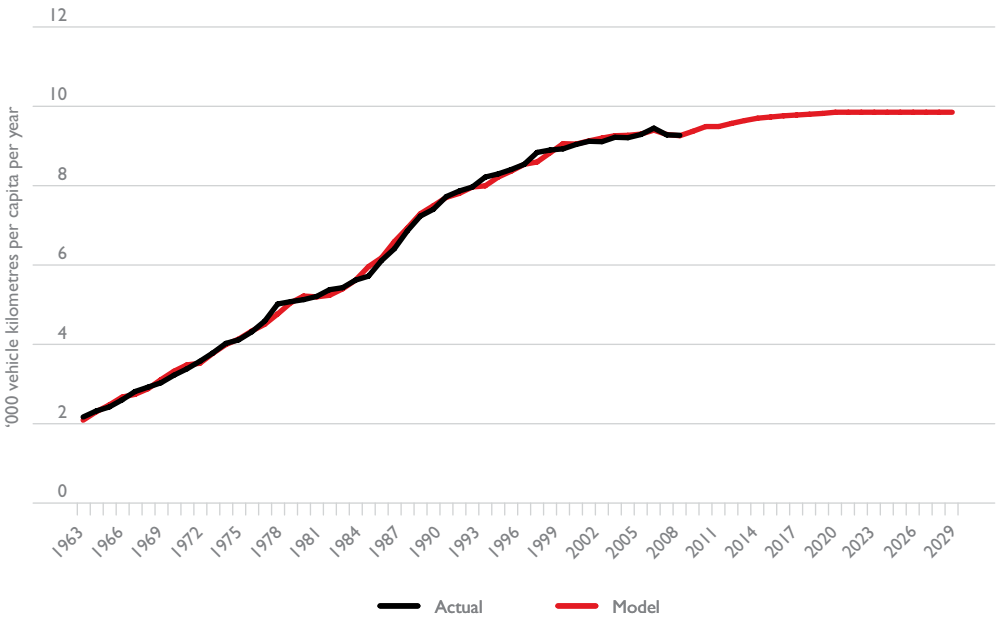


Figure 2.14 Components of predicted levels of Belgian traffic per person

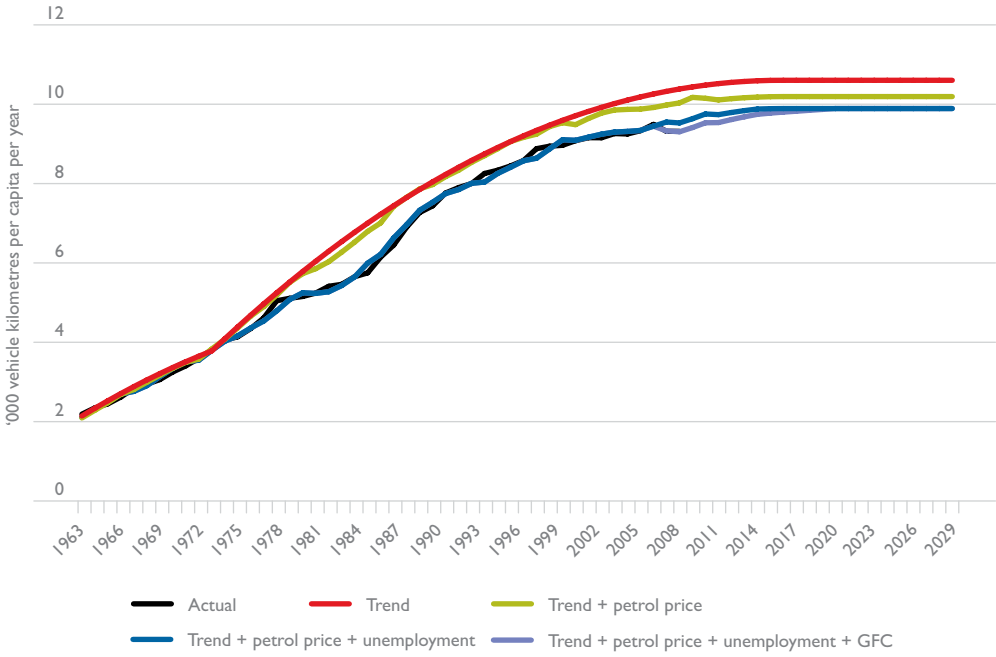
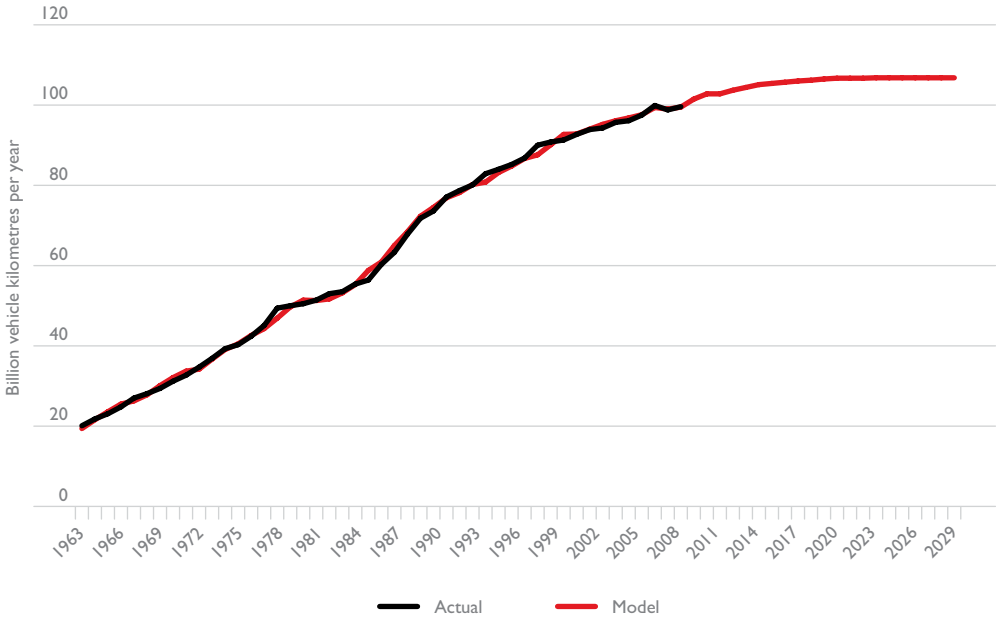


Figure 2.15 Actual/predicted aggregate traffic levels in Belgium



2.5 Britain

Figure 2.16 shows the growth of British traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.4, the results of the model show significant effects for the petrol price (average of lagged plus current) and unemployment.

Table 2.4 Regression results for predicting British traffic per person

Regression Statistics	
Multiple R	0.999010163
R Square	0.998021305
Adjusted R Square	0.997724501
Standard Error	0.092171731
Observations	47

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	171.4022538	28.56704229	3362.558045	1.94782E-52
Residual	40	0.33982512	0.008495628		
Total	46	171.7420789			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	3.557379573	0.137275168	25.91422483	1.28019E-26	3.279936111	3.834823034
timeless73	-0.089095349	0.015739163	-5.660742549	1.41665E-06	-0.120905383	-0.057285315
time	0.298253151	0.014752489	20.21714146	1.31494E-22	0.26843726	0.328069043
time sq'd	-0.002739547	0.000273514	-10.01612415	1.84359E-12	-0.003292339	-0.002186755
lag+current petrol price	-0.015958569	0.002019315	-7.90296331	1.07068E-09	-0.020039756	-0.011877382
unemployment	-0.087905038	0.00868149	-10.12557095	1.34593E-12	-0.105450983	-0.070359093
dum7880	-0.47922695	0.058620743	-8.1750405	4.58451E-10	-0.597703891	-0.36075001

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.17. Figure 2.18 shows the components of the British prediction/forecast.

Figure 2.19 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.16 Traffic per person in Britain

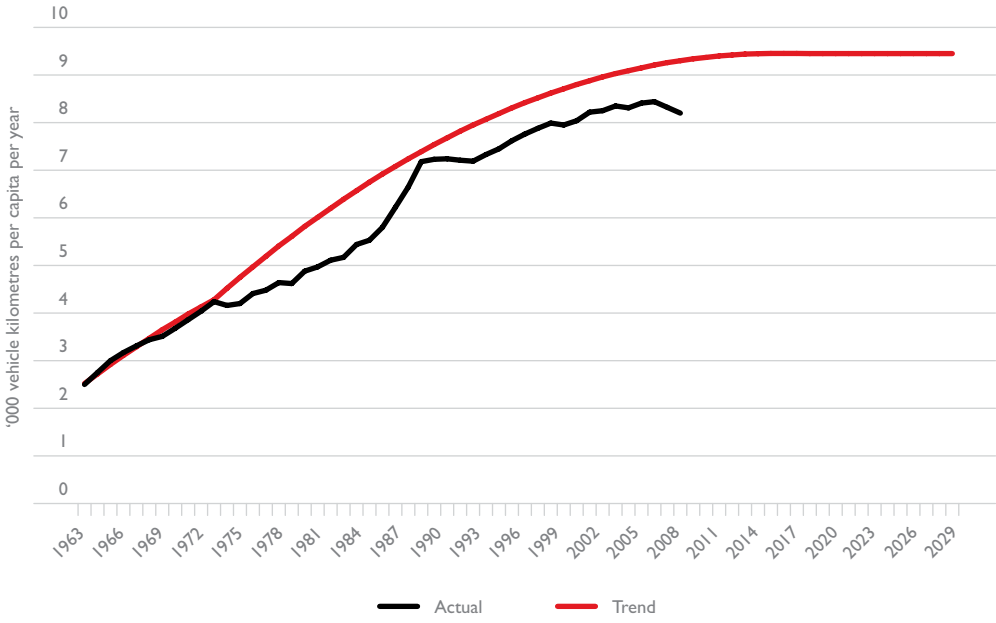


Figure 2.17 Actual/predicted levels of British traffic per person

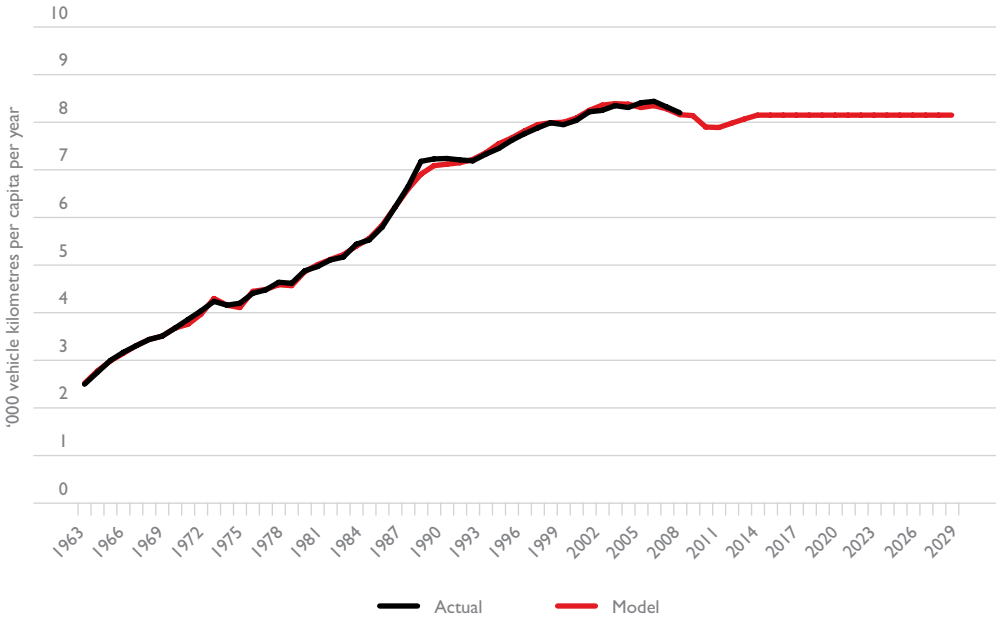


Figure 2.18 Components of predicted levels of British traffic per person

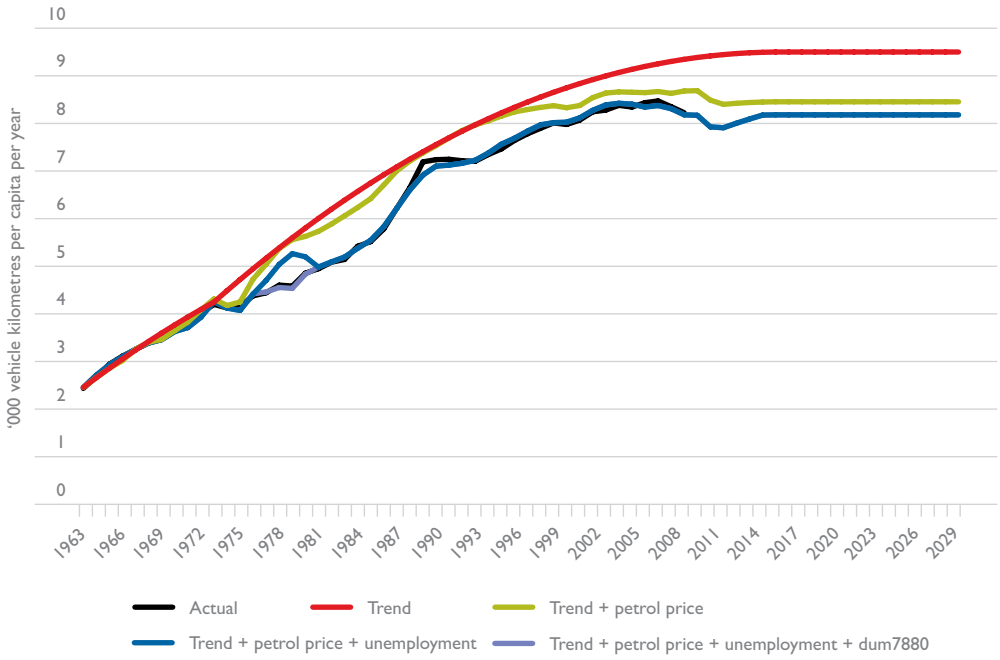
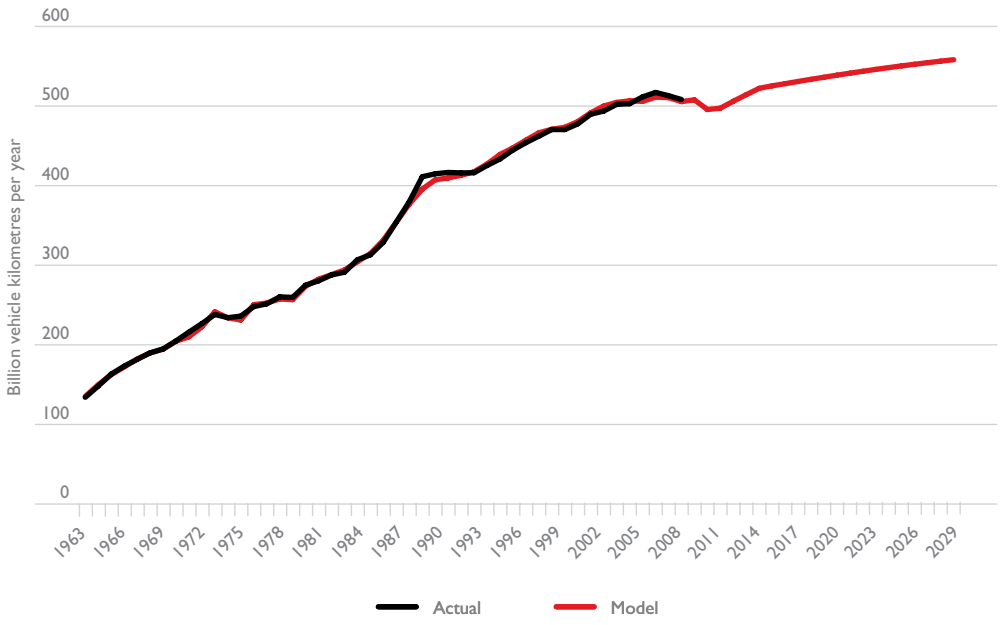


Figure 2.19 Actual/predicted aggregate traffic levels in Britain



2.6 Canada

Figure 2.20 shows the growth of Canadian traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.5, the results of the model show significant effects for the petrol price (average of lagged plus current) and unemployment.

Table 2.5 Regression results for predicting Canadian traffic per person

Regression Statistics	
Multiple R	0.997599476
R Square	0.995204714
Adjusted R Square	0.994619923
Standard Error	0.182723511
Observations	47

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	284.0995835	56.8199167	1701.812571	2.16867E-46
Residual	41	1.368903147	0.033387882		
Total	46	285.4684866			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	4.877326128	0.188951197	25.81262357	5.63052E-27	4.495731448	5.258920808
pre75time	-0.331976357	0.023723886	-13.99333781	3.30239E-17	-0.379887718	-0.284064997
time	0.555224666	0.026534879	20.92433419	1.69742E-23	0.501636392	0.60881294
time sq'd	-0.00618091	0.000470961	-13.12402682	2.86518E-16	-0.007132035	-0.005229784
lag+current petrol price	-0.024719562	0.002941131	-8.404780545	1.85496E-10	-0.030659297	-0.018779827
unemployment	-0.074402162	0.025337086	-2.936492497	0.005422563	-0.125571444	-0.02323288

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.21. Figure 2.22 shows the components of the Canadian prediction/forecast.

Figure 2.23 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.20 Traffic per person in Canada

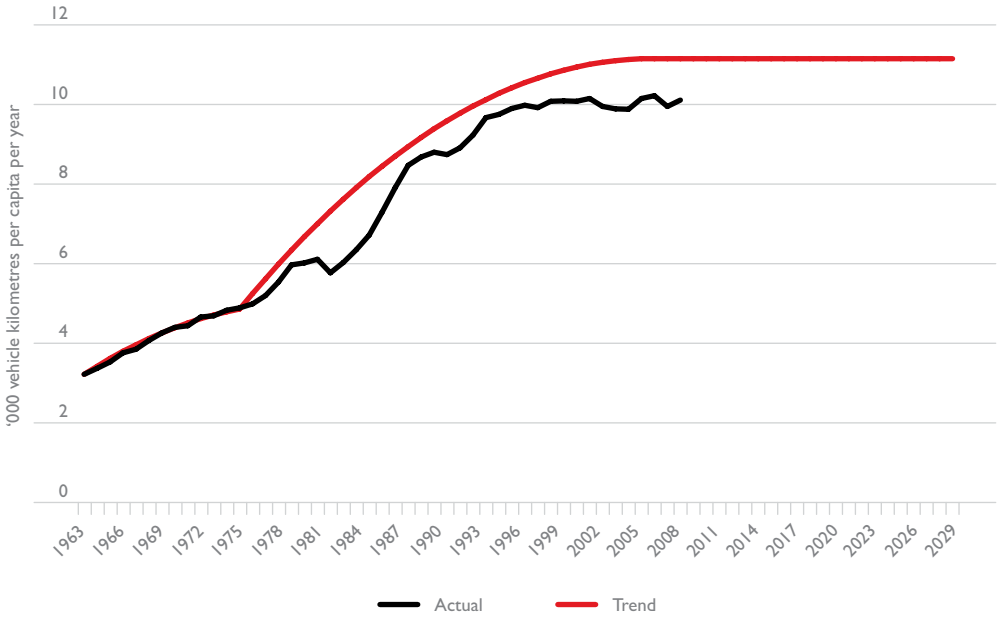


Figure 2.21 Actual/predicted levels of Canadian traffic per person

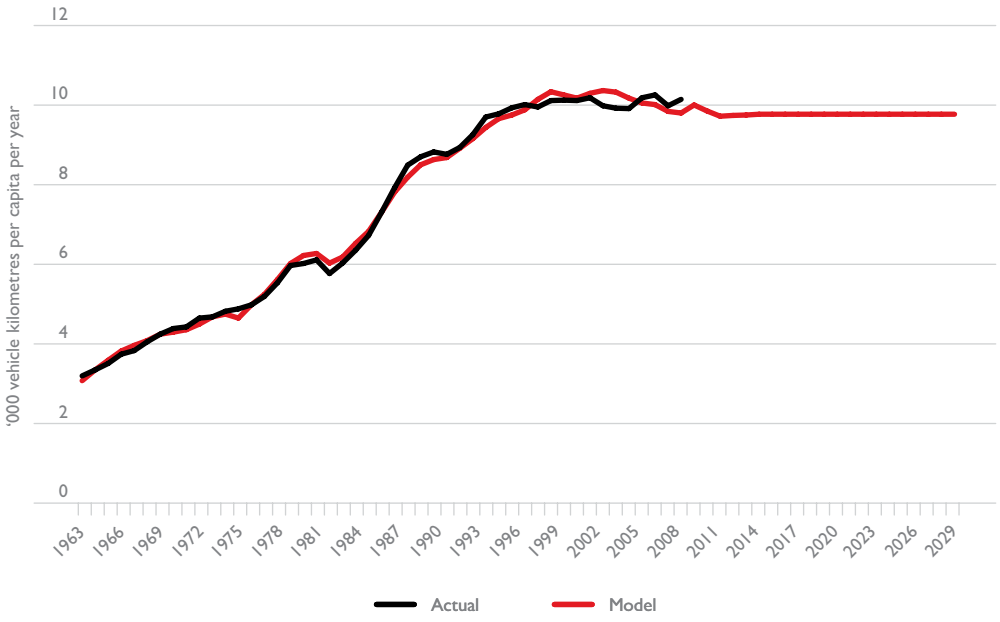


Figure 2.22 Components of predicted levels of Canadian traffic per person

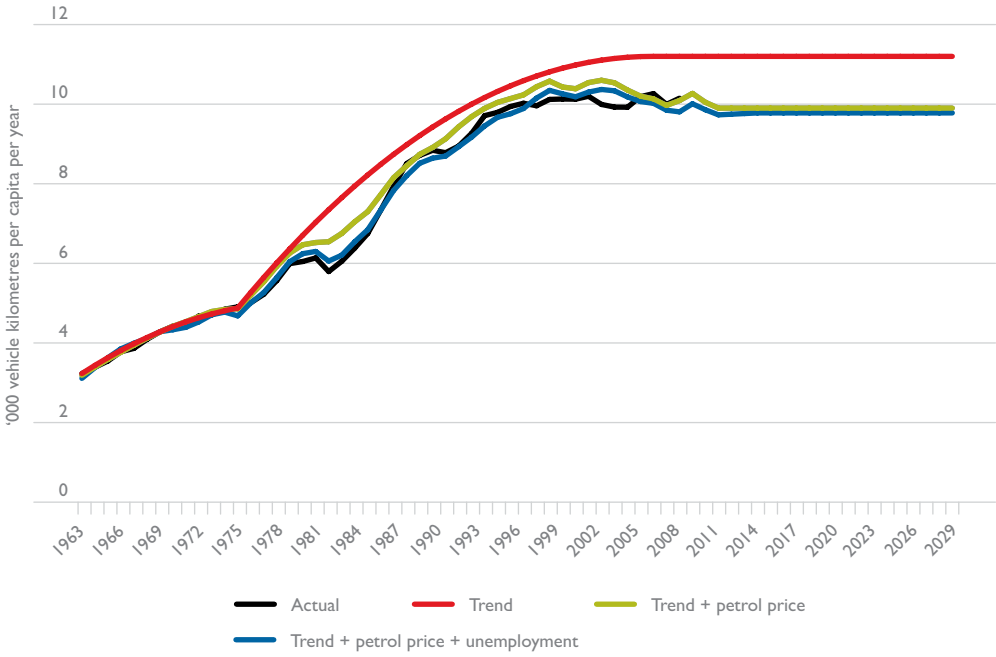
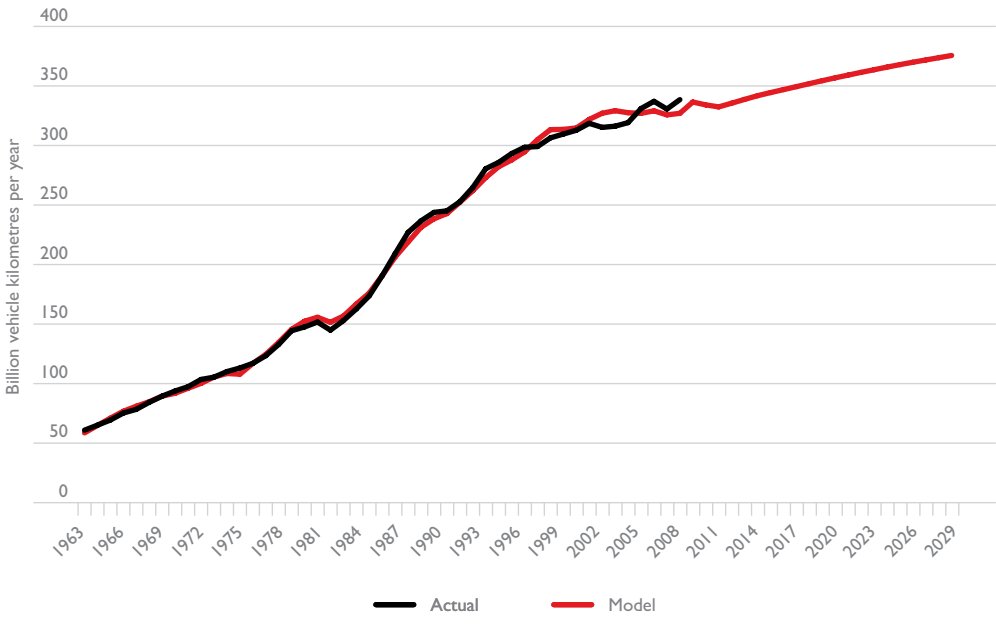


Figure 2.23 Actual/predicted aggregate traffic levels in Canada



2.7 The Czech Republic

Figure 2.24 shows the growth of Czech traffic per person since 1980, and the S-curve fit to it. The Czech Republic and Hungary are two Central European countries still in the exponentially growing phase of the S-curve of per capita traffic growth.

As can be seen from Table 2.6, the results of the model show significant effects for unemployment. The petrol price and the GFC are not significant but are of the right sign.

Table 2.6 Regression results for predicting Czech traffic per person

Regression Statistics	
Multiple R	0.998891316
R Square	0.997783862
Adjusted R Square	0.997205739
Standard Error	0.02548611
Observations	30

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	6.726328288	1.121054715	1725.902511	2.50498E-29
Residual	23	0.01493958	0.000649547		
Total	29	6.741267868			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-1.095082956	0.053689983	-20.39641094	3.15109E-16	-1.206149147	-0.984016765
time	0.067483102	0.001404865	48.03530932	1.4216E-24	0.064576918	0.070389285
lag petrol price	-0.001562709	0.001383255	-1.129733608	0.270233344	-0.004424189	0.001298771
unemployment	-0.009627829	0.003365299	-2.860913523	0.008837457	-0.016589481	-0.002666178
GFC	-0.04249562	0.028841939	-1.473396798	0.154199271	-0.102159716	0.017168476
dumles90	-0.024599956	0.004339681	-5.668608756	9.0262E-06	-0.033577271	-0.015622641
dumles85	0.024098804	0.008964468	2.688258112	0.013123754	0.005554389	0.042643219

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.25. Figure 2.26 shows the components of the Czech prediction/forecast.

Figure 2.27 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.24 Traffic per person in the Czech Republic

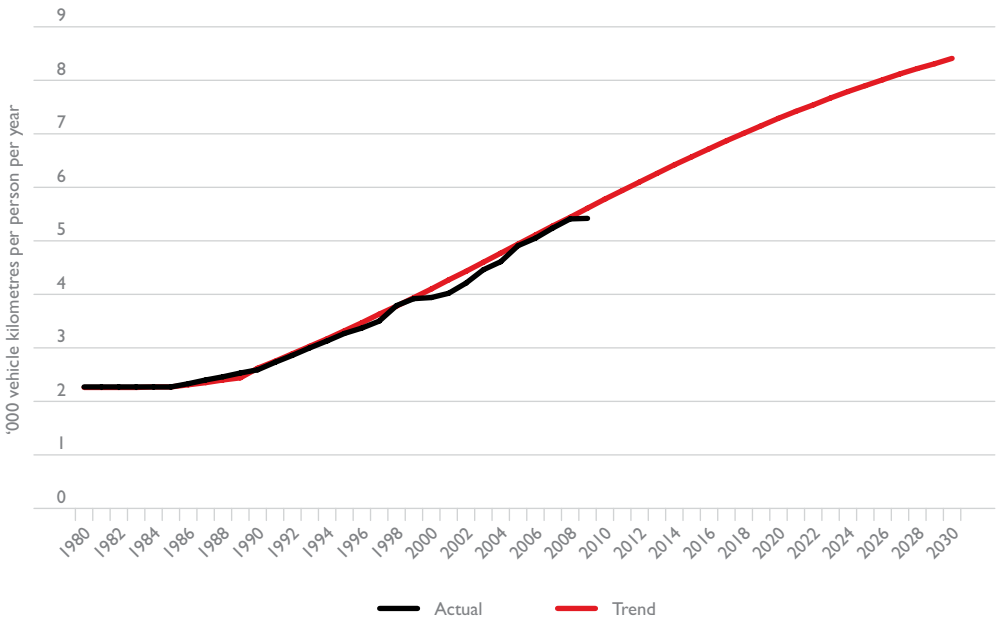


Figure 2.25 Actual/predicted levels of Czech traffic per person

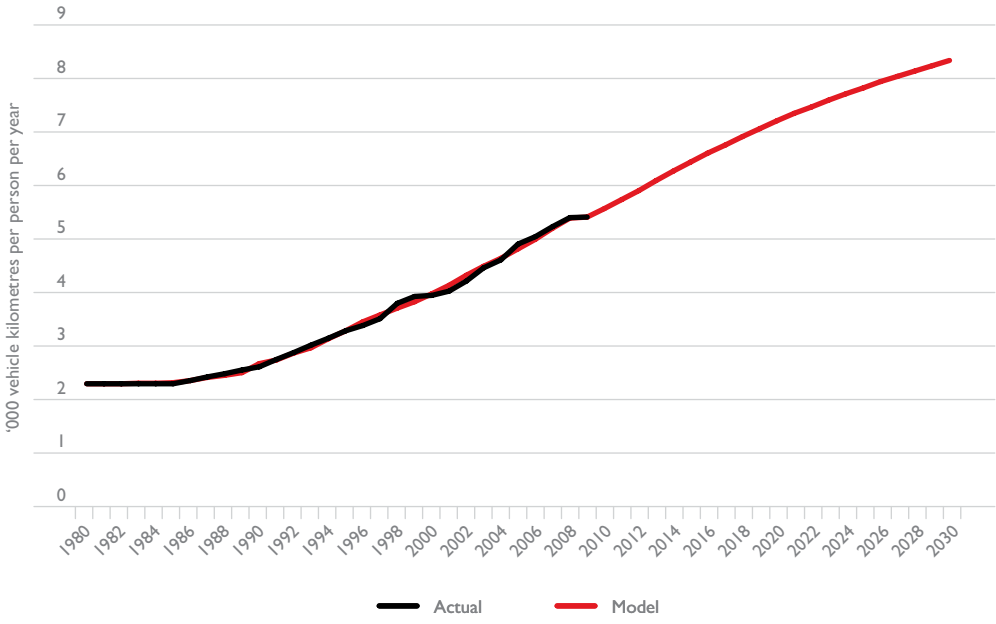


Figure 2.26 Components of predicted levels of Czech traffic per person

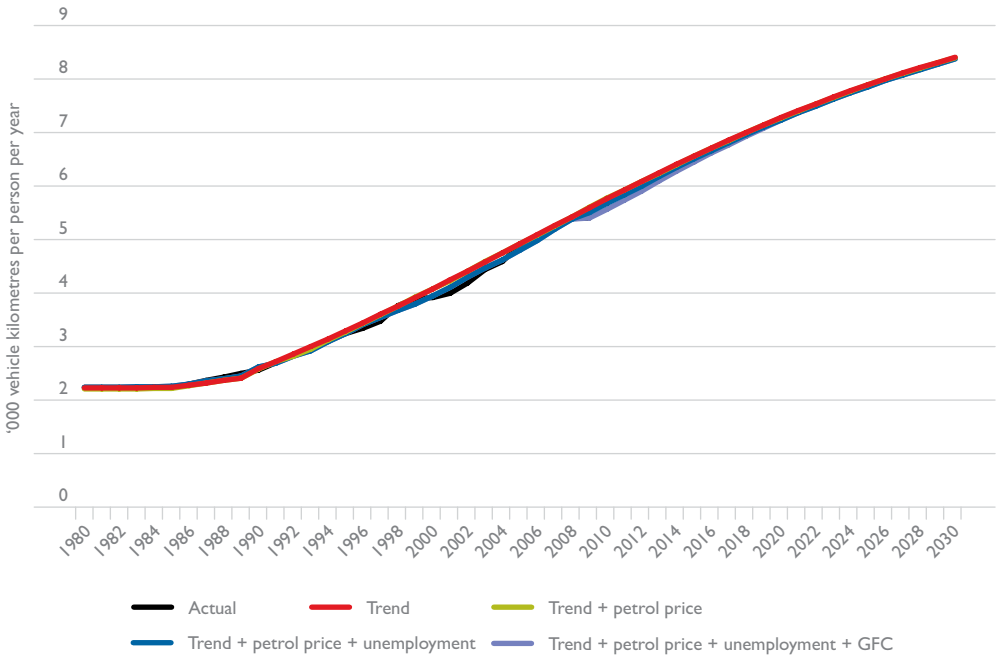
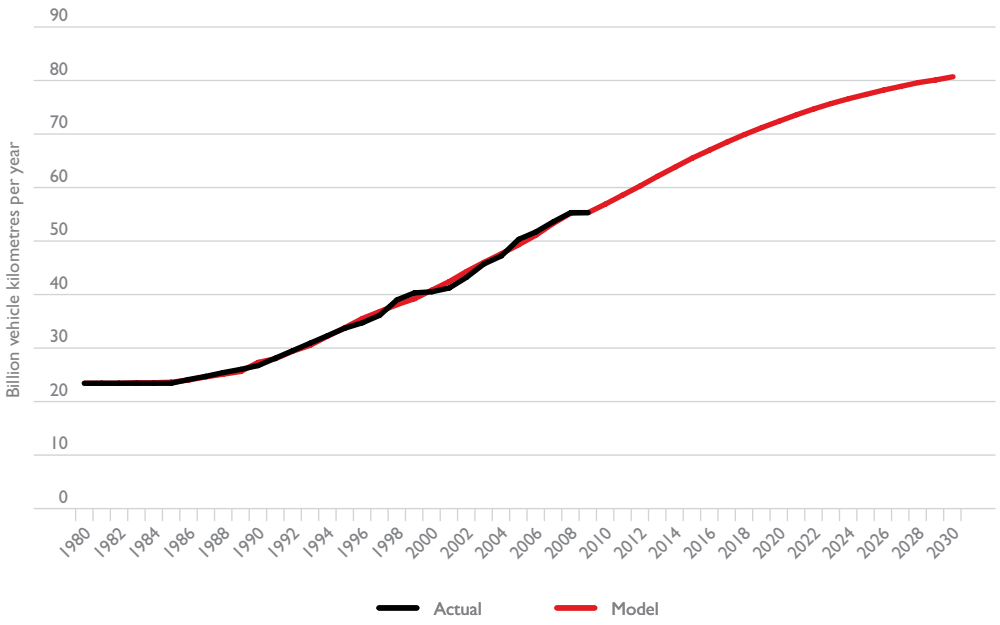


Figure 2.27 Actual/predicted aggregate traffic levels in the Czech Republic



2.8 Denmark

Figure 2.28 shows the growth of Danish traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.7, the results of the model show significant effects for the petrol price (average of lagged plus current) and unemployment (average of lagged plus current).

Table 2.7 Regression results for predicting Danish traffic per person

Regression Statistics	
Multiple R	0.998272391
R Square	0.996547767
Adjusted R Square	0.996029932
Standard Error	0.111552978
Observations	47

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	143.6879634	23.9479939	1924.450739	1.32664E-47
Residual	40	0.497762679	0.012444067		
Total	46	144.1857261			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	5.408071255	0.131999755	40.97031279	2.76018E-34	5.141289801	5.674852709
pre73time	-0.072558963	0.019926018	-3.641418186	0.000769517	-0.112830946	-0.032286979
time	0.293681332	0.018605144	15.78495372	8.85467E-19	0.256078935	0.33128373
time squared	-0.002918181	0.000310617	-9.394777307	1.1325E-11	-0.003545962	-0.0022904
lag+current petrol price	-0.205880977	0.01368415	-15.0452148	4.60883E-18	-0.233537675	-0.178224278
lag+current unemployment	-0.1863893	0.016136091	-11.55108112	2.57588E-14	-0.219001557	-0.153777043
dum7679	0.347318819	0.061924174	5.608775941	1.67563E-06	0.222165396	0.472472243

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.29. Figure 2.30 shows the components of the Danish prediction/forecast.

Figure 2.31 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.28 Traffic per person in Denmark

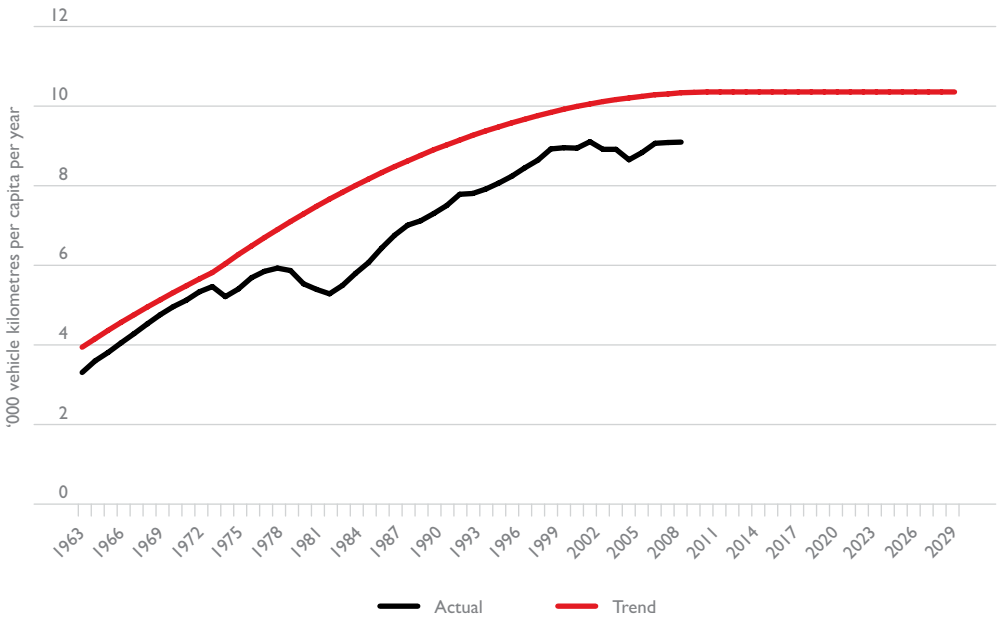


Figure 2.29 Actual/predicted levels of Danish traffic per person

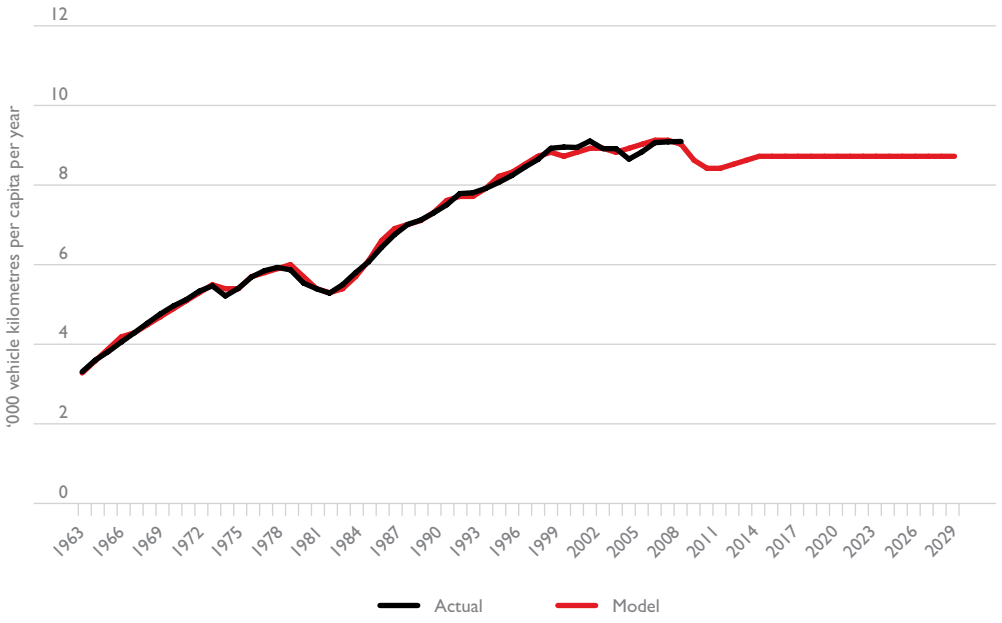


Figure 2.30 Actual/predicted levels of Danish traffic per person

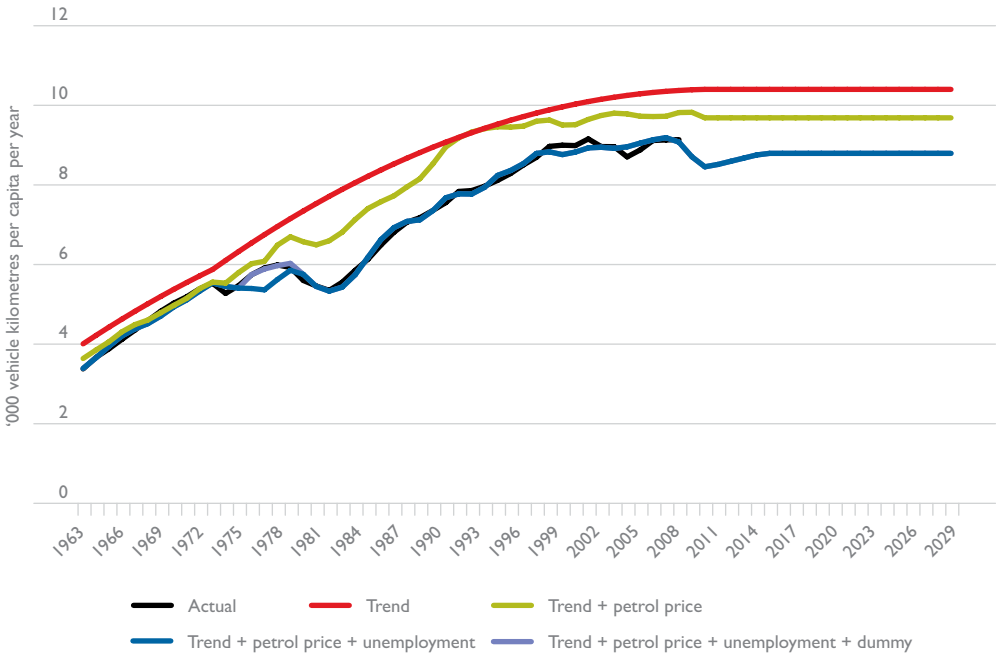
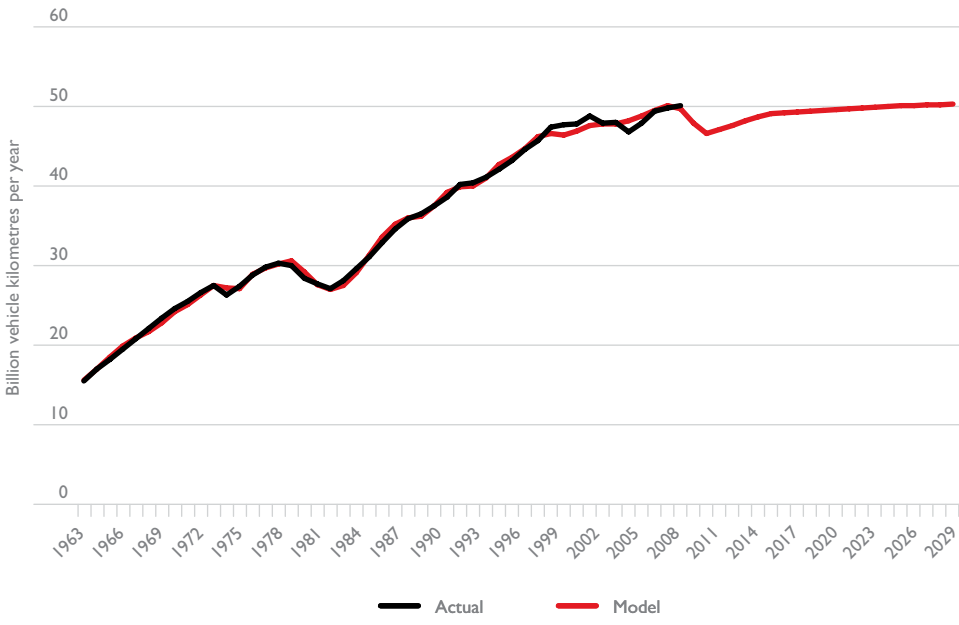


Figure 2.31 Actual/predicted aggregate traffic levels in Denmark



2.9 Finland

Figure 2.32 shows the growth of Finnish traffic per person since 1963, and the very slightly saturating trend fit to it.

As can be seen from Table 2.8, the results of the model show significant effects for the petrol price (lagged) and unemployment (lagged).

Table 2.8 Regression results for predicting Finnish traffic per person

Regression Statistics	
Multiple R	0.997239607
R Square	0.994486833
Adjusted R Square	0.993973981
Standard Error	0.175195208
Observations	48

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	238.0733653	59.51834133	1939.127541	6.16613E-48
Residual	43	1.319814516	0.030693361		
Total	47	239.3931798			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	3.600167995	0.186748304	19.27818311	8.8064E-23	3.223554152	3.976781837
time	0.269118456	0.00853415	31.53430194	2.33386E-31	0.251907703	0.286329209
time sq'd	-0.001744048	0.000155701	-11.20129653	2.47066E-14	-0.002058048	-0.001430048
lag petrol price	-1.084654762	0.183900705	-5.89804571	5.14363E-07	-1.455525874	-0.71378365
lag unemployment	-0.076510329	0.009587764	-7.979996763	5.06032E-10	-0.095845899	-0.05717476

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.33. Figure 2.34 shows the components of the Finnish prediction/forecast.

Figure 2.35 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.32 Traffic per person in Finland

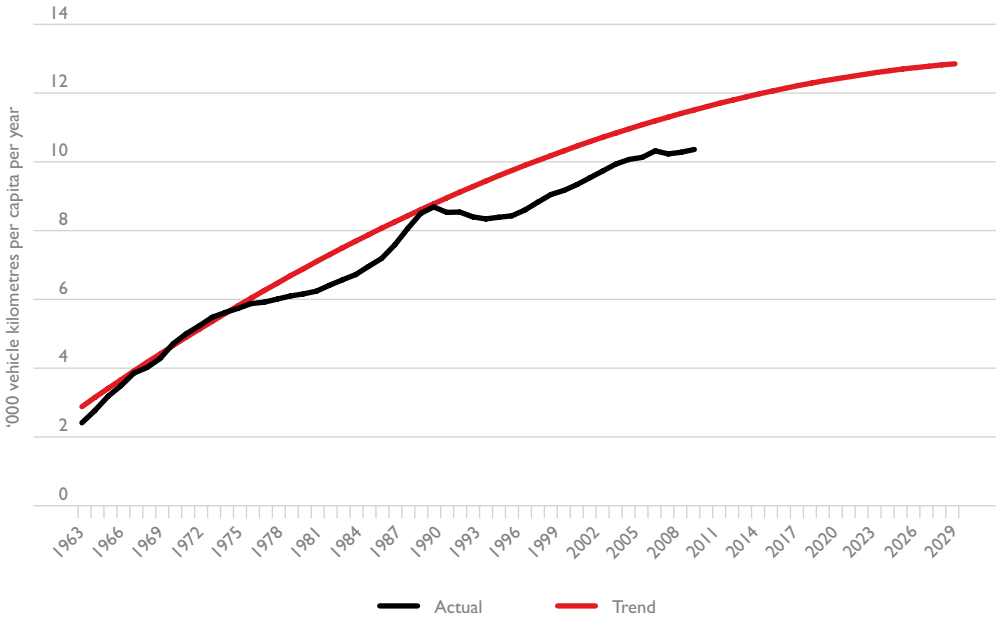


Figure 2.33 Actual/predicted levels of Finnish traffic per person

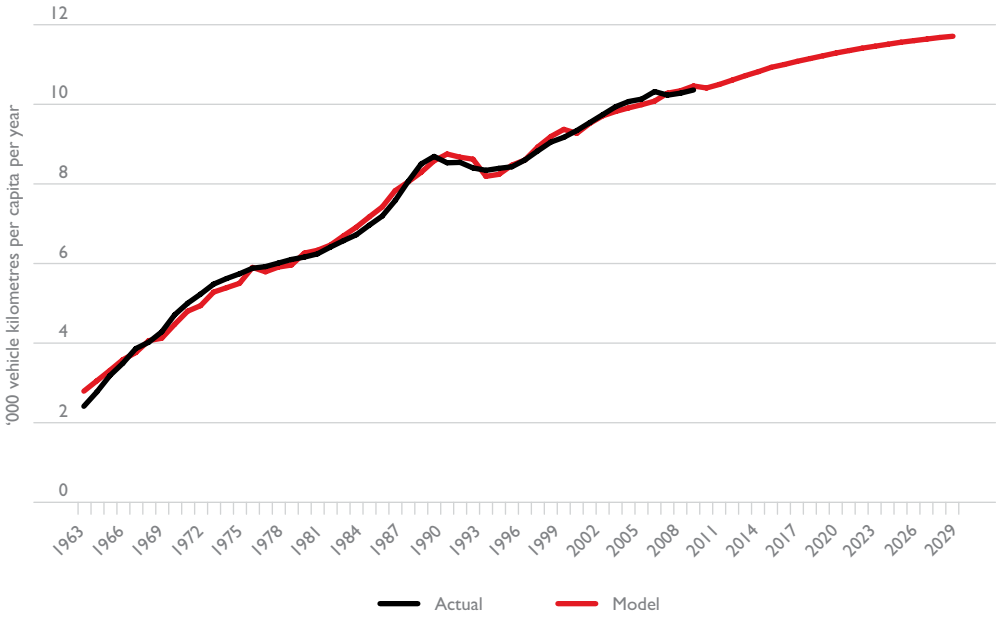


Figure 2.34 Components of predicted levels of Finnish traffic per person

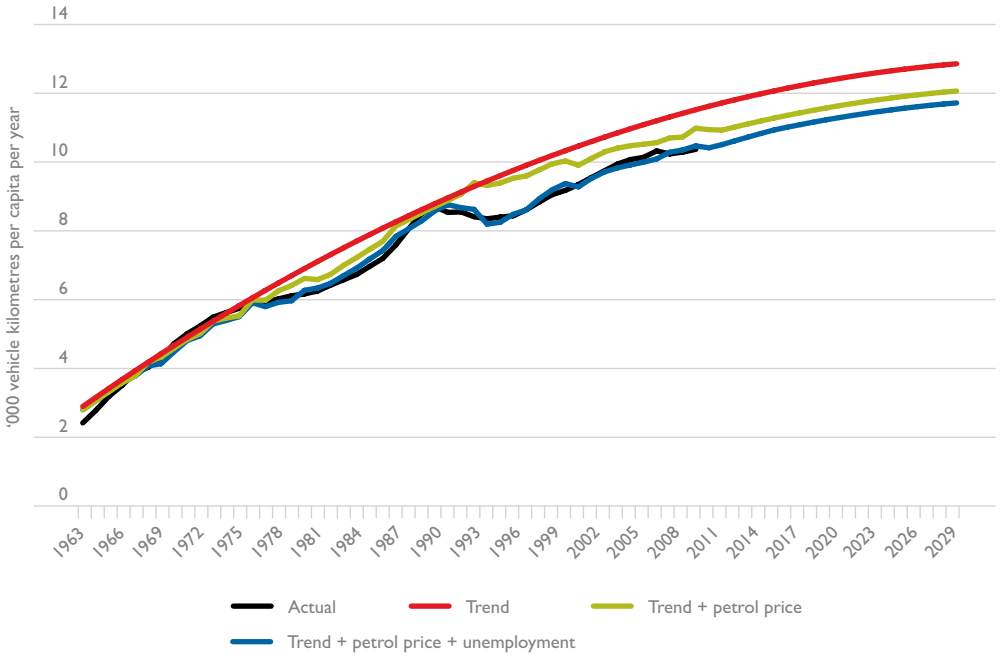
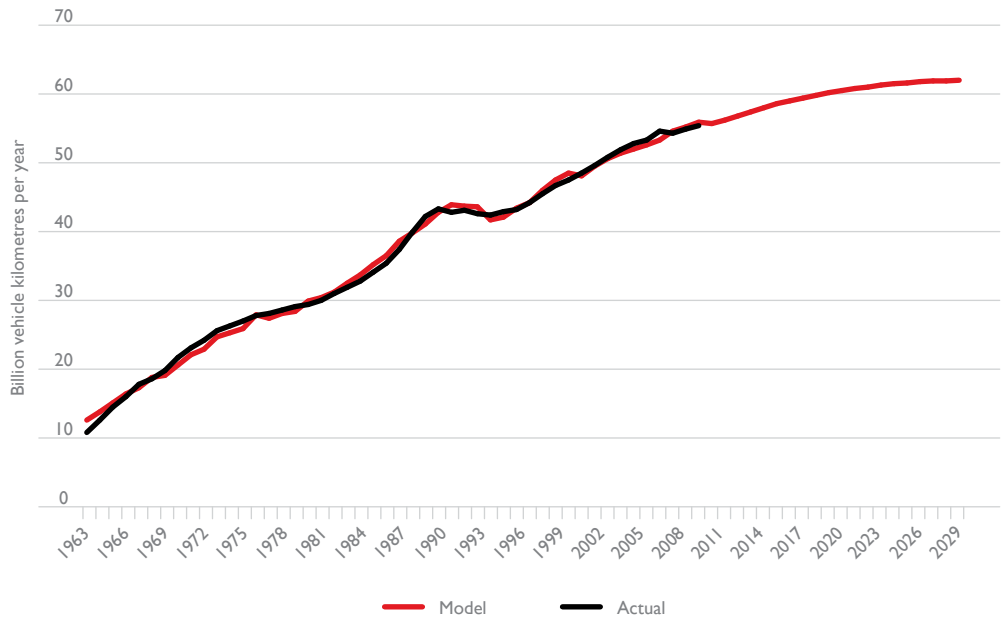


Figure 2.35 Actual/predicted aggregate traffic levels in Finland



2.10 France

Figure 2.36 shows the growth of French traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.9, the results of the model show significant effects for the petrol price (average of lagged plus current), unemployment and the GFC.

Table 2.9 Regression results for predicting French traffic per person

Regression Statistics	
Multiple R	0.999515171
R Square	0.999030576
Adjusted R Square	0.998860927
Standard Error	0.072351947
Observations	48

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	7	215.7871113	30.82673018	5888.802907	3.55501E-58
Residual	40	0.209392168	0.005234804		
Total	47	215.9965034			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	3.510159172	0.133764997	26.2412384	7.96607E-27	3.239810032	3.780508313
pre70time	-0.079875999	0.01741536	-4.586525836	4.37583E-05	-0.115073755	-0.044678244
time	0.300716735	0.015020432	20.02051203	1.87837E-22	0.27035931	0.331074159
time sq'd	-0.002656013	0.000228273	-11.63523435	2.05621E-14	-0.00311737	-0.002194655
lag+current petrol price	-1.225679007	0.102318865	-11.97901299	8.26767E-15	-1.432473144	-1.01888487
unemployment	-0.063777483	0.015160582	-4.206796559	0.000141904	-0.094418161	-0.033136805
dum9904	0.493104139	0.063787958	7.730364028	1.84074E-09	0.364183867	0.62202441
GFC	-0.357315858	0.074969379	-4.766157357	2.4868E-05	-0.508834624	-0.205797092

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.37. Figure 2.38 shows the components of the French prediction/forecast.

Figure 2.39 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.36 Traffic per person in France

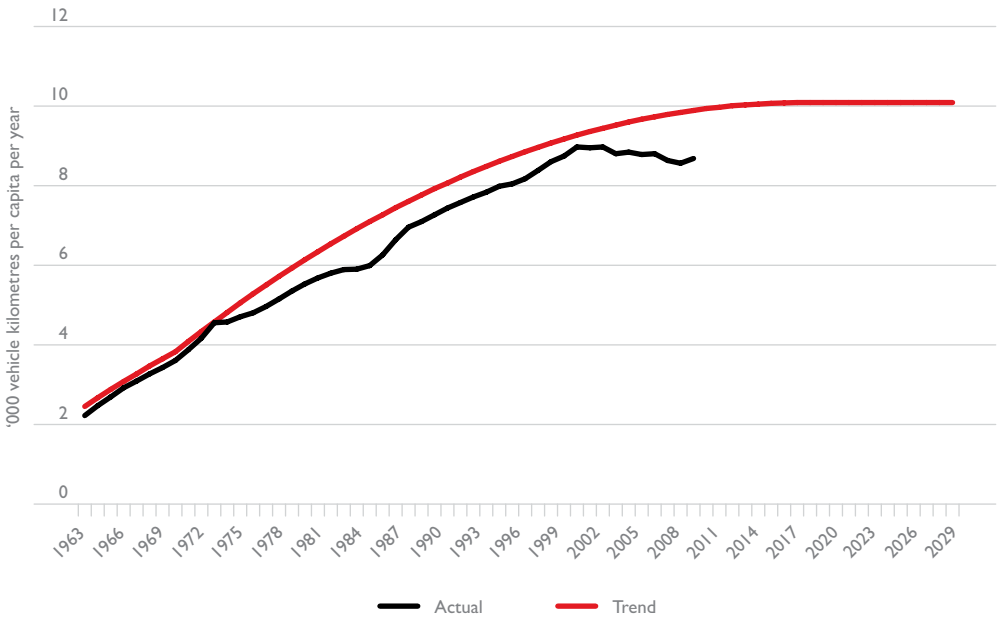


Figure 2.37 Actual/predicted levels of French traffic per person

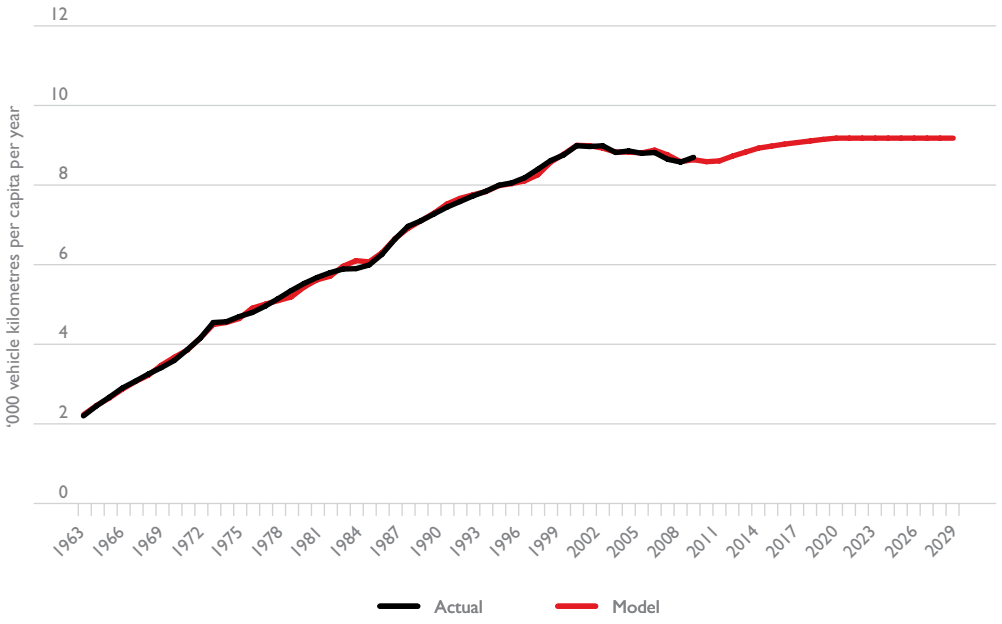


Figure 2.38 Components of predicted levels of French traffic per person

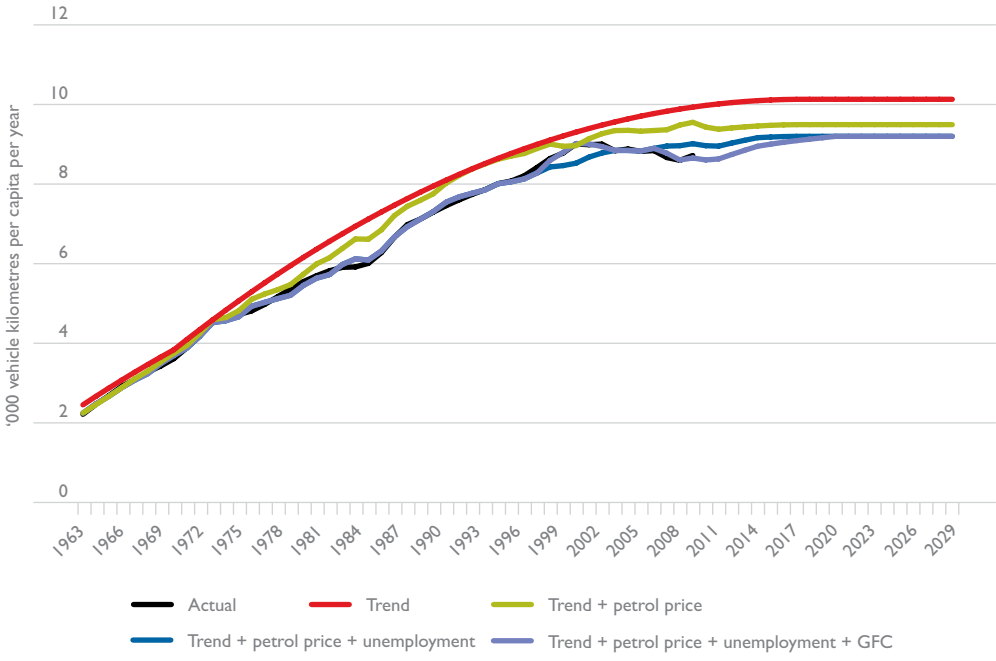
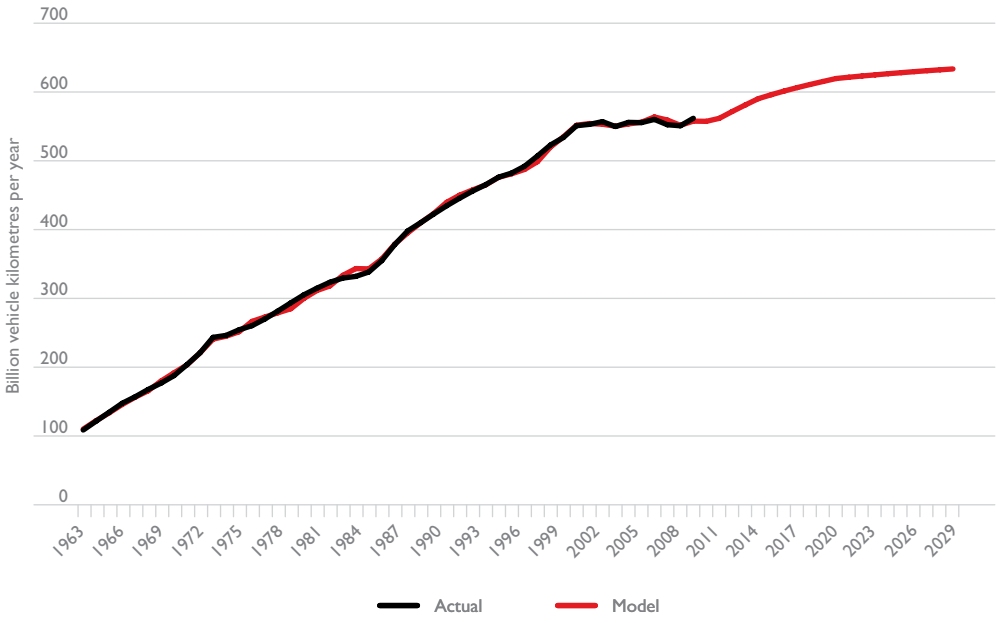


Figure 2.39 Actual/predicted aggregate traffic levels in France



2.11 Germany

Figure 2.40 shows the growth of German traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.10, the results of the model show a significant effect for the petrol price and unemployment.

Table 2.10 Regression results for predicting German traffic per person

Regression Statistics	
Multiple R	0.999347862
R Square	0.99869615
Adjusted R Square	0.998505342
Standard Error	0.080901123
Observations	48

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	205.5410839	34.25684731	5234.055174	1.75662E-57
Residual	41	0.268344657	0.006544992		
Total	47	205.8094285			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	2.65969523	0.110742573	24.01691735	9.04911E-26	2.436046068	2.883344391
pre73time	-0.062986946	0.013112212	-4.803685631	2.10435E-05	-0.089467596	-0.036506296
time	0.281553648	0.012959596	21.72549638	4.11933E-24	0.255381214	0.307726082
time sq'd	-0.001990878	0.000213343	-9.331806541	1.07291E-11	-0.002421733	-0.001560022
petrol price	-0.781922634	0.108915817	-7.179146758	9.21688E-09	-1.001882586	-0.561962682
unemployment	-0.101895736	0.01163349	-8.758827832	6.17288E-11	-0.125390046	-0.078401427
GFC	-0.311510544	0.072675264	-4.28633525	0.000107372	-0.458281215	-0.164739873

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.41. Figure 2.42 shows the components of the German prediction/forecast.

Figure 2.43 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.40 Traffic per person in Germany

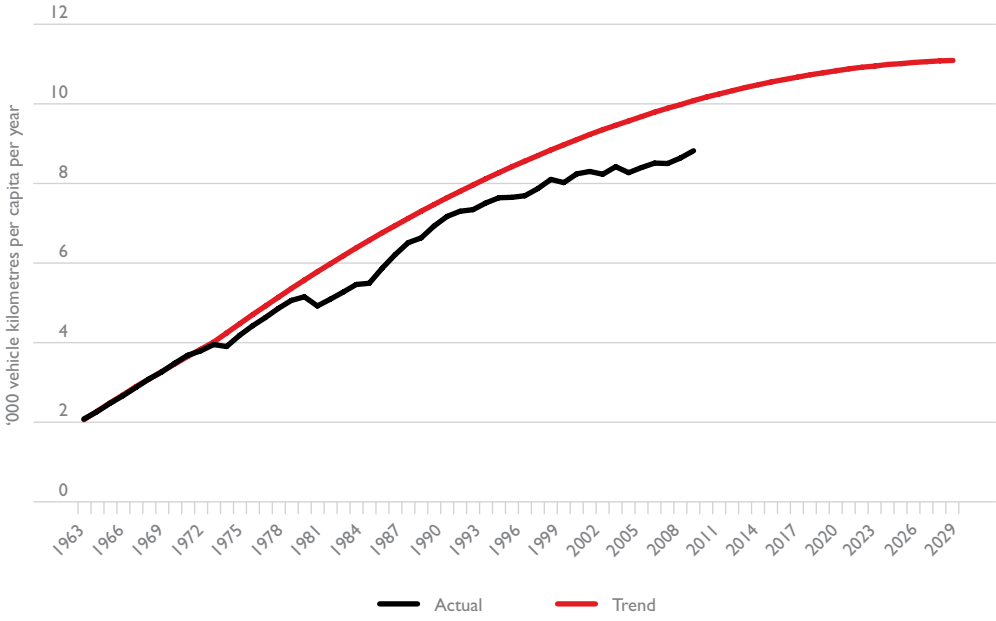


Figure 2.41 Actual/predicted levels of German traffic per person

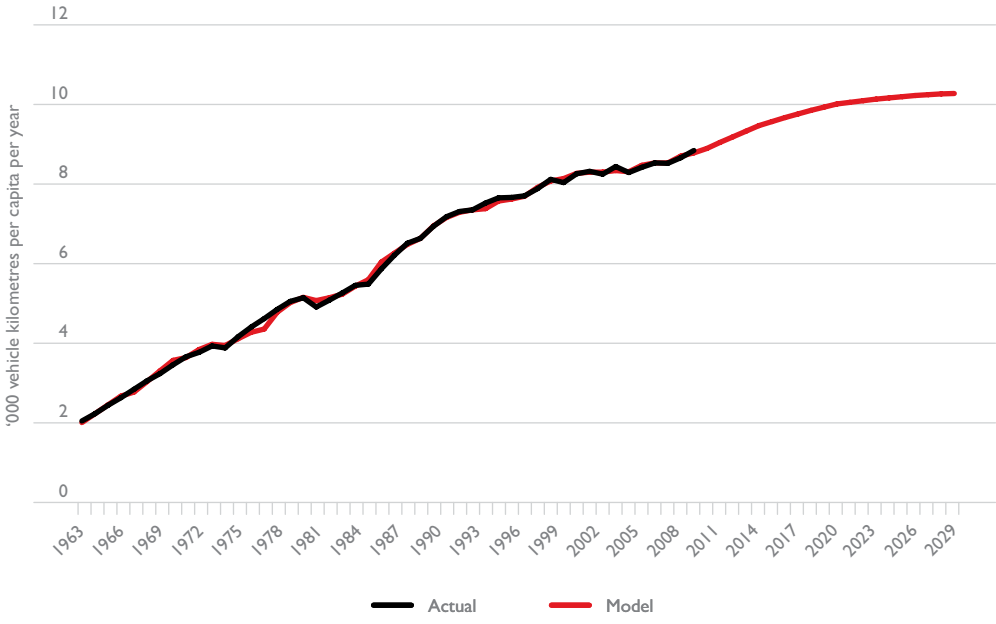


Figure 2.42 Components of predicted levels of German traffic per person

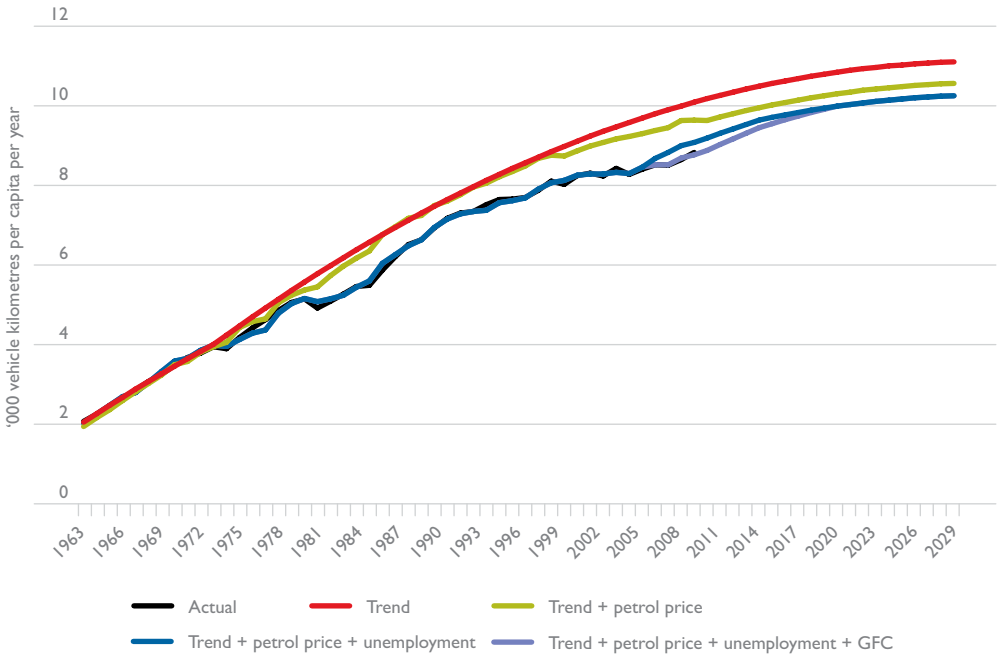
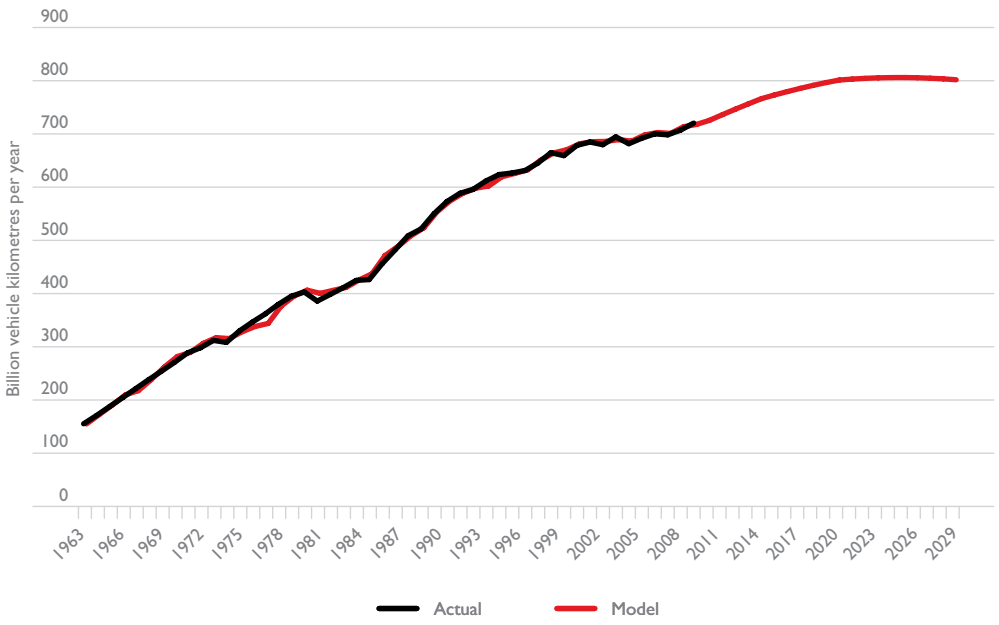


Figure 2.43 Actual/predicted aggregate traffic levels in Germany



2.12 Greece

Figure 2.44 shows the growth of Greek traffic per person since 1963, and the logistic trend fit to it.

As can be seen from Table 2.11, the results of the model show significant effects for the petrol price and unemployment. The dependent variable for this equation equals ln(vktpp/(16.0-vktpp)).

Table 2.11 Regression results for predicting Greek traffic per person

Regression Statistics	
Multiple R	0.999107839
R Square	0.998216474
Adjusted R Square	0.998046615
Standard Error	0.057125943
Observations	47

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	76.71167119	19.1779178	5876.715759	4.15479E-57
Residual	42	0.137061682	0.003263373		
Total	46	76.84873287			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-3.121275134	0.073855088	-42.2621547	4.77346E-36	-3.270320733	-2.972229535
pre73time	0.004915415	0.005407464	0.909005657	0.368534052	-0.005997289	0.01582812
time	0.099606732	0.001519108	65.56923538	6.13639E-44	0.096541048	0.102672415
petrol price	-0.085120049	0.04531156	-1.87855038	0.067258748	-0.176562479	0.006322381
unemployment	-0.038992221	0.005793325	-6.730543237	3.53484E-08	-0.050683624	-0.027300819

The pattern of traffic per person over time is fairly accurately predicted by the model, as shown in Figure 2.45. Figure 2.46 shows the components of the Greek prediction/forecast.

Figure 2.47 shows that the modelling also produces a fairly accurate prediction of aggregate national traffic levels over the period.

Figure 2.44 Traffic per person in Greece

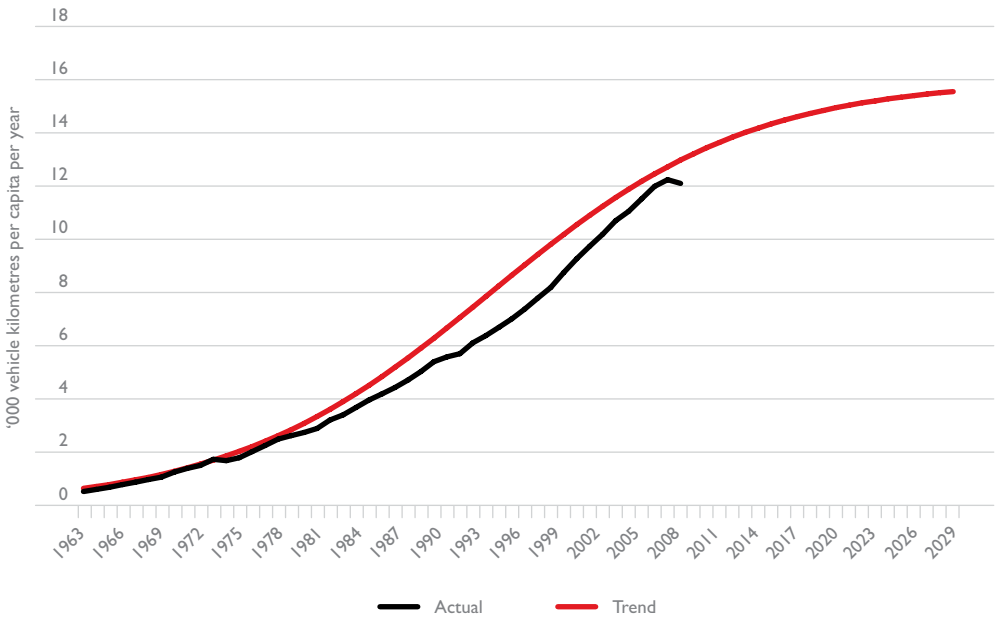


Figure 2.45 Actual/predicted levels of Greek traffic per person

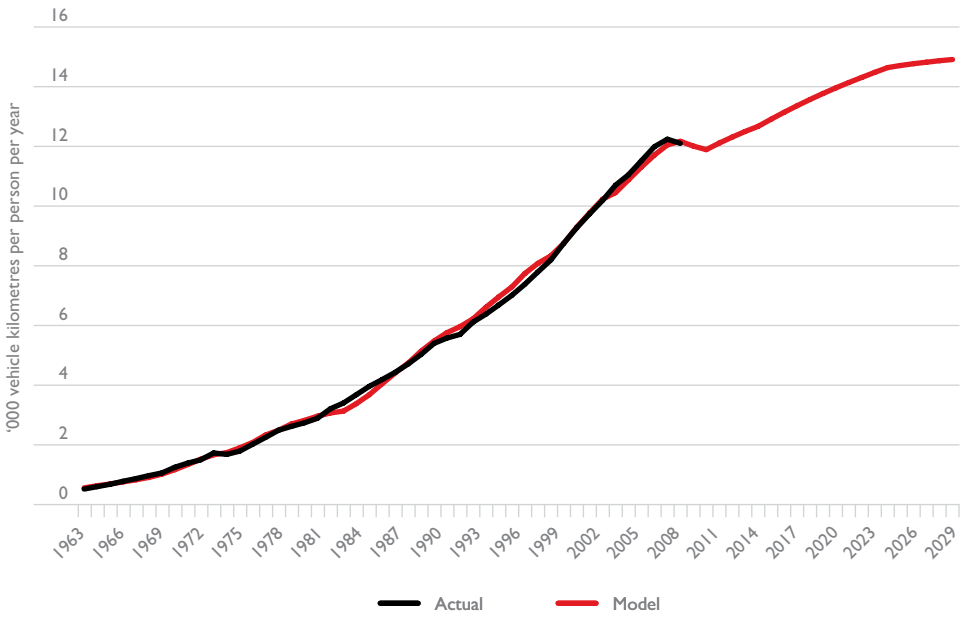


Figure 2.46 Components of predicted levels of Greek traffic per person

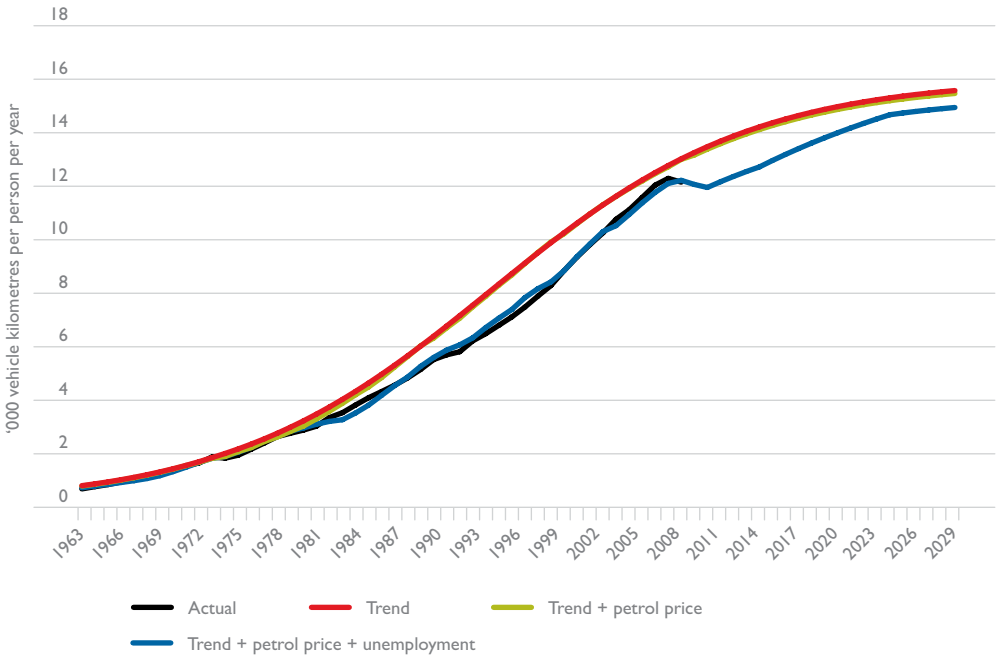
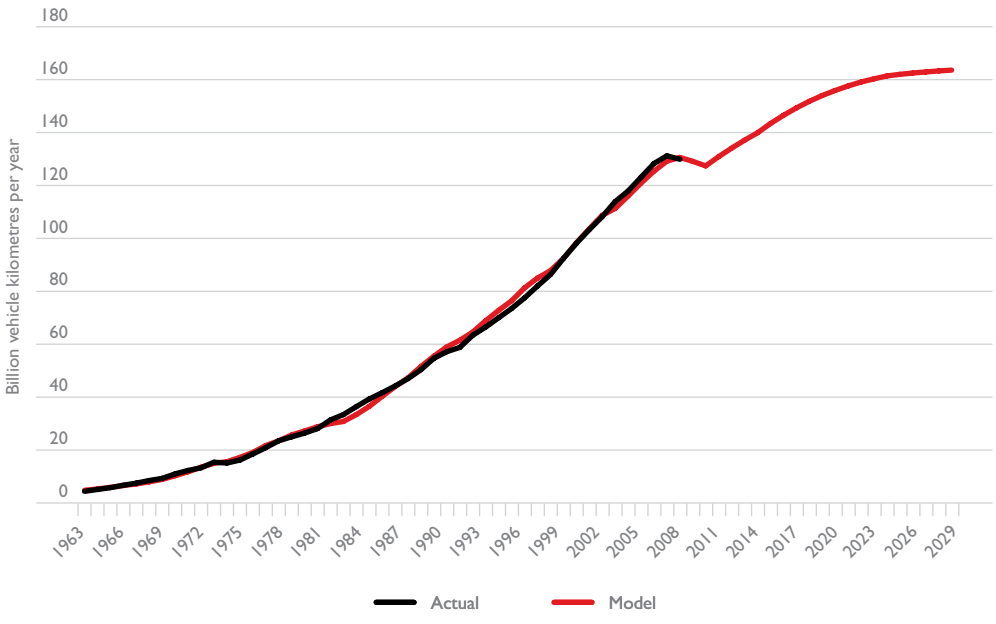


Figure 2.47 Actual/predicted aggregate traffic levels in Greece



2.13 Hungary

Figure 2.48 shows the growth of Hungarian traffic per person since 1991, and S-shaped curve fit to it. As with the Czech Republic, Hungary has apparently yet to reach the inflection point of the S-curve of traffic growth.

As can be seen from Table 2.12, the results of the model are basically an S-shaped curve modified by a GFC dummy. The dependent variable for this equation is ln(vktpp/(10.0-vktpp)).

Table 2.12 Regression results for predicting Hungarian traffic per person

Regression Statistics	
Multiple R	0.994843978
R Square	0.989714541
Adjusted R Square	0.987786018
Standard Error	0.033246709
Observations	20

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	1.701780739	0.567260246	513.1980756	4.16239E-16
Residual	16	0.017685499	0.001105344		
Total	19	1.719466238			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-1.269622418	0.016281705	-77.97846624	4.42426E-22	-1.304138091	-1.235106744
time	0.053301969	0.001592159	33.47780033	3.04392E-16	0.049926743	0.056677194
GFC	-0.090861103	0.038121633	-2.383452525	0.02988658	-0.171675355	-0.010046851
dum0105	-0.050573798	0.014490259	-3.490192844	0.003025572	-0.081291775	-0.019855822

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.49. Figure 2.50 shows the components of the Hungarian prediction/forecast.

Figure 2.51 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.48 Traffic per person in Hungary

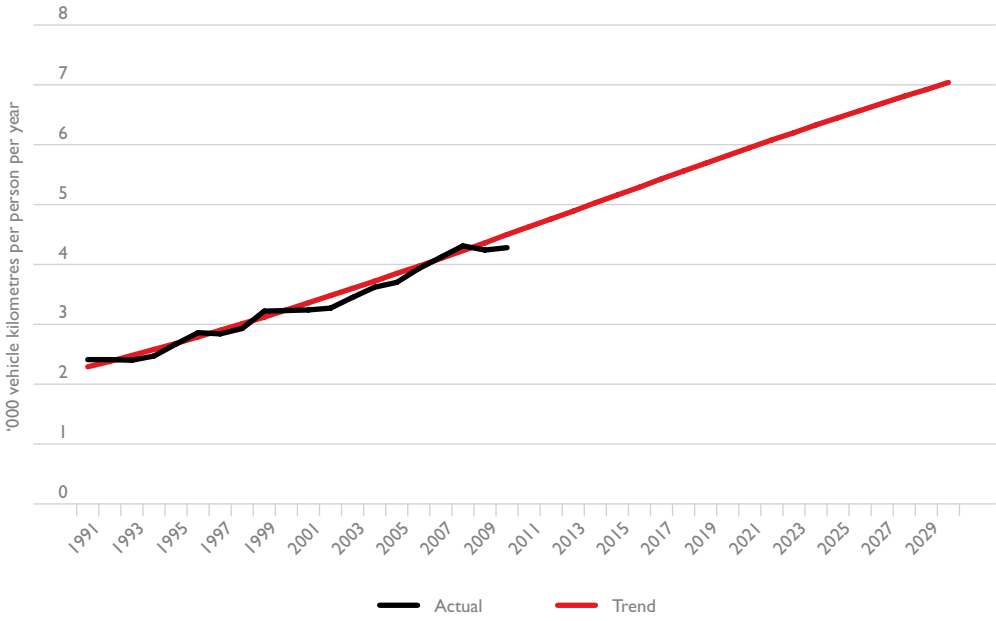


Figure 2.49 Actual/predicted levels of Hungarian traffic per person

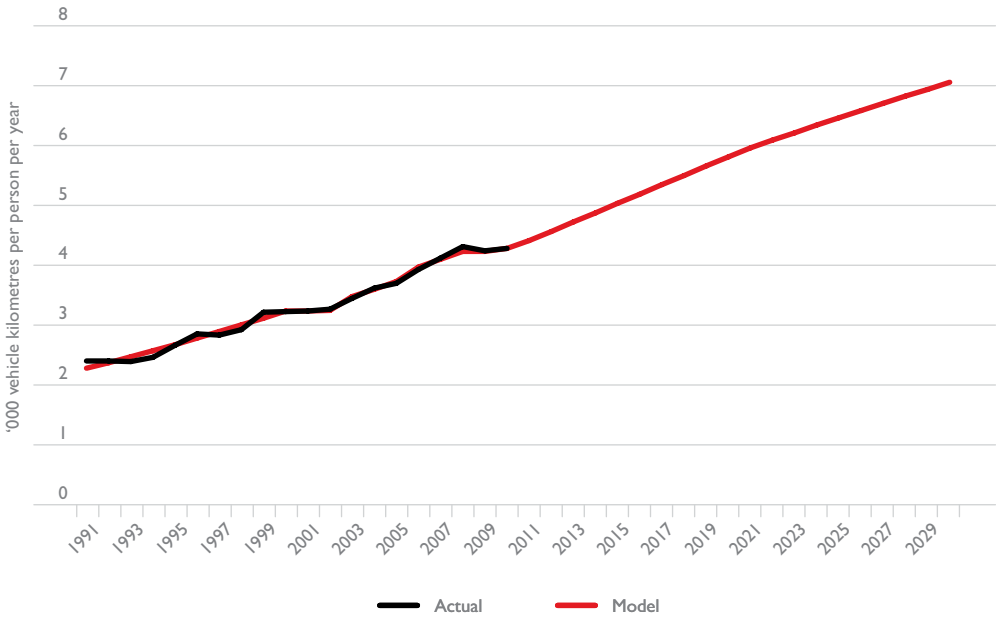


Figure 2.50 Components of predicted levels of Hungarian traffic per person

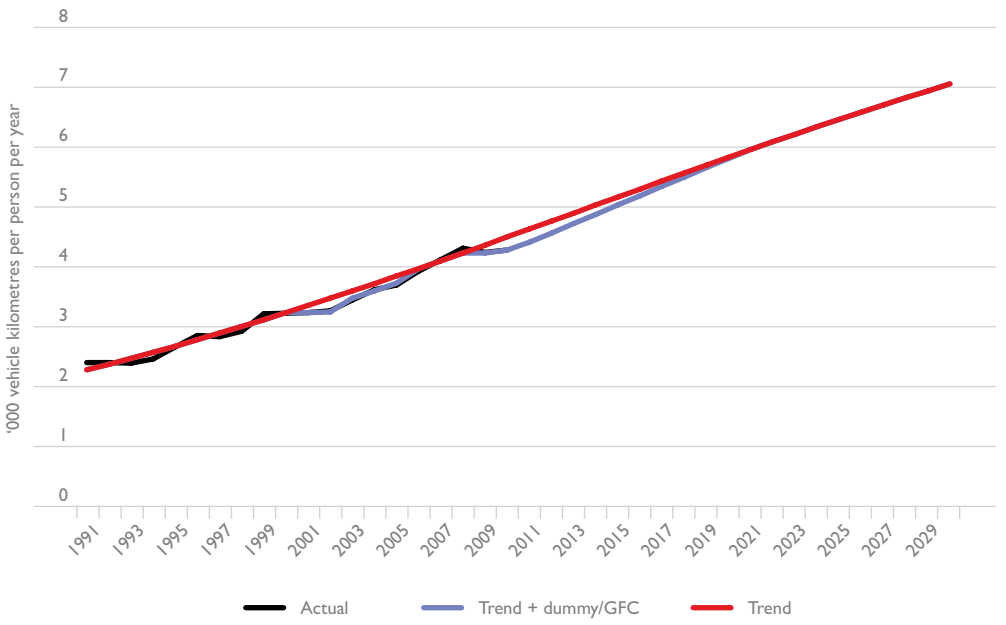
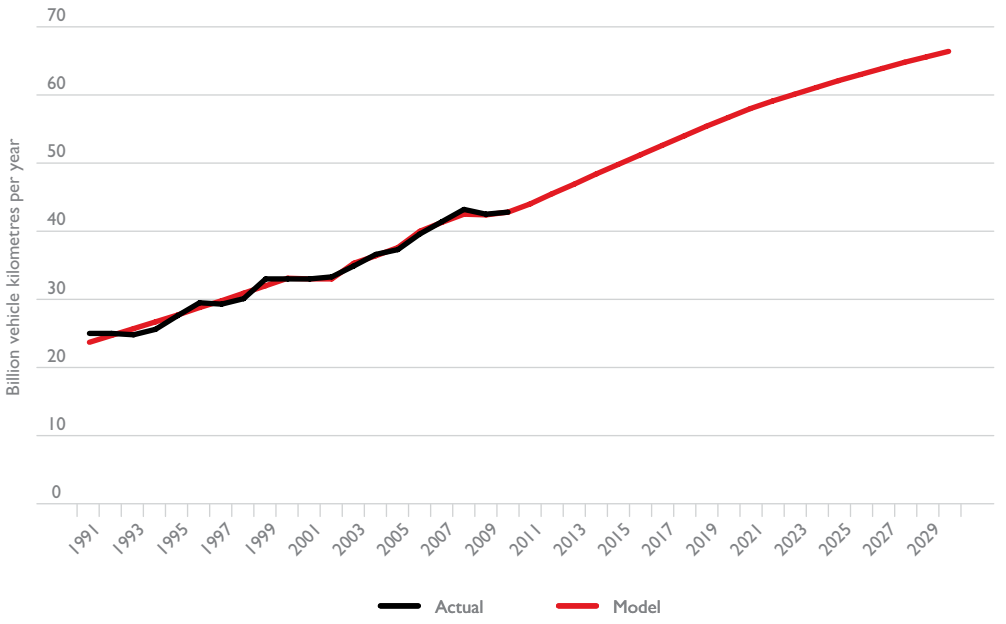


Figure 2.51 Actual/predicted aggregate traffic levels in Hungary



2.14 Ireland

Figure 2.52 shows the growth of Irish traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.13, the results of the model show significant effects for petrol price and unemployment.

Table 2.13 Regression results for predicting Irish traffic per person

Regression Statistics	
Multiple R	0.998008878
R Square	0.996021721
Adjusted R Square	0.995511686
Standard Error	0.172631621
Observations	45

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	290.9905778	58.19811555	1952.847034	1.10509E-45
Residual	39	1.162265384	0.029801677		
Total	44	292.1528432			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	3.608829796	0.162466536	22.21275769	9.62327E-24	3.280210212	3.93744938
pre73time	-0.132009241	0.031480678	-4.193341692	0.000152963	-0.195684923	-0.068333559
time	0.332188322	0.032553195	10.2044767	1.43796E-12	0.26634327	0.398033374
time sq'd	-0.002485362	0.000609496	-4.077735893	0.000216905	-0.003718183	-0.001252541
petrol price	-0.442725009	0.138674384	-3.192550743	0.002787156	-0.723220425	-0.162229594
unemployment	-0.121816141	0.013336524	-9.134024525	3.1189E-11	-0.148791807	-0.094840474

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.53. Figure 2.54 shows the components of the Irish prediction/forecast.

Figure 2.55 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.52 Traffic per person in Ireland

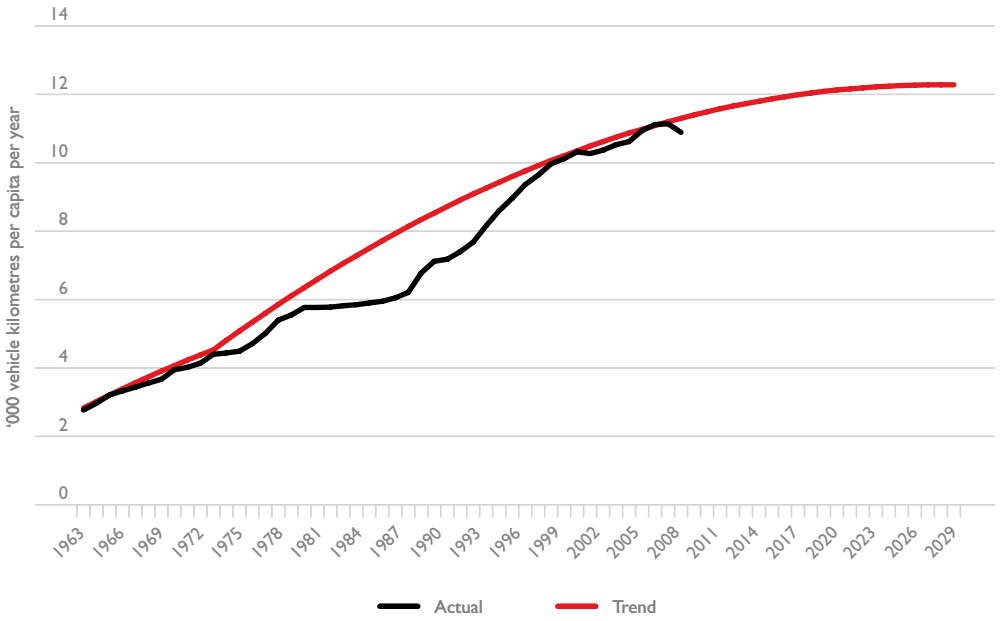


Figure 2.53 Actual/predicted levels of Irish traffic per person

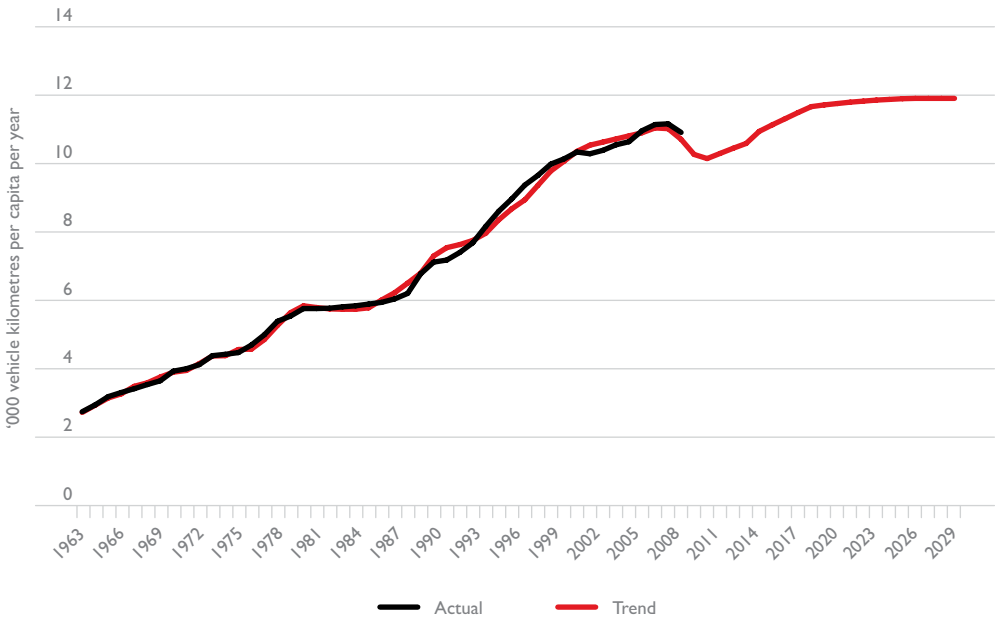


Figure 2.54 Components of predicted levels of Irish traffic per person

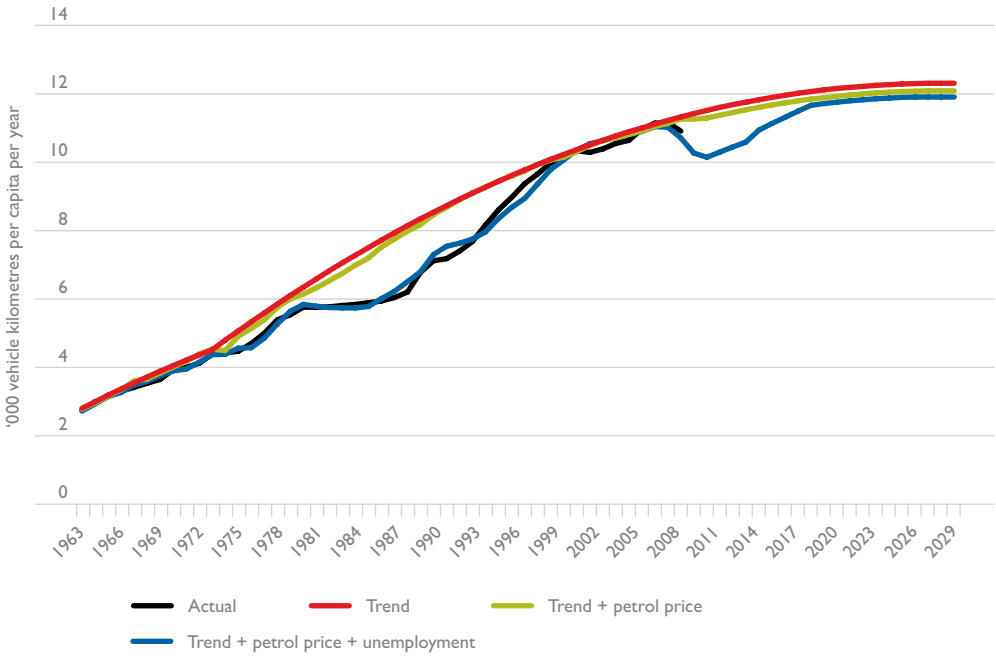
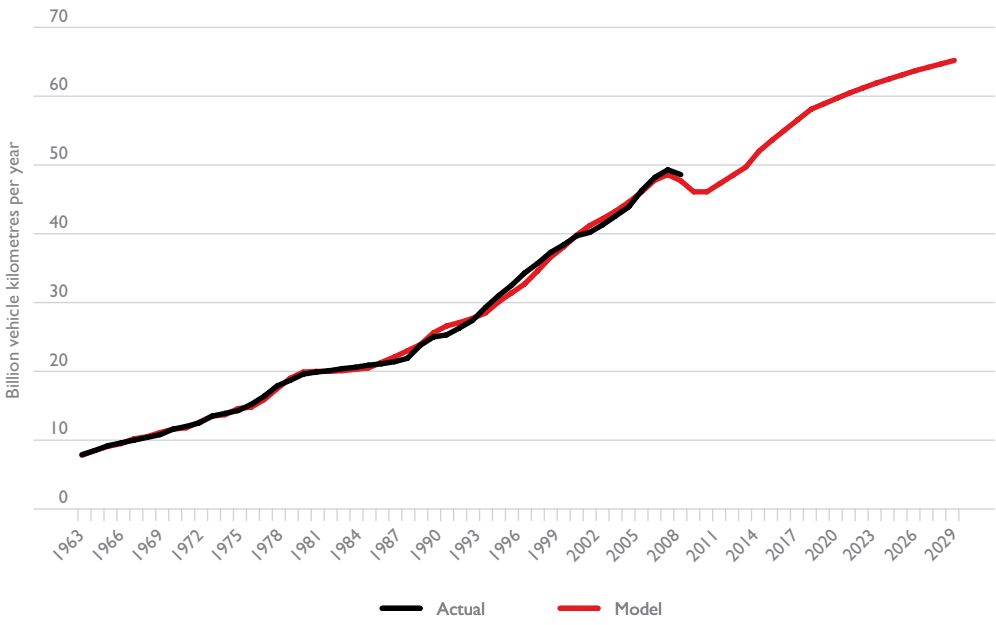


Figure 2.55 Actual/predicted aggregate traffic levels in Ireland



2.15 Israel

Figure 2.56 shows the growth of Israeli traffic per person since 1963, and the slightly saturating trend fit to it.

As can be seen from Table 2.14, the results of the model show significant effects for the petrol price and unemployment.

Table 2.14 Regression results for predicting Israeli traffic per person

Regression Statistics	
Multiple R	0.999168934
R Square	0.998338559
Adjusted R Square	0.998089342
Standard Error	0.078699409
Observations	47

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	148.86607	24.81101167	4005.91318	5.91477E-54
Residual	40	0.247743878	0.006193597		
Total	46	149.1138139			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	1.372472582	0.118412226	11.59063237	2.31677E-14	1.133152548	1.611792616
pre68time	-0.10461717	0.019453552	-5.377792752	3.52901E-06	-0.143934264	-0.065300075
time	0.240044676	0.008917693	26.91780077	3.0351E-27	0.222021347	0.258068005
time sq'd	-0.00184988	0.000191288	-9.670676489	5.02735E-12	-0.002236486	-0.001463273
petrol price	-0.079611388	0.031078433	-2.561628161	0.014292514	-0.142423243	-0.016799533
unemployment	-0.103304071	0.009325867	-11.07715476	9.32018E-14	-0.12215235	-0.084455791
dum8691	-0.92129654	0.061619272	-14.95143502	5.70426E-18	-1.045833733	-0.796759348

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.57. Figure 2.58 shows the components of the Israeli prediction /forecast.

Figure 2.59 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.56 Traffic per person in Israel

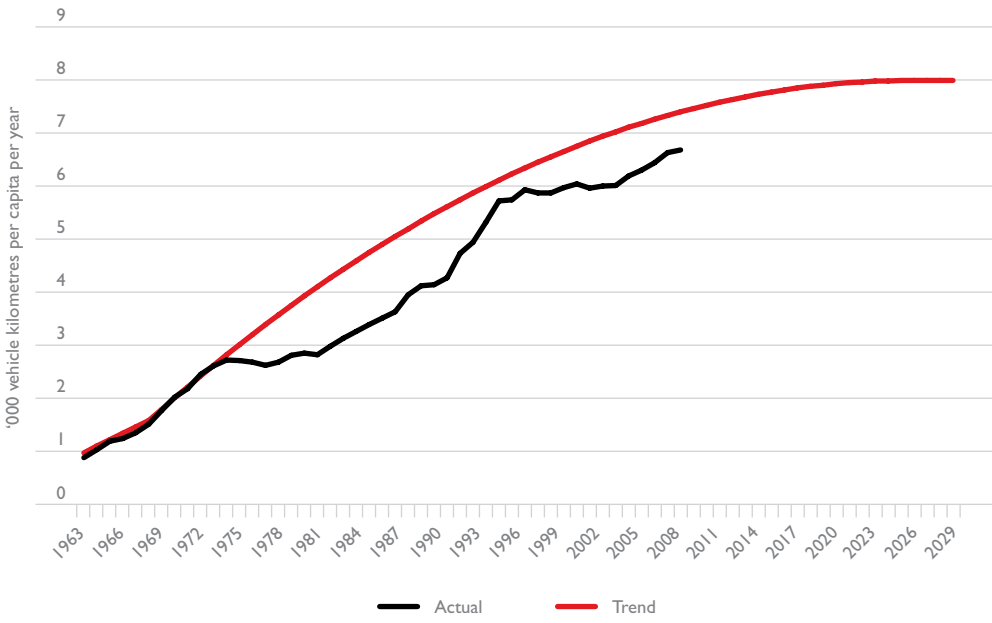


Figure 2.57 Actual/predicted levels of Israeli traffic per person

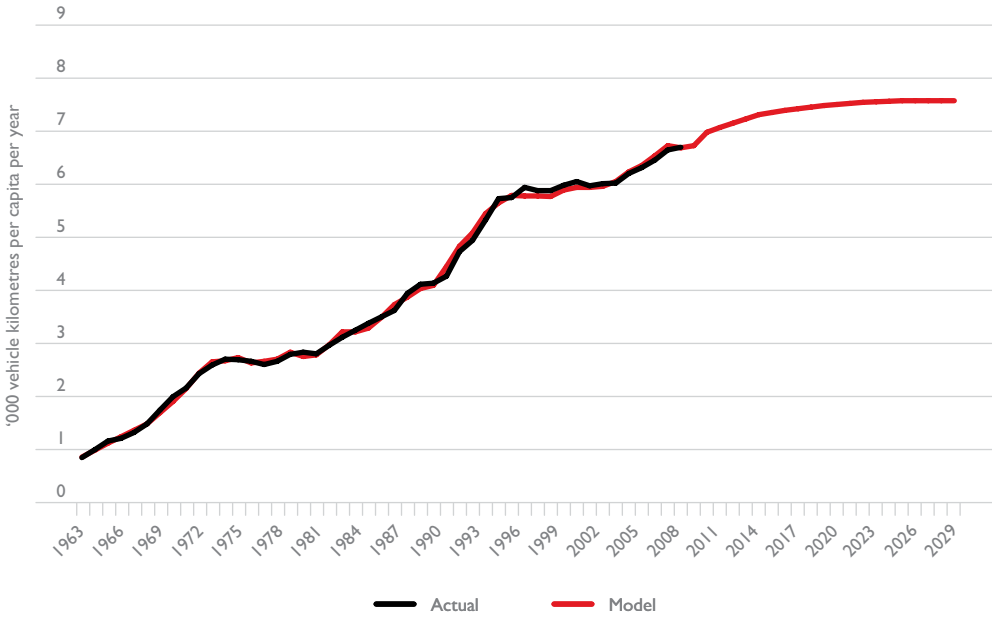


Figure 2.58 Components of predicted levels of Israeli traffic per person

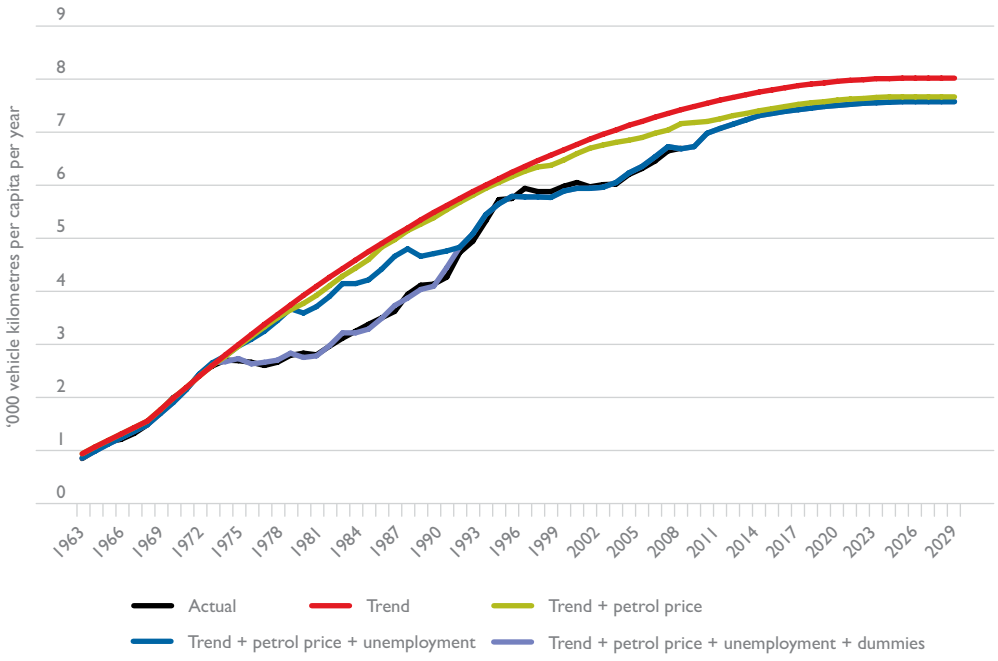
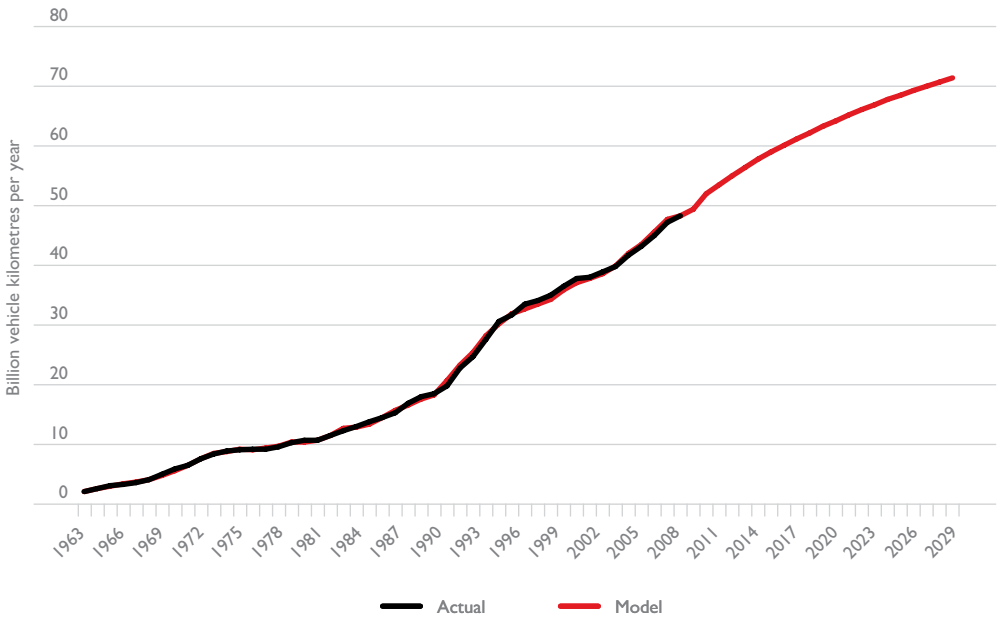


Figure 2.59 Actual/predicted aggregate traffic levels in Israel



2.16 Italy

Figure 2.60 shows the growth of Italian traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.15, the results of the model show significant effects for the petrol price (average of lagged and current) and unemployment, and a result of the right sign for the GFC.

Table 2.15 Regression results for predicting Italian traffic per person

Regression Statistics	
Multiple R	0.999337054
R Square	0.998674548
Adjusted R Square	0.998442594
Standard Error	0.112603419
Observations	48

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	7	382.140624	54.59151771	4305.484369	1.8513E-55
Residual	40	0.507181195	0.01267953		
Total	47	382.6478052			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	3.486898481	0.225113988	15.48947939	1.69969E-18	3.031926144	3.941870819
pre68time	-0.143657821	0.029821438	-4.81726681	2.11568E-05	-0.203929194	-0.083386448
time	0.41925353	0.020018435	20.94337212	3.60997E-23	0.378794764	0.459712295
timesq'd	-0.003971866	0.000362642	-10.95256552	1.31323E-13	-0.004704793	-0.003238938
lag+current petrol price	-1.356958111	0.123648947	-10.97427955	1.23687E-13	-1.606861952	-1.107054269
unemployment	-0.224757648	0.019755683	-11.37686031	4.11882E-14	-0.264685372	-0.184829923
dum7792	-0.919956568	0.061687302	-14.91322427	6.22373E-18	-1.044631254	-0.795281881
GFC	-0.111007281	0.080233972	-1.383544627	0.174171078	-0.273166185	0.051151624

The pattern of traffic per person over time is fairly accurately predicted by the model, as shown in Figure 2.61. Figure 2.62 shows the components of the Italian prediction/forecast.

Figure 2.63 shows that the modelling also produces a fairly accurate prediction of aggregate national traffic levels over the period.

Figure 2.60 Traffic per person in Italy

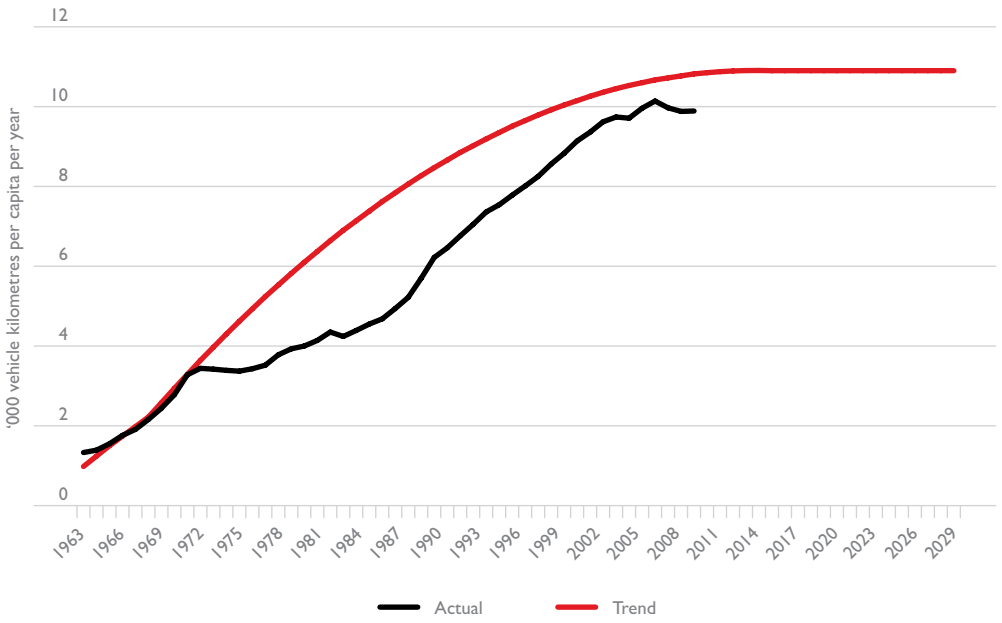


Figure 2.61 Actual/predicted levels of Italian traffic per person

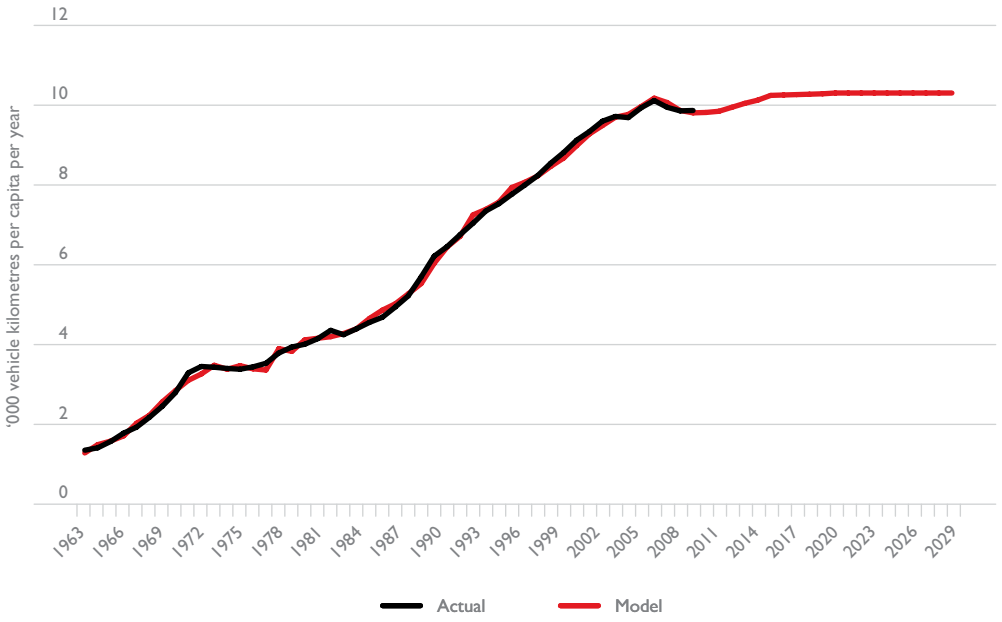


Figure 2.62 Components of predicted levels of Italian traffic per person

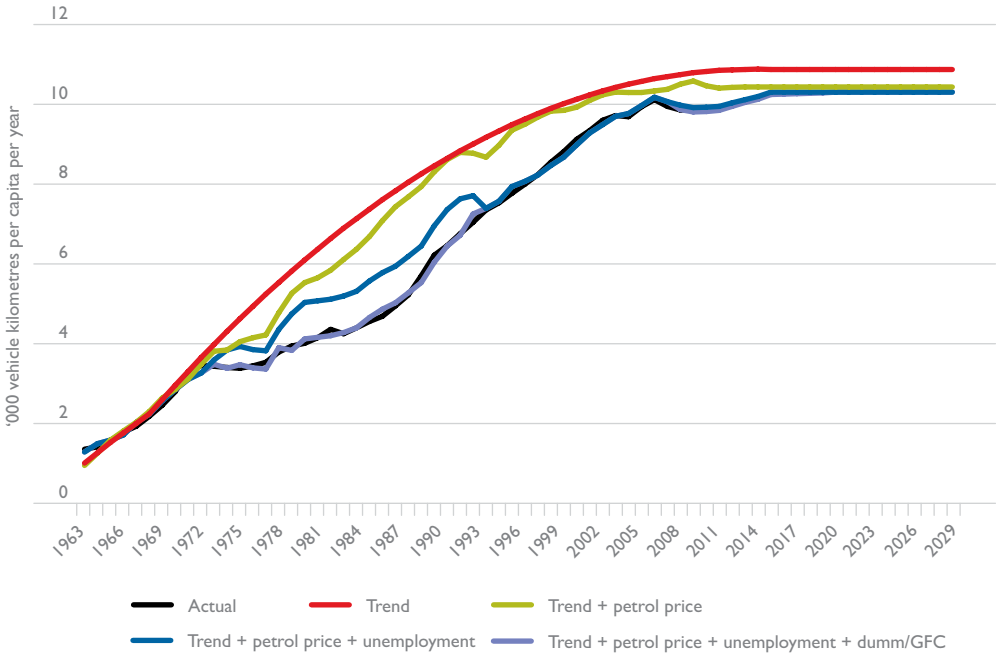
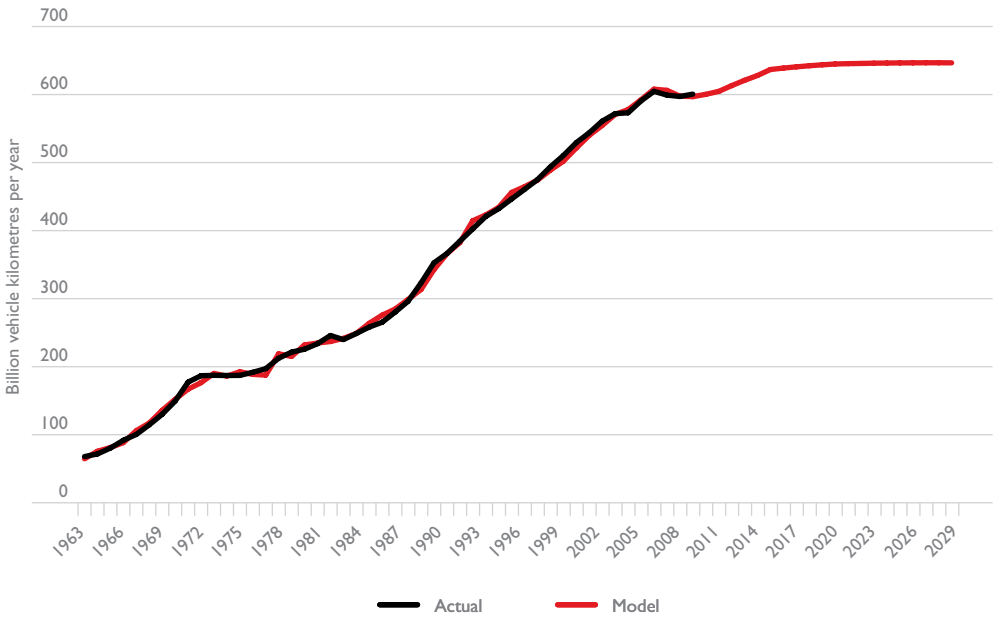


Figure 2.63 Actual/predicted aggregate traffic levels in Italy



2.17 Japan

Figure 2.64 shows the growth of Japanese traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.16, the results of the model show significant effects for a lagged 5-year average of oil prices and a first oil shock dummy. The Japanese response to higher oil prices seems to be a longer-term corporate effort, as opposed to other countries shorter-term individual consumer responses.

Table 2.16 Regression results for predicting Japanese traffic per person

Regression Statistics	
Multiple R	0.99862747
R Square	0.997256824
Adjusted R Square	0.996930256
Standard Error	0.091010206
Observations	48

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	126.4686503	25.29373007	3053.744417	1.25576E-52
Residual	42	0.347880018	0.008282858		
Total	47	126.8165304			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	1.179672102	0.069565236	16.95778193	2.12489E-20	1.039283773	1.32006043
pre68time	0.099299908	0.015266864	6.504276546	7.47114E-08	0.068490129	0.130109687
Time	0.186962472	0.006320859	29.57864835	9.48307E-30	0.174206462	0.199718482
time sq'd	-0.001735925	0.000110187	-15.75435048	3.10189E-19	-0.001958291	-0.001513558
5yr average oil price	-0.000112541	6.65921E-06	-16.90001188	2.40883E-20	-0.00012598	-9.91019E-05
oil shock	-0.372544026	0.057786573	-6.446895945	9.03449E-08	-0.489162052	-0.255926001

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.65. Figure 2.66 shows the components of the Japanese prediction/forecast.

Figure 2.67 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.64 Traffic per person in Japan

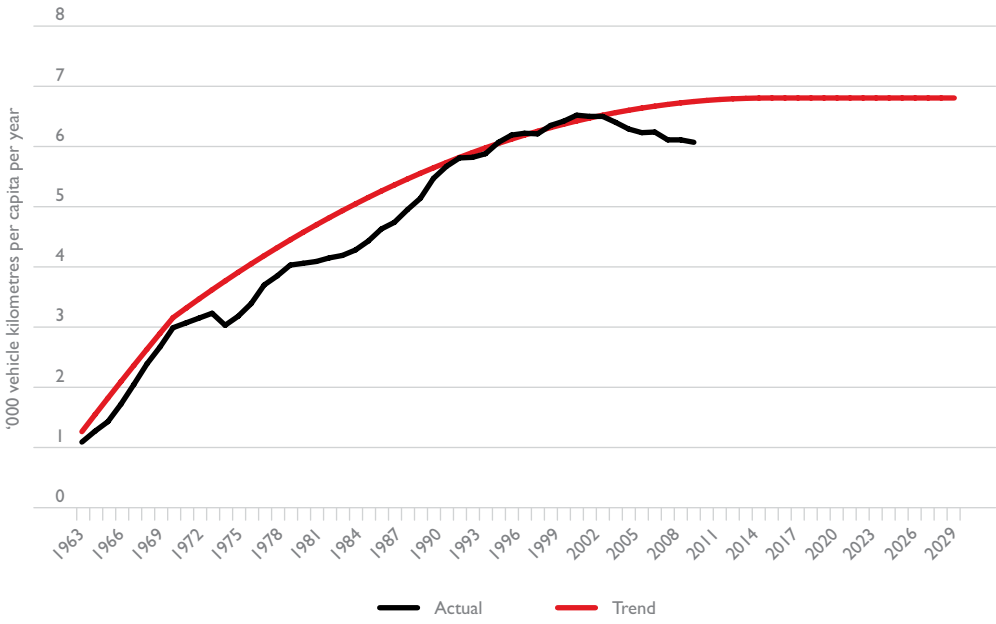


Figure 2.65 Actual/predicted levels of Japanese traffic per person

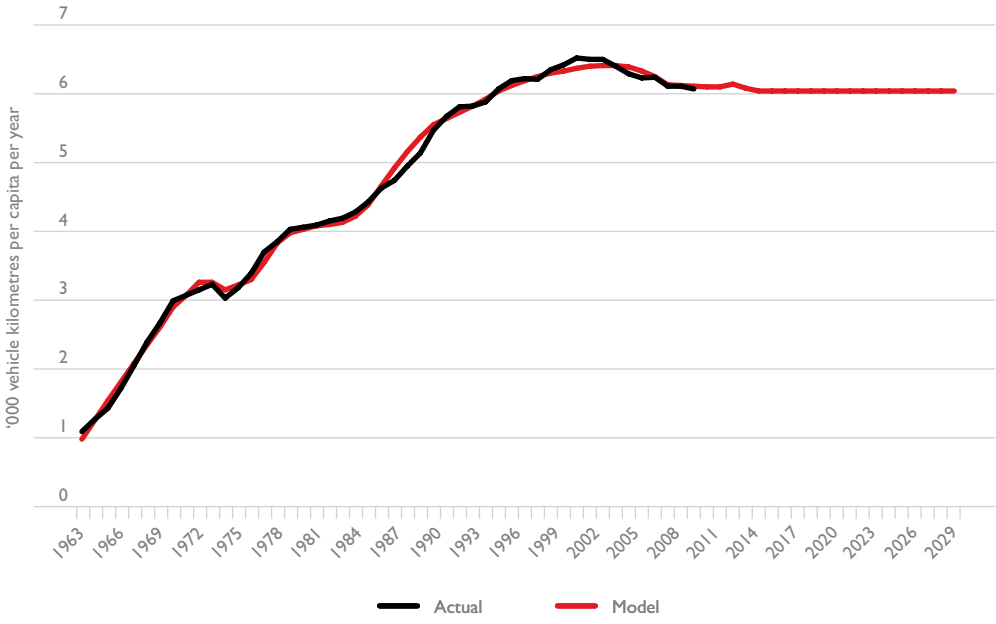


Figure 2.66 Components of predicted levels of Japanese traffic per person

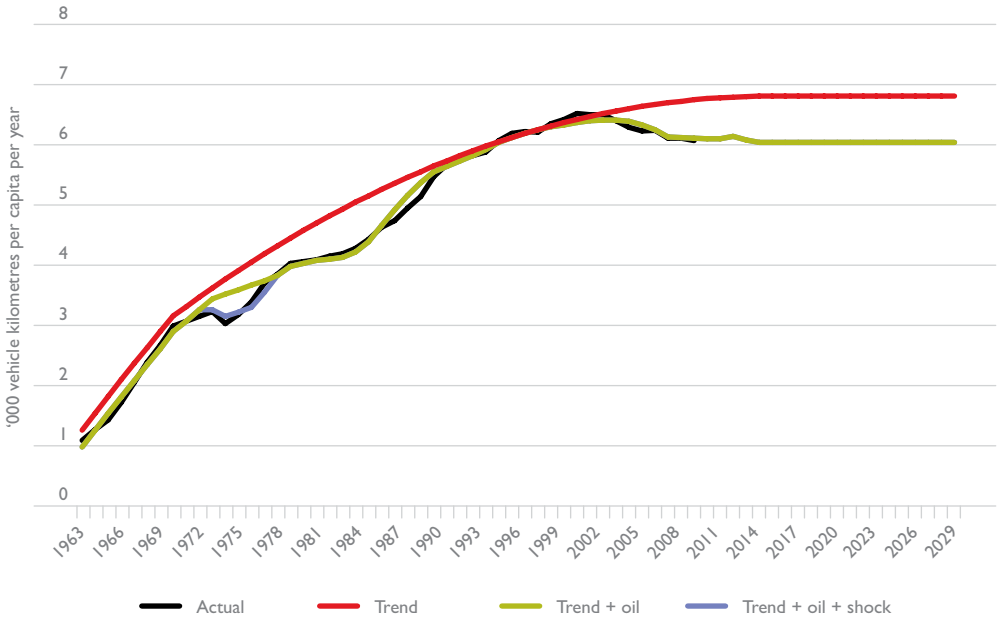
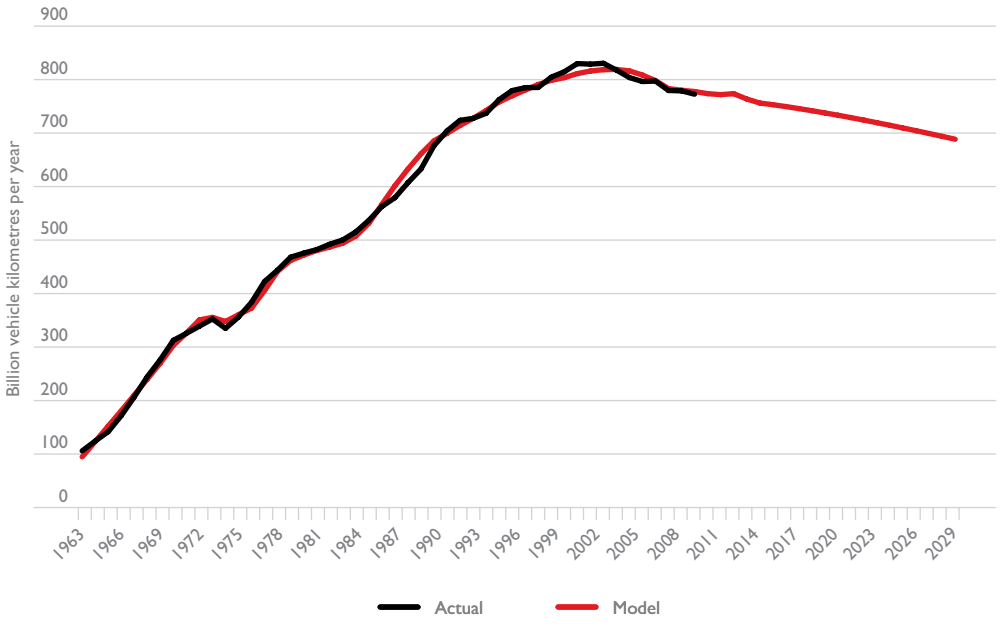


Figure 2.67 Actual/predicted aggregate traffic levels in Japan



2.18 Korea

Figure 2.68 shows the growth of Korean traffic per person since 1971, and the saturating trend fit to it.

As can be seen from Table 2.17, the results of the model show significant effects for a 4-year average of unemployment and for the GFC. The dependent variable for this equation equals en (vktpp/(8.5-vktpp)).

Table 2.17 Regression results for predicting Korean traffic per person

Regression Statistics	
Multiple R	0.999423599
R Square	0.99884753
Adjusted R Square	0.998637991
Standard Error	0.066599307
Observations	40

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	126.8595358	21.14325597	4766.860557	5.31033E-47
Residual	33	0.146370434	0.004435468		
Total	39	127.0059062			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-3.979252519	0.172336486	-23.09001772	6.07846E-22	-4.329873735	-3.628631304
pre88time	-0.041343768	0.009460994	-4.369918155	0.000116445	-0.060592305	-0.022095232
time	0.188456224	0.002413571	78.08190768	5.04816E-39	0.183545777	0.193366671
4yr aver unemployment	-0.10889442	0.022342816	-4.873800098	2.67428E-05	-0.154351221	-0.063437619
GFC	-1.207984588	0.058538819	-20.63561596	1.96287E-20	-1.32708271	-1.088886465
dumpre83	0.240850199	0.043561857	5.528924	3.8705E-06	0.152222934	0.329477464
dum9596	0.131548474	0.053190528	2.473155997	0.018713907	0.023331531	0.239765418

The pattern of traffic *per person* over time is roughly predicted by the model, as shown in Figure 2.69. Figure 2.70 shows the components of the Korean prediction/forecast.

Figure 2.71 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.68 Traffic per person in Korea

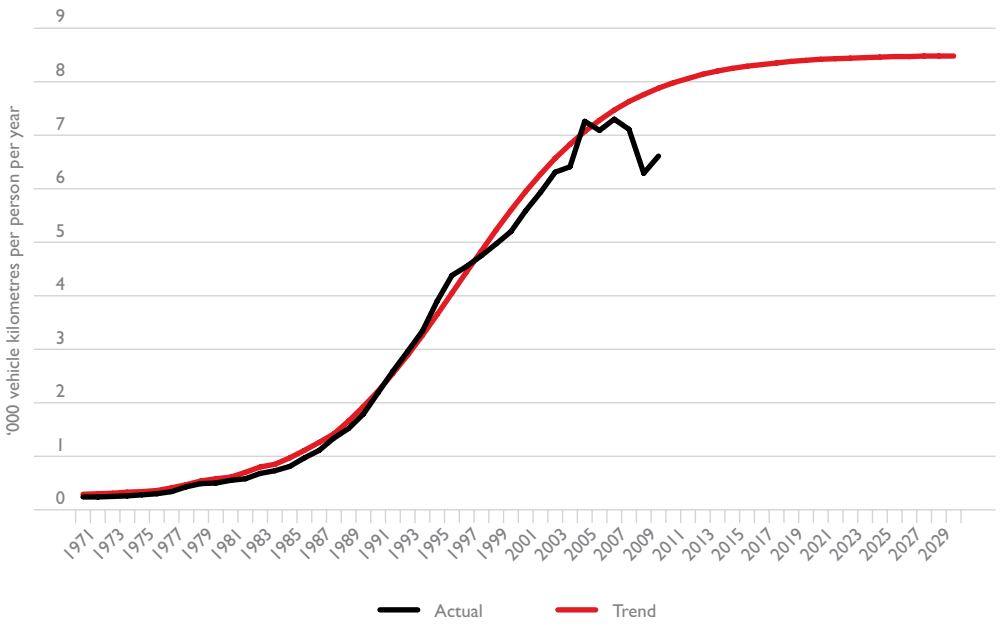


Figure 2.69 Actual/predicted levels of Korean traffic per person

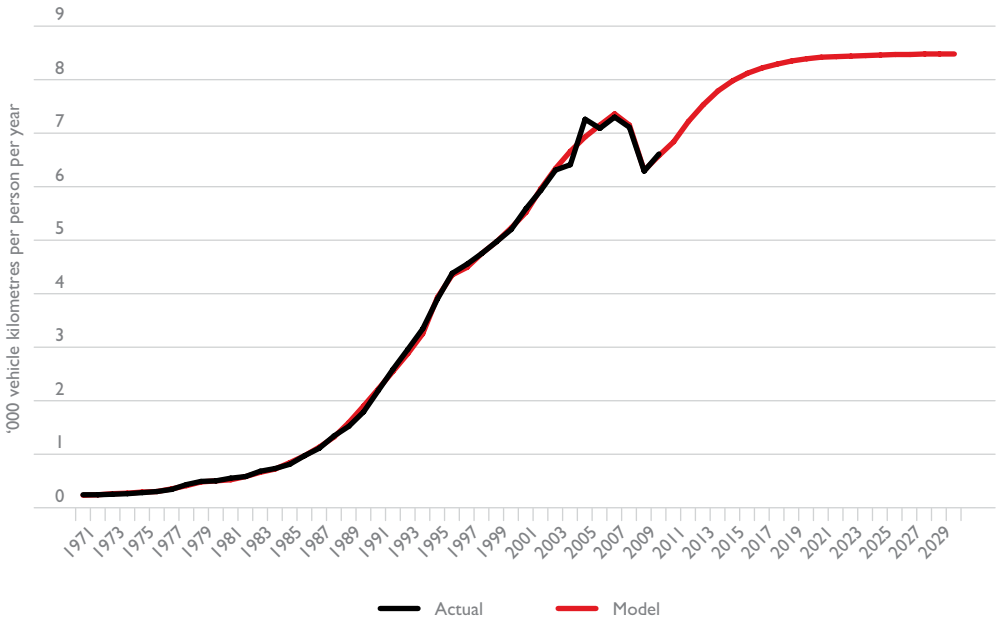


Figure 2.70 Components of predicted levels of Korean traffic per person

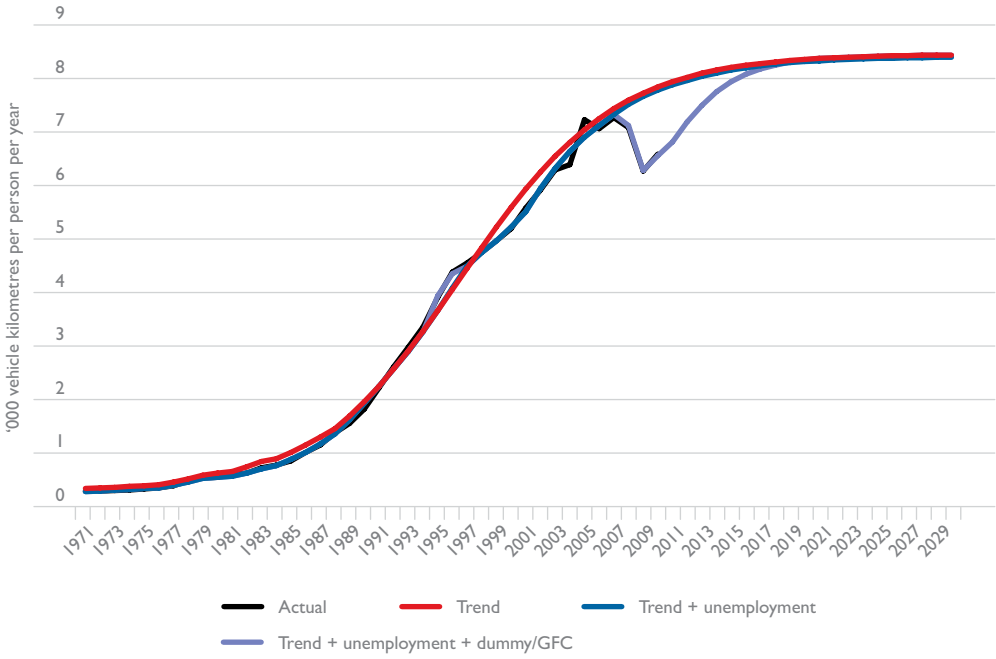
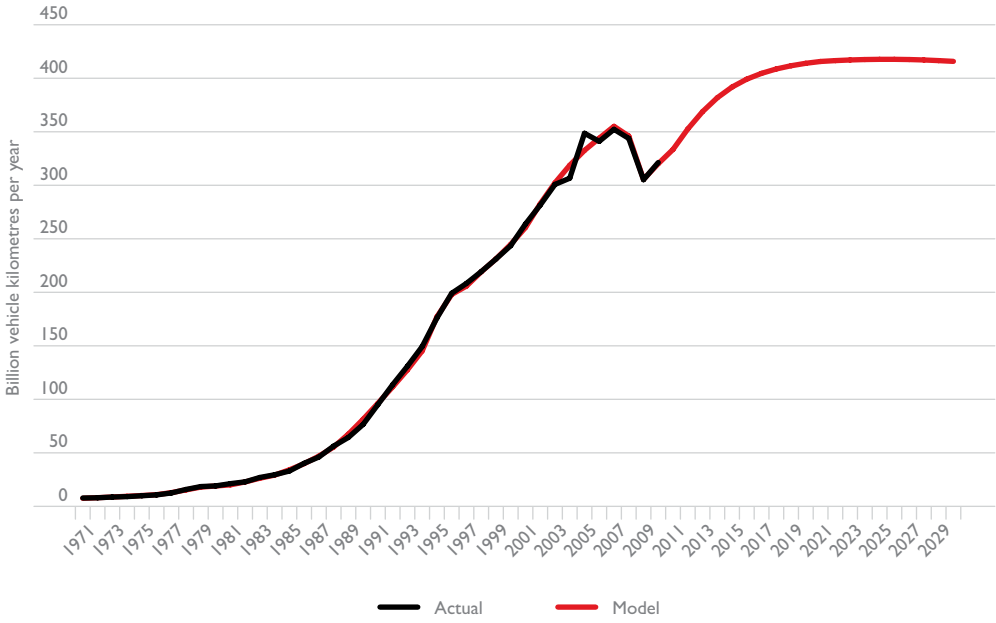


Figure 2.71 Actual/predicted aggregate traffic levels in Korea



2.19 The Netherlands

Figure 2.72 shows the growth of Dutch traffic per person since 1950, and the saturating trend fit to it.

As can be seen from Table 2.18, the results of the model show significant effects for unemployment and the (lagged) petrol price.

Table 2.18 Regression results for predicting Dutch traffic per person

Regression Statistics	
Multiple R	0.999406402
R Square	0.998813156
Adjusted R Square	0.998728381
Standard Error	0.094863675
Observations	61

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	424.1100156	106.0275039	11781.98981	3.50689E-81
Residual	56	0.503950548	0.008999117		
Total	60	424.6139662			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.298737194	0.157779514	1.893383922	0.063477783	-0.01733315	0.614807538
S-trend	1.019318976	0.007008637	145.4375524	6.81848E-74	1.00527899	1.033358962
lag petrol price	-0.291702911	0.142695221	-2.044237417	0.045642907	-0.577555786	-0.005850035
unempl	-0.052205925	0.011651556	-4.480596653	3.72116E-05	-0.075546797	-0.028865053
dum8199	-0.231137219	0.049511869	-4.668319398	1.93907E-05	-0.330321411	-0.131953027

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.73. Figure 2.74 shows the components of the Dutch prediction/forecast.

Figure 2.75 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.72 Traffic per person in the Netherlands

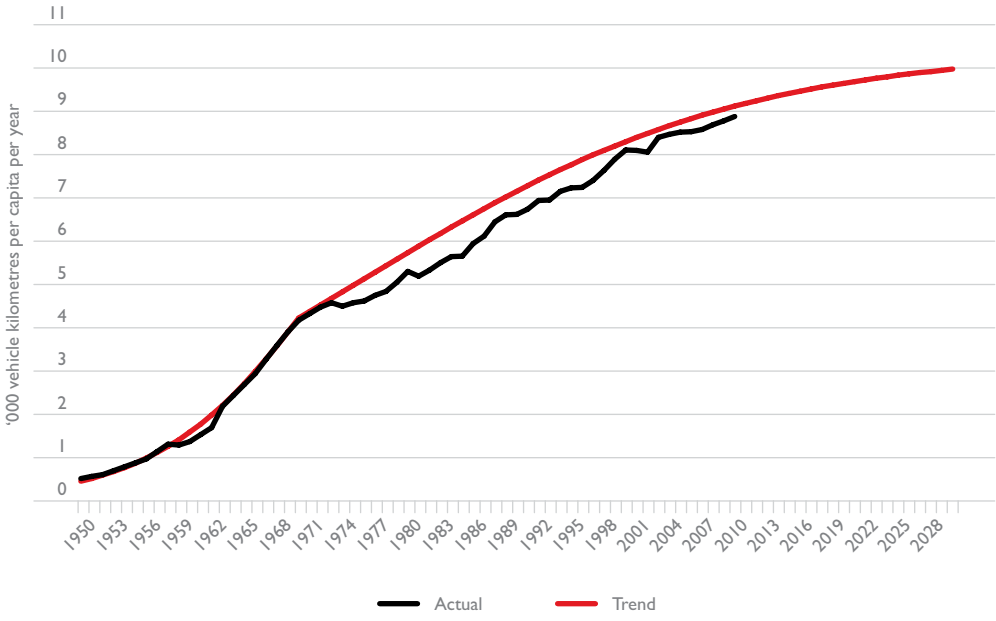


Figure 2.73 Actual/predicted levels of Dutch traffic per person

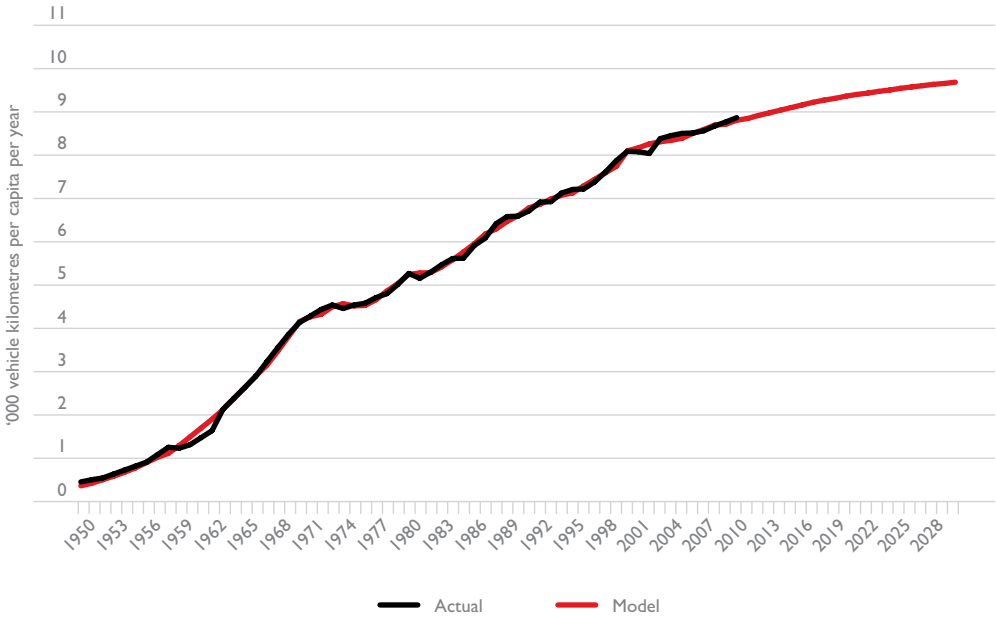


Figure 2.74 Components of predicted levels of Dutch traffic per person

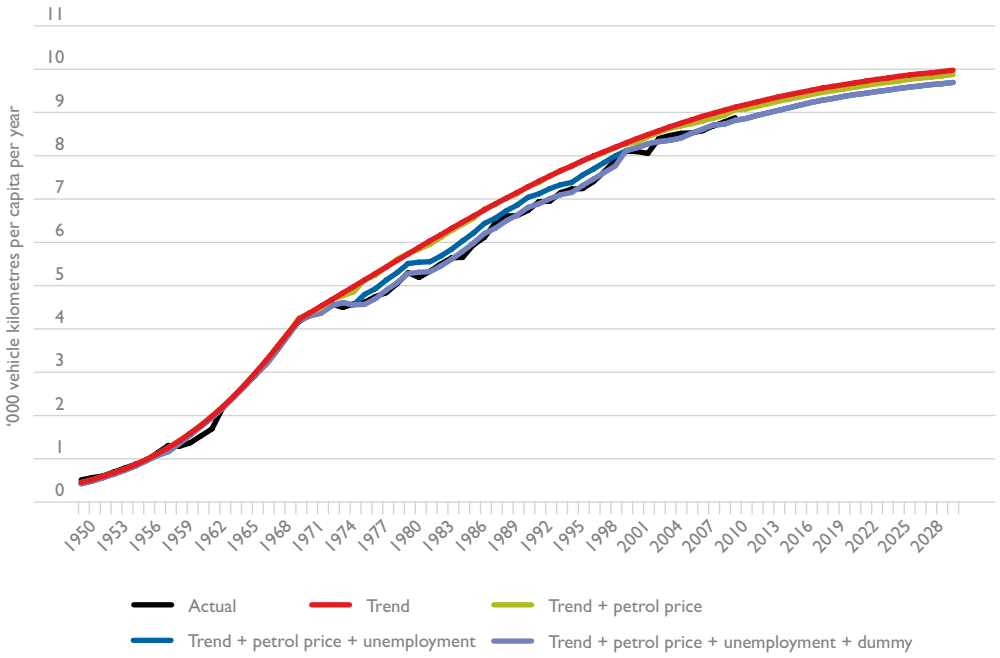
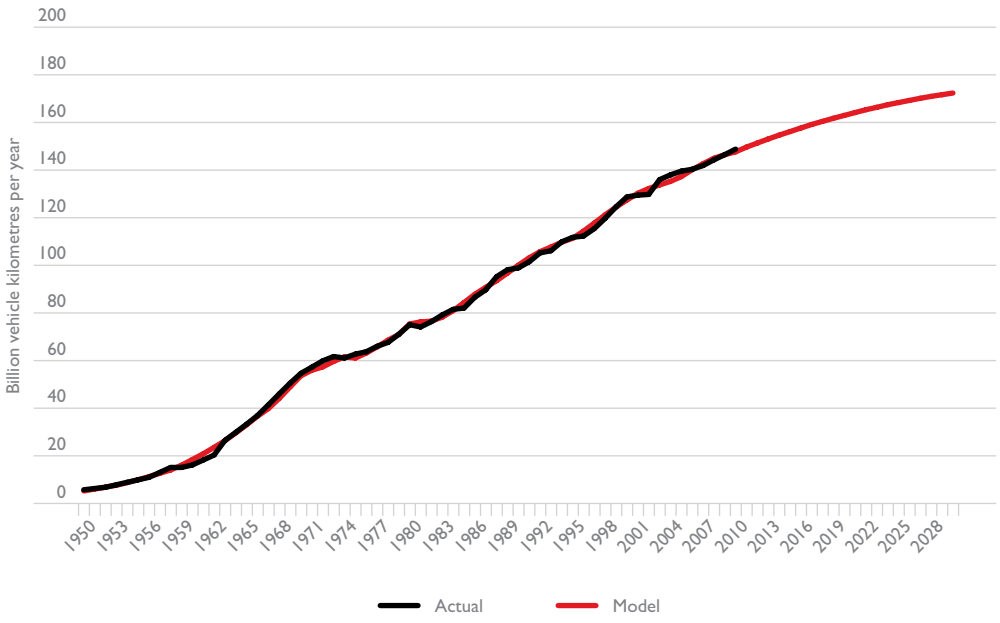


Figure 2.75 Actual/predicted aggregate traffic levels in the Netherlands



2.20 New Zealand

Figure 2.76 shows the growth of New Zealand traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.19, the results of the model show a significant effect for unemployment and the GFC.

Table 2.19 Regression results for predicting New Zealand traffic per person

Regression Statistics	
Multiple R	0.999102273
R Square	0.998205352
Adjusted R Square	0.97418218
Standard Error	0.084523941
Observations	48

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	166.8973655	27.81622758	4672.184698	1.79547E-56
Residual	42	0.300060456	0.007144297		
Total	48	167.197426			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	2.923240517	0.045050938	64.88745138	9.47865E-44	2.832324045	3.014156988
time	0.267473893	0.005599246	47.76962443	3.08342E-38	0.256174156	0.278773629
time sq'd	-0.002624024	0.000106809	-24.56751282	1.51769E-26	-0.002839573	-0.002408475
unemployment	-0.042640459	0.008982896	-4.746850075	2.41134E-05	-0.060768676	-0.024512242
GFC	-0.200959881	0.093612806	-2.146713563	0.037636838	-0.389878171	-0.012041592
d8804	0.020111226	0.048074747	0.418332429	0.67783546	-0.076907541	0.117129992

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.77. Figure 2.78 shows the components of the New Zealand prediction/forecast.

Figure 2.79 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.76 Traffic per person in New Zealand

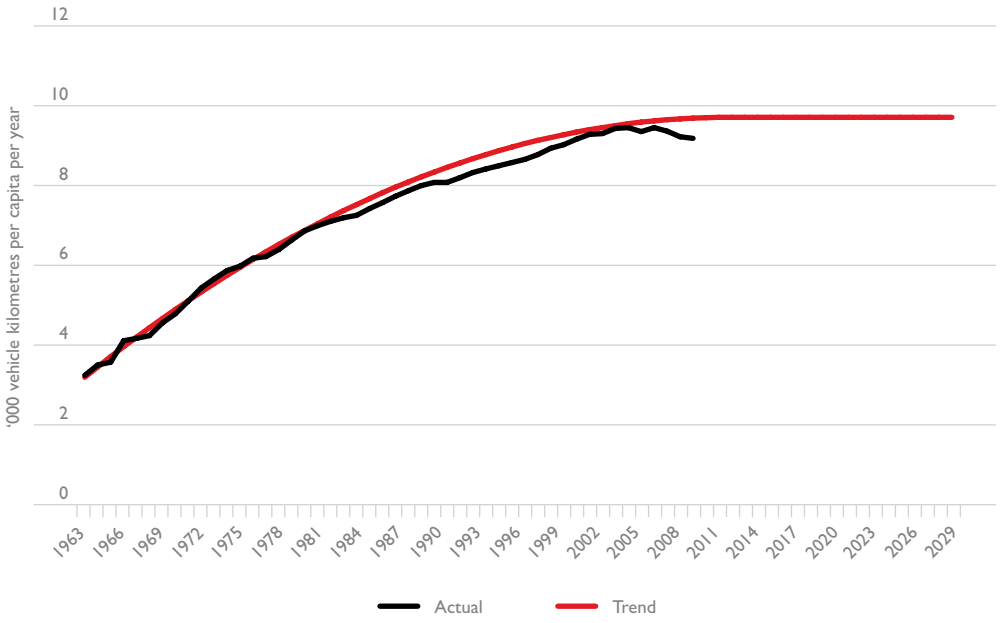


Figure 2.77 Actual/predicted levels of New Zealand traffic per person

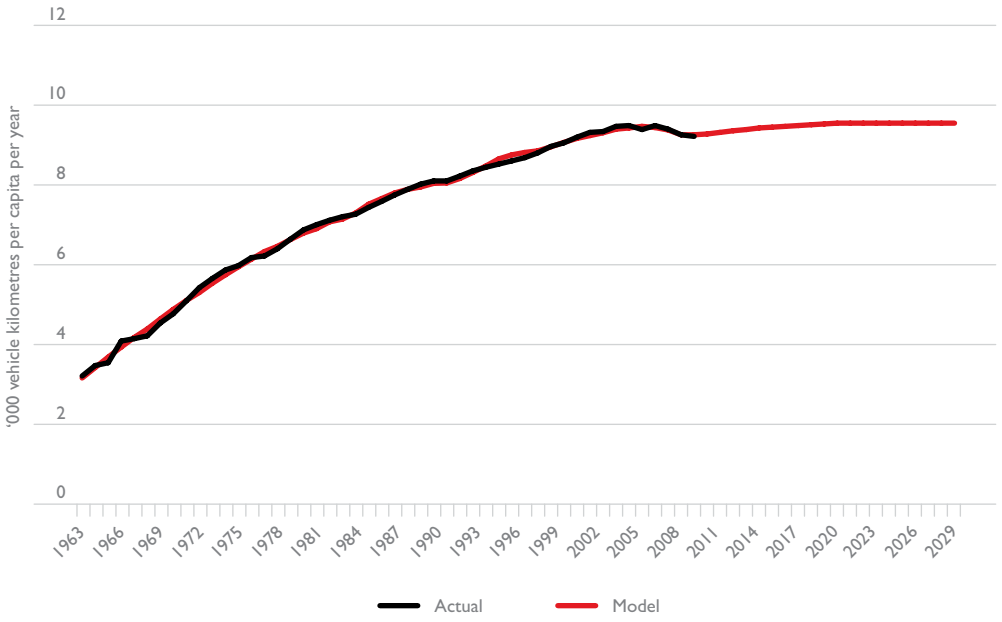


Figure 2.78 Components of predicted levels of New Zealand traffic per person

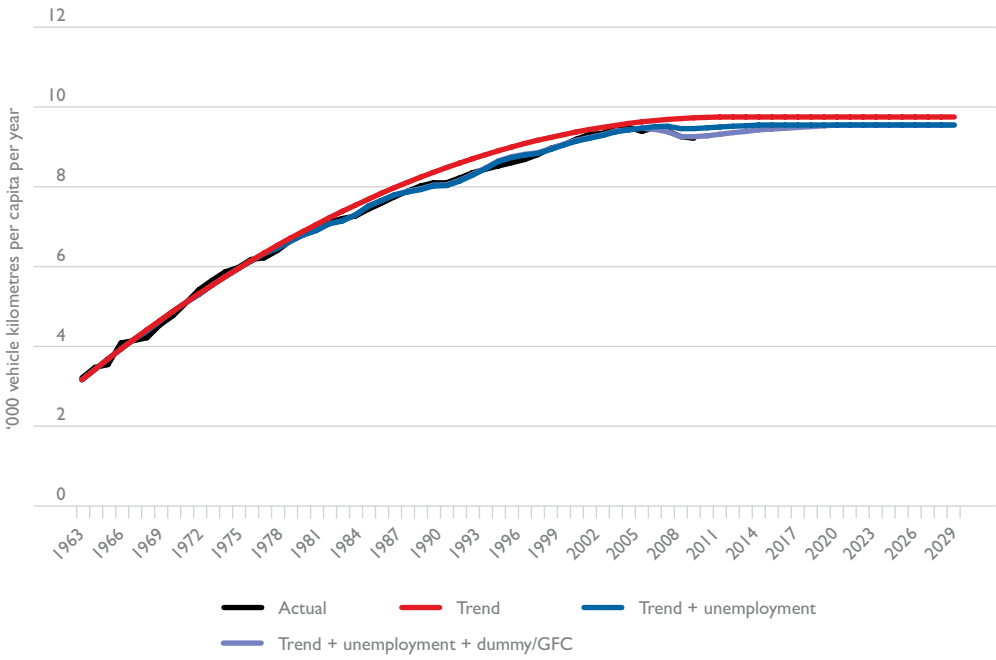
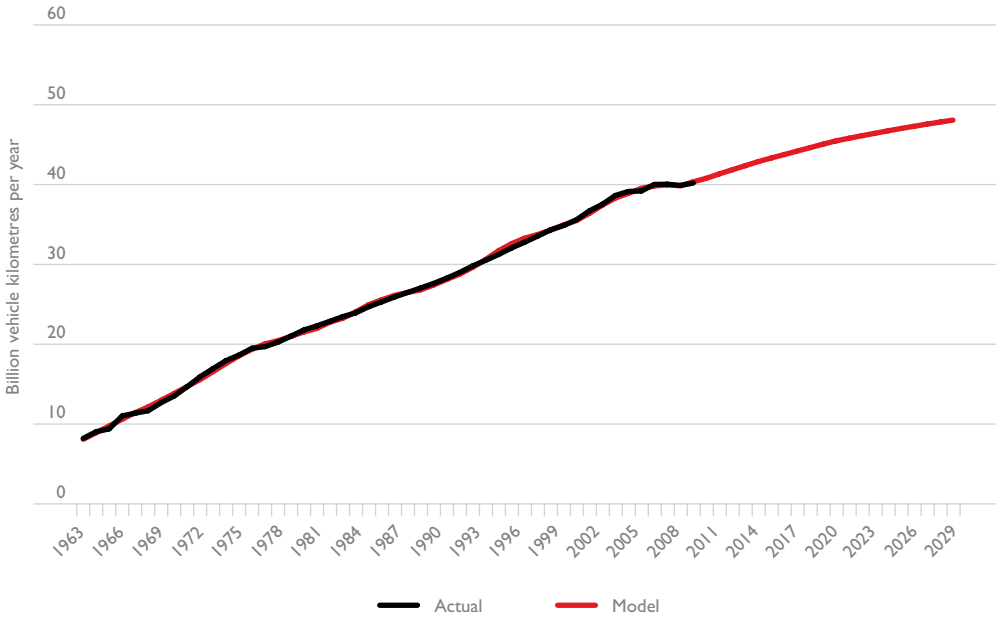


Figure 2.79 Actual/predicted aggregate traffic levels in New Zealand



2.21 Norway

Figure 2.80 shows the growth of Norwegian traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.20, the results of the model show significant effects for the petrol price (centred 3-year average) and unemployment (average of the previous 3 years). The GFC is of the right sign, but not quite significant.

Table 2.20 Regression results for predicting Norwegian traffic per person

Regression Statistics	
Multiple R	0.999562699
R Square	0.99912559
Adjusted R Square	0.998994428
Standard Error	0.063814098
Observations	47

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	186.1221186	31.0203531	7617.517728	1.57469E-59
Residual	40	0.162889562	0.004072239		
Total	46	186.2850082			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	3.305409853	0.154397239	21.40847774	1.60861E-23	2.993361396	3.61745831
pre73time	-0.104675216	0.00957272	-10.93474109	1.37949E-13	-0.124022405	-0.085328027
time	0.320944502	0.007617264	42.1338314	9.23052E-35	0.305549438	0.336339566
time squared	-0.003076638	0.000125548	-24.50573244	1.05174E-25	-0.00333038	-0.002822897
(lag+current) petrol price	-0.016130164	0.001515826	-10.64117317	3.12153E-13	-0.019193762	-0.013066566
unemployment	-0.092736157	0.013513393	-6.862536871	2.91544E-08	-0.120047742	-0.065424571
GFC	-0.111465669	0.072870801	-1.529634181	0.133977955	-0.25874305	0.035811713

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.81. Figure 2.82 shows the components of the Norwegian prediction/forecast.

Figure 2.83 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.80 Traffic per person in Norway

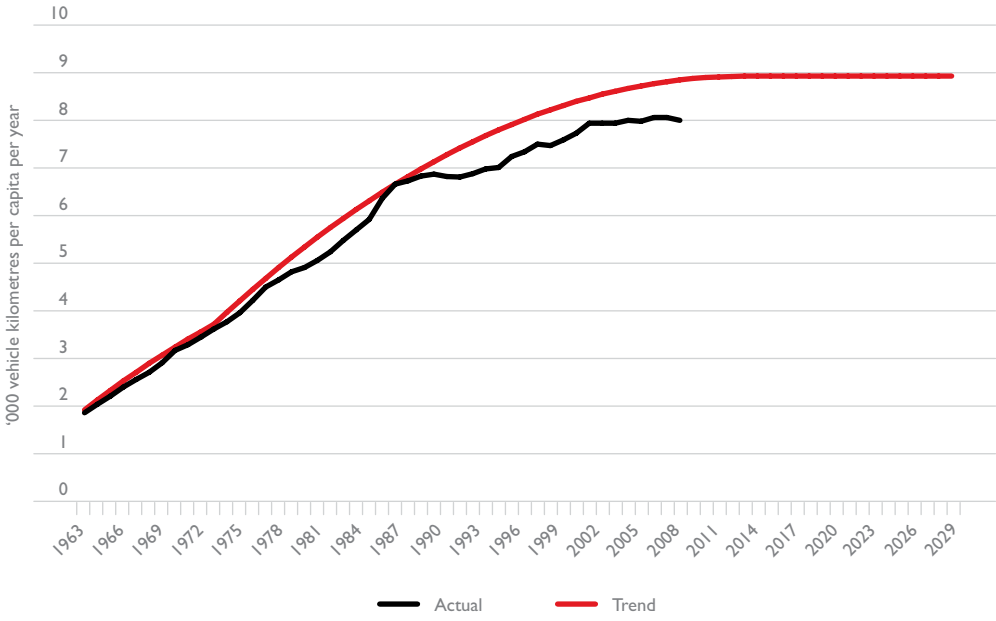


Figure 2.81 Actual/predicted levels of Norwegian traffic per person

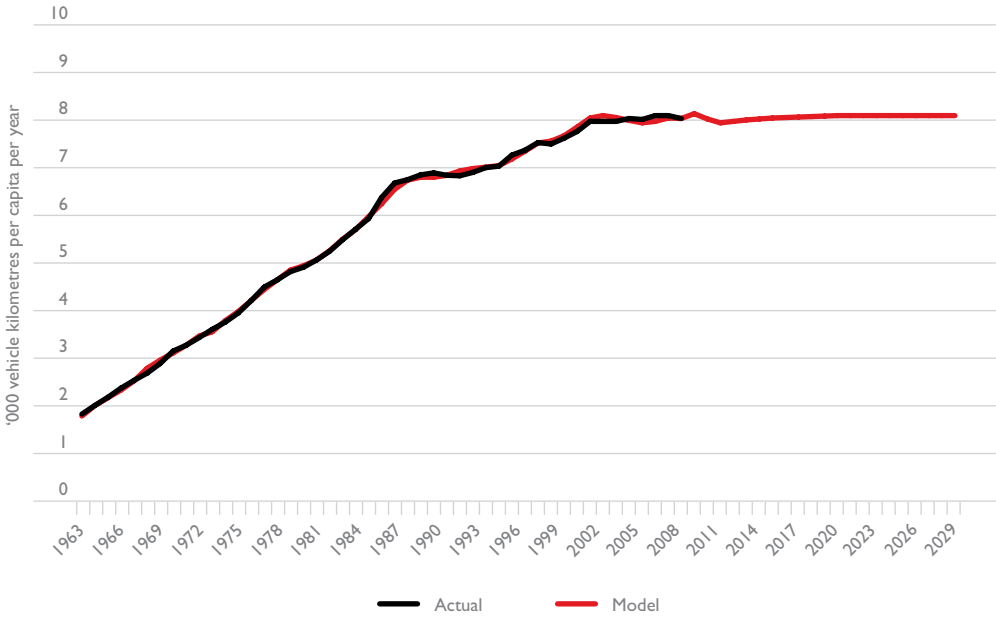


Figure 2.82 Components of predicted levels of Norwegian traffic per person

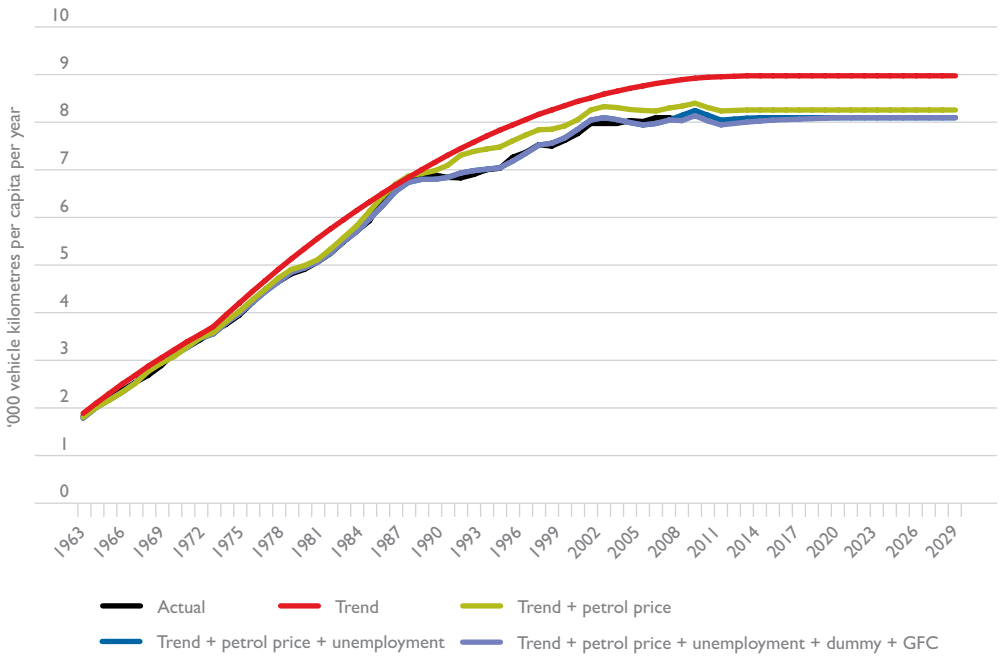
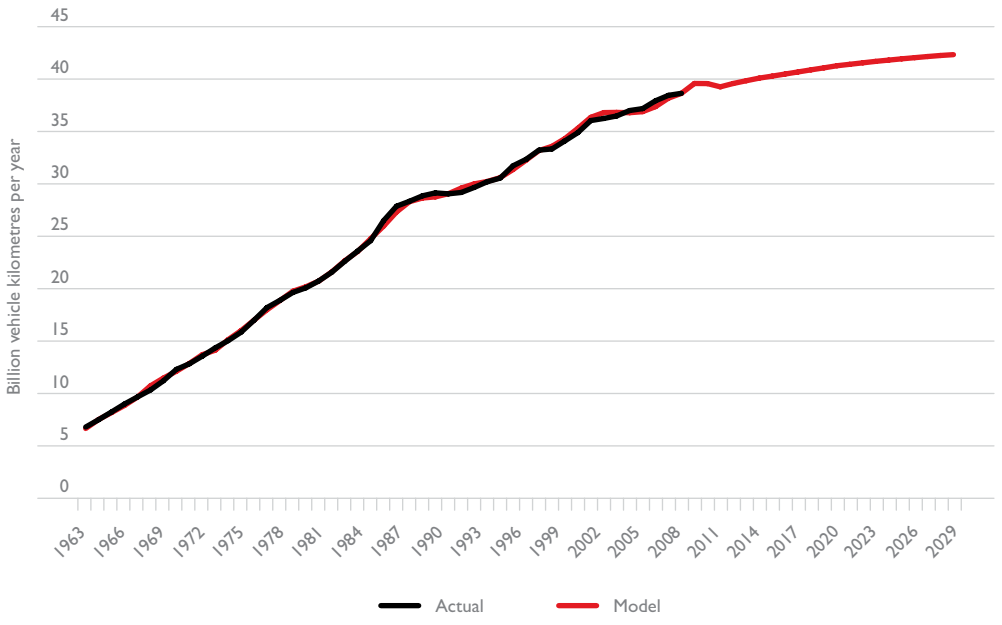


Figure 2.83 Actual/predicted aggregate traffic levels in Norway



2.22 Spain

Figure 2.84 shows the growth of Spanish traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.21, the petrol price, the 5-year average of unemployment, and the GFC are significant

Table 2.21 Regression results for predicting Spanish traffic per person

Regression Statistics	
Multiple R	0.996370925
R Square	0.99275502
Adjusted R Square	0.992048192
Standard Error	0.234223903
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	308.2131558	77.05328895	1404.522676	2.8853E-43
Residual	41	2.249294298	0.054860837		
Total	45	310.4624501			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	1.458810967	0.322514181	4.523245959	5.12072E-05	0.807480372	2.110141563
trend	1.052405266	0.021388742	49.20370208	4.33535E-38	1.009209827	1.095600705
petrol price	-1.366435314	0.237057993	-5.764139396	9.36453E-07	-1.845183638	-0.887686991
5yr unemployment	-0.085855621	0.007575921	-11.33269808	3.2935E-14	-0.101155503	-0.070555739
GFC	-1.171519641	0.511837519	-2.288850657	0.027311389	-2.20519647	-0.137842813

The pattern of traffic per person over time is fairly accurately predicted by the model, as shown in Figure 2.85. Figure 2.86 shows the components of the Spanish prediction/forecast.

Figure 2.87 shows that the modelling also produces a fairly accurate prediction of aggregate national traffic levels over the period.

Figure 2.84 Traffic per person in Spain

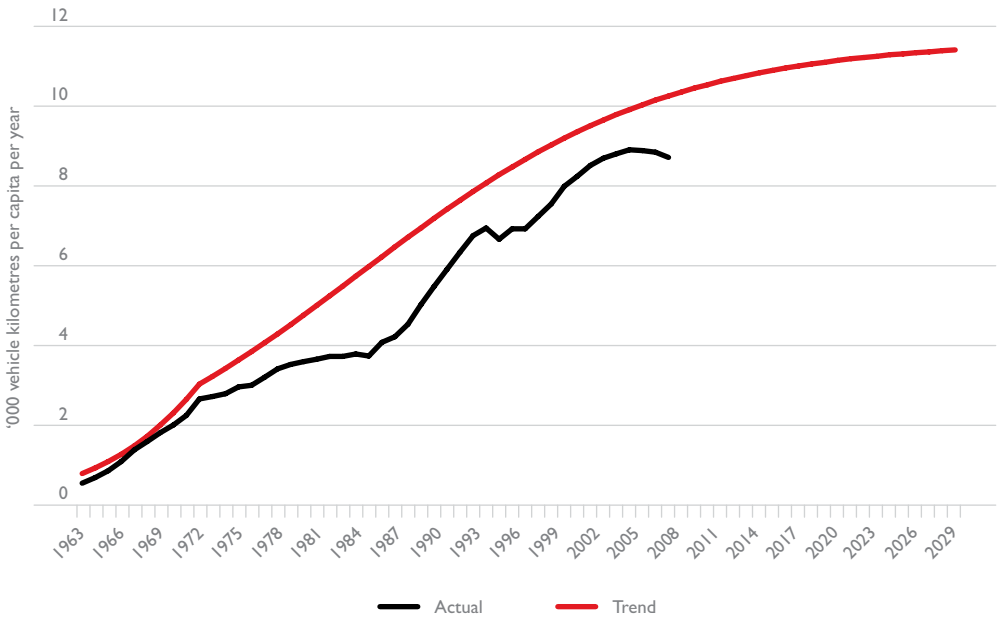


Figure 2.85 Actual/predicted levels of Spanish traffic per person

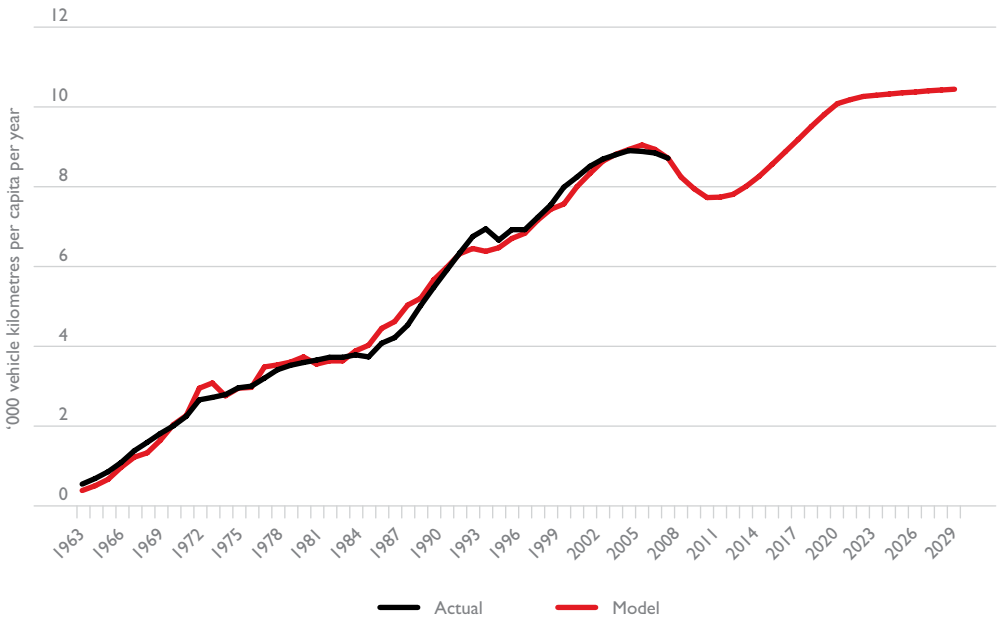


Figure 2.86 Components of predicted levels of Spanish traffic per person

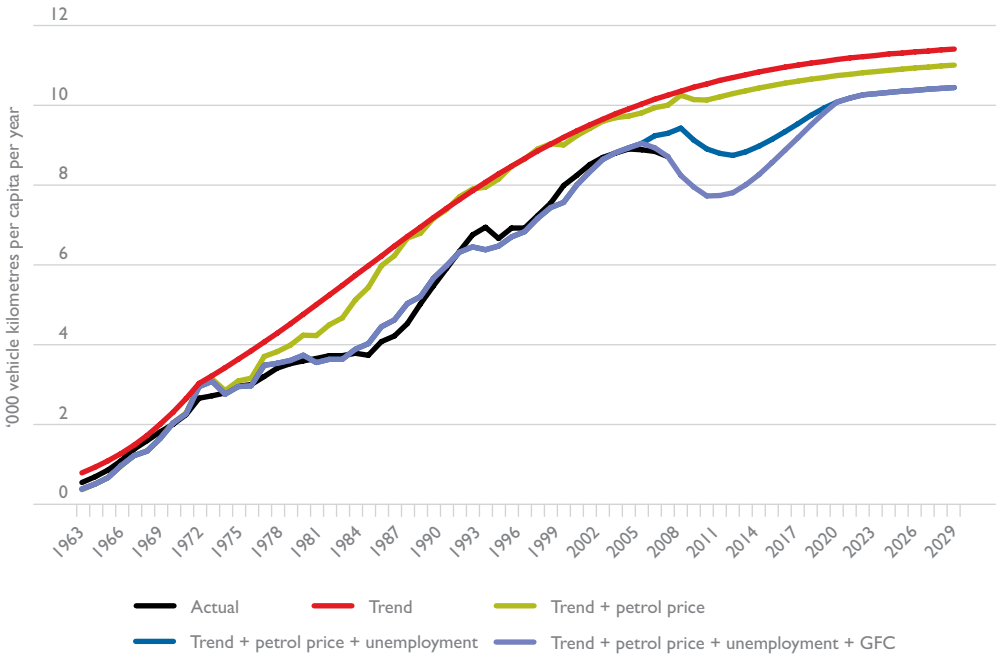
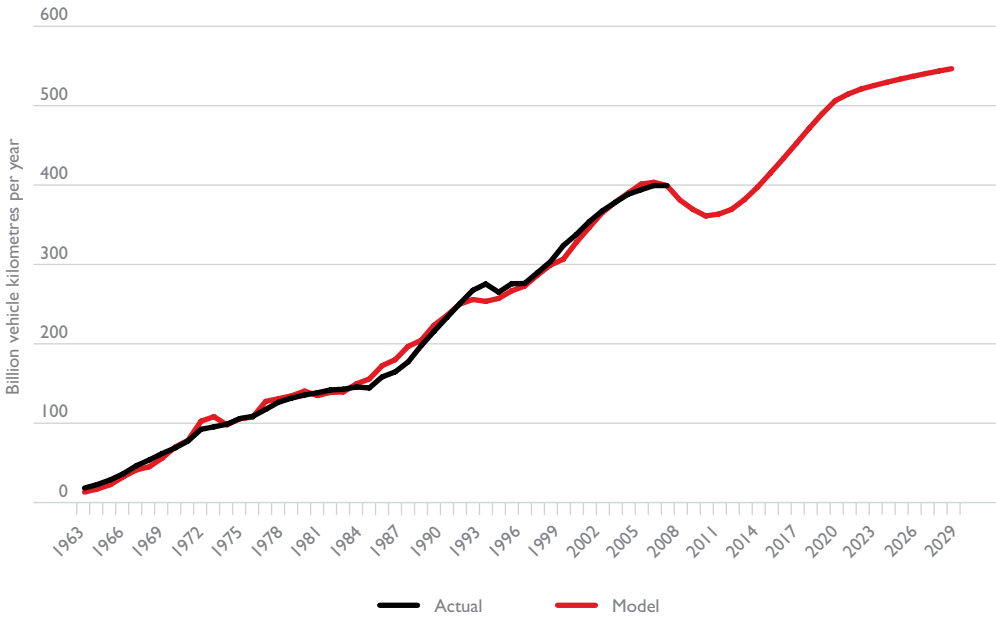


Figure 2.87 Actual/predicted aggregate traffic levels in Spain



2.23 Sweden

Figure 2.88 shows the growth of Swedish traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.22, the results of the model show significant effects for the petrol price (average of lagged plus current) and unemployment (average of lagged plus current).

Table 2.22 Regression results for predicting Swedish traffic per person

Regression Statistics	
Multiple R	0.996565864
R Square	0.993143521
Adjusted R Square	0.992327274
Standard Error	0.136300912
Observations	48

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	113.0206194	22.60412388	1216.718623	2.82577E-44
Residual	42	0.780273421	0.018577939		
Total	47	113.8008928			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	4.162113056	0.209766121	19.84168384	5.94498E-23	3.73878789	4.585438221
time	0.191915456	0.006216894	30.86999242	1.7022E-30	0.179369257	0.204461655
time squared	-0.001157758	0.000159688	-7.250134021	6.39184E-09	-0.001480021	-0.000835495
lag+current oil price	-0.08167089	0.02939495	-2.778398622	0.00813329	-0.1409923	-0.022349479
lag+current unemployment	-0.104217091	0.012999127	-8.017237584	5.29389E-10	-0.130450391	-0.077983791
dum8486	-0.297800061	0.120851445	-2.464182881	0.017908351	-0.541688147	-0.053911975

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.89. Figure 2.90 shows the components of the Swedish prediction/forecast.

Figure 2.91 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.88 Traffic per person in Sweden

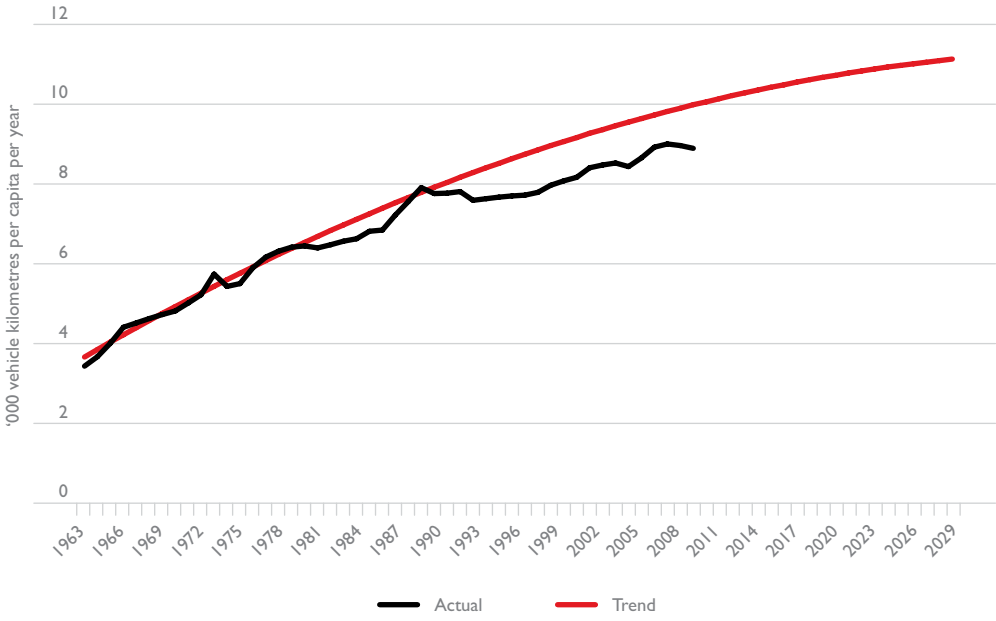


Figure 2.89 Actual/predicted levels of Swedish traffic per person

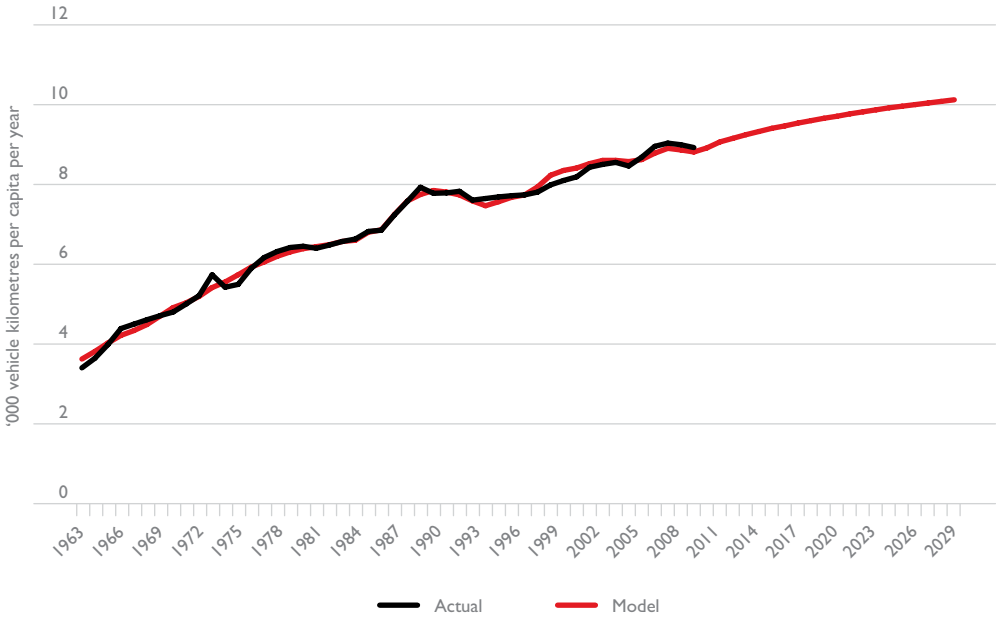


Figure 2.90 Components of predicted levels of Swedish traffic per person

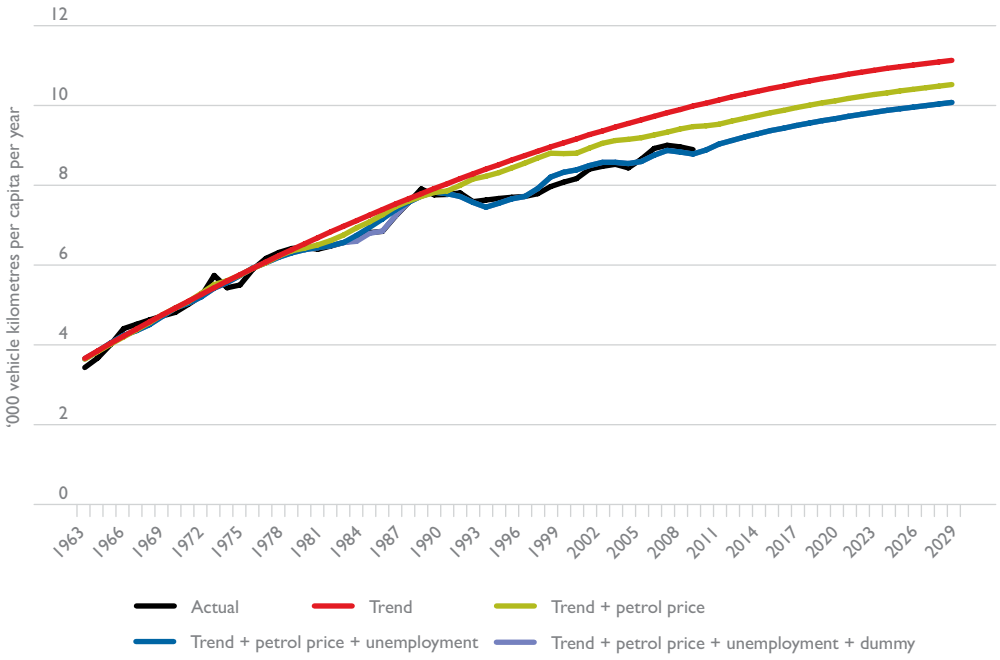
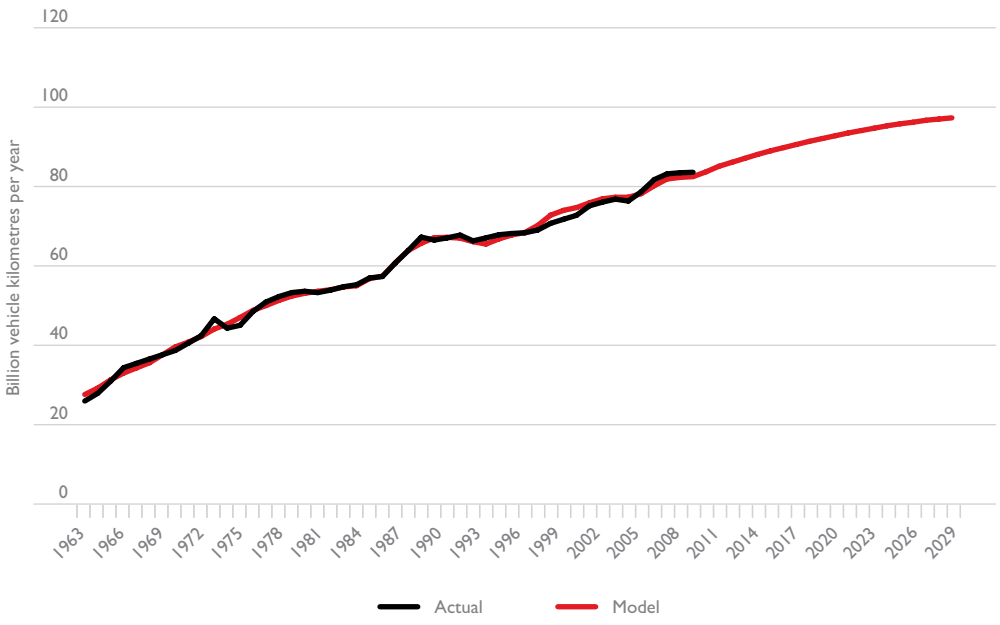


Figure 2.91 Actual/predicted aggregate traffic levels in Sweden



2.24 Switzerland

Figure 2.92 shows the growth of Swiss traffic per person since 1963, and the saturating trend fit to it.

As can be seen from Table 2.23, the results of the model show significant effects for unemployment (average of lagged plus current). The (lagged) petrol price is not significant, but is of the right sign.

Table 2.23 Regression results for predicting Swiss traffic per person

Regression Statistics	
Multiple R	0.99839749
R Square	0.996797548
Adjusted R Square	0.996492553
Standard Error	0.087064581
Observations	47

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	99.09612603	24.77403151	3268.237887	9.04123E-52
Residual	42	0.318370131	0.007580241		
Total	46	99.41449616			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	3.100351037	0.152318001	20.35446251	2.24696E-23	2.79296087	3.407741204
time	0.229734197	0.004896568	46.91739329	6.47864E-38	0.219852523	0.23961587
time squared	-0.002224669	0.00010324	-21.54842476	2.51588E-24	-0.002433016	-0.002016321
lag petrol price	-0.053009094	0.0592163	-0.895177398	0.375794067	-0.172512425	0.066494237
lag+current unemployment	-0.22325039	0.023549062	-9.480224273	5.38689E-12	-0.27077432	-0.175726459

The pattern of traffic *per person* over time is fairly accurately predicted by the model, as shown in Figure 2.93. Figure 2.94 shows the components of the Swiss prediction/forecast.

Figure 2.95 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.92 Traffic per person in Switzerland

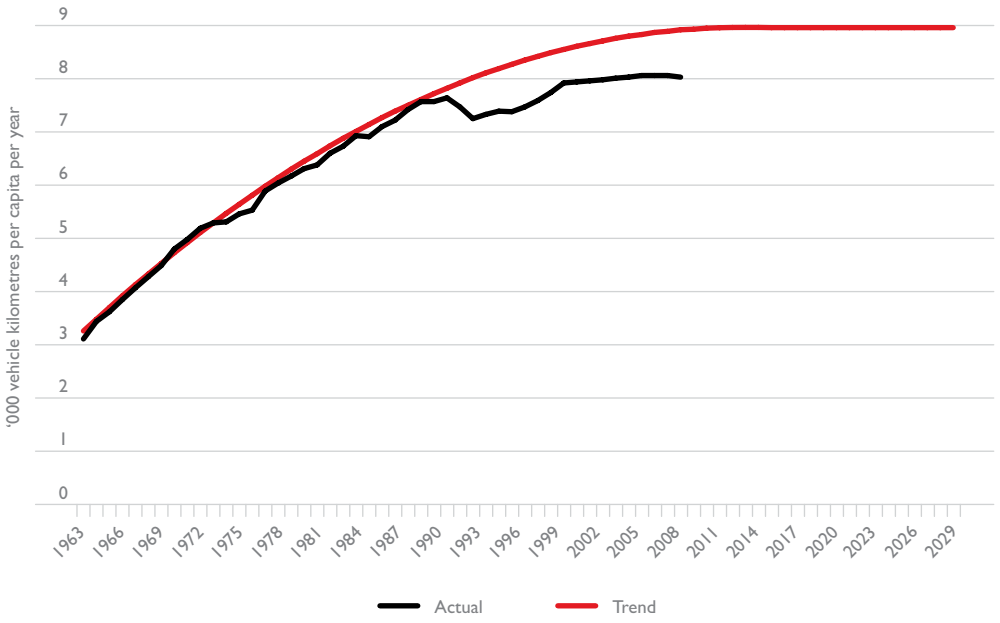


Figure 2.93 Actual/predicted levels of Swiss traffic per person

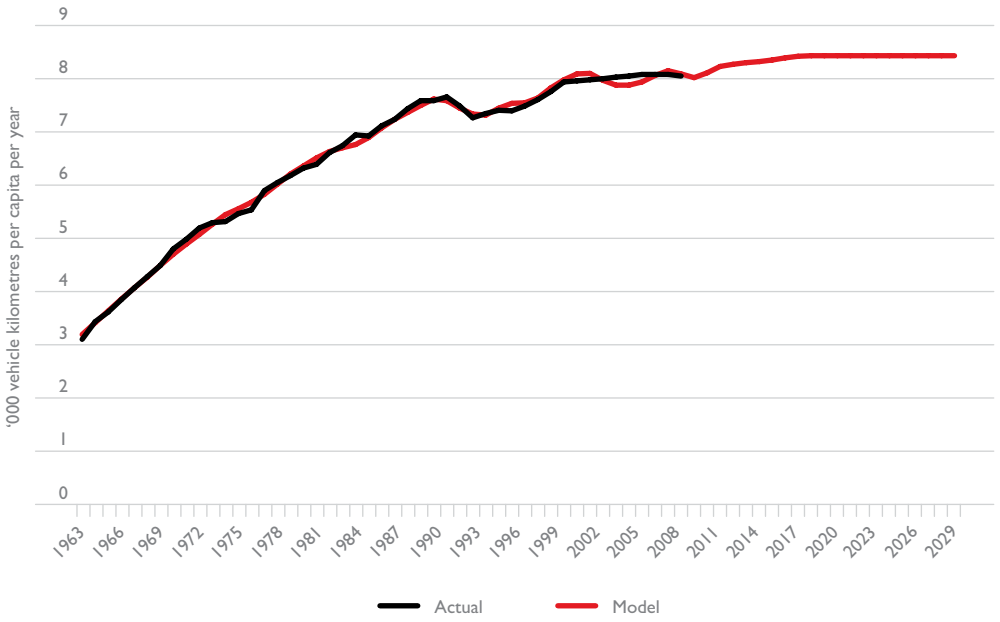


Figure 2.94 Components of predicted levels of Swiss traffic per person

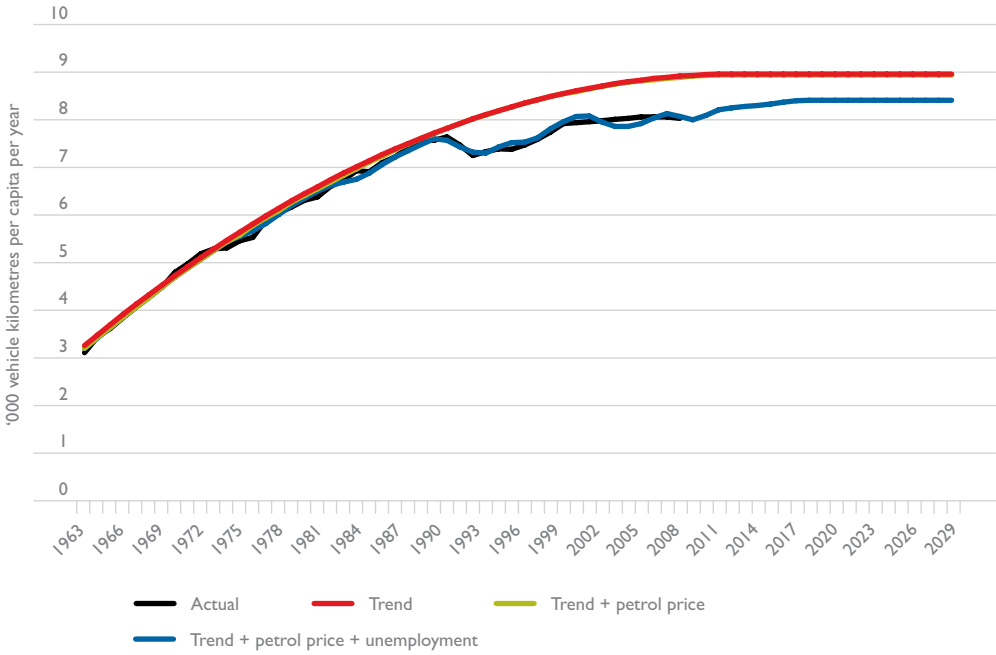
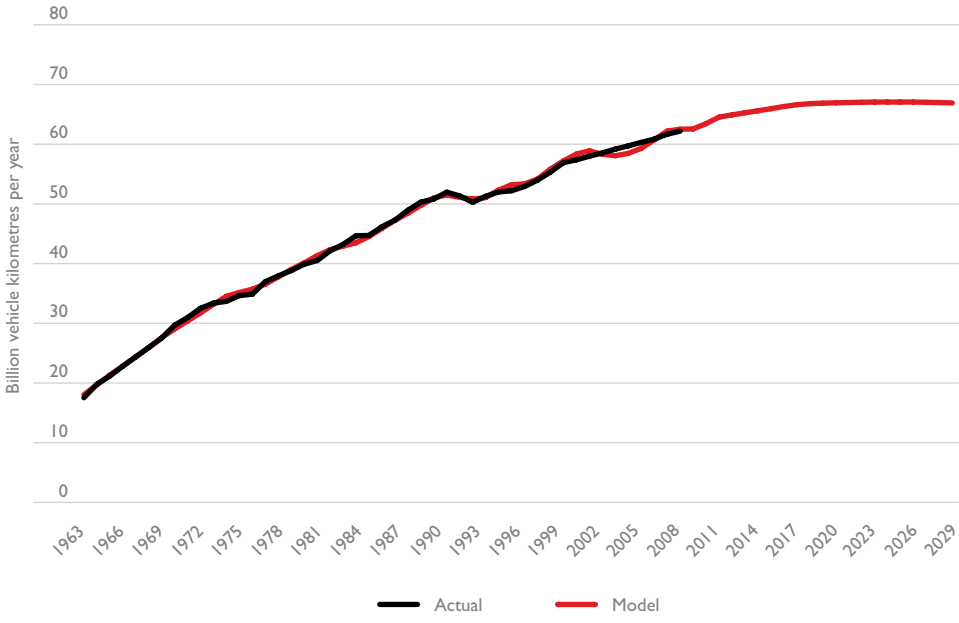


Figure 2.95 Actual/predicted aggregate traffic levels in Switzerland



2.25 Turkey

Figure 2.96 shows the growth of Turkish traffic per person since 1963, and the exponentially growing trend fit to it.

As can be seen from Table 2.24, the petrol price variable is significant. The unemployment variable is not significant, but is of the right sign.

Table 2.24 Regression results for predicting Turkish traffic per person

Regression Statistics	
Multiple R	0.99564707
R Square	0.991313088
Adjusted R Square	0.990278932
Standard Error	0.029311488
Observations	48

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	4.117849076	0.823569815	958.5719092	4.05546E-42
Residual	42	0.036084859	0.000859163		
Total	47	4.153933935			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.131327767	0.039201193	3.350096202	0.001715734	0.052216558	0.210438975
pre77time	0.037702576	0.003490937	10.80013001	1.07258E-13	0.03065758	0.044747573
time	-0.023462312	0.003650465	-6.427212247	9.6431E-08	-0.030829248	-0.016095376
time sq'd	0.000767409	6.04307E-05	12.69899016	5.68075E-16	0.000645455	0.000889363
petrol price	-0.034842606	0.00709605	-4.910141322	1.42446E-05	-0.049163014	-0.020522198
unemployment	-0.002353174	0.003573087	-0.658582673	0.513758141	-0.009563956	0.004857609

The pattern of traffic per person over time is fairly accurately predicted by the model, as shown in Figure 2.97. Figure 2.98 shows the components of the Turkish prediction/forecast.

Figure 2.99 shows that the modelling also produces a fairly accurate prediction of aggregate national traffic levels over the period.

Figure 2.96 Traffic per person in Turkey

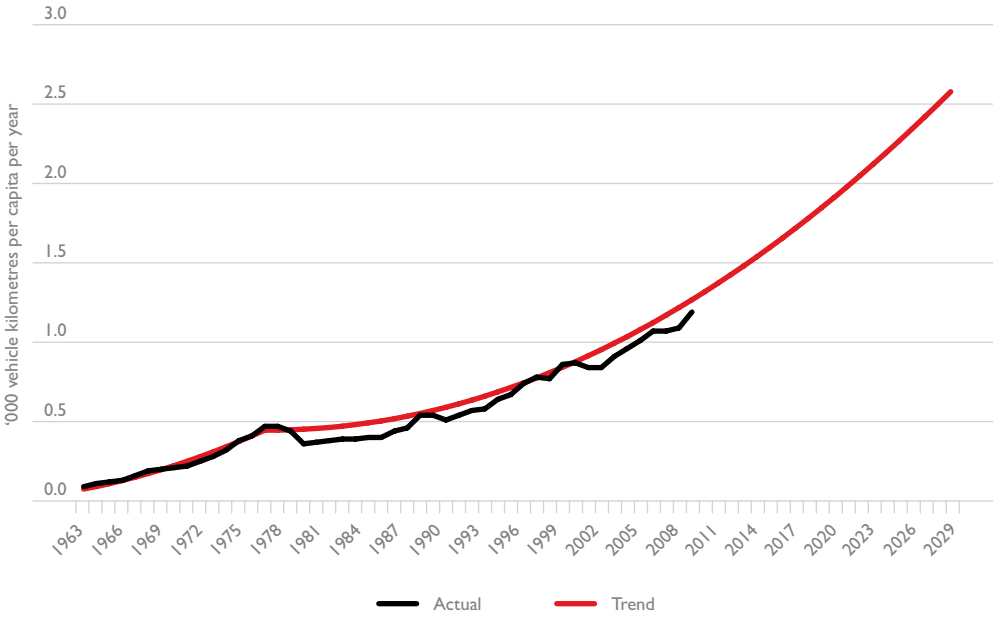


Figure 2.97 Actual/predicted levels of Turkish traffic per person

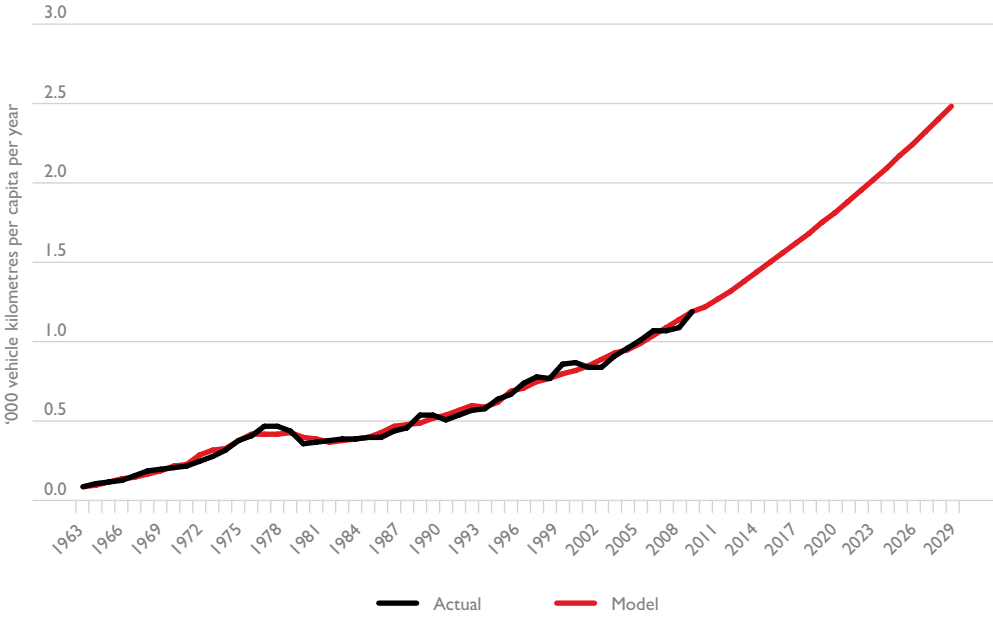


Figure 2.98 Components of predicted levels of Turkish traffic per person

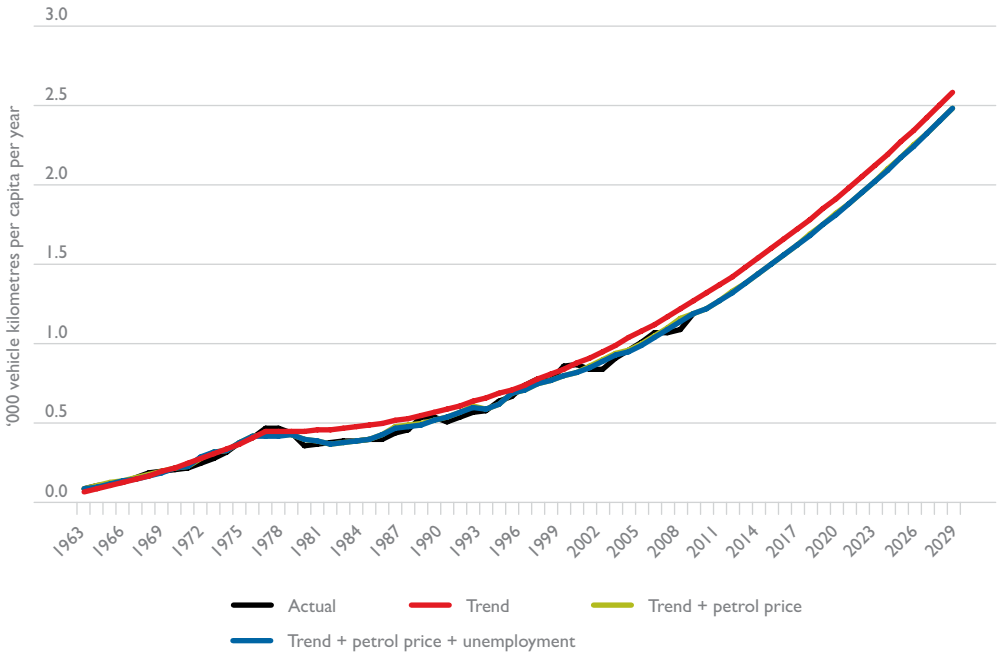
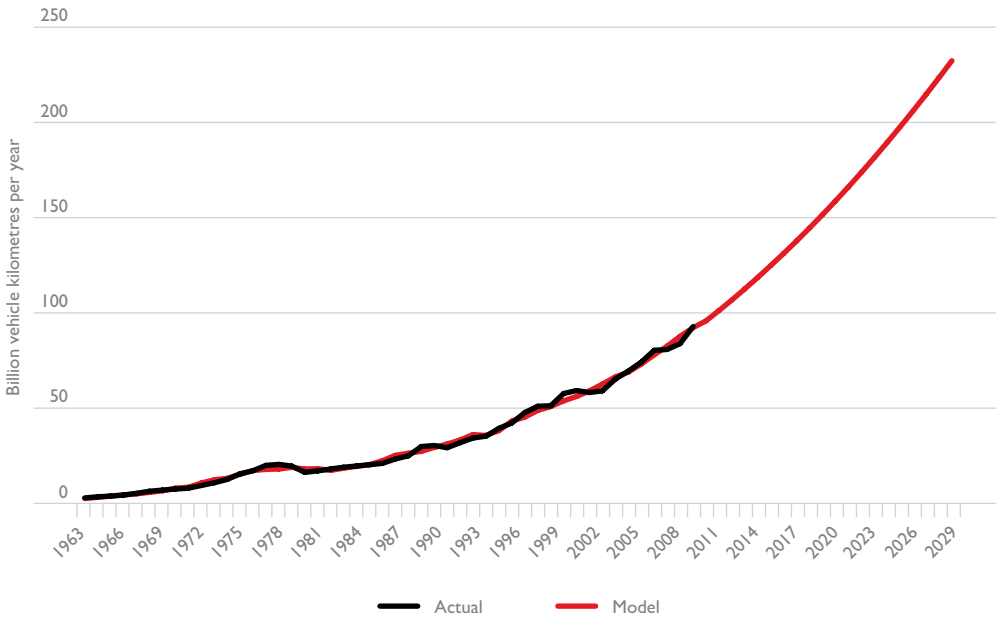


Figure 2.99 Actual/predicted aggregate traffic levels in Turkey



2.26 The United States

Figure 2.100 shows the growth of American traffic per person since 1921, and the logistic model fit to it. For this regression, pre-war unemployment has been divided by 3 to allow for the less-than-universal car ownership. The dependent variable for this equation is ln(vktpp/(18.5-vktpp)).

As can be seen from Table 2.25, the results of the model shows significant effects for the petrol price and unemployment (average of current plus next).

Unemployment lags economic activity by 6 months, but even so, Americans seem to react more swiftly than others to changes in economic outlook.

Like the Australian long-term data, the American S-curve shows the effects of the depression and the war.

As well, there are differing segments to the S-curve trend, e.g. a period of substitution of cars for horses and urban public transport in the 1920's, the depression, war and post-war period, and a final phase from the 1970s on.

Table 2.25 Regression results for predicting American traffic per person from 1921

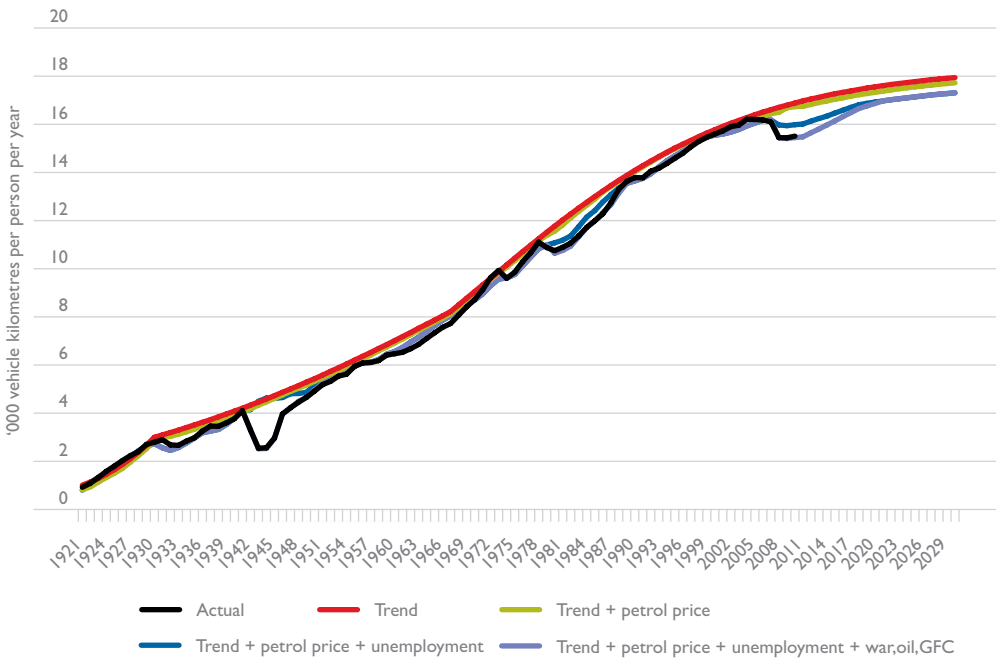
Regression Statistics	
Multiple R	0.999566996
R Square	0.999134179
Adjusted R Square	0.999048666
Standard Error	0.041625771
Observations	90

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	8	161.9590506	20.24488132	11683.97605	1.179E-120
Residual	81	0.140349088	0.001732705		
Total	89	162.0993996			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-2.909124547	0.049240139	-59.08034754	2.26189E-68	-3.007096977	-2.811152117
timepre30	0.0996193	0.003677965	27.08543966	2.33595E-42	0.092301303	0.106937296
timepre67	-0.021901869	0.000847647	-25.83844026	7.18669E-41	-0.02358842	-0.020215318
time	0.060671651	0.000486894	124.6096034	2.5699E-94	0.059702885	0.061640417
petrol price	-0.001449892	0.000537251	-2.698725467	0.00846919	-0.002518852	-0.000380932
current+next unemployment	-0.029775046	0.00319164	-9.329073488	1.77737E-14	-0.036125408	-0.023424683
GFC	-0.452771265	0.032016502	-14.14180932	1.37949E-23	-0.51647406	-0.38906847
oilshock	-0.073025604	0.020259646	-3.604485628	0.000538715	-0.113335945	-0.032715264
war	-0.36463106	0.014308613	-25.48332706	1.95283E-40	-0.393100711	-0.33616141

Figure 2.100 Components of predicted levels of American traffic per person



Another regression was run for the years since 1963, this time using the logistic S-trend as a variable. The results are shown in Table 2.26.

Table 2.26 Regression results for predicting American traffic per person from 1963

Regression Statistics	
Multiple R	0.997452686
R Square	0.994911861
Adjusted R Square	0.994438546
Standard Error	0.225738769
Observations	48

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	428.4561603	107.1140401	2102.0067	1.09922E-48
Residual	43	2.191193645	0.050957992		
Total	47	430.6473539			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.438747231	0.241718177	1.815118897	0.076484381	-0.048723925	0.926218388
S-trend	1.020462415	0.011912291	85.66466725	1.09254E-49	0.996438992	1.044485838
petrol price	-0.009600072	0.003005297	-3.194383626	0.00262371	-0.015660831	-0.003539313
current+next unemployment	-0.114956742	0.027596766	-4.165587386	0.000146777	-0.170610924	-0.059302559
GFC	-0.480255893	0.186985067	-2.568418431	0.013772224	-0.857347215	-0.103164571

Significant effects are shown for the petrol price and unemployment (average of current plus next), and the GFC.

Compared to the logistic regression, the petrol price shows more influence in the period since 1963, and unemployment less.

Figure 2.101 shows that the fit of the model to the per capita traffic data is good.

Figure 2.102 shows the components of the American prediction/forecast.

Figure 2.103 shows that the modelling also produces a fairly accurate prediction of *aggregate* national traffic levels over the period.

Figure 2.101 Actual/predicted levels of American traffic per person

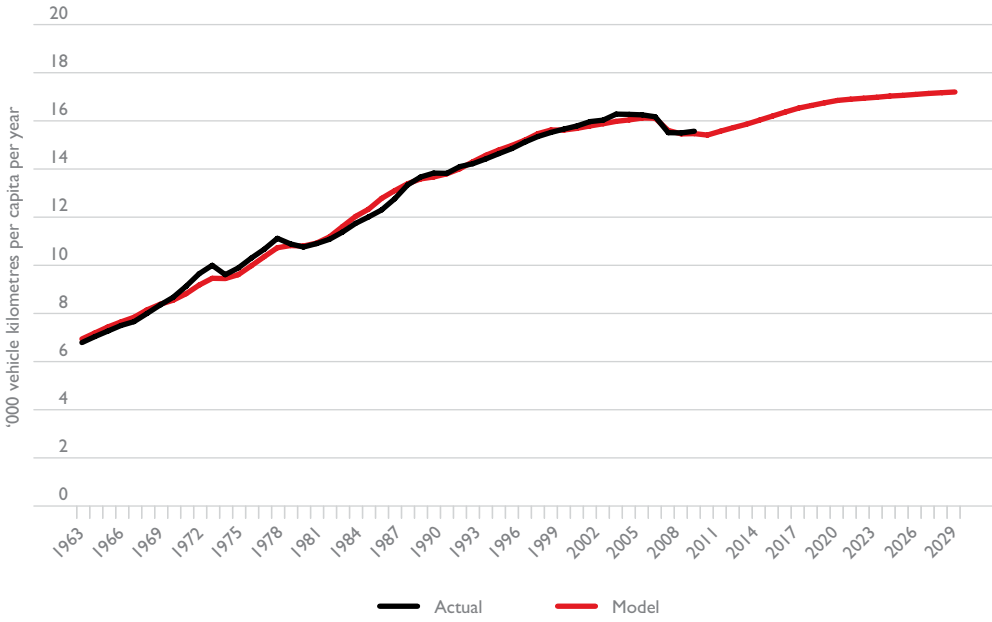


Figure 2.102 Components of predicted levels of American traffic per person

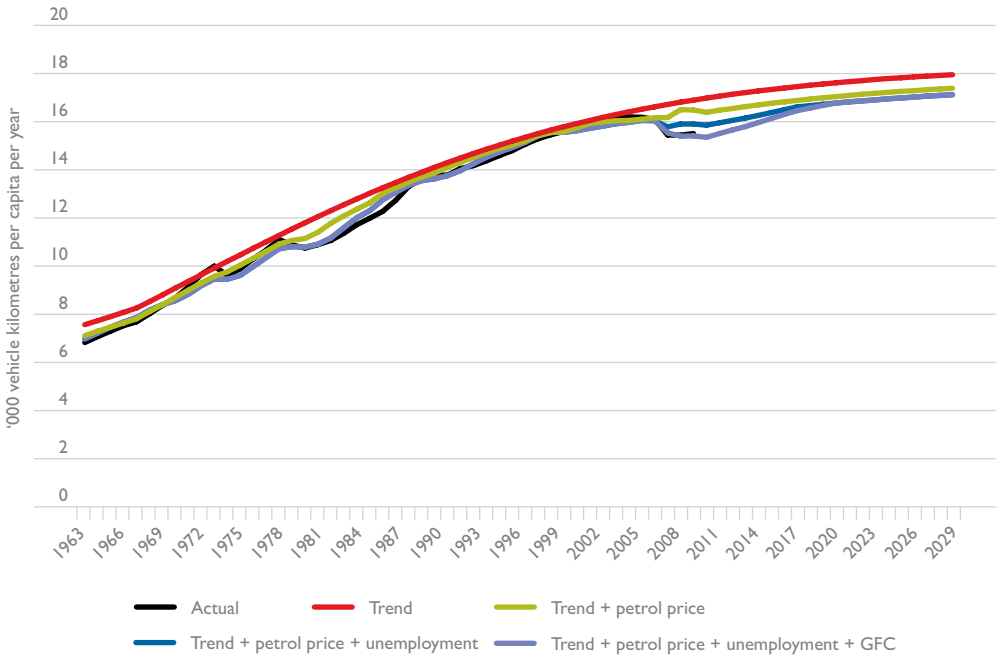
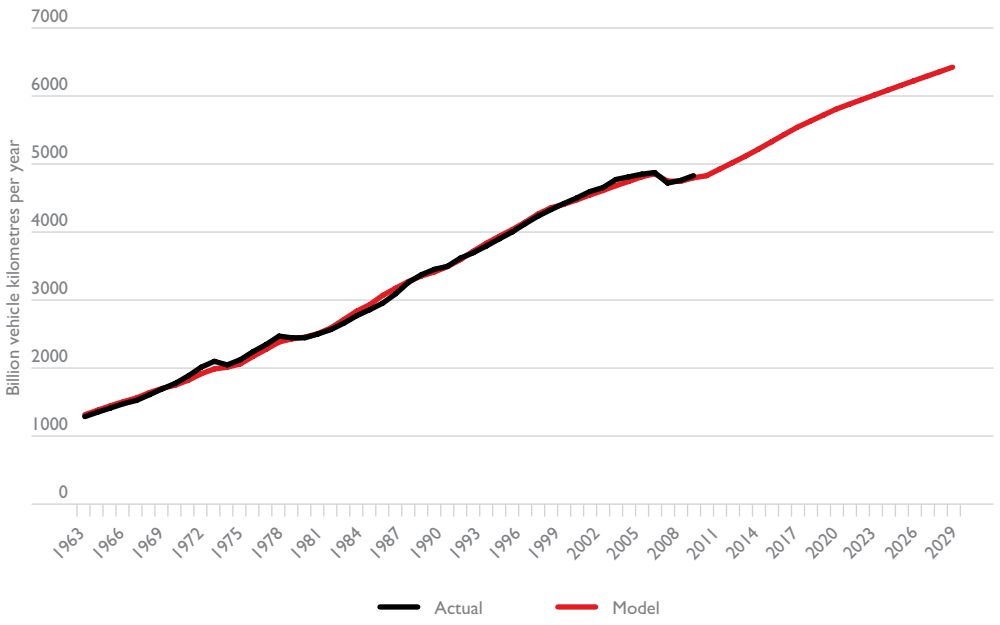


Figure 2.103 Actual/predicted aggregate traffic levels in the United States



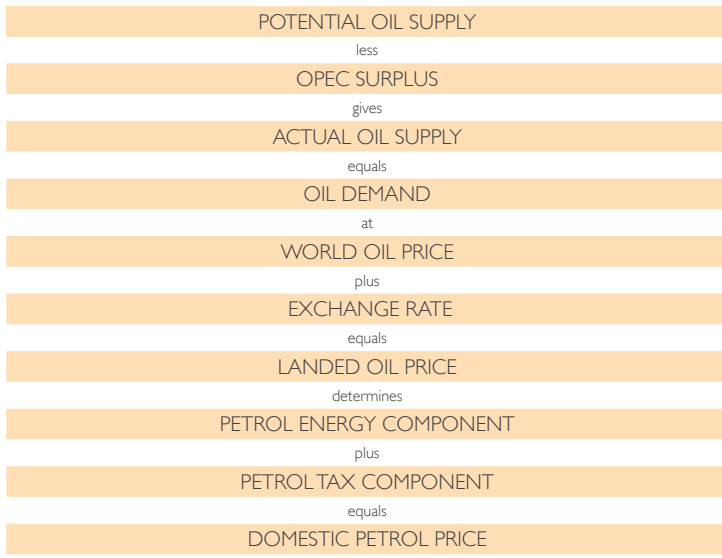
Chapter 3
Petrol Prices

In Australia, as in other countries around the world, one of the important influences on traffic growth has been fluctuations in petrol prices. So an understanding and modelling of how individual countries' petrol prices are set is important in understanding the outlook for traffic growth given different scenarios about world oil prices. This chapter presents such models for the 25 countries in Chapter 2.

3.1 The Fuel Price Chain

The basic mechanism of the fuel price chain is depicted in Figure 1. Potential supply is a measure of the long-run, business-as-usual level of possible world oil supply, balancing the depletion of older fields by new field development and non-conventional sources of total liquids (where total liquids equals the sum of conventional crude oil, non-conventional crude, and other liquids fuel sources). Actual supply (equal to actual demand) is determined by the interaction of OPEC surplus decisions and the oil price. Once the world oil price is set, putting the price through the domestic exchange rate gives a landed oil price. This determines the energy component of domestic petrol prices. Then adding wholesale/retail margins, excise tax and goods and services tax, results in the retail petrol price (price at the pump). The following sections of the paper examine each of these steps, starting with the world oil price mechanism.

Figure 3.1 The Fuel Price Chain



3.2 World Oil Supply, Demand and Price

The potential world oil supply is equivalent to the long-run supply forecasts generated by various agents, for example the International Energy Agency (IEA 2011). Actual supply in the short-run (equal to demand) is determined by the additional interaction of levels of OPEC surplus with the price of oil. Figure 2 shows the close relationship between changes in the 3-year average of the ratio of world oil demand to world GDP, and the real oil price expressed in real Special Drawing Rights (SDRs) per barrel of oil (West Texas Intermediate (WTI) to 1998 and the OPEC reference basket thereafter).

Figure 3.2 World oil demand/price relationship

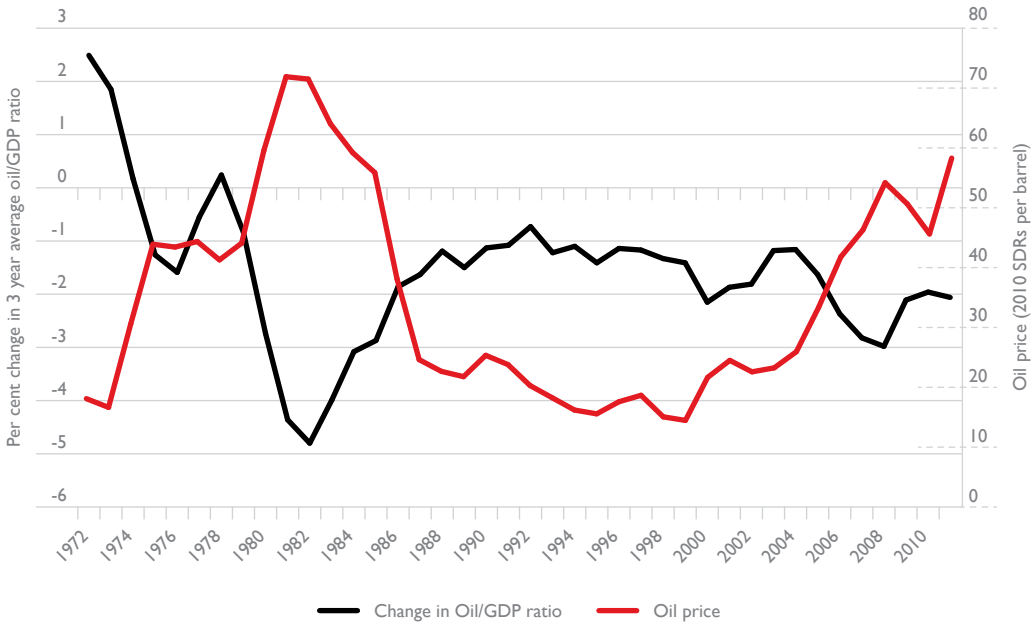


Table 1 shows a regression on the change in world oil/GDP ratio, using the log of the real SDR oil price, an 'echo' variable (last year's change less that of 3 years ago) and dummies.

Table 3.1 Change in 3-year average oil/GDP ratio as a function of the real SDR oil price

Regression Statistics	
Multiple R	0.97029858
R Square	0.941479335
Adjusted R Square	0.932873355
Standard Error	0.355611463
Observations	40

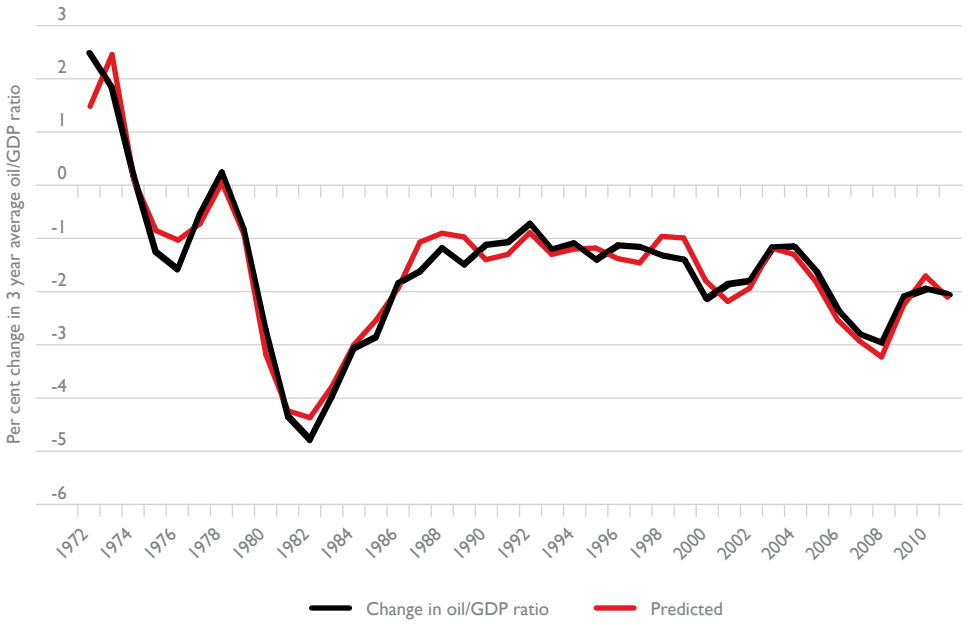
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	69.17225943	13.83445189	109.3982699	5.9618E-20
Residual	34	4.299623428	0.126459513		
Total	39	73.47188286			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	4.93421735	0.703448924	7.014322118	4.28625E-08	3.504637143	6.363797556
log oil price	-1.977918892	0.193608487	-10.21607535	6.72848E-12	-2.371378674	-1.584459109
echo	0.258139587	0.051976739	4.966444417	1.89861E-05	0.152510144	0.363769029
dumles80	2.27219524	0.163116088	13.92992726	1.30268E-15	1.940703468	2.603687012
dum9302	-0.609694402	0.198930905	-3.064855113	0.004245865	-1.01397064	-0.205418165
dum09on	0.703656755	0.233745152	3.010358717	0.00489237	0.228629456	1.178684053

The fit of the prediction from the equation to the actual ratio changes is shown in Figure 3.3.

Figure 3.3 Actual and predicted annual percentage change in the world oil/GDP ratio



Using the equation in Table 1 and world GDP forecasts, a price of oil can be predicted that will balance demand and actual supply (potential supply less OPEC surplus).

In order to do sensitivity analyses of the effect of petrol prices on traffic growth for Chapter 4, it is necessary to generate scenarios for world oil supply to 2030 and the corresponding oil price scenarios.

Figure 3.4 shows three different scenarios for potential world oil supply (defined as total liquids) to 2030.

The highest supply scenario comes from a peak oil optimist (Odell 2003). The IEA scenario has already been mentioned. The 'IEA adjusted' potential supply scenario corrects what some believe are optimistic IEA assumptions regarding supply in the next two decades from non-conventional sources and from fields discovered and developed in that time (Aleklett 2009 – IEA non-conventional growth has been reduced to 75 per cent of what was forecast and discovery/development growth to 50 per cent).

Figure 3.4 World oil supply scenarios

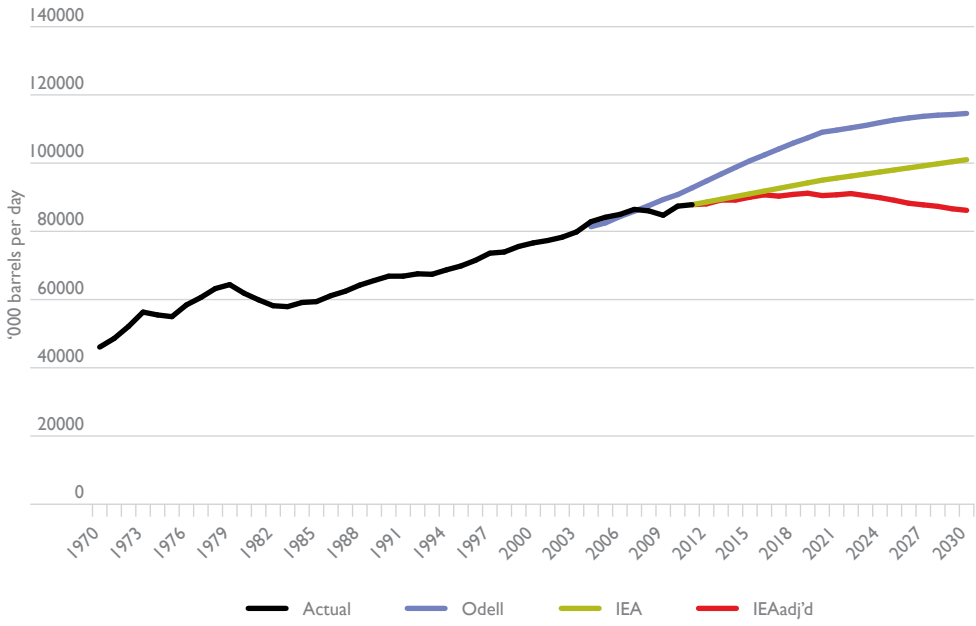
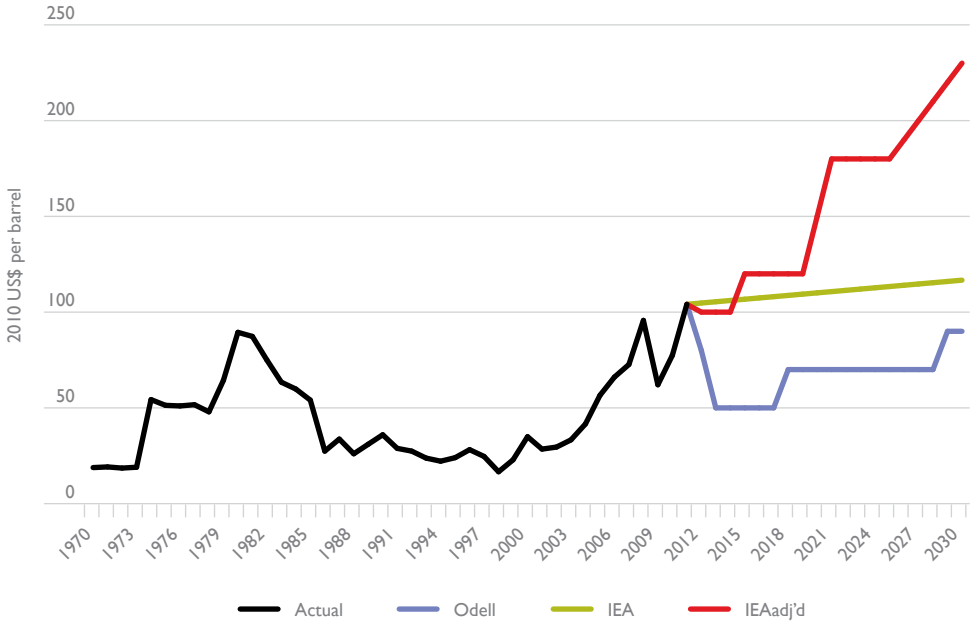


Figure 3.5 World oil price scenarios



Tables 3.2 to 3.4 show the calculations behind the world oil price-setting mechanism for the three scenarios. Figure 3.5 shows the world oil prices derived in the tables from the three supply scenarios.

Table 3.2 World oil supply/demand/price framework, Odell scenario for potential supply

		OPEC											2010US$		2010SDRs
	000 barrel per day	spare	target		3yrmovav		B 2000 US$	3yrmovav		oilgdp		pred	real oil		real oil
	poten prod	capacity	production	dem=prod	oil	%GDP ch	GDP	GDP	Oil-to-GDP	pred	%change	%change	price US$	SDRs/US$	price SDR
1975	62591	7600	54991	54991	55603	1.65	14310	14072	3.95	3.97	-1.26	-0.87	51.33	1.212	42.35
1976	62727	4300	58427	58427	56303	5.15	15048	14479	3.89	3.91	-1.59	-1.05	51.02	1.154	44.21
1977	65404	4800	60604	60604	58007	3.95	15641	15000	3.87	3.86	-0.55	-0.74	51.66	1.169	44.19
1978	69721	6500	63221	63221	60750	4.37	16325	15671	3.88	3.87	0.24	0.04	47.93	1.258	38.10
1979	68381	4000	64381	64381	62735	4.10	16994	16320	3.84	3.84	-0.84	-0.94	64.39	1.294	49.76
1980	67541	5700	61841	61841	63148	2.10	17351	16890	3.74	3.72	-2.74	-3.22	89.45	1.299	68.86
1981	67111	7200	59911	59911	62044	2.06	17709	17351	3.58	3.58	-4.36	-4.28	87.32	1.176	74.25
1982	67493	9300	58193	58193	59981	0.52	17800	17620	3.40	3.42	-4.80	-4.41	75.00	1.102	68.06
1983	67720	9800	57920	57920	58675	3.09	18350	17953	3.27	3.27	-3.99	-3.82	63.40	1.067	59.42
1984	68345	9200	59145	59145	58420	4.52	19180	18443	3.17	3.17	-3.08	-3.03	59.84	1.023	58.50
1985	69691	10300	59391	59391	58819	3.36	19823	19118	3.08	3.09	-2.87	-2.57	54.05	1.024	52.79
1986	69547	8400	61147	61147	59894	3.45	20508	19837	3.02	3.02	-1.86	-1.97	27.42	1.179	23.25
1987	70439	8000	62439	62439	60992	3.74	21275	20535	2.97	2.99	-1.63	-1.09	33.72	1.301	25.92
1988	70438	6200	64238	64238	62608	4.44	22218	21334	2.93	2.94	-1.19	-0.92	26.03	1.343	19.39
1989	70988	5400	65588	65588	64088	3.62	23022	22172	2.89	2.91	-1.50	-0.99	31.02	1.284	24.16
1990	70055	3200	66855	66855	65560	2.43	23582	22941	2.86	2.85	-1.13	-1.42	35.97	1.359	26.47
1991	68164	1300	66864	66864	66436	1.34	23898	23501	2.83	2.82	-1.08	-1.32	28.86	1.368	21.10
1992	69447	1900	67547	67547	67089	1.41	24236	23905	2.81	2.80	-0.73	-0.91	27.43	1.408	19.48
1993	70308	2900	67408	67408	67273	1.76	24663	24266	2.77	2.77	-1.22	-1.32	23.77	1.396	17.03
1994	71805	3100	68705	68705	67886	2.89	25377	24759	2.74	2.74	-1.10	-1.22	22.17	1.437	15.43
1995	72941	3100	69841	69841	68651	3.02	26144	25395	2.70	2.71	-1.41	-1.20	24.00	1.522	15.77
1996	74389	2900	71489	71489	70012	3.55	27072	26197	2.67	2.67	-1.14	-1.40	28.18	1.451	19.42
1997	76798	3200	73598	73598	71643	4.01	28158	27125	2.64	2.63	-1.17	-1.48	24.63	1.373	17.94
1998	77339	3400	73939	73939	73008	2.32	28812	28014	2.61	2.62	-1.33	-0.98	16.64	1.358	12.26
1999	80573	5000	75573	75573	74370	3.65	29864	28945	2.57	2.58	-1.41	-1.01	22.88	1.365	16.76
2000	79805	3200	76605	76605	75372	4.70	31267	29981	2.51	2.52	-2.15	-1.82	34.96	1.317	26.54
2001	81504	4200	77304	77304	76494	2.01	31894	31008	2.47	2.46	-1.87	-2.21	28.48	1.271	22.41
2002	84068	5800	78268	78268	77392	2.50	32692	31951	2.42	2.42	-1.81	-1.96	29.54	1.299	22.74

(Continued)

Table 3.2 World oil supply/demand/price framework, Odell scenario for potential supply (continued)

		OPEC											2010US$		2010SDRs
	000 barrel per day	spare	target		3yrmovav		B 2000 US$	3yrmovav		oilgdp		pred	real oil		real oil
	poten prod	capacity	production	dem=prod	oil	%GDP ch	GDP	GDP	Oil-to-GDP	pred	%change	%change	price US$	SDRs/US$	price SDR
2003	81823	2000	79823	79823	78465	3.25	33756	32781	2.39	2.39	-1.18	-1.20	33.30	1.404	23.72
2004	84127	1300	82827	82827	80306	4.81	35380	33943	2.37	2.36	-1.16	-1.32	41.62	1.481	28.10
2005	85226	1100	84126	84126	82259	4.30	36900	35345	2.33	2.32	-1.63	-1.83	56.56	1.473	38.40
2006	86458	1500	84958	84958	83970	4.58	38590	36956	2.27	2.27	-2.37	-2.56	66.09	1.473	44.87
2007	88528	2100	86428	86428	85171	4.26	40232	38574	2.21	2.20	-2.82	-2.96	72.66	1.534	47.37
2008	89299	3300	85999	85999	85795	2.74	41334	40052	2.14	2.14	-2.98	-3.26	95.69	1.58	60.56
2009	91414	6700	84714	84714	85714	-0.66	41059	40875	2.10	2.09	-2.11	-2.28	62.07	1.54	40.30
2010	94282	6900	87382	87382	86032	5.10	43153	41849	2.06	2.06	-1.96	-1.73	77.45	1.53	50.62
2011	93610	5800	87810	87810	86635	3.99	44877	43030	2.01	2.01	-2.06	-2.13	104.09	1.59	65.47
2012	93901	10000	83901	89198	88130	3.60	46493	44841	1.97	1.97	-2.38	-2.38	80	1.58	50.63
2013	95094	10000	85094	92237	89748	3.60	48167	46512	1.93	1.93	-1.82	-1.82	50	1.58	31.65
2014	95087	10000	85087	94241	91892	3.49	49848	48169	1.91	1.91	-1.13	-1.13	50	1.58	31.65
2015	95981	10000	85981	96427	94302	3.49	51587	49867	1.89	1.89	-0.87	-0.87	50	1.58	31.65
2016	96722	10000	86722	99329	96666	3.49	53387	51607	1.87	1.87	-0.95	-0.95	50	1.58	31.65
2017	96315	10000	86315	100917	98891	3.49	55250	53408	1.85	1.85	-1.15	-1.15	50	1.58	31.65
2018	96863	10000	86863	101785	100677	3.49	57179	55272	1.82	1.82	-1.63	-1.63	70	1.58	44.30
2019	97220	10000	87220	103508	102070	3.49	59174	57201	1.78	1.78	-2.04	-2.04	70	1.58	44.30
2020	96493	10000	86493	104981	103424	3.49	61239	59197	1.75	1.75	-2.09	-2.09	70	1.58	44.30
2021	96730	10000	86730	106266	104918	3.50	63382	61265	1.71	1.71	-1.98	-1.98	70	1.58	44.30
2022	97114	9000	88114	108499	106582	3.50	65601	63407	1.68	1.68	-1.85	-1.85	70	1.58	44.30
2023	96480	8000	88480	110222	108329	3.50	67897	65627	1.65	1.65	-1.80	-1.80	70	1.58	44.30
2024	95835	7000	88835	111540	110087	3.50	70273	67924	1.62	1.62	-1.81	-1.81	70	1.58	44.30
2025	95020	6000	89020	113728	111830	3.50	72733	70301	1.59	1.59	-1.85	-1.85	70	1.58	44.30
2026	94085	5000	89085	115455	113574	3.50	75278	72761	1.56	1.56	-1.87	-1.87	70	1.58	44.30
2027	93597	4000	89597	116849	115344	3.50	77913	75308	1.53	1.53	-1.88	-1.88	70	1.58	44.30
2028	93124	3000	90124	119153	117152	3.50	80640	77944	1.50	1.50	-1.87	-1.87	70	1.58	44.30
2029	92358	2000	90358	120035	118679	3.50	83462	80672	1.47	1.47	-2.12	-2.12	90	1.58	56.96
2030	91886	1000	90886	120388	119859	3.50	86384	83495	1.44	1.44	-2.42	-2.42	90	1.58	56.96

Table 3.3 World oil supply/demand/price framework, IEA scenario for potential supply

	OPEC												2010US$		2010SDRs
	potential	spare	target		3yr aver		B 2000 US$	3yrmovav		oilgdp		pred	real oil		real oil
	production	capacity	production	Demand	Demand	%GDP ch	GDP	GDP	Oil-to-GDP	pred	%change	%change	price US$	SDRs/US$	price SDR
1975	62591	7600	54991	54991	55603	1.65	14310	14072	3.95	3.97	-1.26	-0.87	51.33	1.212	42.35
1976	62727	4300	58427	58427	56303	5.15	15048	14479	3.89	3.91	-1.59	-1.05	51.02	1.154	44.21
1977	65404	4800	60604	60604	58007	3.95	15641	15000	3.87	3.86	-0.55	-0.74	51.66	1.169	44.19
1978	69721	6500	63221	63221	60750	4.37	16325	15671	3.88	3.87	0.24	0.04	47.93	1.258	38.10
1979	68381	4000	64381	64381	62735	4.10	16994	16320	3.84	3.84	-0.84	-0.94	64.39	1.294	49.76
1980	67541	5700	61841	61841	63148	2.10	17351	16890	3.74	3.72	-2.74	-3.22	89.45	1.299	68.86
1981	67111	7200	59911	59911	62044	2.06	17709	17351	3.58	3.58	-4.36	-4.28	87.32	1.176	74.25
1982	67493	9300	58193	58193	59981	0.52	17800	17620	3.40	3.42	-4.80	-4.41	75.00	1.102	68.06
1983	67720	9800	57920	57920	58675	3.09	18350	17953	3.27	3.27	-3.99	-3.82	63.40	1.067	59.42
1984	68345	9200	59145	59145	58420	4.52	19180	18443	3.17	3.17	-3.08	-3.03	59.84	1.023	58.50
1985	69691	10300	59391	59391	58819	3.36	19823	19118	3.08	3.09	-2.87	-2.57	54.05	1.024	52.79
1986	69547	8400	61147	61147	59894	3.45	20508	19837	3.02	3.02	-1.86	-1.97	27.42	1.179	23.25
1987	70439	8000	62439	62439	60992	3.74	21275	20535	2.97	2.99	-1.63	-1.09	33.72	1.301	25.92
1988	70438	6200	64238	64238	62608	4.44	22218	21334	2.93	2.94	-1.19	-0.92	26.03	1.343	19.39
1989	70988	5400	65588	65588	64088	3.62	23022	22172	2.89	2.91	-1.50	-0.99	31.02	1.284	24.16
1990	70055	3200	66855	66855	65560	2.43	23582	22941	2.86	2.85	-1.13	-1.42	35.97	1.359	26.47
1991	68164	1300	66864	66864	66436	1.34	23898	23501	2.83	2.82	-1.08	-1.32	28.86	1.368	21.10
1992	69447	1900	67547	67547	67089	1.41	24236	23905	2.81	2.80	-0.73	-0.91	27.43	1.408	19.48
1993	70308	2900	67408	67408	67273	1.76	24663	24266	2.77	2.77	-1.22	-1.32	23.77	1.396	17.03
1994	71805	3100	68705	68705	67886	2.89	25377	24759	2.74	2.74	-1.10	-1.22	22.17	1.437	15.43
1995	72941	3100	69841	69841	68651	3.02	26144	25395	2.70	2.71	-1.41	-1.20	24.00	1.522	15.77
1996	74389	2900	71489	71489	70012	3.55	27072	26197	2.67	2.67	-1.14	-1.40	28.18	1.451	19.42
1997	76798	3200	73598	73598	71643	4.01	28158	27125	2.64	2.63	-1.17	-1.48	24.63	1.373	17.94
1998	77339	3400	73939	73939	73008	2.32	28812	28014	2.61	2.62	-1.33	-0.98	16.64	1.358	12.26
1999	80573	5000	75573	75573	74370	3.65	29864	28945	2.57	2.58	-1.41	-1.01	22.88	1.365	16.76
2000	79805	3200	76605	76605	75372	4.70	31267	29981	2.51	2.52	-2.15	-1.82	34.96	1.317	26.54
2001	81504	4200	77304	77304	76494	2.01	31894	31008	2.47	2.46	-1.87	-2.21	28.48	1.271	22.41
2002	84068	5800	78268	78268	77392	2.50	32692	31951	2.42	2.42	-1.81	-1.96	29.54	1.299	22.74

(Continued)

Table 3.3 World oil supply/demand/price framework, IEA scenario for potential supply (continued)

		OPEC											2010US$		2010SDRs
	potential	spare	target		3yr aver		B 2000 US$	3yrmovav		oilgdp		pred	real oil		real oil
	production	capacity	production	Demand	Demand	%GDP ch	GDP	GDP	Oil-to-GDP	pred	%change	%change	price US$	SDRs/US$	price SDR
2003	81823	2000	79823	79823	78465	3.25	33756	32781	2.39	2.39	-1.18	-1.20	33.30	1.404	23.72
2004	84127	1300	82827	82827	80306	4.81	35380	33943	2.37	2.36	-1.16	-1.32	41.62	1.481	28.10
2005	85226	1100	84126	84126	82259	4.30	36900	35345	2.33	2.32	-1.63	-1.83	56.56	1.473	38.40
2006	86458	1500	84958	84958	83970	4.58	38590	36956	2.27	2.27	-2.37	-2.56	66.09	1.473	44.87
2007	88528	2100	86428	86428	85171	4.26	40232	38574	2.21	2.20	-2.82	-2.96	72.66	1.534	47.37
2008	89299	3300	85999	85999	85795	2.74	41334	40052	2.14	2.14	-2.98	-3.26	95.69	1.58	60.56
2009	91414	6700	84714	84714	85714	-0.66	41059	40875	2.10	2.09	-2.11	-2.28	62.07	1.54	40.30
2010	94282	6900	87382	87382	86032	5.10	43153	41849	2.06	2.06	-1.96	-1.73	77.45	1.53	50.62
2011	93610	5800	87810	87810	86635	3.99	44877	43030	2.01	2.01	-2.06	-2.13	104.09	1.59	65.47
2012	94043	5542	88501	88519	87904	3.60	46493	44841	1.960	1.960	-2.63	-2.63	105	1.58	66.30
2013	94476	5401	89075	89449	88593	3.60	48167	46512	1.905	1.905	-2.84	-2.84	105	1.58	66.72
2014	94909	5260	89649	89359	89109	3.49	49848	48169	1.850	1.850	-2.88	-2.88	106	1.58	67.14
2015	95342	5118	90223	90328	89712	3.49	51587	49867	1.799	1.799	-2.75	-2.75	107	1.58	67.56
2016	95775	4977	90797	91379	90355	3.49	53387	51607	1.751	1.751	-2.68	-2.68	107	1.58	67.98
2017	96208	4836	91372	91350	91019	3.49	55250	53408	1.704	1.704	-2.66	-2.66	108	1.58	68.40
2018	96640	4695	91946	92220	91649	3.49	57179	55272	1.658	1.658	-2.70	-2.70	109	1.58	68.82
2019	97073	4554	92520	93167	92245	3.49	59174	57201	1.613	1.613	-2.74	-2.74	109	1.58	69.24
2020	97506	4412	93094	93072	92820	3.49	61239	59197	1.568	1.568	-2.77	-2.77	110	1.58	69.66
2021	97939	4271	93668	93938	93392	3.50	63382	61265	1.524	1.524	-2.78	-2.78	111	1.58	70.08
2022	98372	4130	94242	94895	93969	3.50	65601	63407	1.482	1.482	-2.78	-2.78	111	1.58	70.50
2023	98805	3989	94816	94804	94546	3.50	67897	65627	1.441	1.441	-2.79	-2.79	112	1.58	70.92
2024	99238	3847	95391	95648	95116	3.50	70273	67924	1.400	1.400	-2.80	-2.80	113	1.58	71.34
2025	99671	3706	95965	96575	95676	3.50	72733	70301	1.361	1.361	-2.81	-2.81	113	1.58	71.75
2026	100104	3565	96539	96453	96225	3.50	75278	72761	1.322	1.322	-2.83	-2.83	114	1.58	72.17
2027	100537	3424	97113	97271	96766	3.50	77913	75308	1.285	1.285	-2.84	-2.84	115	1.58	72.59
2028	100970	3282	97687	98174	97299	3.50	80640	77944	1.248	1.248	-2.85	-2.85	115	1.58	73.01
2029	101403	3141	98261	98028	97824	3.50	83462	80672	1.213	1.213	-2.86	-2.86	116	1.58	73.43
2030	101835	3000	98835	98821	98341	3.50	86384	83495	1.178	1.178	-2.87	-2.87	117	1.58	73.85

Table 3.4 World oil supply/demand/price framework, IEA adjusted scenario for potential supply

	OPEC												2010US$		2010SDRs
	potential	spare	target		3yr aver		B 2000 US$	3yrmovav		oilgdp		pred	real oil		real oil
	production	capacity	production	Demand	Demand	%GDP ch	GDP	GDP	Oil-to-GDP	pred	%change	%change	price US$	SDRs/US$	price SDR
1975	62591	7600	54991	54991	55603	1.65	14310	14072	3.95	3.97	-1.26	-0.87	51.33	1.212	42.35
1976	62727	4300	58427	58427	56303	5.15	15048	14479	3.89	3.91	-1.59	-1.05	51.02	1.154	44.21
1977	65404	4800	60604	60604	58007	3.95	15641	15000	3.87	3.86	-0.55	-0.74	51.66	1.169	44.19
1978	69721	6500	63221	63221	60750	4.37	16325	15671	3.88	3.87	0.24	0.04	47.93	1.258	38.10
1979	68381	4000	64381	64381	62735	4.10	16994	16320	3.84	3.84	-0.84	-0.94	64.39	1.294	49.76
1980	67541	5700	61841	61841	63148	2.10	17351	16890	3.74	3.72	-2.74	-3.22	89.45	1.299	68.86
1981	67111	7200	59911	59911	62044	2.06	17709	17351	3.58	3.58	-4.36	-4.28	87.32	1.176	74.25
1982	67493	9300	58193	58193	59981	0.52	17800	17620	3.40	3.42	-4.80	-4.41	75.00	1.102	68.06
1983	67720	9800	57920	57920	58675	3.09	18350	17953	3.27	3.27	-3.99	-3.82	63.40	1.067	59.42
1984	68345	9200	59145	59145	58420	4.52	19180	18443	3.17	3.17	-3.08	-3.03	59.84	1.023	58.50
1985	69691	10300	59391	59391	58819	3.36	19823	19118	3.08	3.09	-2.87	-2.57	54.05	1.024	52.79
1986	69547	8400	61147	61147	59894	3.45	20508	19837	3.02	3.02	-1.86	-1.97	27.42	1.179	23.25
1987	70439	8000	62439	62439	60992	3.74	21275	20535	2.97	2.99	-1.63	-1.09	33.72	1.301	25.92
1988	70438	6200	64238	64238	62608	4.44	22218	21334	2.93	2.94	-1.19	-0.92	26.03	1.343	19.39
1989	70988	5400	65588	65588	64088	3.62	23022	22172	2.89	2.91	-1.50	-0.99	31.02	1.284	24.16
1990	70055	3200	66855	66855	65560	2.43	23582	22941	2.86	2.85	-1.13	-1.42	35.97	1.359	26.47
1991	68164	1300	66864	66864	66436	1.34	23898	23501	2.83	2.82	-1.08	-1.32	28.86	1.368	21.10
1992	69447	1900	67547	67547	67089	1.41	24236	23905	2.81	2.80	-0.73	-0.91	27.43	1.408	19.48
1993	70308	2900	67408	67408	67273	1.76	24663	24266	2.77	2.77	-1.22	-1.32	23.77	1.396	17.03
1994	71805	3100	68705	68705	67886	2.89	25377	24759	2.74	2.74	-1.10	-1.22	22.17	1.437	15.43
1995	72941	3100	69841	69841	68651	3.02	26144	25395	2.70	2.71	-1.41	-1.20	24.00	1.522	15.77
1996	74389	2900	71489	71489	70012	3.55	27072	26197	2.67	2.67	-1.14	-1.40	28.18	1.451	19.42
1997	76798	3200	73598	73598	71643	4.01	28158	27125	2.64	2.63	-1.17	-1.48	24.63	1.373	17.94
1998	77339	3400	73939	73939	73008	2.32	28812	28014	2.61	2.62	-1.33	-0.98	16.64	1.358	12.26
1999	80573	5000	75573	75573	74370	3.65	29864	28945	2.57	2.58	-1.41	-1.01	22.88	1.365	16.76
2000	79805	3200	76605	76605	75372	4.70	31267	29981	2.51	2.52	-2.15	-1.82	34.96	1.317	26.54
2001	81504	4200	77304	77304	76494	2.01	31894	31008	2.47	2.46	-1.87	-2.21	28.48	1.271	22.41
2002	84068	5800	78268	78268	77392	2.50	32692	31951	2.42	2.42	-1.81	-1.96	29.54	1.299	22.74

(Continued)

Table 3.4 World oil supply/demand/price framework, IEA adjusted scenario for potential supply (continued)

		OPEC											2010US$		2010SDRs
	potential	spare	target		3yr aver		B 2000 US$	3yrmovav		oilgdp		pred	real oil		real oil
	production	capacity	production	Demand	Demand	%GDP ch	GDP	GDP	Oil-to-GDP	pred	%change	%change	price US$	SDRs/US$	price SDR
2003	81823	2000	79823	79823	78465	3.25	33756	32781	2.39	2.39	-1.18	-1.20	33.30	1.404	23.72
2004	84127	1300	82827	82827	80306	4.81	35380	33943	2.37	2.36	-1.16	-1.32	41.62	1.481	28.10
2005	85226	1100	84126	84126	82259	4.30	36900	35345	2.33	2.32	-1.63	-1.83	56.56	1.473	38.40
2006	86458	1500	84958	84958	83970	4.58	38590	36956	2.27	2.27	-2.37	-2.56	66.09	1.473	44.87
2007	88528	2100	86428	86428	85171	4.26	40232	38574	2.21	2.20	-2.82	-2.96	72.66	1.534	47.37
2008	89299	3300	85999	85999	85795	2.74	41334	40052	2.14	2.14	-2.98	-3.26	95.69	1.58	60.56
2009	91414	6700	84714	84714	85714	-0.66	41059	40875	2.10	2.09	-2.11	-2.28	62.07	1.54	40.30
2010	94282	6900	87382	87382	86032	5.10	43153	41849	2.06	2.06	-1.96	-1.73	77.45	1.53	50.62
2011	93610	5800	87810	87810	86635	3.99	44877	43030	2.01	2.01	-2.06	-2.13	104.09	1.59	65.47
2012	93816	5800	88016	88643	87945	3.60	46493	44841	1.96	1.96	-2.59	-2.59	100	1.58	63.29
2013	94547	4800	89747	89751	88735	3.60	48167	46512	1.91	1.91	-2.73	-2.73	100	1.58	63.29
2014	95043	5300	89743	89745	89380	3.49	49848	48169	1.86	1.86	-2.74	-2.74	100	1.58	63.29
2015	95599	5500	90099	90342	89946	3.49	51587	49867	1.80	1.80	-2.79	-2.79	120	1.58	75.95
2016	95628	4500	91128	90947	90345	3.49	53387	51607	1.75	1.75	-2.94	-2.94	120	1.58	75.95
2017	95306	4500	90806	90845	90712	3.49	55250	53408	1.70	1.70	-2.98	-2.98	120	1.58	75.95
2018	94722	3500	91222	91461	91084	3.49	57179	55272	1.65	1.65	-2.97	-2.97	120	1.58	75.95
2019	93933	2500	91433	92184	91497	3.49	59174	57201	1.60	1.60	-2.93	-2.93	120	1.58	75.95
2020	93027	1500	91527	91482	91709	3.49	61239	59197	1.55	1.55	-3.15	-3.15	150	1.58	94.94
2021	91713	1000	90713	90818	91495	3.50	63382	61265	1.49	1.49	-3.60	-3.60	180	1.58	113.92
2022	90895	1000	89895	90701	91000	3.50	65601	63407	1.44	1.44	-3.90	-3.90	180	1.58	113.92
2023	90515	1000	89515	89952	90490	3.50	67897	65627	1.38	1.38	-3.92	-3.92	180	1.58	113.92
2024	90076	1000	89076	89610	90088	3.50	70273	67924	1.33	1.33	-3.81	-3.81	180	1.58	113.92
2025	89638	1000	88638	89795	89786	3.50	72733	70301	1.28	1.28	-3.71	-3.71	180	1.58	113.92
2026	89434	1000	88434	88990	89465	3.50	75278	72761	1.23	1.23	-3.73	-3.73	190	1.58	120.25
2027	89112	1000	88112	88267	89017	3.50	77913	75308	1.18	1.18	-3.87	-3.87	200	1.58	126.58
2028	88323	1000	87323	88011	88423	3.50	80640	77944	1.13	1.13	-4.03	-4.03	210	1.58	132.91
2029	87447	1000	86447	86860	87713	3.50	83462	80672	1.09	1.09	-4.16	-4.16	220	1.58	139.24
2030	86892	1000	85892	85914	86928	3.50	86384	83495	1.04	1.04	-4.25	-4.25	230	1.58	145.57

Having determined a method to understand the generation of world oil price projections (the top half of Figure 3.1), it is necessary to develop a method of translating these into scenarios for country petrol prices (the bottom half of Figure 3.1). The following sections develop translation equations (world oil prices to country petrol prices) for all 25 countries, starting with Australia. These equations will be used to generate petrol price scenarios, which in turn will then be used in Chapter 4, where scenario testing is done for each county's traffic growth. It should be remembered that in all the following analyses, the price of oil is taken as West Texas Intermediate (WTI) to 1998 and the OPEC reference basket thereafter.

3.3 Australian Petrol Prices

A detailed petrol price model for Australia has already been derived, that goes into the price mechanism in detail (Gargett 2010). In this section a simpler model will be derived, which will then be applied to all the other countries.

Subtracting total tax (federal and state excise, and Goods and Services Tax) from nominal petrol price and dividing by the Consumer Price Index, gives the real energy content of the Australian petrol price. The real landed price of oil in Australia is calculated as simply the price of West Texas Intermediate oil (or post-1999, the price of OPEC's "reference basket") in US dollars per barrel times the Australian exchange rate in Australian dollars per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and several dummy variables. The results are shown in Table 3.5.

Table 3.5 Regression results for predicting Australian energy content price

Regression Statistics	
Multiple R	0.980681234
R Square	0.961735683
Adjusted R Square	0.958002579
Standard Error	3.665208569
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	13843.4076	3460.851901	257.6235905	1.83474E-28
Residual	41	550.7839079	13.43375385		
Total	45	14394.19151			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	19.27991577	1.837532575	10.49228516	3.51407E-13	15.56894349	22.99088805
landed oil price	0.747534194	0.024248581	30.82795614	5.50728E-30	0.698563192	0.796505196
dum6573	17.23302459	1.794808094	9.601597323	4.77269E-12	13.60833615	20.85771303
dum8293	9.590251933	1.497880442	6.402548335	1.15751E-07	6.565221044	12.61528282
dum98on	-5.412919135	1.477117323	-3.66451537	0.000704008	-8.396018056	-2.429820215

Figure 3.6 shows the fit of the regression model values to the actual energy content price data. Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.7.

Figure 3.6 Actual and predicted energy component price of Australian petrol

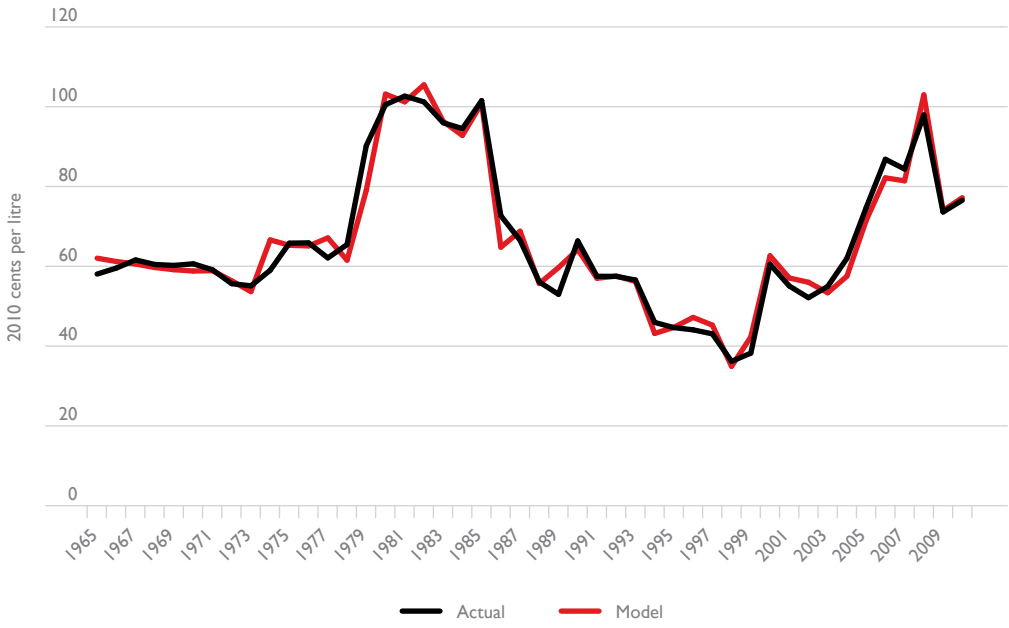
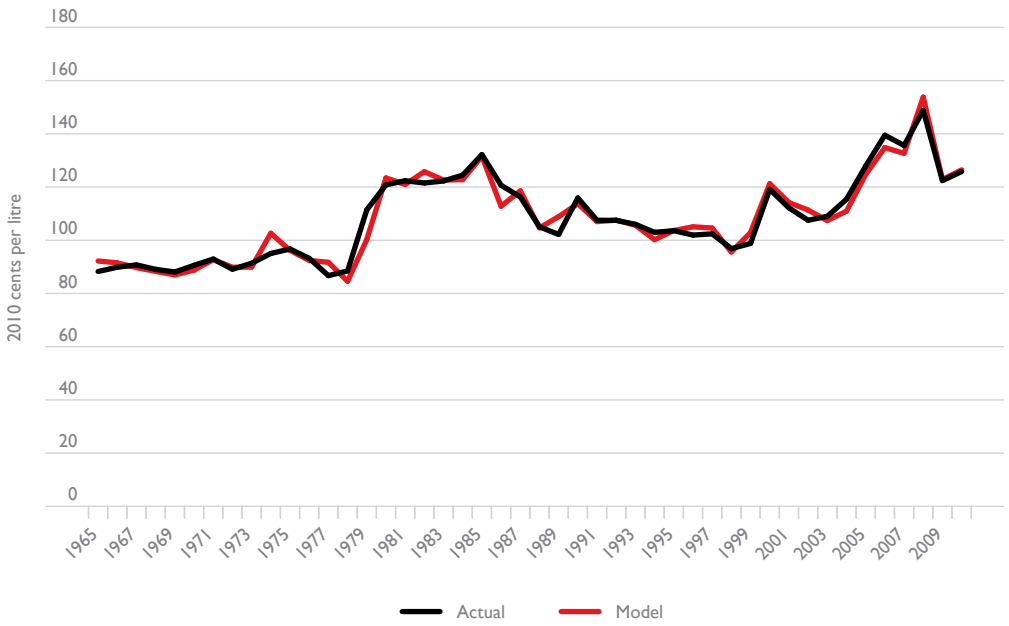


Figure 3.7 Actual and predicted price of Australian petrol



3.4 Austrian Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content price of Austrian petrol in Euros. The real landed price of oil in Austria is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Euros per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and three dummy variables. The results are shown in Table 3.6.

Table 3.6 Regression results for predicting Austrian energy content price

Regression Statistics	
Multiple R	0.970091412
R Square	0.941077348
Adjusted R Square	0.935328796
Standard Error	2.794410776
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	5113.371926	1278.342981	163.7068669	1.25347E-24
Residual	41	320.1579949	7.808731583		
Total	45	5433.529921			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	14.57316458	1.274476948	11.43462391	2.48695E-14	11.99930619	17.14702296
landed oil price	0.521224764	0.022997688	22.66422402	8.28282E-25	0.47477999	0.567669537
dum6579	10.40995571	1.113397397	9.349721619	1.01644E-11	8.161404079	12.65850735
dum7374	19.9735057	2.122872865	9.40871497	8.50894E-12	15.68627703	24.26073438
dum94on	7.634426727	1.037232884	7.360378605	5.13154E-09	5.539692445	9.729161008

Figure 3.8 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.9.

Figure 3.8 Actual and predicted energy component price of Austrian petrol

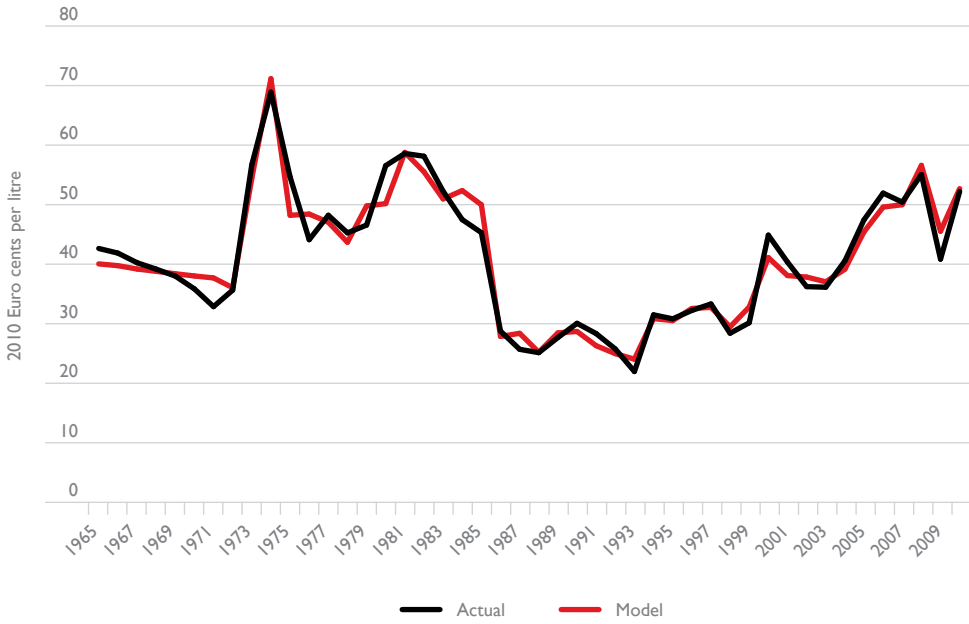
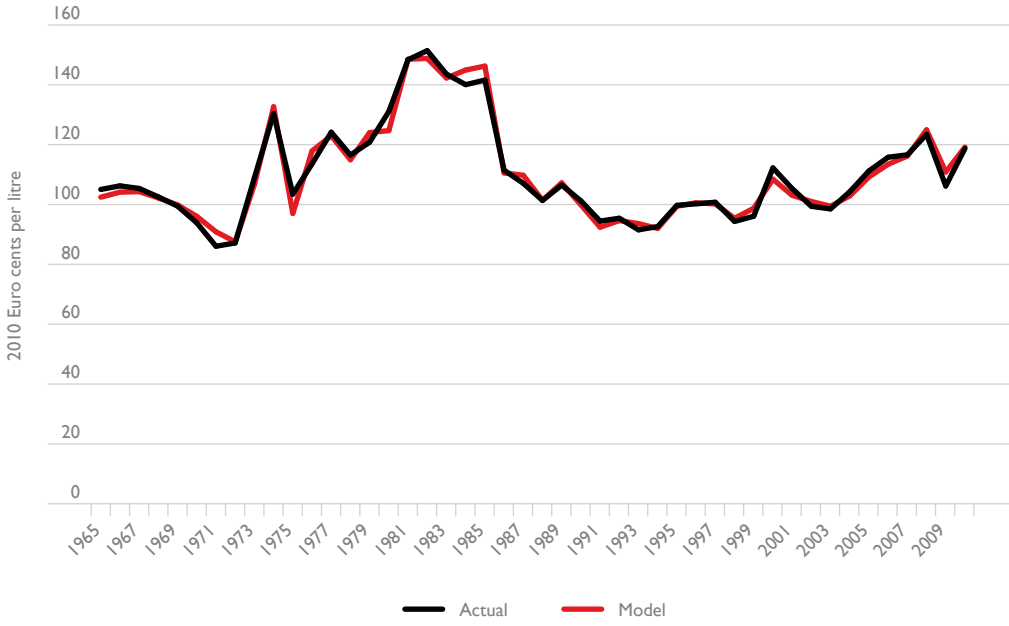


Figure 3.9 Actual and predicted price of Austrian petrol



3.5 Belgian Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content price of Belgian petrol in Euros. The real landed price of oil in Belgium is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Euros per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and two dummy variables. The results are shown in Table 3.7.

Table 3.7 Regression results for predicting Belgian energy content price

Regression Statistics	
Multiple R	0.972798574
R Square	0.946337067
Adjusted R Square	0.942504
Standard Error	3.266336128
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	7902.099264	2634.033088	246.8877133	1.07881E-26
Residual	42	448.0959713	10.6689517		
Total	45	8350.195235			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	12.867501	1.096820277	11.73164034	7.74118E-15	10.6540281	15.08097391
landed oil price	0.676965963	0.028564114	23.69987577	6.22135E-26	0.619321247	0.734610679
dum8991	12.06842328	1.93354625	6.241600518	1.78365E-07	8.166369013	15.97047754
dum00on	7.651898143	1.189510504	6.432812589	9.46588E-08	5.251368789	10.0524275

Figure 3.10 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.11.

Figure 3.10 Actual and predicted energy component price of Belgian petrol

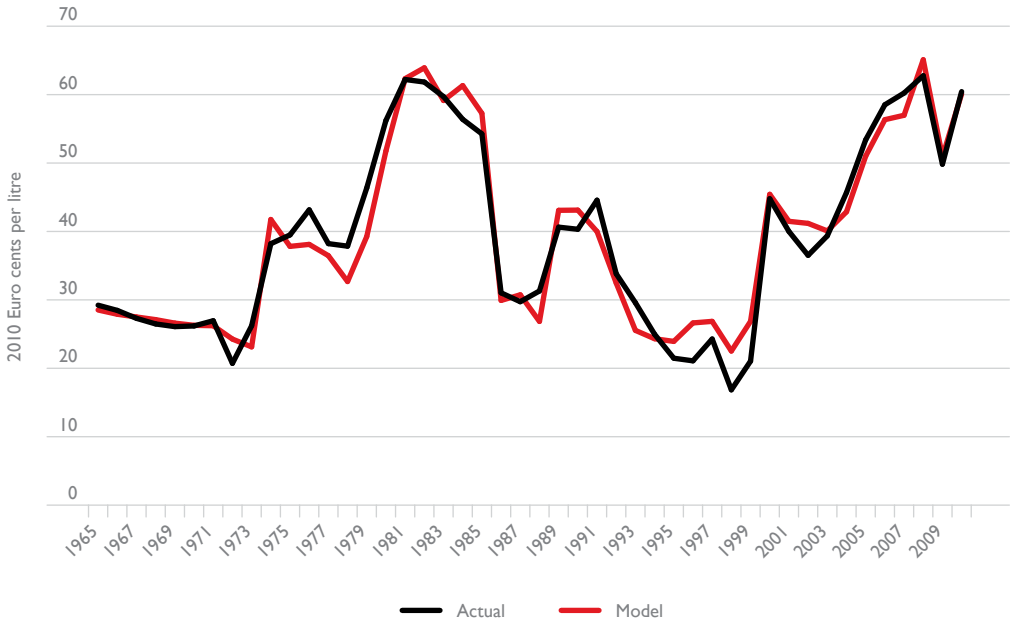
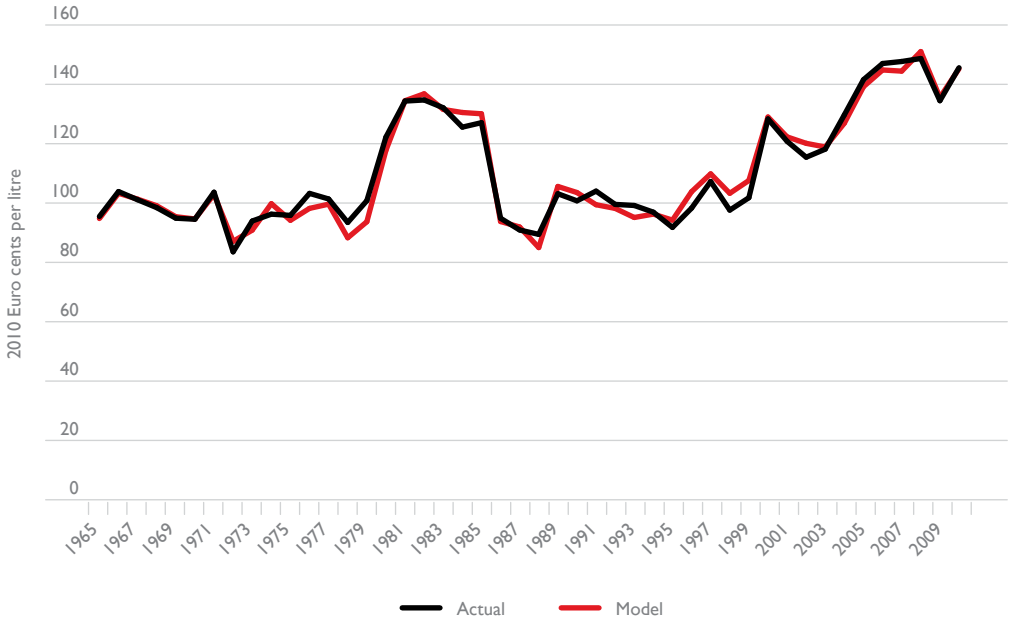


Figure 3.11 Actual and predicted price of Belgian petrol



3.6 British Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content price of British petrol in Pence. The real landed price of oil in Britain is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Pounds per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and several dummy variables. The results are shown in Table 3.8.

Table 3.8 Regression results for predicting British energy content price

Regression Statistics	
Multiple R	0.973054731
R Square	0.946835509
Adjusted R Square	0.94164873
Standard Error	2.382916021
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	4146.237825	1036.559456	182.547859	1.5314E-25
Residual	41	232.8098393	5.678288763		
Total	45	4379.047664			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	14.13541002	0.953029424	14.83208142	4.46072E-18	12.21072807	16.06009196
landed oil price	0.644887398	0.034841469	18.50919084	1.6182E-21	0.574523625	0.715251172
dum7475	15.463642	2.244693392	6.888977381	2.36444E-08	10.93039178	19.99689222
dum9504	-6.780795237	0.908900883	-7.460434207	3.71777E-09	-8.616357788	-4.945232687
dum05on	-4.845315965	1.237899961	-3.914141786	0.000335075	-7.345305626	-2.345326303

Figure 3.12 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.13.

Figure 3.12 Actual and predicted energy component price of British petrol

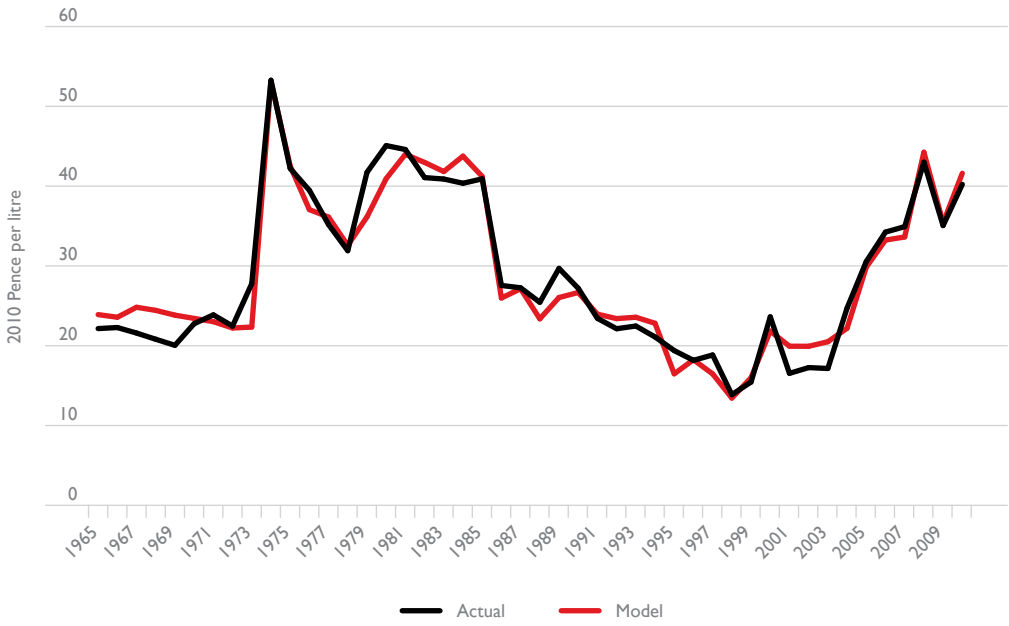
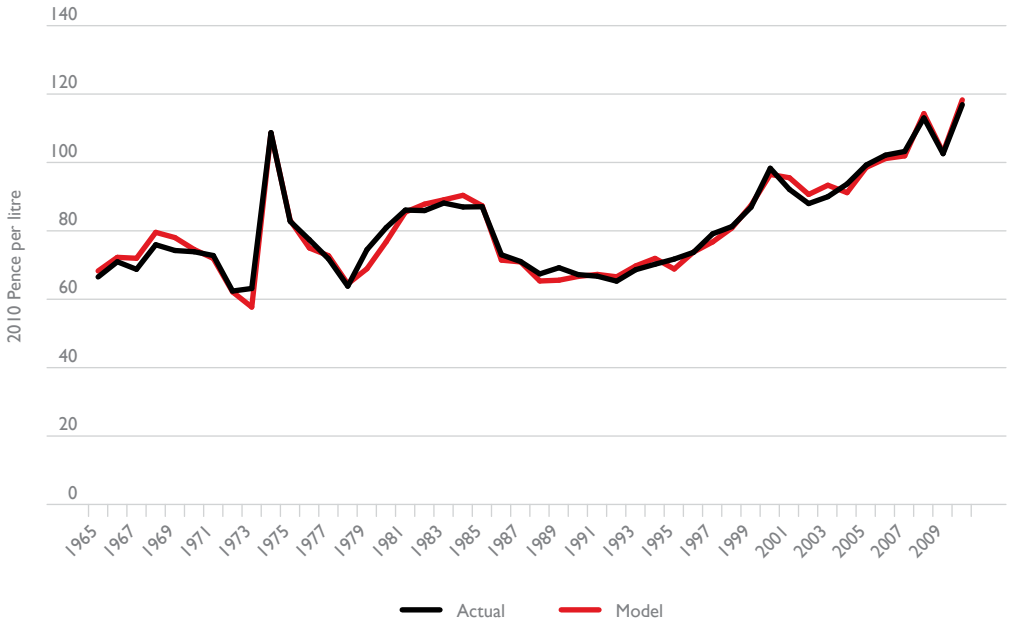


Figure 3.13 Actual and predicted price of British petrol



3.7 Canadian Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content price of Canadian petrol in Canadian dollars. The real landed price of oil in Canada is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Canadian dollars per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and several dummy variables. The results are shown in Table 3.9.

Table 3.9 Regression results for predicting Canadian energy content price

Regression Statistics	
Multiple R	0.971401777
R Square	0.943621413
Adjusted R Square	0.938121063
Standard Error	3.706167841
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	9425.786972	2356.446743	171.5566125	5.0849E-25
Residual	41	563.1628827	13.73568007		
Total	45	9988.949855			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	21.54486852	1.26522254	17.02852095	3.36193E-20	18.9896998	24.10003725
landed oil price	0.503199948	0.030829324	16.32212082	1.53548E-19	0.440938866	0.56546103
dum7481	-6.992406458	1.99998149	-3.496235587	0.001148541	-11.03145097	-2.953361944
dum8393	16.76533855	1.619937148	10.34937594	5.30401E-13	13.49380914	20.03686795
dum00on	7.768627593	1.816374048	4.276997682	0.000110525	4.100385826	11.43686936

Figure 3.14 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.15.

Figure 3.14 Actual and predicted energy component price of Canadian petrol

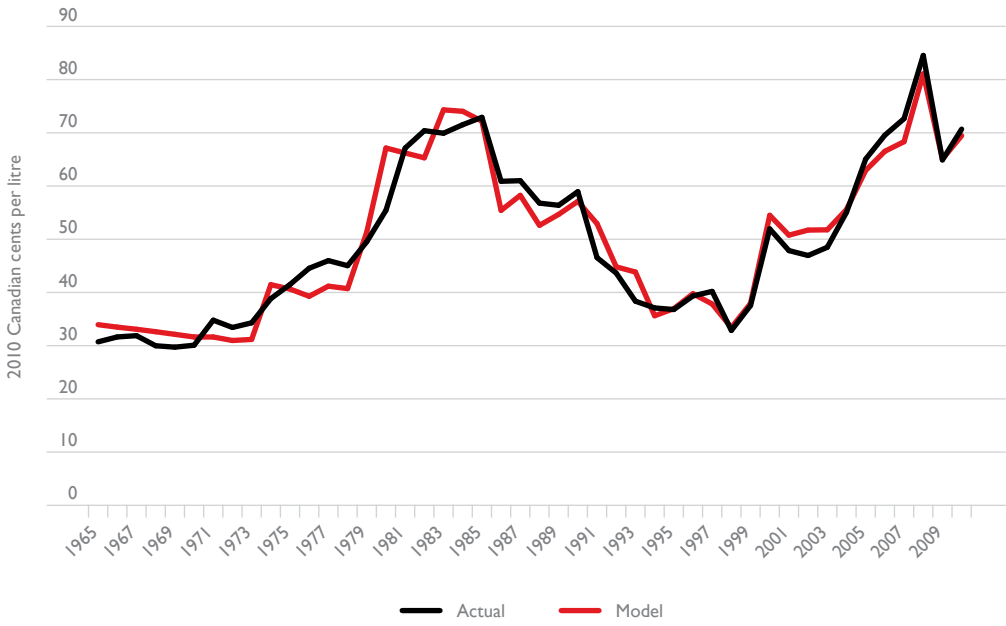
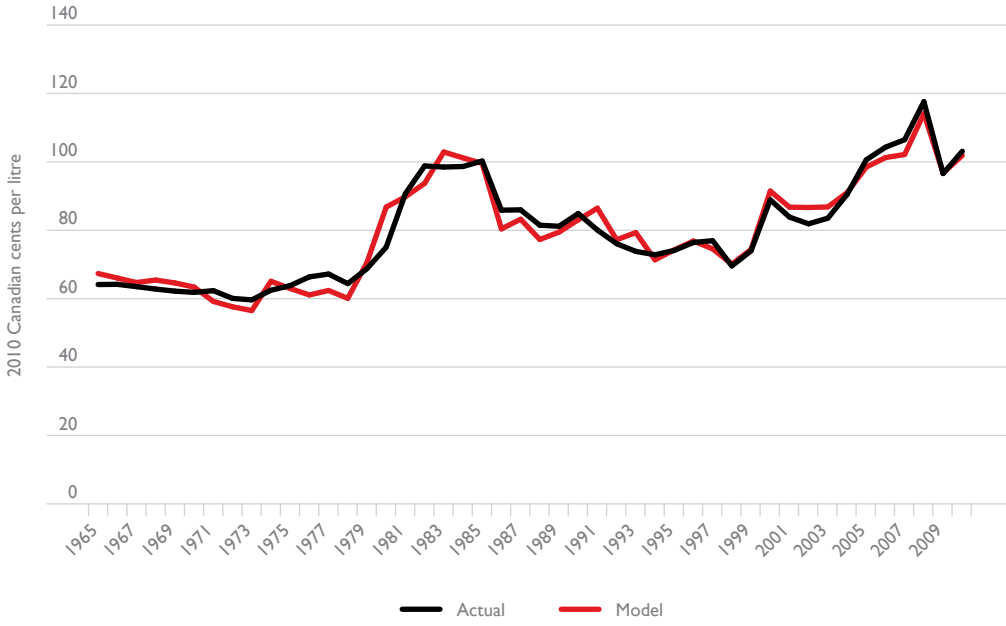


Figure 3.15 Actual and predicted price of Canadian petrol



3.8 Czech Republic Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content price of Czech petrol in Crowns. The real landed price of petrol in the Czech Republic is calculated as simply the energy component of petrol in US cents per litre times the exchange rate in Crowns per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and one dummy variable over the period 1980 to 2010. The results are shown in Table 3.10.

Table 3.10 Regression results for predicting Czech energy content price

Regression Statistics	
Multiple R	0.990252269
R Square	0.980599556
Adjusted R Square	0.97921381
Standard Error	1.172400157
Observations	31

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	1945.314379	972.6571896	707.6329803	1.06995E-24
Residual	28	38.48661957	1.374522128		
Total	30	1983.800999			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-1.235638425	0.57891388	-2.134408016	0.041703494	-2.421489735	-0.049787116
landed petrol price	1.182208998	0.037598504	31.44297957	2.18719E-23	1.105191955	1.259226042
dum8099	4.133941841	0.46746735	8.843273962	1.34947E-09	3.176378396	5.091505286

Figure 3.16 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.17.

Figure 3.16 Actual and predicted energy component price of Czech petrol

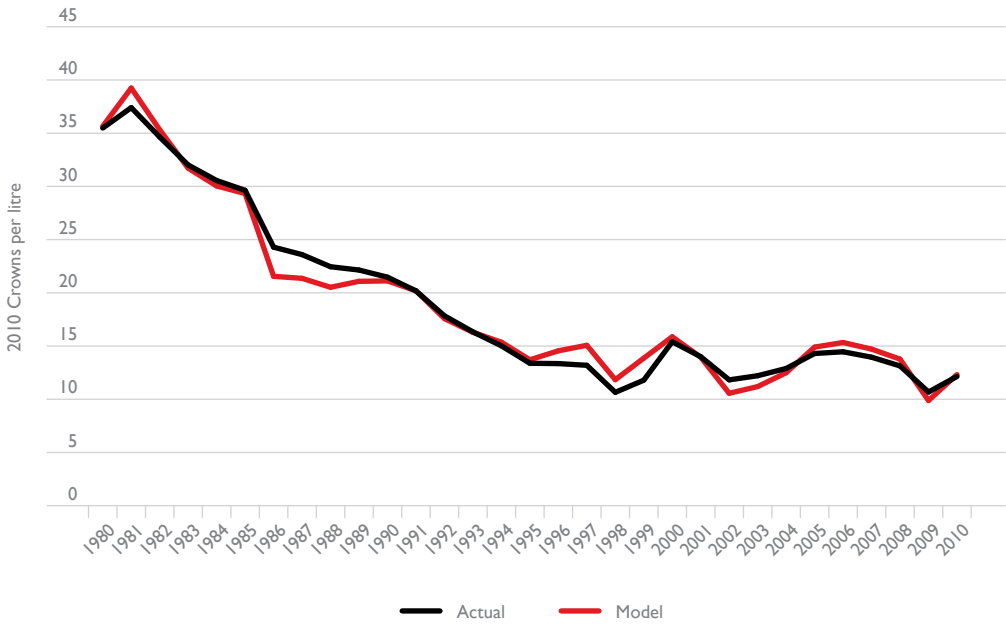
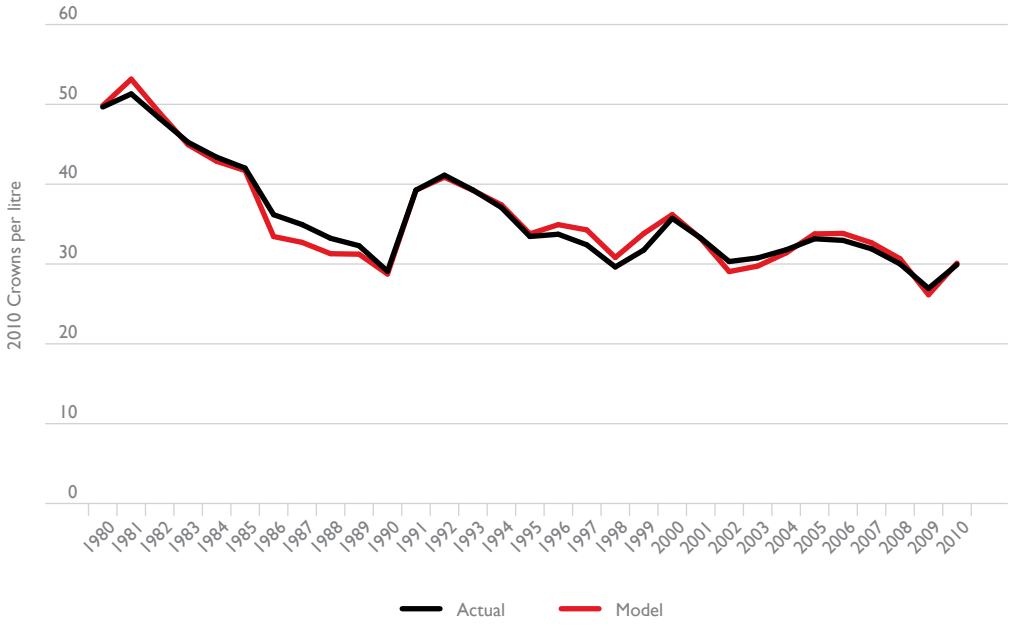


Figure 3.17 Actual and predicted price of Czech petrol



3.9 Danish Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content price of Danish petrol in Krone. The real landed price of oil in Denmark is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Krone per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and one dummy variable. The results are shown in Table 3.11.

Table 3.11 Regression results for predicting Danish energy content price

Regression Statistics	
Multiple R	0.980256972
R Square	0.96090373
Adjusted R Square	0.959085299
Standard Error	0.270423366
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	77.28610889	38.64305445	528.4245878	5.38158E-31
Residual	43	3.144538274	0.073128797		
Total	45	80.43064717			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	3.000870138	0.105467219	28.45310768	1.59287E-29	2.788175223	3.213565053
landed oil price	0.006493203	0.000290116	22.38138852	2.54212E-25	0.005908128	0.007078278
dum89on	-1.435449873	0.082274524	-17.44707598	3.99704E-21	-1.601372261	-1.269527484

Figure 3.18 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.19.

Figure 3.18 Actual and predicted energy component price of Danish petrol

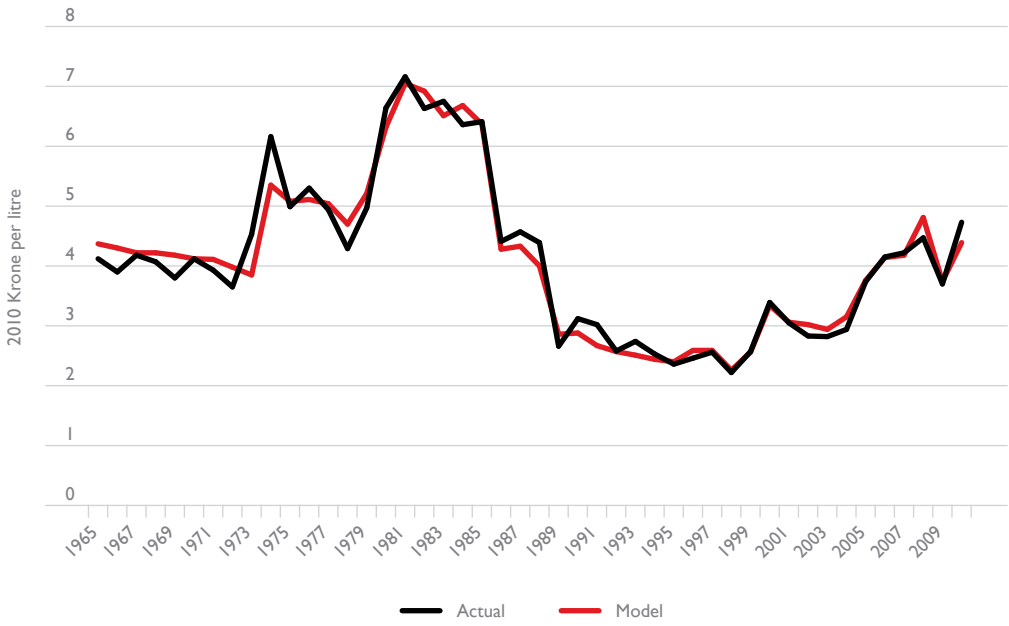
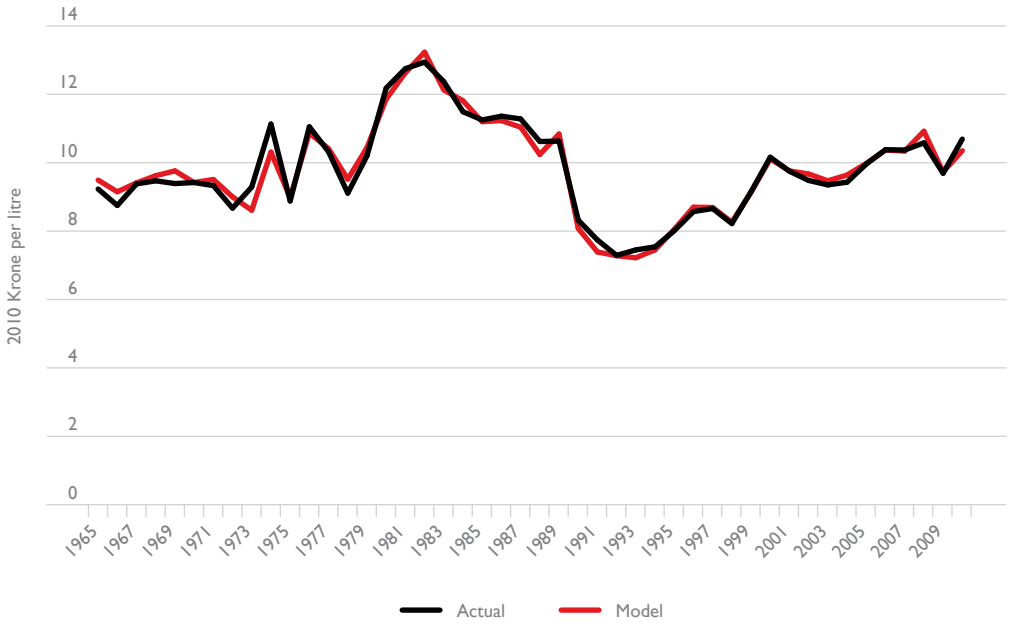


Figure 3.19 Actual and predicted price of Danish petrol



3.10 Finnish Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content price of Finnish petrol in Euros. The real landed price of oil in Finland is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Euros per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and one dummy variable. The results are shown in Table 3.12.

Table 3.12 Regression results for predicting Finnish energy content price

Regression Statistics	
Multiple R	0.957193053
R Square	0.91621854
Adjusted R Square	0.912321728
Standard Error	0.040077261
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	0.755293383	0.377646691	235.120021	7.04175E-24
Residual	43	0.069066036	0.001606187		
Total	45	0.824359418			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.184896697	0.013209353	13.99740797	1.28981E-17	0.158257499	0.211535895
landed oil price	0.006708441	0.000385687	17.39346889	4.48984E-21	0.005930628	0.007486254
dum7390	0.102910426	0.012374849	8.316095528	1.69874E-10	0.077954165	0.127866687

Figure 3.20 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.21.

Figure 3.20 Actual and predicted energy component price of Finnish petrol

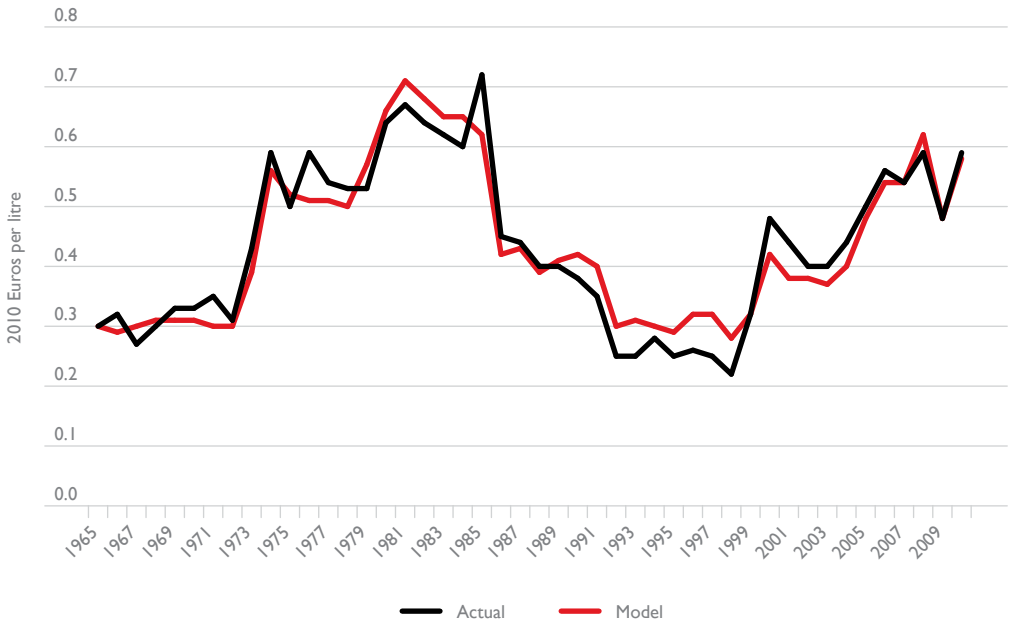
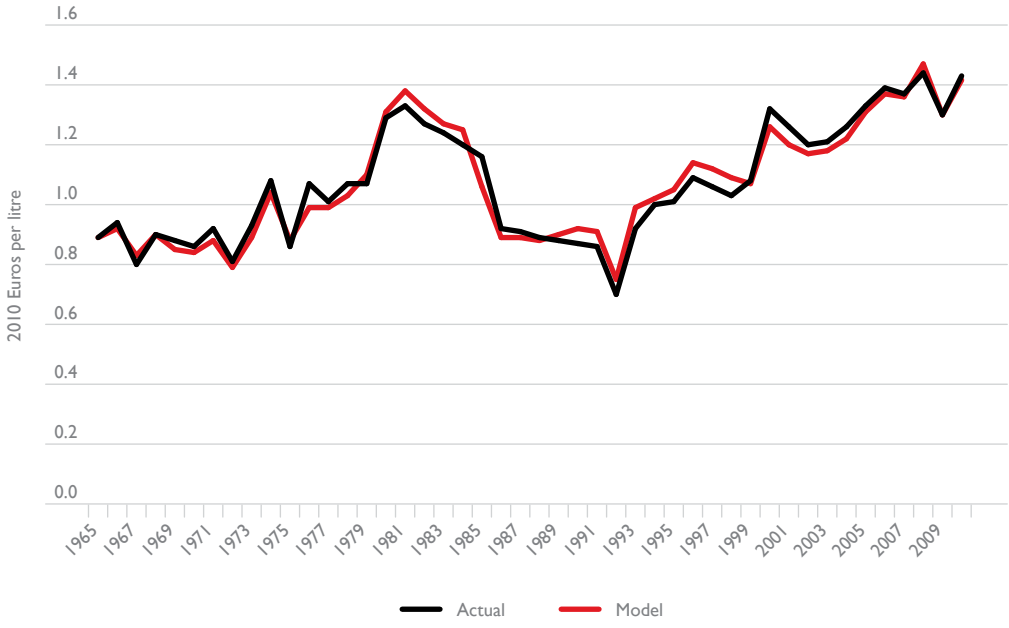


Figure 3.21 Actual and predicted price of Finnish petrol



3.11 French Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content price of French petrol in Euros. The real landed price of oil in France is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Euros per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and two dummy variables. The results are shown in Table 3.13.

Table 3.13 Regression results for predicting French energy content price

Regression Statistics	
Multiple R	0.977651909
R Square	0.955803256
Adjusted R Square	0.952646346
Standard Error	0.029295682
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	0.77953341	0.25984447	302.7654151	1.84092E-28
Residual	42	0.036045952	0.000858237		
Total	45	0.815579363			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.103822877	0.013743058	7.554568681	2.36489E-09	0.076088263	0.131557491
landed oil price	0.007376539	0.000302458	24.38867393	2.02263E-26	0.006766155	0.007986924
dum7179	0.064115615	0.010608074	6.044039051	3.43278E-07	0.042707655	0.085523576
dum9499	-0.06154847	0.015113192	-4.072499773	0.000201465	-0.092048125	-0.031048814

Figure 3.22 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.23.

Figure 3.22 Actual and predicted energy component price of French petrol

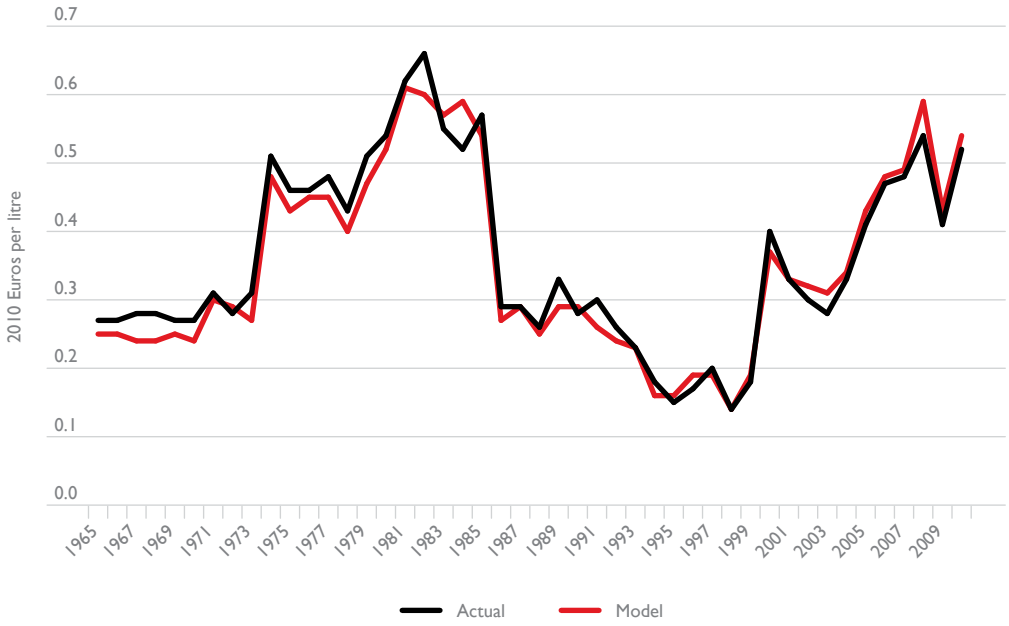
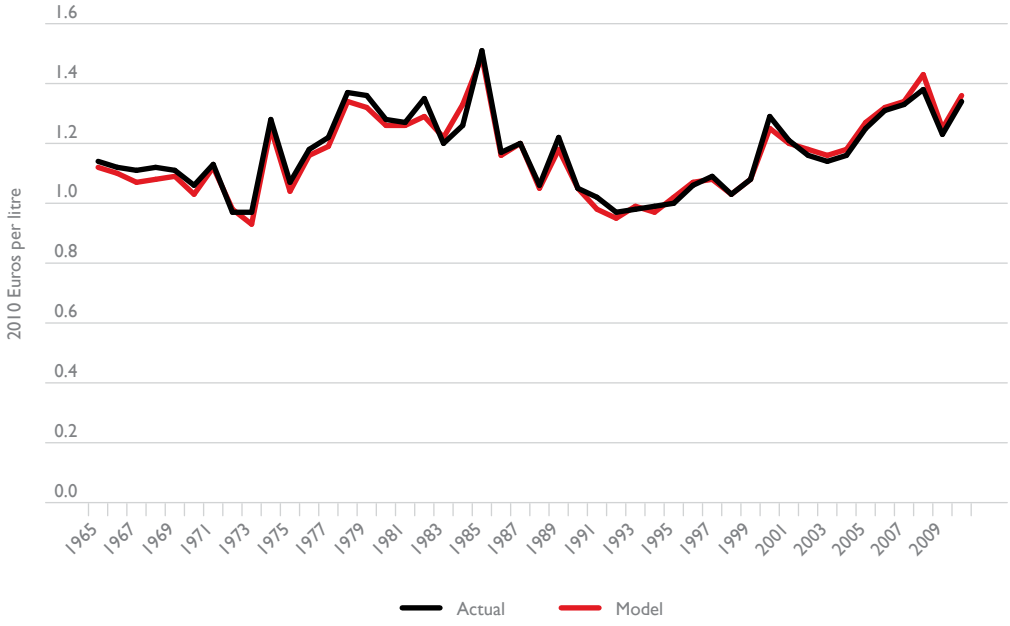


Figure 3.23 Actual and predicted price of French petrol



3.12 German Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content price of German petrol in Euros. The real landed price of oil in Germany is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Euros per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and one dummy variable. The results are shown in Table 3.14.

Table 3.14 Regression results for predicting German energy content price

Regression Statistics	
Multiple R	0.952418783
R Square	0.907101537
Adjusted R Square	0.902780679
Standard Error	0.038544781
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	0.623802329	0.311901164	209.9354767	6.48908E-23
Residual	43	0.063885105	0.0014857		
Total	45	0.687687434			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.099786705	0.014616503	6.82698916	2.29222E-08	0.070309718	0.129263691
landed oil price	0.007210885	0.000353859	20.37782644	1.02055E-23	0.00649726	0.007924511
dum6573	0.091938173	0.015540135	5.916175873	4.84086E-07	0.060598504	0.123277842

Figure 3.24 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.25.

Figure 3.24 Actual and predicted energy component price of German petrol

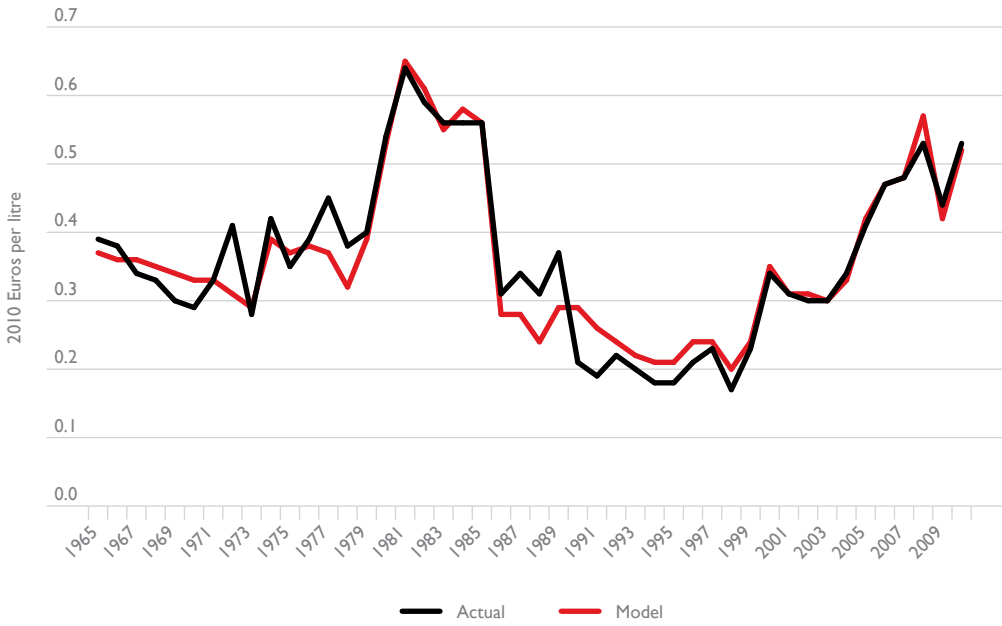
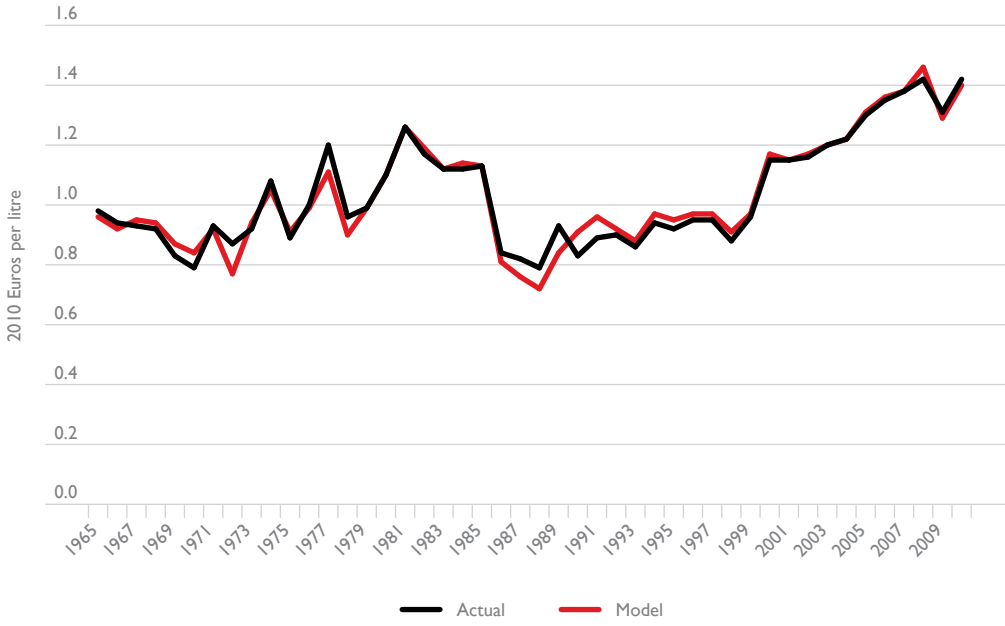


Figure 3.25 Actual and predicted price of German petrol



3.13 Greek Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content price of Greek petrol in Euros. The real landed price of oil in Greece is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Euros per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and two dummy variables. The results are shown in Table 3.15.

Table 3.15 Regression results for predicting Greek energy content price

Regression Statistics	
Multiple R	0.898446821
R Square	0.807206691
Adjusted R Square	0.79343574
Standard Error	0.04987493
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	0.437428107	0.145809369	58.616628	4.61277E-15
Residual	42	0.104475363	0.002487509		
Total	45	0.54190347			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.257409585	0.016389138	15.70610868	3.46443E-19	0.224334966	0.290484205
landed oil price	0.004785404	0.000375782	12.73450533	5.17286E-16	0.004027044	0.005543764
dum7278	0.055099195	0.020995566	2.624325326	0.01205388	0.012728428	0.097469962
dum8290	-0.089292469	0.020172647	-4.426413061	6.68917E-05	-0.130002519	-0.048582419

Figure 3.26 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.27.

Figure 3.26 Actual and predicted energy component price of Greek petrol

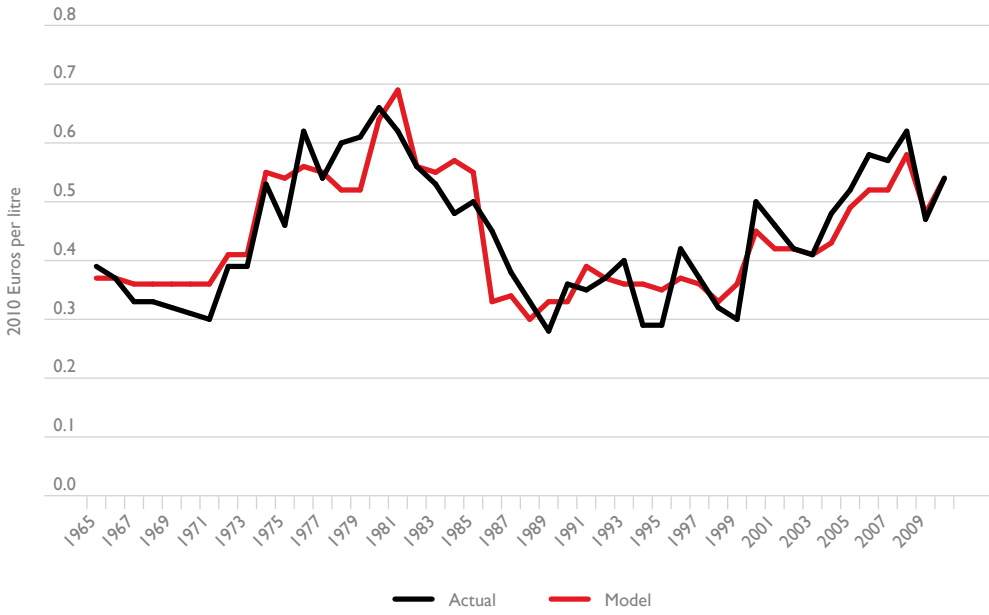
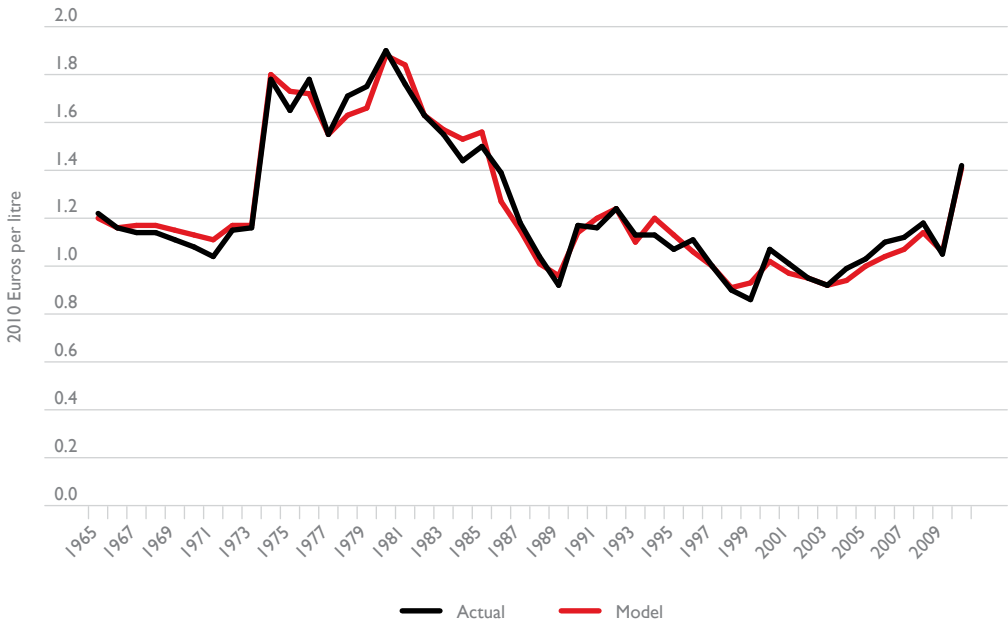


Figure 3.27 Actual and predicted price of Greek petrol



3.14 Hungarian Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content price of Hungarian petrol in Forint. The real landed price of oil in Hungary is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Forint per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and two dummy variables. The results are shown in Table 3.16.

Table 3.16 Regression results for predicting Hungarian energy content price

Regression Statistics	
Multiple R	0.937750572
R Square	0.879376136
Adjusted R Square	0.870760145
Standard Error	19.97007963
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	122109.7442	40703.24807	102.0632688	2.53941E-19
Residual	42	16749.77138	398.8040804		
Total	45	138859.5156			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	52.35050082	7.209067534	7.261757581	6.153E-09	37.80201371	66.89898793
landed oil price	0.006795065	0.000389578	17.44213342	7.51775E-21	0.006008866	0.007581265
dum6573	51.80731583	7.921729081	6.539899976	6.64009E-08	35.8206195	67.79401215
dum08	-33.84605209	20.25240909	-1.67121116	0.102116007	-74.71706783	7.024963653

Figure 3.28 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.29.

Figure 3.28 Actual and predicted energy component price of Hungarian petrol

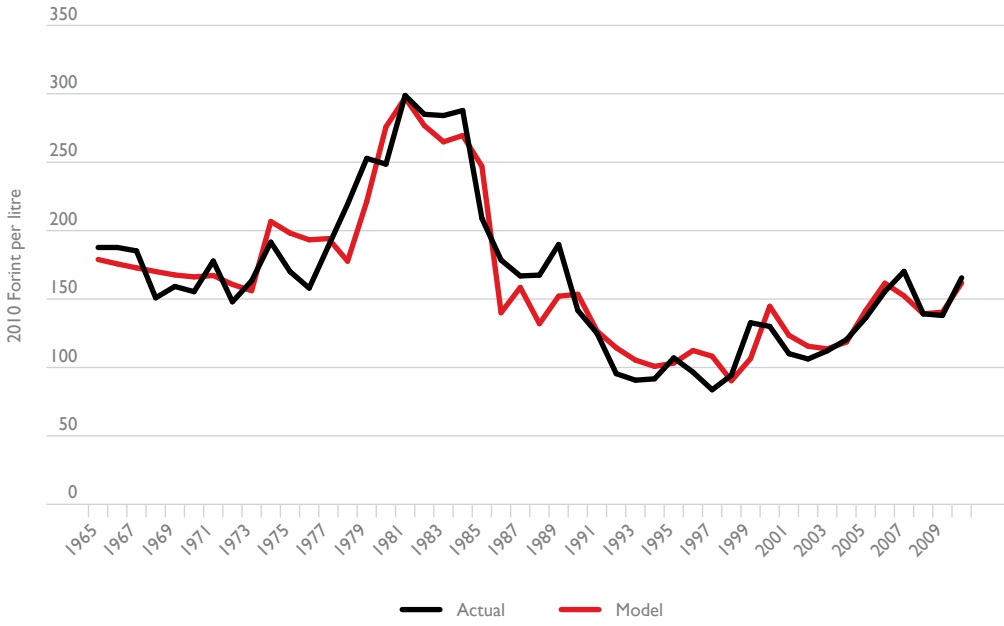
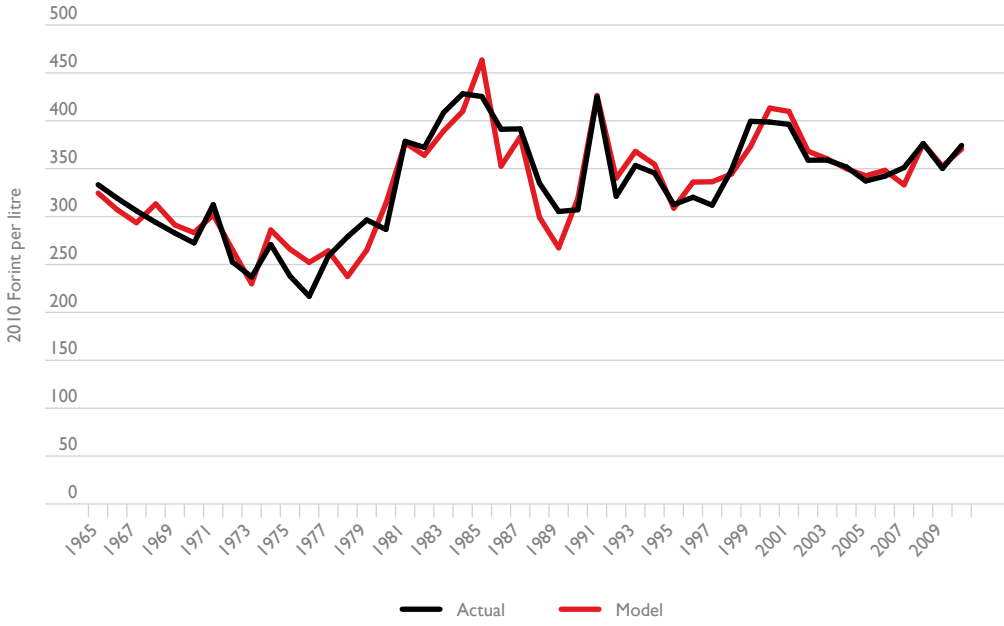


Figure 3.29 Actual and predicted price of Hungarian petrol



3.15 Irish Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content price of Irish petrol in Euros. The real landed price of oil in Ireland is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Euros per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and several dummy variables. The results are shown in Table 3.17.

Table 3.17 Regression results for predicting Irish energy content price

Regression Statistics	
Multiple R	0.960180794
R Square	0.921947157
Adjusted R Square	0.914332246
Standard Error	0.041022531
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	0.814978328	0.203744582	121.0712901	3.9158E-22
Residual	41	0.068996769	0.001682848		
Total	45	0.883975097			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.067216391	0.021836343	3.078189028	0.003705372	0.023117002	0.111315779
landed oil price	0.008050479	0.000402657	19.99337476	9.32184E-23	0.007237296	0.008863662
dum6573	0.151492124	0.020540797	7.375182322	4.89236E-09	0.110009143	0.192975105
dum7879	0.18425758	0.030733742	5.995286189	4.39394E-07	0.122189529	0.24632563
dum8303	0.099691684	0.010102063	9.868448421	2.16124E-12	0.079290155	0.120093213

Figure 3.30 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.31.

Figure 3.30 Actual and predicted energy component price of Irish petrol

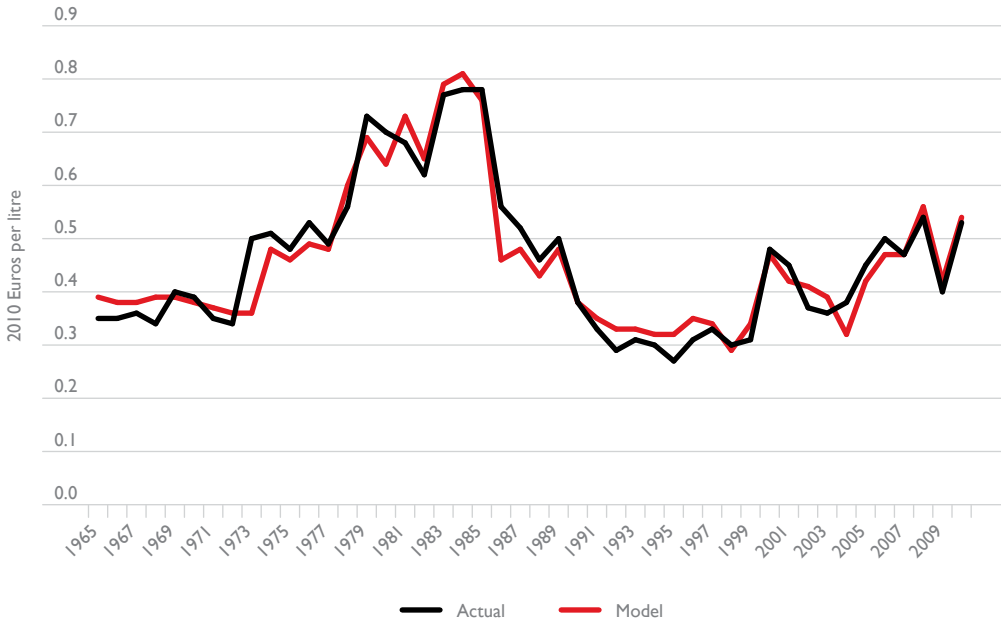
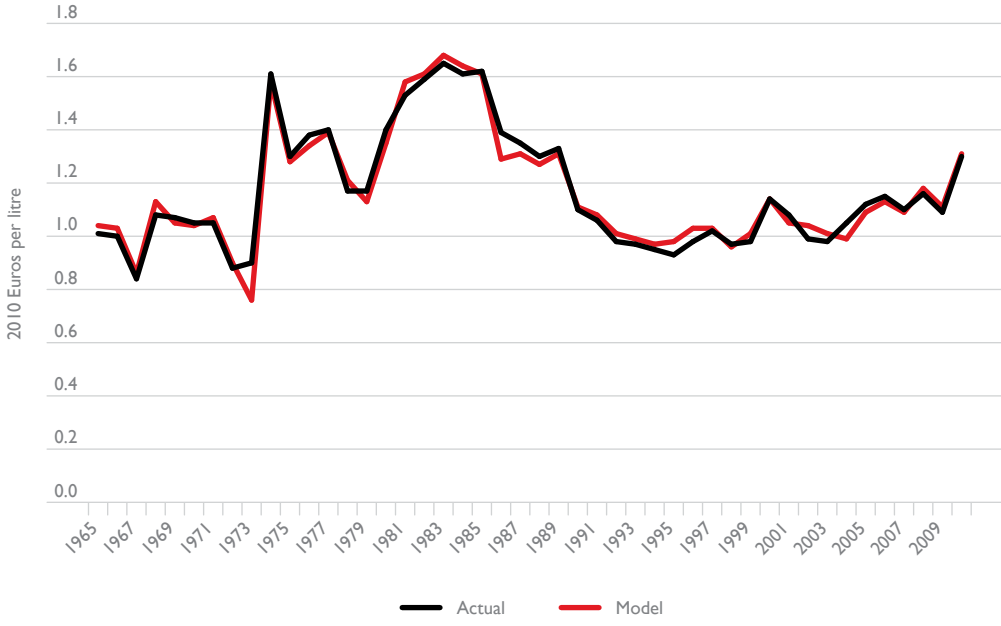


Figure 3.31 Actual and predicted price of Irish petrol



3.16 Israeli Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content of the Israeli petrol price in Shekels. The real landed price of oil in Israel is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Shekels per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and one dummy variable. The results are shown in Table 3.18.

Table 3.18 Regression results for predicting Israeli energy content price

Regression Statistics	
Multiple R	0.97675805
R Square	0.954056288
Adjusted R Square	0.950774594
Standard Error	0.141437473
Observations	16

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	5.815739278	5.815739278	290.7206995	9.23898E-11
Residual	14	0.280063821	0.020004559		
Total	15	6.095803099			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	1.189892635	0.067455611	17.63963904	5.85755E-11	1.045214738	1.334570531
landed oil price	0.006093065	0.000357353	17.0505337	9.23898E-11	0.005326618	0.006859512

Figure 3.32 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.33.

Figure 3.32 Actual and predicted energy component of Israeli petrol price

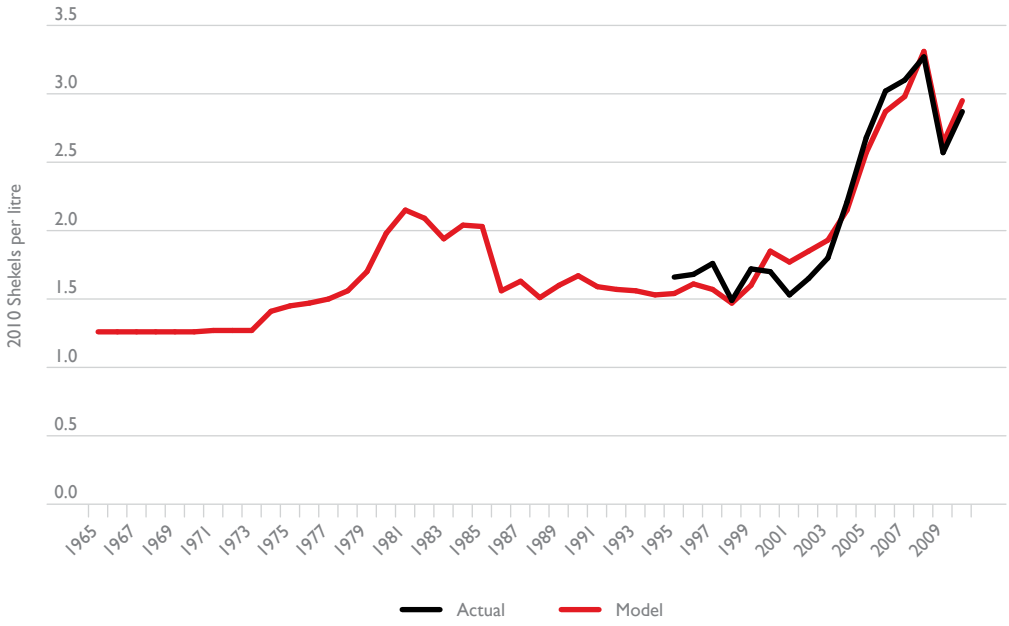
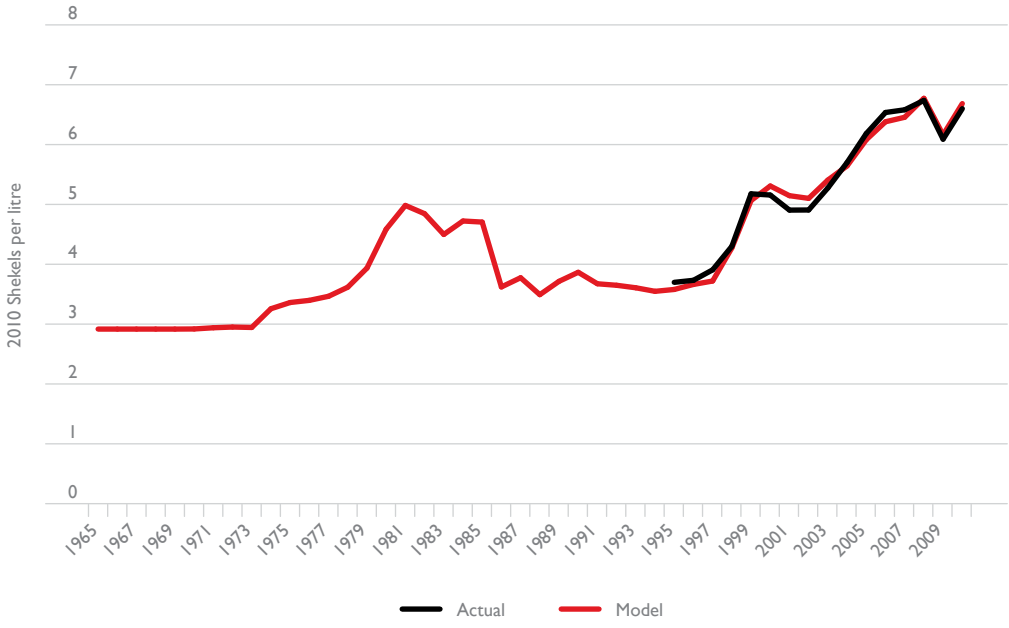


Figure 3.33 Actual and predicted Israeli petrol price



3.17 Italian Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content of the Italian petrol price in Euros. The real landed price of oil in Italy is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Euros per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and several dummy variable. The results are shown in Table 3.19.

Table 3.19 Regression results for predicting Italian energy content price

Regression Statistics	
Multiple R	0.980960492
R Square	0.962283487
Adjusted R Square	0.957568923
Standard Error	0.027548833
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	0.774529395	0.154905879	204.108684	2.36661E-27
Residual	40	0.030357528	0.000758938		
Total	45	0.804886924			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.208319596	0.010884953	19.1383087	9.64675E-22	0.186320285	0.230318907
landed oil price	0.006324303	0.000243698	25.95136731	1.21271E-26	0.00583177	0.006816835
dum6572	-0.067699153	0.012125975	-5.582986155	1.82116E-06	-0.092206663	-0.043191643
dum8390	-0.079615364	0.011605928	-6.859887835	2.94036E-08	-0.103071819	-0.056158909
dum86	0.104508118	0.029744345	3.513545779	0.001113607	0.044392555	0.164623681
dum94	0.170422929	0.028482609	5.983402951	4.98739E-07	0.112857429	0.227988429

Figure 3.34 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.35.

Figure 3.34 Actual and predicted energy component of Italian petrol price

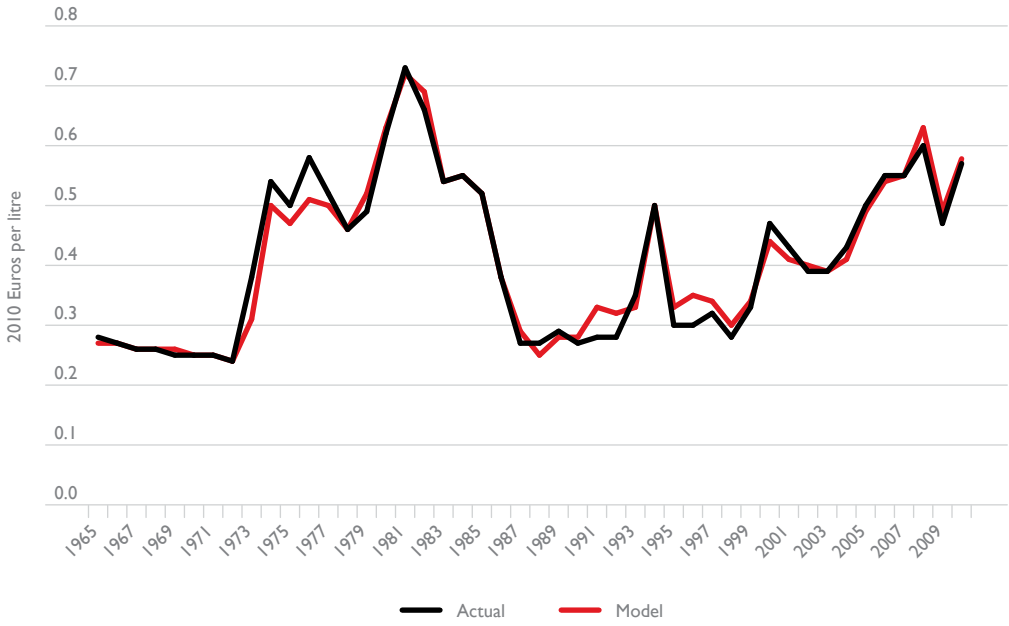
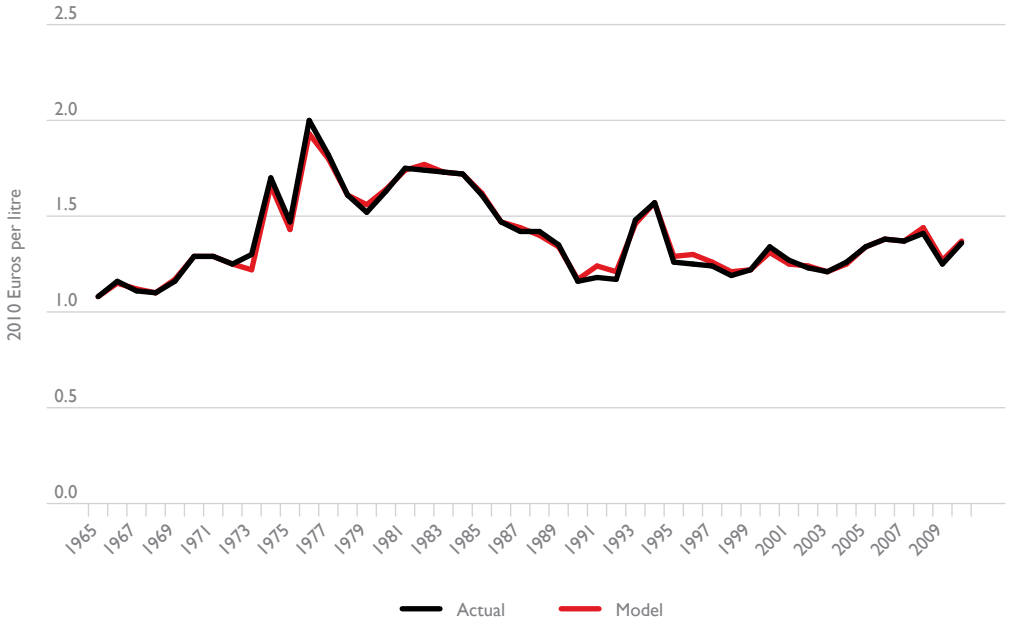


Figure 3.35 Actual and predicted Italian petrol price



3.18 Japanese Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content of the Japanese petrol price in Yen. The real landed price of oil in Japan is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Yen per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and three dummy variables. The results are shown in Table 3.20.

Table 3.20 Regression results for predicting Japanese energy content price

Regression Statistics	
Multiple R	0.985369644
R Square	0.970953336
Adjusted R Square	0.968119515
Standard Error	4.954970972
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	33648.69195	8412.172988	342.6304572	6.51199E-31
Residual	41	1006.621231	24.55173734		
Total	45	34655.31318			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	51.48645307	1.914888372	26.88744358	1.15804E-27	47.61925759	55.35364855
landed oil price	0.007558305	0.00030392	24.86935037	2.36889E-26	0.006944525	0.008172084
dum6573	-12.21561565	2.064772613	-5.916203836	5.69297E-07	-16.3855085	-8.045722813
dum7477	20.63155576	2.793029096	7.38680302	4.7125E-09	14.99091913	26.27219239
dum95on	-29.50529535	1.764877327	-16.71804318	6.51544E-20	-33.06953739	-25.94105332

Figure 3.36 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.37.

Figure 3.36 Actual and predicted energy component of Japanese petrol price

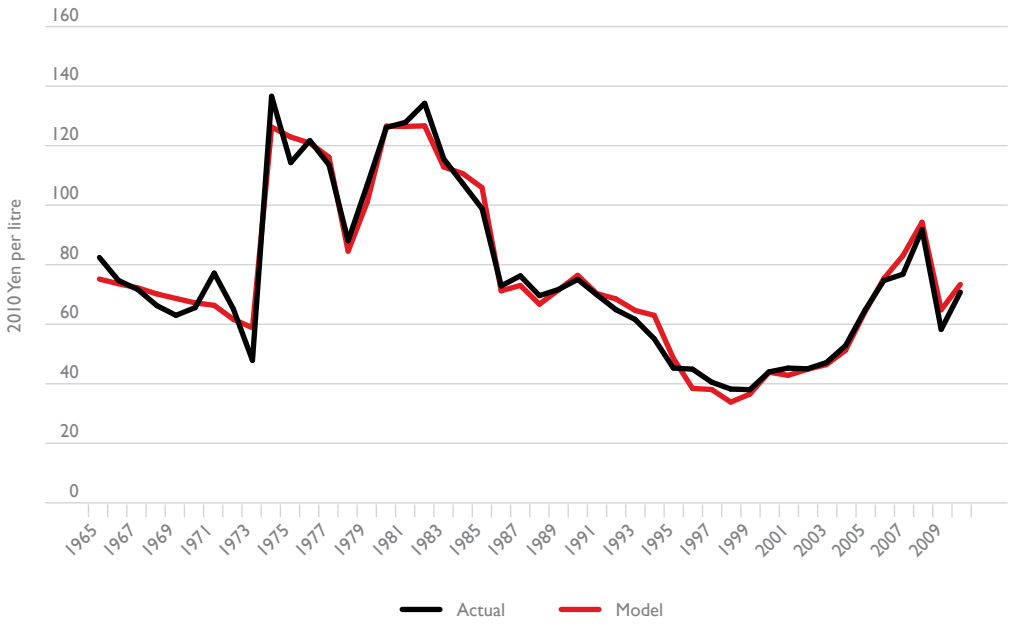
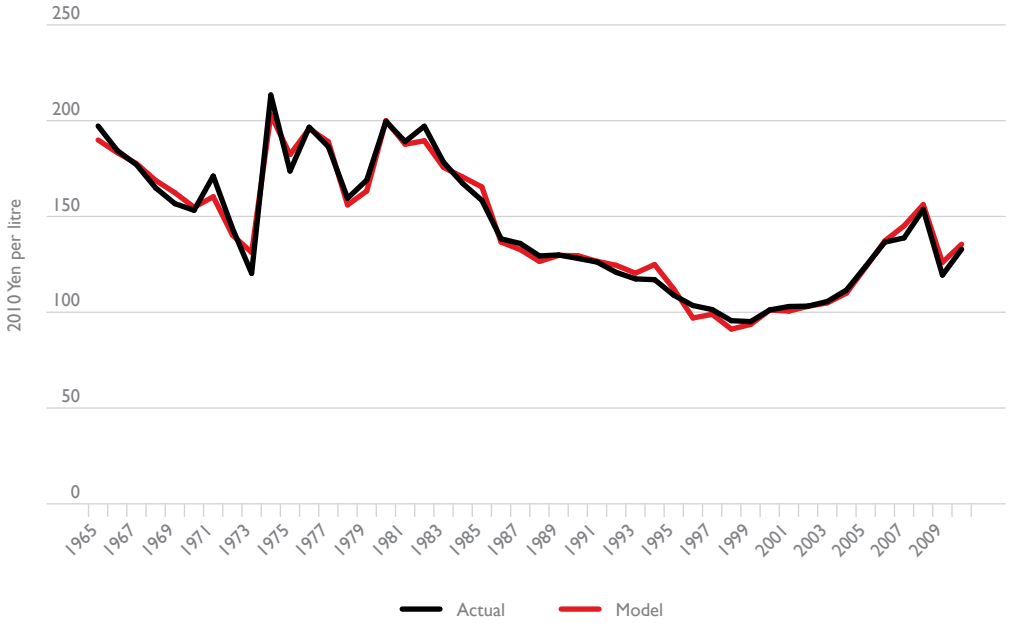


Figure 3.37 Actual and predicted Japanese petrol price



3.19 Korean Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content of the Korean petrol price in Won. The real landed price of oil in Korea is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Won per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and one dummy variable. The results are shown in Table 3.21.

Table 3.21 Regression results for predicting Korean energy content price

Regression Statistics	
Multiple R	0.971487733
R Square	0.943788415
Adjusted R Square	0.937542683
Standard Error	31.25796475
Observations	21

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	295285.9002	147642.9501	151.109344	5.60315E-12
Residual	18	17587.08648	977.06036		
Total	20	312872.9866			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	335.4346819	16.38220261	20.47555447	6.41763E-14	301.0169514	369.8524124
landed oil price	0.005236989	0.000369125	14.18757099	3.2605E-11	0.004461486	0.006012492
dum0809	-56.16979046	30.93004387	-1.81602686	0.086060415	-121.1514012	8.811820313

Figure 3.38 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.39.

Figure 3.38 Actual and predicted energy component of Korean petrol price

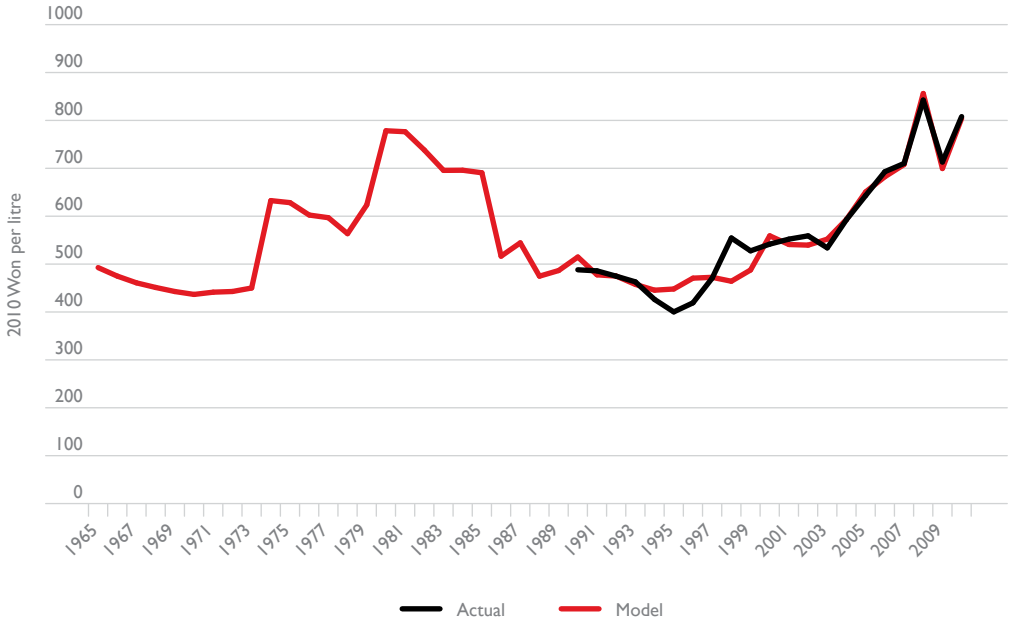
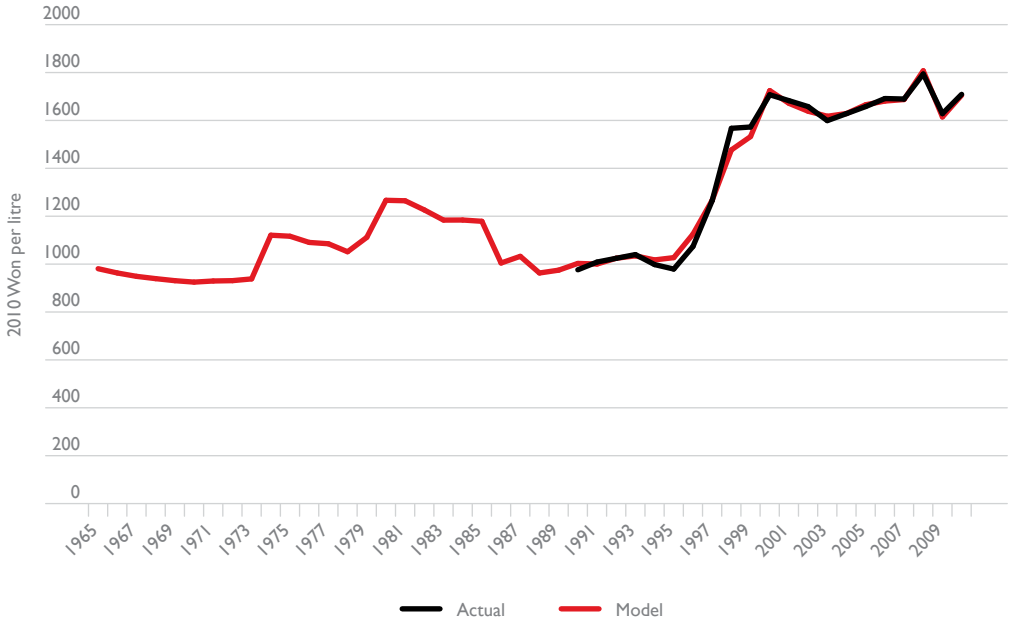


Figure 3.39 Actual and predicted Korean petrol price



3.20 Dutch Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content of the Dutch petrol price in Euros. The real landed price of oil in the Netherlands is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Euros per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and two dummy variables. The results are shown in Table 3.22.

Table 3.22 Regression results for predicting Dutch energy content price

Regression Statistics	
Multiple R	0.949756963
R Square	0.902038288
Adjusted R Square	0.895041023
Standard Error	0.046844362
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	0.848657693	0.282885898	128.9129782	3.25135E-21
Residual	42	0.092164558	0.002194394		
Total	45	0.940822251			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.214962331	0.016234675	13.24093798	1.38378E-16	0.18219943	0.247725232
landed oil price	0.007040749	0.000458303	15.36264262	7.66471E-19	0.006115856	0.007965643
dum8487	0.189597852	0.025549376	7.420840892	3.65706E-09	0.138037125	0.241158579
dum06on	-0.082462565	0.029386943	-2.806095407	0.007568463	-0.141767816	-0.023157314

Figure 3.40 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.41.

Figure 3.40 Actual and predicted energy component of Dutch petrol price

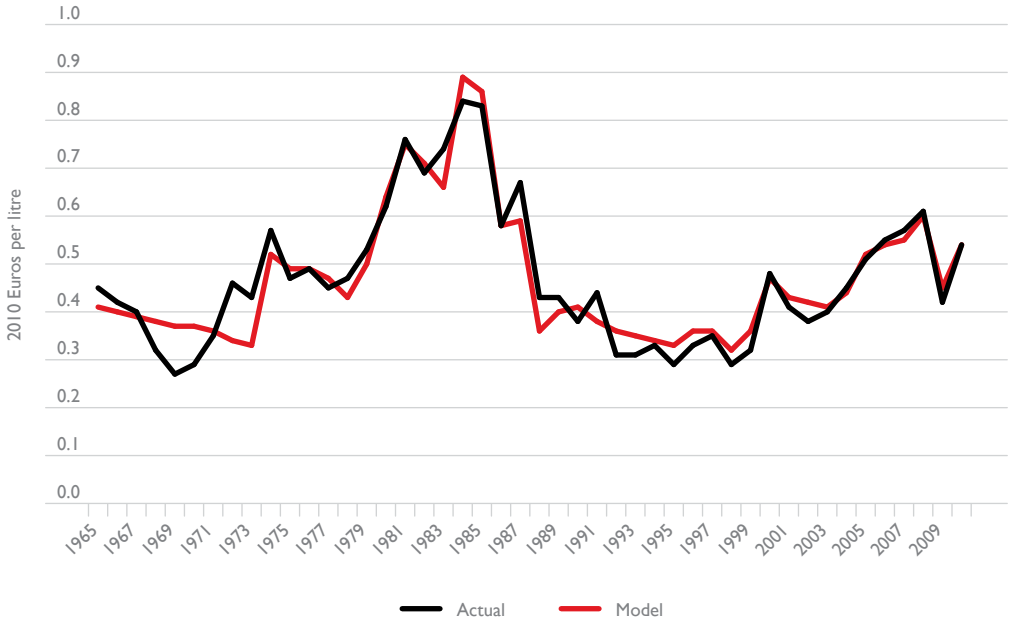
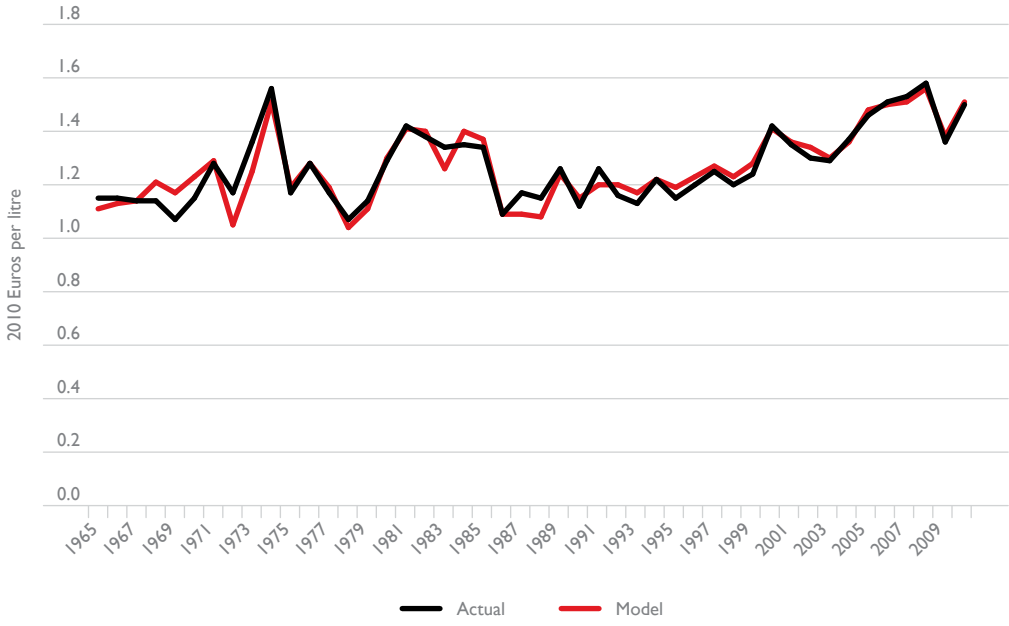


Figure 3.41 Actual and predicted Dutch petrol price



3.21 New Zealand Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content of the New Zealand petrol price in New Zealand dollars. The real landed price of oil in the New Zealand is calculated as simply the price of oil in US dollars per barrel times the exchange rate in New Zealand dollars per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and two dummy variables. The results are shown in Table 3.23.

Table 3.23 Regression results for predicting New Zealand energy content price

Regression Statistics	
Multiple R	0.947774638
R Square	0.898276764
Adjusted R Square	0.891010818
Standard Error	0.087017904
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	2.80838421 1	0.93612807	123.6283383	7.15882E-21
Residual	42	0.318028856	0.007572116		
Total	45	3.126413066			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.440050859	0.028705758	15.32970695	8.2766E-19	0.382120294	0.497981423
landed oil price	0.0066961	0.000357185	18.74688214	5.09013E-22	0.005975272	0.007416928
dum7475	-0.378591996	0.063874232	-5.927147514	5.05589E-07	-0.507495414	-0.249688579
dum98on	-0.18147267	0.0300148	-6.046106162	3.40935E-07	-0.242044988	-0.120900351

Figure 3.42 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.43.

Figure 3.42 Actual and predicted energy component of New Zealand petrol price

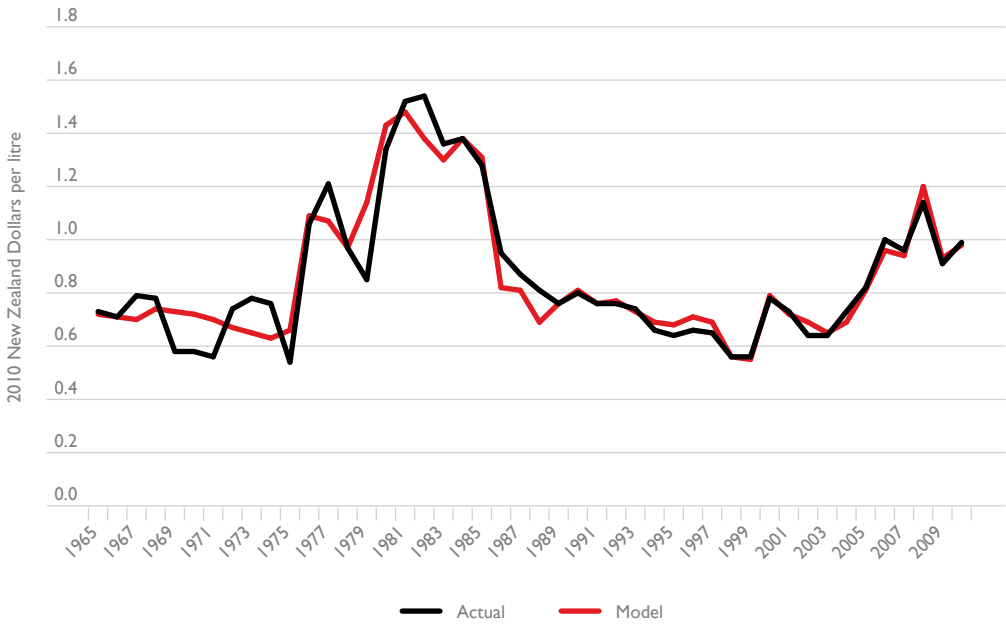
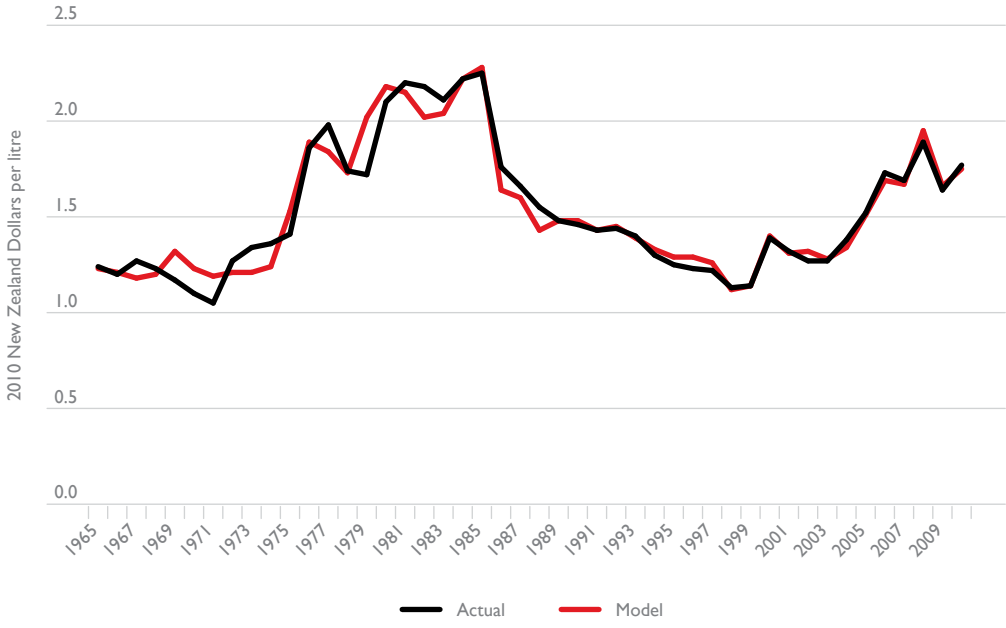


Figure 3.43 Actual and predicted New Zealand petrol price



3.22 Norwegian Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content of the Norwegian petrol price in Krone. The real landed price of oil in the Norway is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Krone per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and two dummy variables. The results are shown in Table 3.24.

Table 3.24 Regression results for predicting Norwegian energy content price

Regression Statistics	
Multiple R	0.964118786
R Square	0.929525034
Adjusted R Square	0.924491108
Standard Error	0.263998098
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	38.60798193	12.86932731	184.6520996	3.27196E-24
Residual	42	2.927189824	0.069694996		
Total	45	41.53517175			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	2.197252002	0.09241379	23.77623521	5.48514E-26	2.010753426	2.383750578
landed oil price	0.006676153	0.000290321	22.99578087	2.0208E-25	0.006090262	0.007262044
dum90	1.628529215	0.268900965	6.056241623	3.29676E-07	1.085865105	2.171193326
dum97on	-0.42843444	0.085800744	-4.993365063	1.08774E-05	-0.60158735	-0.255281529

Figure 3.44 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.45.

Figure 3.44 Actual and predicted energy component of Norwegian petrol price

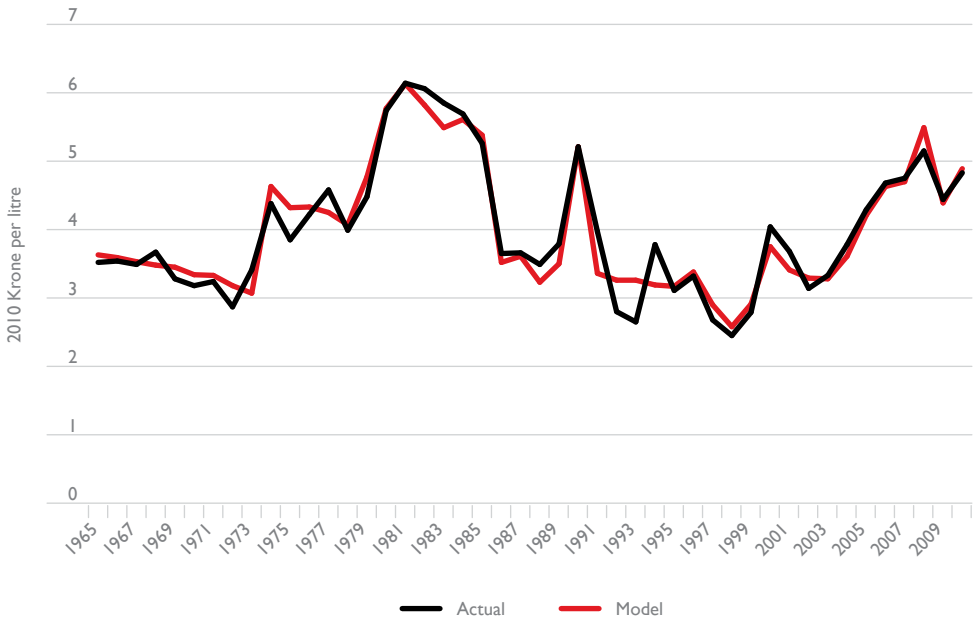
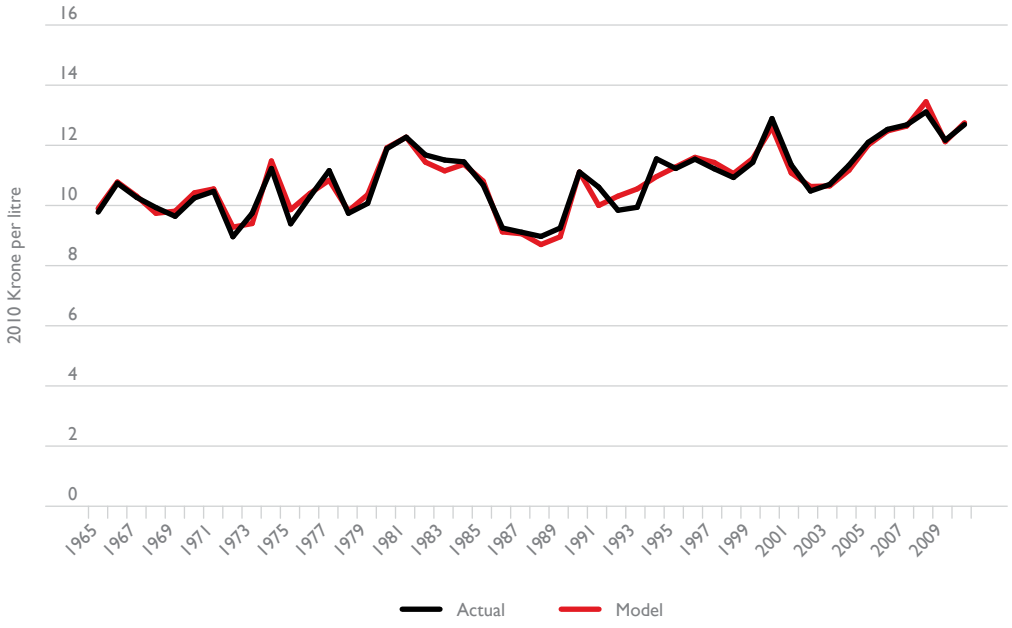


Figure 3.45 Actual and predicted Norwegian petrol price



3.23 Spanish Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content of the Spanish petrol price in Euros. The real landed price of oil in the Spain is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Euros per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and several dummy variables. The results are shown in Table 3.25.

Table 3.25 Regression results for predicting Spanish energy content price

Regression Statistics	
Multiple R	0.978623487
R Square	0.95770393
Adjusted R Square	0.953577484
Standard Error	0.034660152
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	1.115259768	0.278814942	232.0893011	1.42466E-27
Residual	41	0.049254371	0.001201326		
Total	45	1.16451414			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.196081162	0.013780018	14.22938318	1.86492E-17	0.168251851	0.223910473
landed oil price	0.005644095	0.000311499	18.11915657	3.53104E-21	0.005015011	0.00627318
dum6574	0.142610863	0.013195525	10.80751697	1.43051E-13	0.115961959	0.169259766
dum8188	0.248502249	0.015863319	15.66521159	6.59076E-19	0.216465626	0.280538871
dum9394	0.183486465	0.026114769	7.026156869	1.51367E-08	0.13074662	0.236226311

Figure 3.46 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.47.

Figure 3.46 Actual and predicted energy component of Spanish petrol price

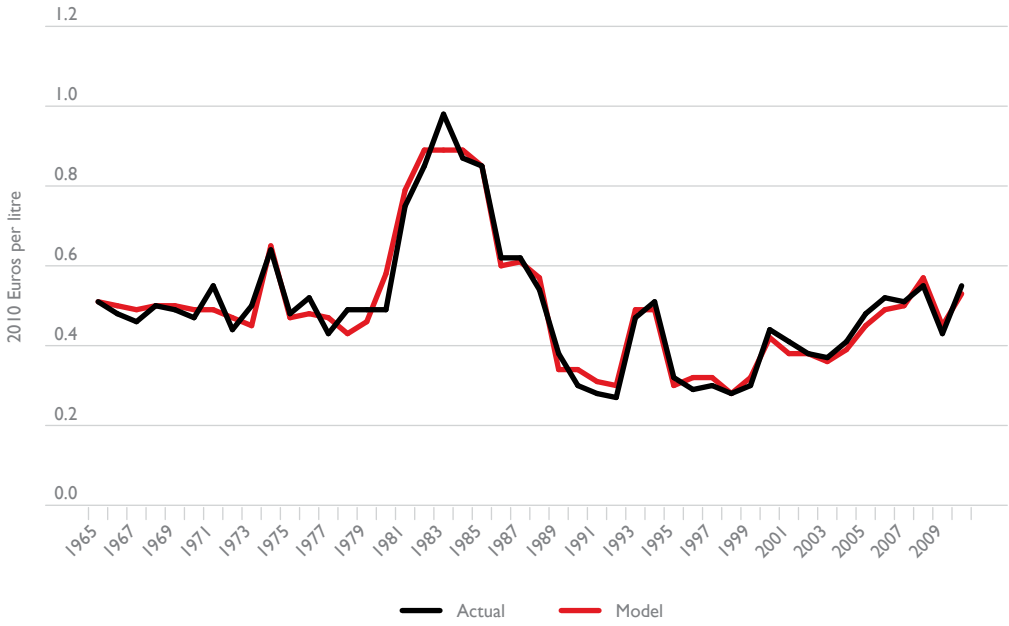
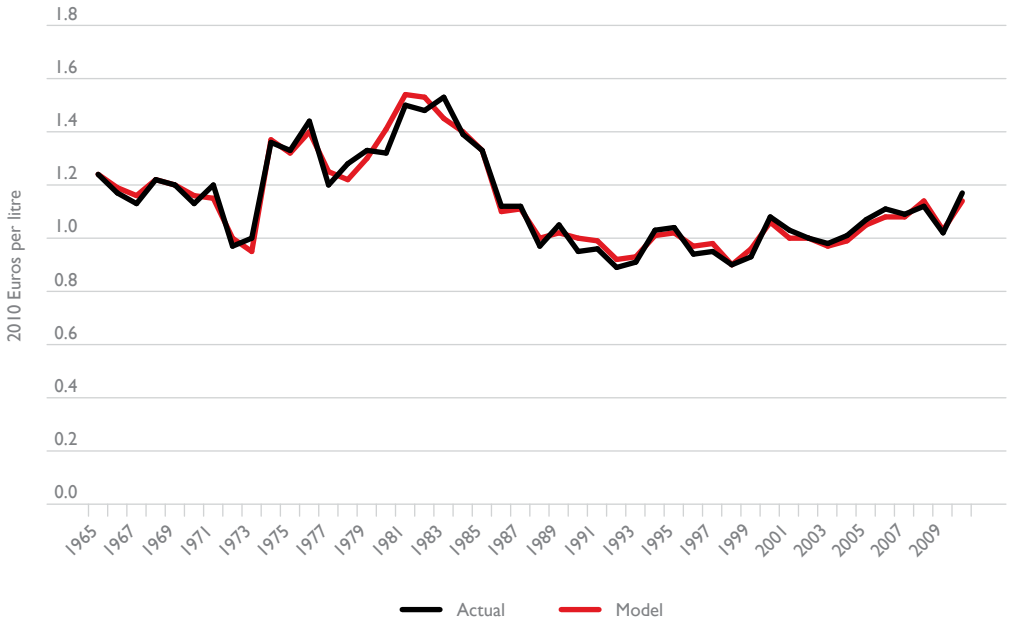


Figure 3.47 Actual and predicted Spanish petrol price



3.24 Swedish Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content of the Swedish petrol price in Krona. The real landed price of oil in the Sweden is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Krona per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and two dummy variables. The results are shown in Table 3.26.

Table 3.26 Regression results for predicting Swedish energy content price

Regression Statistics	
Multiple R	0.962702595
R Square	0.926796286
Adjusted R Square	0.921567449
Standard Error	0.305482667
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	49.62192458	16.54064153	177.2471263	7.25545E-24
Residual	42	3.919425711	0.09331966		
Total	45	53.54135029			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	1.10156242	0.104124872	10.57924397	2.0338E-13	0.891429925	1.311694916
landed oil price	0.007537482	0.00038572	19.5413536	1.06115E-22	0.006759069	0.008315896
dum91	2.081227133	0.311398295	6.683489167	4.12954E-08	1.452799939	2.709654328
dum06on	-0.467484275	0.182003598	-2.568544136	0.013857484	-0.834782402	-0.100186148

Figure 3.48 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.49.

Figure 3.48 Actual and predicted energy component of Swedish petrol price

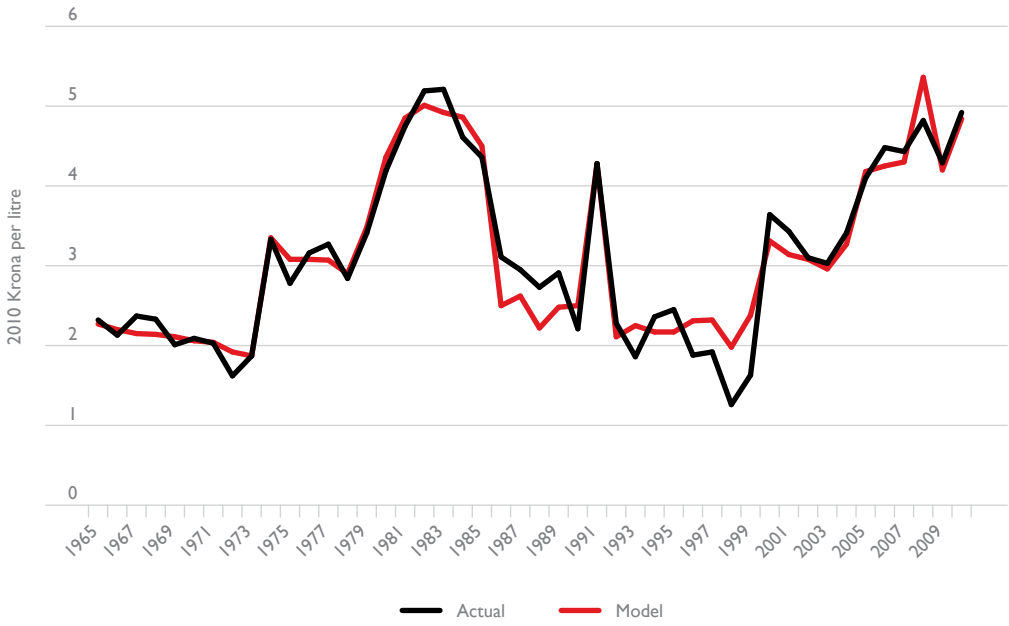
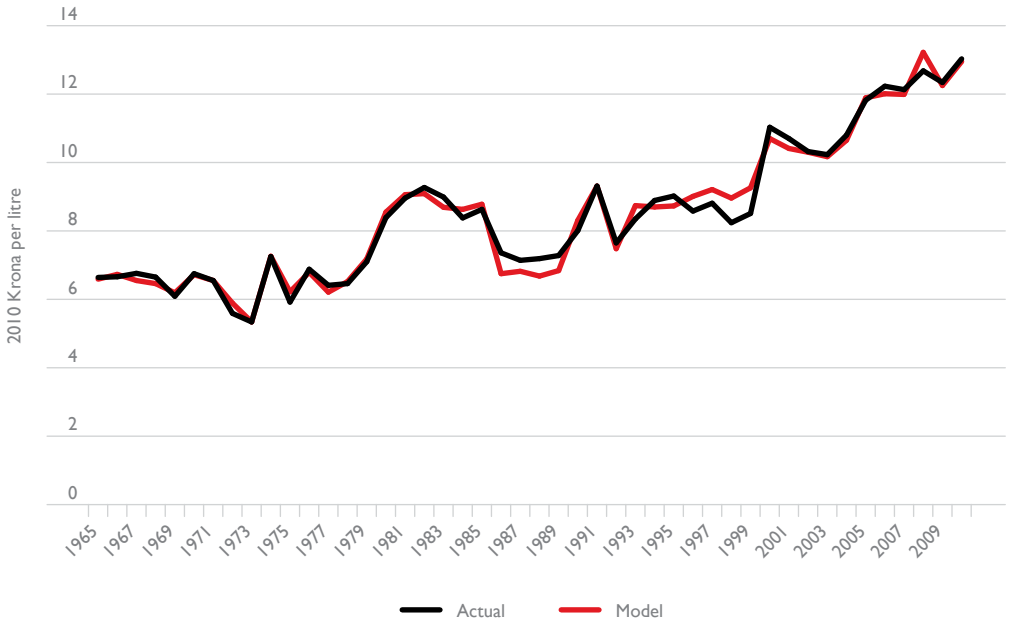


Figure 3.49 Actual and predicted Swedish petrol price



3.25 Swiss Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content of the Swiss petrol price in Francs. The real landed price of oil in Switzerland is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Francs per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and two dummy variables. The results are shown in Table 3.29.

Table 3.27 Regression results for predicting Swiss energy content price

Regression Statistics	
Multiple R	0.97837859
R Square	0.957224665
Adjusted R Square	0.954169284
Standard Error	0.048115216
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	2.175878492	0.725292831	313.2914193	9.27274E-29
Residual	42	0.09723111	0.002315074		
Total	45	2.273111602			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.377719401	0.02008787	18.80335728	4.54539E-22	0.337180438	0.418258364
landed oil price	0.006355998	0.000278746	22.80211425	2.80937E-25	0.005793465	0.00691853
dum6567	0.184834346	0.029645512	6.23481724	1.8242E-07	0.125007283	0.24466141
dum92on	-0.122916363	0.011823479	-10.3959554	3.47511E-13	-0.146777109	-0.099055616

Figure 3.50 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.51.

Figure 3.50 Actual and predicted energy component of Swiss petrol price

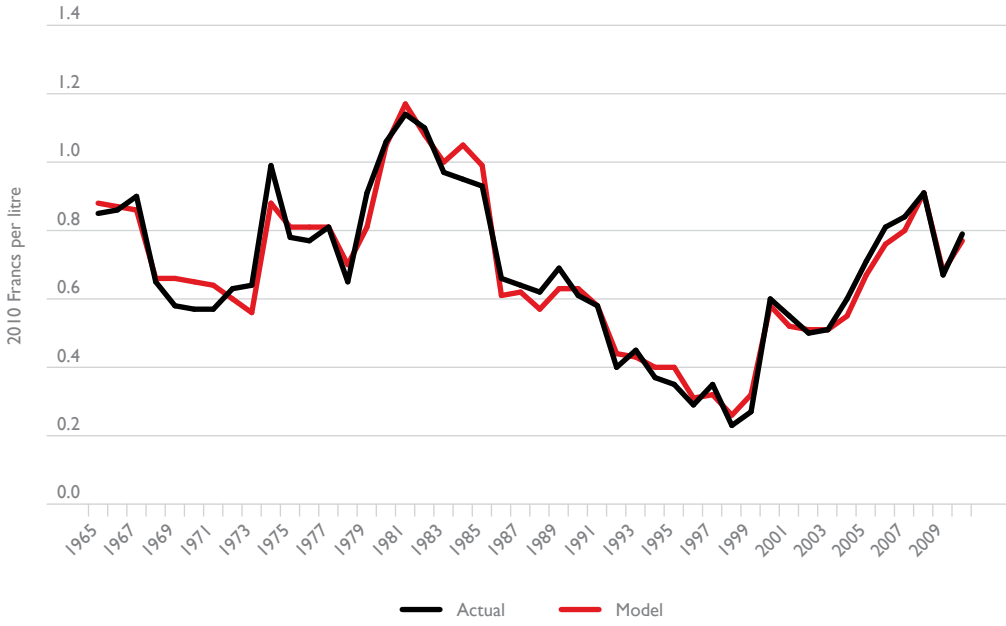
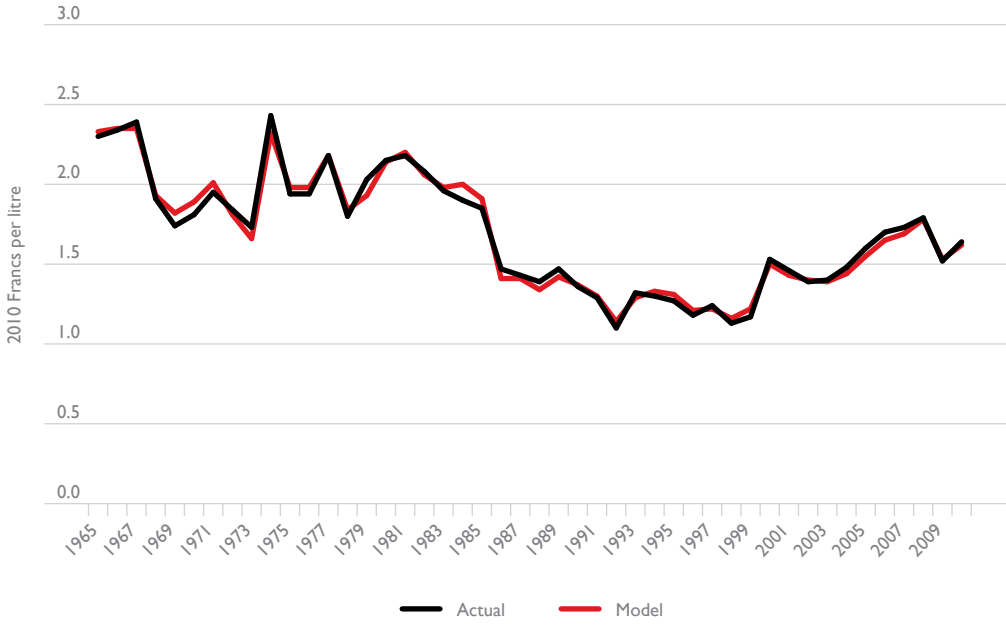


Figure 3.51 Actual and predicted Swiss petrol price



3.26 Turkish Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content of the Turkish petrol price in Lira. The real landed price of oil in Turkey is calculated as simply the price of oil in US dollars per barrel times the exchange rate in Lira per US dollar divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and three dummy variables. The results are shown in Table 3.28.

Table 3.28 Regression results for predicting Turkish energy content price

Regression Statistics	
Multiple R	0.976608984
R Square	0.953765108
Adjusted R Square	0.949254387
Standard Error	0.15123252
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	19.34397944	4.835994861	211.4440412	8.80521E-27
Residual	41	0.937722284	0.022871275		
Total	45	20.28170173			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.332506147	0.059039849	5.631893564	1.44284E-06	0.213272754	0.45173954
landed oil price	0.011535717	0.000649896	17.75011026	7.47899E-21	0.010223226	0.012848208
dum6876	-0.404990896	0.061555222	-6.579310132	6.49282E-08	-0.529304188	-0.280677605
dum8283	0.924146531	0.125083481	7.388238046	4.69075E-09	0.67153532	1.176757742
dum0509	-0.300196745	0.058293234	-5.149769926	6.91918E-06	-0.417922319	-0.182471171

Figure 3.52 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.53.

Figure 3.52 Actual and predicted energy component of Turkish petrol price

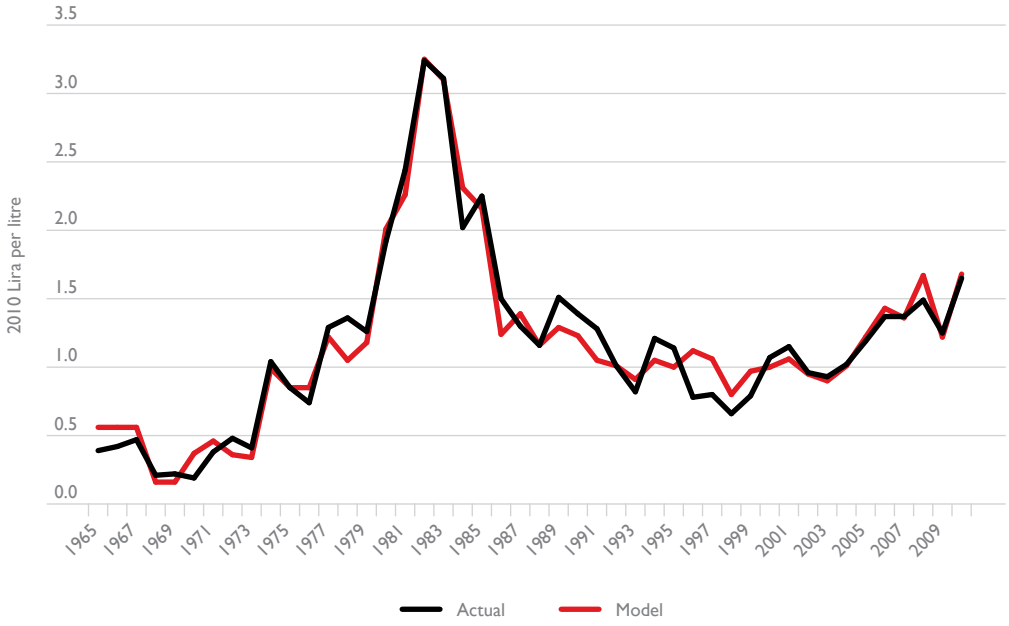
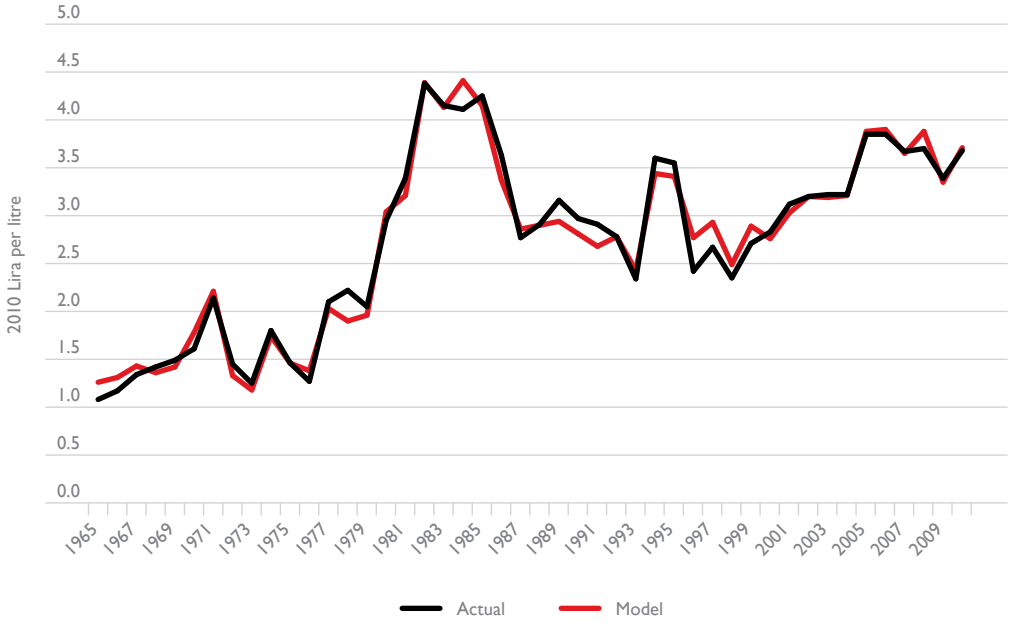


Figure 3.53 Actual and predicted Turkish petrol price



3.27 American Petrol Prices

Subtracting total tax from the nominal petrol price and dividing by the Consumer Price Index, gives the real energy content of the American petrol price in US dollars. The real landed price of oil in the US is calculated as simply the price of oil in US dollars per barrel divided by the Consumer Price Index. A regression was performed using the energy content price of petrol regressed against the landed oil price and two dummy variables. The results are shown in Table 3.29.

Table 3.29 Regression results for predicting American energy content price

Regression Statistics	
Multiple R	0.993159988
R Square	0.986366761
Adjusted R Square	0.985392959
Standard Error	1.719315481
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	8982.553923	2994.184641	1012.902006	3.50699E-39
Residual	42	124.1539203	2.956045722		
Total	45	9106.707843			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	10.74540234	0.708934135	15.15712366	1.24013E-18	9.314715355	12.17608933
landed oil price	0.75246661	0.014754397	50.99948138	2.06741E-39	0.722691031	0.782242189
dum6573	11.03911225	0.731303367	15.09512023	1.43516E-18	9.563282326	12.51494218
dum08on	-8.747074274	1.155208627	-7.571856781	2.23552E-09	-11.07837964	-6.415768909

Figure 3.54 shows the fit of the regression model values to the actual energy content price data.

Adding tax to the model values for energy content gives a model value for total petrol price. The fit between this model value and the actual petrol price is shown in Figure 3.55.

Figure 3.54 Actual and predicted energy component of American petrol price

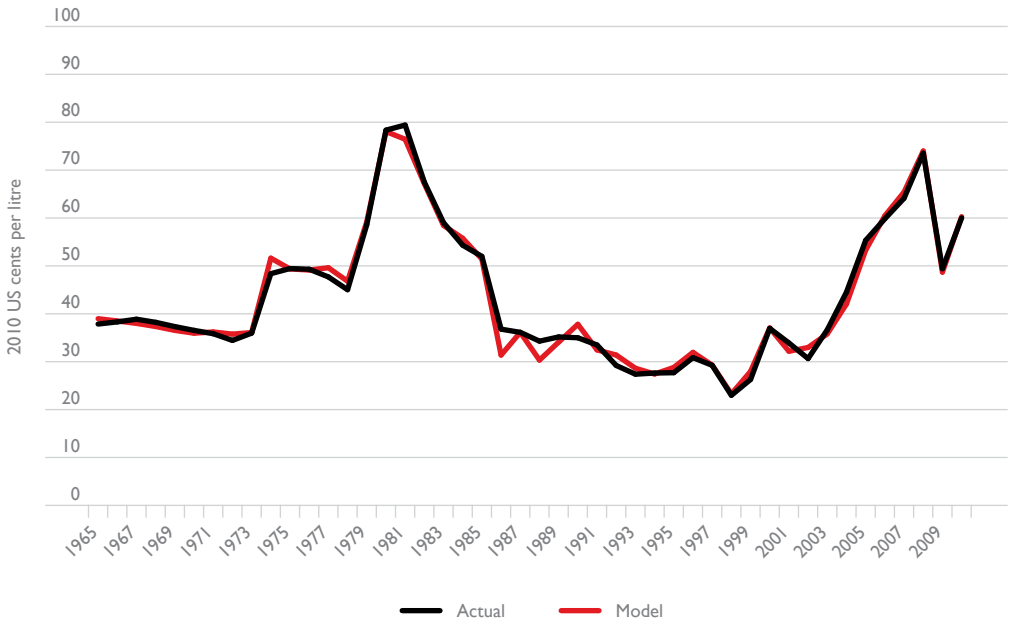
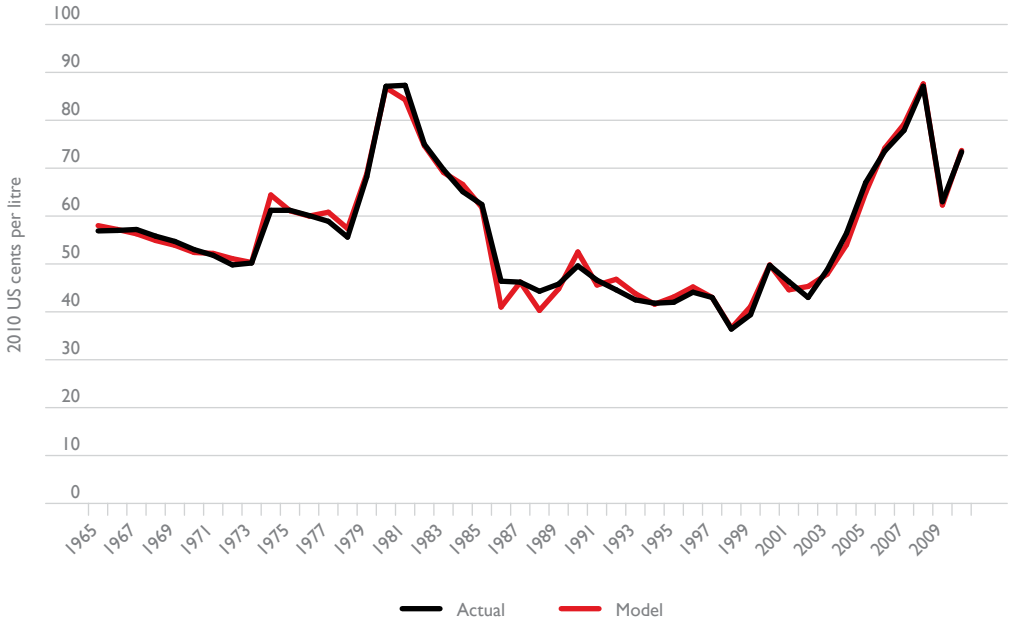


Figure 3.55 Actual and predicted American petrol price



3.28 Petrol Price Determination

In Australia, as in other countries around the world, one of the important influences on traffic growth has been fluctuations in petrol prices. So an understanding and modelling of how individual countries' petrol prices are set is important in understanding the outlook for traffic growth given different scenarios about world oil prices. Having developed equations to translate oil prices into country petrol prices, it is now possible to develop three petrol price scenarios for each country, based on the three oil supply/price scenarios developed at the beginning of the chapter (Tables 3.2 to 3.4). These petrol price scenarios are then used to calculate three corresponding traffic growth scenarios in Chapter 4, which also examines an unemployment and a Global Financial Crisis scenario.

Chapter 4
Scenario Testing

The base-case projections in Chapter 2 were based on assumed values for the three main explanatory variables in the models. Petrol prices were assumed to remain constant at their 2011 estimated real values. Unemployment was assumed to decline somewhat to 2015 and then remain constant. Finally, any effect from the Global Financial Crisis was assumed to disappear over the this decade.

This chapter presents scenario testing for each of these three variables.

The aim is to examine how the projections for each country will change if you change the assumptions, and in the process, illustrate how the projection calculations work (see Appendix C).

The process generated five scenarios in addition to the base case.

Three petrol price scenarios were generated – high, medium and low. The base-case held real petrol prices constant at their estimated 2011 values. The high, medium and low scenario petrol prices were generated from the three oil price scenarios developed in the last chapter. In all three oil price scenarios, exchange rates projections were derived from USDA forecasts of real exchange rates (USDA-ERA 2011). Excise was assumed to remain constant in real terms at the 2011 estimated amount. Sales tax rates were held constant at estimated 2011 values.

Secondly, unemployment was assumed to remain unchanged after 2011, making it higher than in the base case.

Finally, the GFC effect was assumed to persist for the whole forecast period, continuing its negative effect on traffic levels.

The following sections examine the effects of the five scenarios on the base-case projection of traffic growth in each country, starting with Australia.

4.1 Australian Scenarios

Australian aggregate vkt projections range around an upward base case trend. Australian trend vkt per person is already saturated, so the long-term trend in aggregate vkt will follow the strong population growth trend projected for Australia.

Looking at Figure 4.1, it can be seen that the faster upward trend in the base case to 2020 is due to the negative effect of the GFC coming off. For Australia, the GFC effect is the one generating the most significant downward deviation from the base case.

Unemployment being unchanged is the least significant, being hidden under the base case line in Figure 4.1. This is because unemployment in Australia is low in 2011, and the base case decline is minor (see Appendix C).

High, medium and low petrol price scenarios are spread around the base case. For Australia, both unemployment and the petrol price have not in the past produced marked deviations of per person vkt from the saturating trend, and this is reflected in the scenarios.

Figure 4.1 Australian vehicle kilometre scenarios

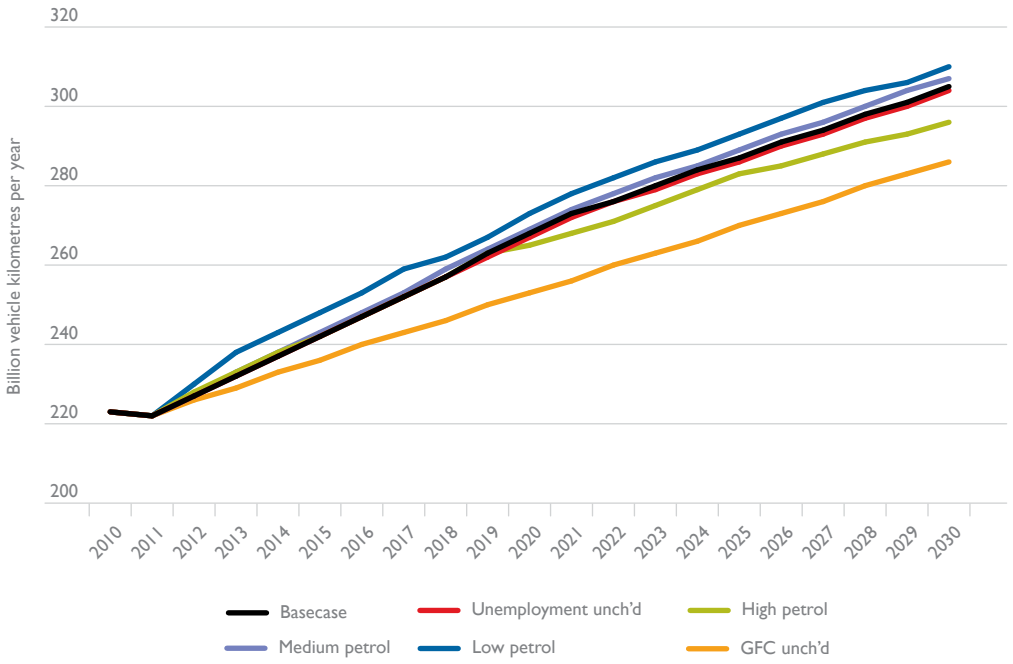


Table 4.1 Australian vehicle kilometre scenarios

Vehicle kilometres travelled (billion)						
	Basecase	Unemployment unchanged	Petrol prices			GFC unchanged
			High petrol	Medium petrol	Low petrol	
2010	223	223	223	223	223	223
2011	222	222	222	222	222	222
2012	227	227	228	227	230	226
2013	232	232	233	233	238	229
2014	237	237	238	238	243	233
2015	242	242	242	243	248	236
2016	247	247	247	248	253	240
2017	252	252	252	253	259	243
2018	257	257	257	259	262	246
2019	263	262	263	264	267	250
2020	268	267	265	269	273	253
2021	273	272	268	274	278	256
2022	276	276	271	278	282	260
2023	280	279	275	282	286	263
2024	284	283	279	285	289	266
2025	287	286	283	289	293	270
2026	291	290	285	293	297	273
2027	294	293	288	296	301	276
2028	298	297	291	300	304	280
2029	301	300	293	304	306	283
2030	305	304	296	307	310	286

4.2 Austrian Scenarios

Austrian aggregate vkt projections range around a slowing upward base case trend. This is the combination of an almost stable forecast population with a trend in per person vkt that will only be approaching saturation by the end of the forecast period.

Looking at Figure 4.2, it can be seen that for Austria, the GFC effect is the one generating the most significant downward deviation from the base case.

Unemployment being unchanged is less significant. This is because unemployment in Austria is low in 2011, and the base case decline is minor (see Appendix C).

High and low petrol price scenarios are spread around the base case, with the medium scenario being almost identical with the base case.

Figure 4.2 Austrian vehicle kilometre scenarios

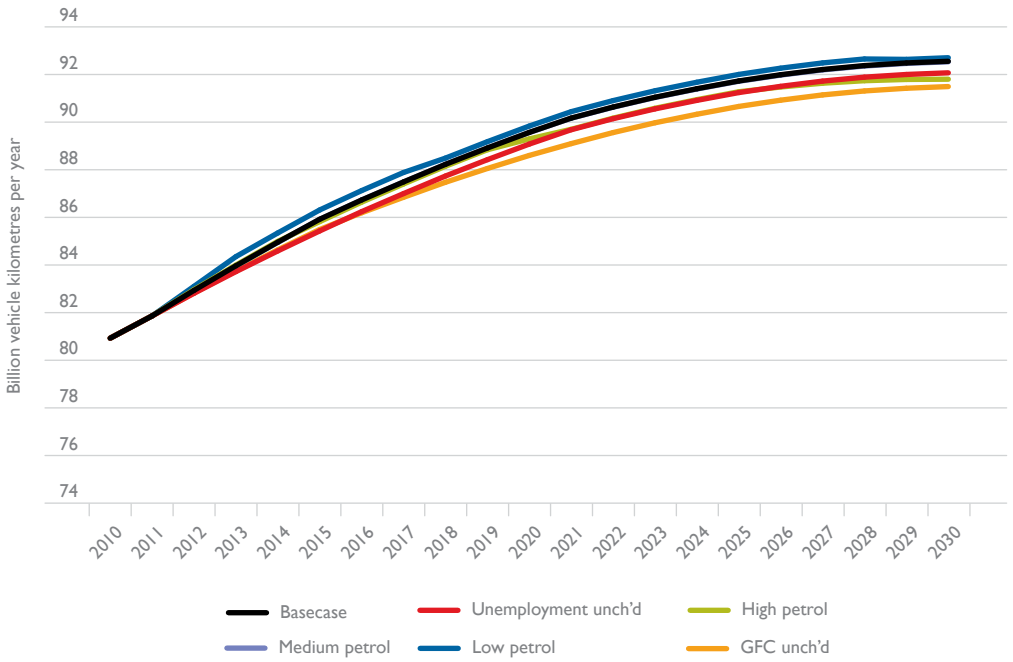


Table 4.2 Austrian vehicle kilometre scenarios

Vehicle kilometres travelled (billion)						
	Basecase	Unemployment unchanged	Petrol prices			GFC unchanged
			High petrol	Medium petrol	Low petrol	
2010	81	81	81	81	81	81
2011	82	82	82	82	82	82
2012	83	83	83	83	83	83
2013	84	84	84	84	84	84
2014	85	85	85	85	85	85
2015	86	85	86	86	86	85
2016	87	86	87	87	87	86
2017	87	87	87	87	88	87
2018	88	88	88	88	88	87
2019	89	88	89	89	89	88
2020	90	89	89	90	90	89
2021	90	90	90	90	90	89
2022	91	90	90	91	91	90
2023	91	91	91	91	91	90
2024	91	91	91	91	92	90
2025	92	91	91	92	92	91
2026	92	92	91	92	92	91
2027	92	92	92	92	92	91
2028	92	92	92	92	93	91
2029	92	92	92	92	93	91
2030	93	92	92	93	93	91

4.3 Belgian Scenarios

Belgian aggregate vkt projections range around a base case trend that is upward to 2020 and then flat. Belgium is nearing saturation in the vkt per person trend (which it should reach in 2017), and the projection is for no growth in population. Thus the underlying aggregate vkt trend should be flat post-2017.

Looking at Figure 4.3, it can be seen that much of the upward trend in the base case to 2020 is due to the negative effect of the GFC coming off and unemployment being assumed to fall. For Belgium, the unemployment and GFC scenarios generate significant downward deviations from the base case.

High, medium and low petrol price scenarios are spread around the base case. For Belgium, the effects of higher petrol prices are a significant downward influence on projected traffic levels.

Figure 4.3 Belgian vehicle kilometre scenarios

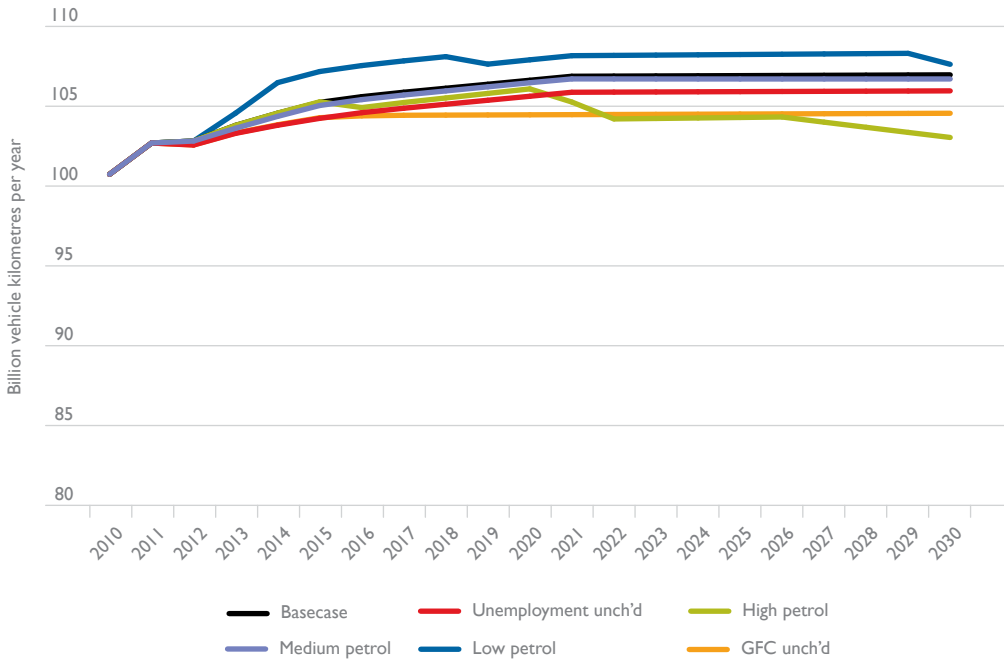


Table 4.3 Belgian vehicle kilometre scenarios

Vehicle kilometres travelled (billion)						
	Basecase	Unemployment unchanged	Petrol prices			GFC unchanged
			High petrol	Medium petrol	Low petrol	
2010	101	101	101	101	101	101
2011	103	103	103	103	103	103
2012	103	103	103	103	103	103
2013	104	103	104	104	105	103
2014	105	104	105	104	106	104
2015	105	104	105	105	107	104
2016	106	105	105	105	108	104
2017	106	105	105	106	108	104
2018	106	105	106	106	108	104
2019	106	105	106	106	108	104
2020	107	106	106	106	108	104
2021	107	106	105	107	108	104
2022	107	106	104	107	108	104
2023	107	106	104	107	108	104
2024	107	106	104	107	108	105
2025	107	106	104	107	108	105
2026	107	106	104	107	108	105
2027	107	106	104	107	108	105
2028	107	106	104	107	108	105
2029	107	106	103	107	108	105
2030	107	106	103	107	108	105

4.4 British Scenarios

British aggregate vkt projections range around an upward base case trend. This is the combination of an almost stable trend in per person vkt (that will be approaching saturation by 2016), with a moderate population growth trend.

Looking at Figure 4.4, it can be seen that for Britain, the unemployment effect generates a significant downward deviation from the base case. This is because unemployment in Britain is high in 2011, and the base case decline is significant (see Appendix C).

High and low petrol price scenarios are spread around the base case, with the medium scenario being almost identical with the base case. The high petrol price scenario generates the most significant downward influence on the base-case projection.

Figure 4.4 British vehicle kilometre scenarios

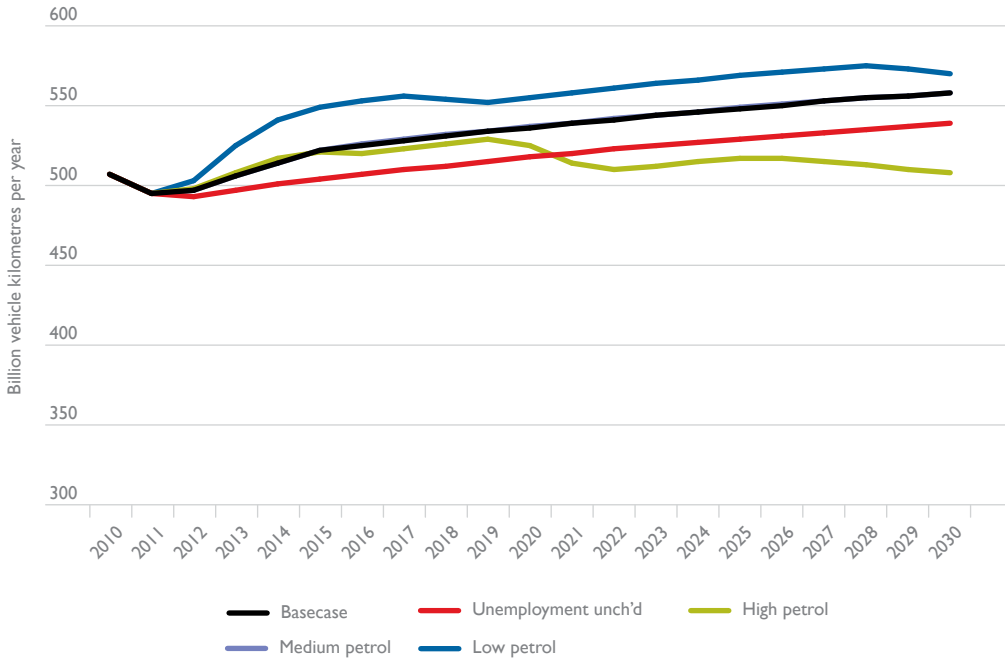


Table 4.4 British vehicle kilometre scenarios

Vehicle kilometres travelled (billion)					
	Basecase	Unemployment unchanged	Petrol prices		
			High petrol	Medium petrol	Low petrol
2010	507	507	507	507	507
2011	495	495	495	495	495
2012	497	493	498	497	503
2013	506	497	508	506	525
2014	514	501	517	514	541
2015	522	504	521	522	549
2016	525	507	520	526	553
2017	528	510	523	529	556
2018	531	512	526	532	554
2019	534	515	529	534	552
2020	536	518	525	537	555
2021	539	520	514	539	558
2022	541	523	510	542	561
2023	544	525	512	544	564
2024	546	527	515	546	566
2025	548	529	517	549	569
2026	550	531	517	551	571
2027	553	533	515	553	573
2028	555	535	513	555	575
2029	556	537	510	556	573
2030	558	539	508	558	570

4.5 Canadian Scenarios

Canadian aggregate vkt projections range around an upward base case trend, once the effect of the rise in petrol price in 2011 wears off after 2012 (the latter caused by the inclusion of current plus lagged petrol price in the Canadian equation). Canada has already reached saturation in trend per person travel, and so the upward base-case trend is due to the projected population increase.

Looking at Figure 4.5, it can be seen that the slightly faster upward trend in the base case to 2015 is due to unemployment being assumed to decline. This is so even though unemployment in Canada is fairly high in 2011, and the base case decline is significant (see Appendix C).

High, medium and low petrol price scenarios are spread around the base case. For Canada, the petrol price has in the past produced marked deviations of per person vkt from the saturating trend, and this is reflected in the scenarios – the high petrol price scenario produces the most significant downward influence on the base-case projection of traffic levels.

Figure 4.5 Canadian vehicle kilometre scenarios

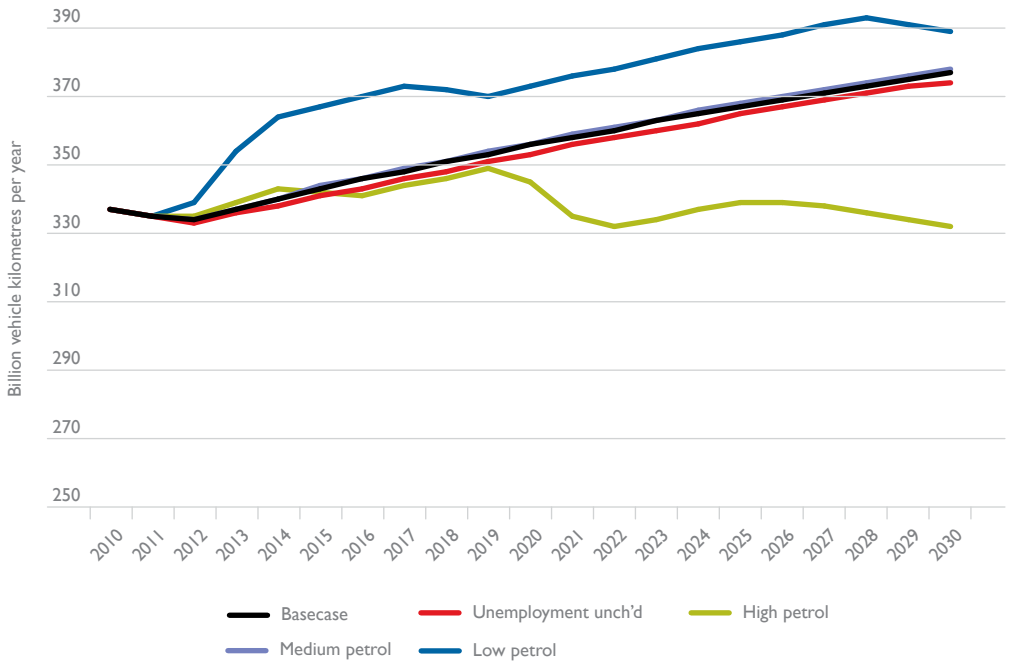


Table 4.5 Canadian vehicle kilometre scenarios

Vehicle kilometres travelled (billion)					
	Basecase	Unemployment unchanged	Petrol prices		
			High petrol	Medium petrol	Low petrol
2010	337	337	337	337	337
2011	335	335	335	335	335
2012	334	333	335	334	339
2013	337	336	339	337	354
2014	340	338	343	340	364
2015	343	341	342	344	367
2016	346	343	341	346	370
2017	348	346	344	349	373
2018	351	348	346	351	372
2019	353	351	349	354	370
2020	356	353	345	356	373
2021	358	356	335	359	376
2022	360	358	332	361	378
2023	363	360	334	363	381
2024	365	362	337	366	384
2025	367	365	339	368	386
2026	369	367	339	370	388
2027	371	369	338	372	391
2028	373	371	336	374	393
2029	375	373	334	376	391
2030	377	374	332	378	389

4.6 Czech Scenarios

Czech aggregate vkt projections range tightly around a slowing upward base case trend. This trend is the combination of forecast population that is declining, with a trend in per person vkt that is showing the first signs of slowing towards saturation (which however will not even be close by the end of the forecast period).

Looking at Figure 4.6, it can be seen that for the Czech Republic, the GFC effect is the one generating the most downward deviation from the base case. But the effect is minor when compared to the trend.

Figure 4.6 Czech vehicle kilometre scenarios

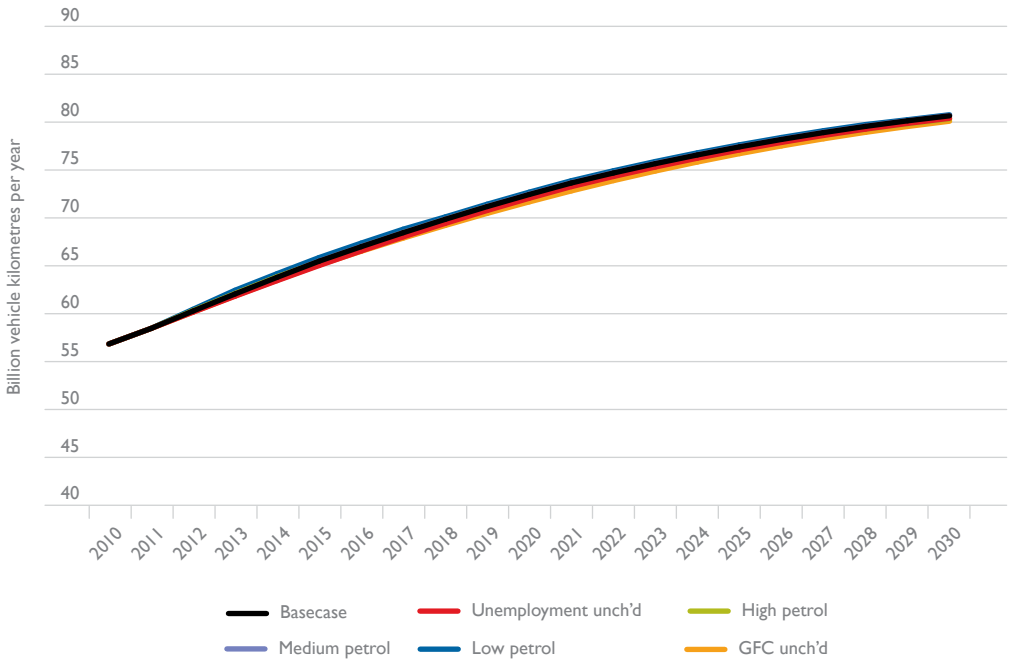


Table 4.6 Czech vehicle kilometre scenarios

Vehicle kilometres travelled (billion)						
	Basecase	Unemployment unchanged	Petrol prices			GFC unchanged
			High petrol	Medium petrol	Low petrol	
2010	57	57	57	57	57	57
2011	58	58	58	58	58	58
2012	60	60	60	60	60	60
2013	62	62	62	62	62	62
2014	64	63	64	64	64	63
2015	65	65	65	66	66	65
2016	67	67	67	67	67	67
2017	68	68	68	68	69	68
2018	70	69	70	70	70	69
2019	71	71	71	71	71	70
2020	72	72	72	72	73	72
2021	74	73	73	74	74	73
2022	75	74	74	75	75	74
2023	76	75	75	76	76	75
2024	77	76	76	77	77	76
2025	77	77	77	77	78	77
2026	78	78	78	78	78	78
2027	79	79	79	79	79	78
2028	80	79	79	80	80	79
2029	80	80	80	80	80	80
2030	81	80	80	81	81	80

4.7 Danish Scenarios

Danish aggregate vkt projections range around a base case trend that is almost flat after unemployment is assumed to cease declining in 2015. The slight upward trend is due to very slight population growth, combined with a saturated (as of 2011) trend in vkt per person.

Looking at Figure 4.7, it can be seen that the faster upward trend in the base case to 2020 is due to unemployment declining. When unemployment is kept high, there is a significant downward deviation from the base case. This is because unemployment in Denmark is high in 2011, and the base case decline is significant (see Appendix C).

High, medium and low petrol price scenarios are spread around the base case. For Demark, both unemployment and petrol prices have important impacts on projected traffic levels. In particular, the high petrol price scenario has a major impact.

Figure 4.7 Danish vehicle kilometre scenarios

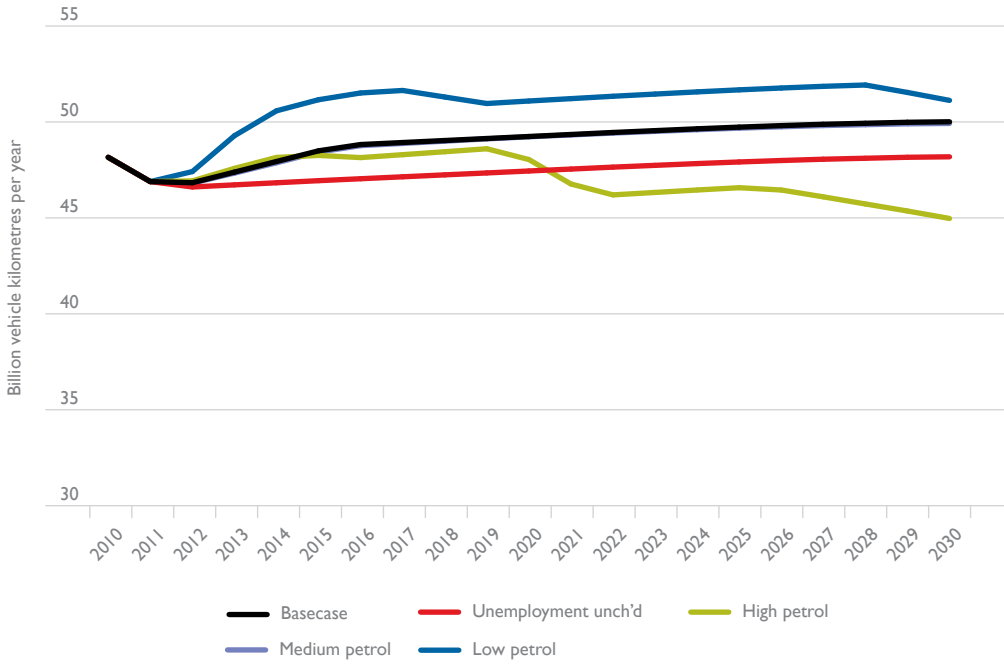


Table 4.7 Danish vehicle kilometre scenarios

Vehicle kilometres travelled (billion)					
	Basecase	Unemployment unchanged	Petrol prices		
			High petrol	Medium petrol	Low petrol
2010	48	48	48	48	48
2011	47	47	47	47	47
2012	47	47	47	47	47
2013	47	47	48	47	49
2014	48	47	48	48	51
2015	48	47	48	48	51
2016	49	47	48	49	52
2017	49	47	48	49	52
2018	49	47	48	49	51
2019	49	47	49	49	51
2020	49	47	48	49	51
2021	49	48	47	49	51
2022	49	48	46	49	51
2023	50	48	46	50	51
2024	50	48	46	50	52
2025	50	48	47	50	52
2026	50	48	46	50	52
2027	50	48	46	50	52
2028	50	48	46	50	52
2029	50	48	45	50	52
2030	50	48	45	50	51

4.8 Finnish Scenarios

Finnish aggregate vkt projections range around a slowing upward base case trend (after a jump due to lagged reaction to a fall in unemployment in 2012). This is the combination of an slightly declining forecast population with a trend in per person vkt that will be approaching saturation by the end of the forecast period.

Looking at Figure 4.8, it can be seen that for Finland, the unemployment effect is minor. This is because unemployment in Finland is low in 2011, and the base case decline is minor (see Appendix C).

High and low petrol price scenarios are spread around the base case, with the medium scenario being almost identical with the base case. The high petrol price scenario generates the most significant downward deviation from the base-case projection.

Figure 4.8 Finnish vehicle kilometre scenarios

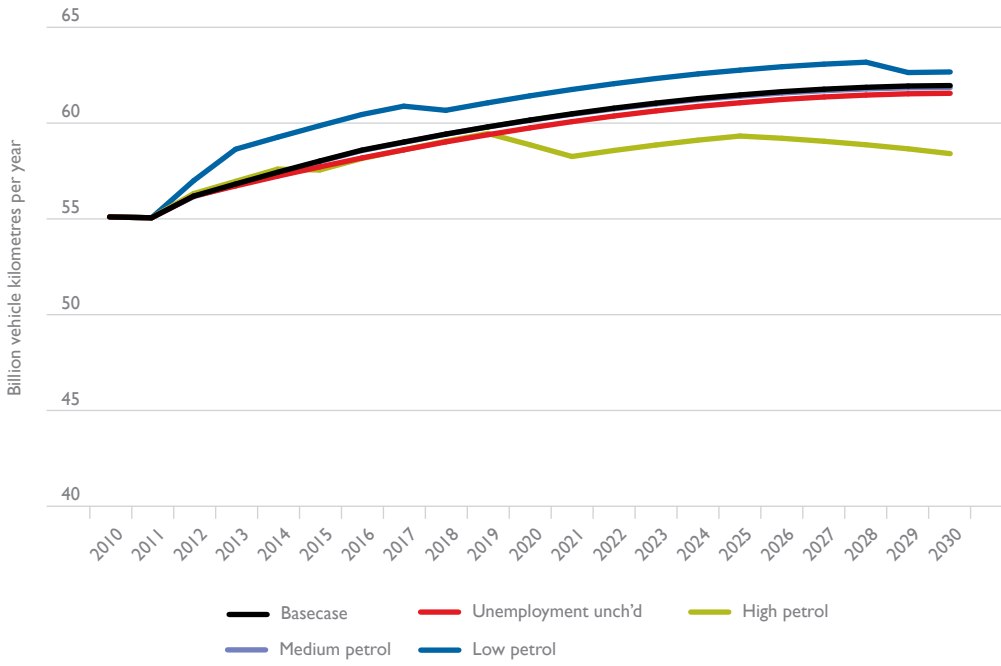


Table 4.8 Finnish vehicle kilometre scenarios

Vehicle kilometres travelled (billion)					
	Basecase	Unemployment unchanged	Petrol prices		
			High petrol	Medium petrol	Low petrol
2010	55	55	55	55	55
2011	55	55	55	55	55
2012	56	56	56	56	57
2013	57	57	57	57	59
2014	57	57	58	57	59
2015	58	58	58	58	60
2016	59	58	58	59	60
2017	59	59	59	59	61
2018	59	59	59	59	61
2019	60	59	59	60	61
2020	60	60	59	60	61
2021	60	60	58	60	62
2022	61	60	59	61	62
2023	61	61	59	61	62
2024	61	61	59	61	63
2025	61	61	59	61	63
2026	62	61	59	62	63
2027	62	61	59	62	63
2028	62	61	59	62	63
2029	62	62	59	62	63
2030	62	62	58	62	63

4.9 French Scenarios

French aggregate vkt projections range around an upward base case trend. The saturating trend of vkt per person should be completed by 2019. Thereafter the underlying trend in aggregate vkt will be driven by a moderate population growth trend.

Looking at Figure 4.9, it can be seen that the faster upward trend in the base case to 2020 is primarily due to declining unemployment and the negative effect of the GFC coming off, plus some (slowing) contribution from a still not saturated underlying trend in vkt per person. For France, the GFC effect generates one of the most significant downward deviations from the base case.

Unemployment being unchanged is significant. This is because unemployment in France is high in 2011, and the base case decline is significant (see Appendix C).

High, medium and low petrol price scenarios are spread around the base case. For France, the high petrol price scenario causes the most significant downward deviation from the base-case traffic growth trend.

Figure 4.9 French vehicle kilometre scenarios

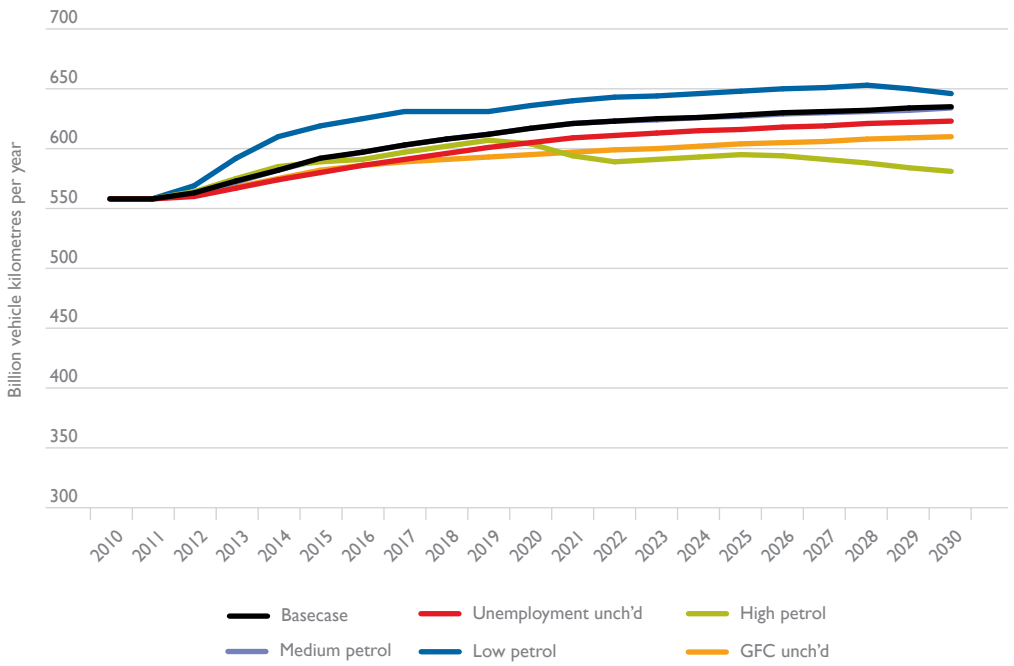


Table 4.9 French vehicle kilometre scenarios

Vehicle kilometres travelled (billion)						
	Basecase	Unemployment unchanged	Petrol prices			GFC unchanged
			High petrol	Medium petrol	Low petrol	
2010	558	558	558	558	558	558
2011	558	558	558	558	558	558
2012	563	560	564	563	569	561
2013	573	567	575	572	592	568
2014	582	574	585	582	610	575
2015	592	580	589	591	619	582
2016	597	586	591	597	625	586
2017	603	591	597	603	631	589
2018	608	596	602	608	631	591
2019	612	601	607	612	631	593
2020	617	605	604	617	636	595
2021	621	609	594	621	640	597
2022	623	611	589	623	643	599
2023	625	613	591	624	644	600
2024	626	615	593	626	646	602
2025	628	616	595	627	648	604
2026	630	618	594	629	650	605
2027	631	619	591	630	651	606
2028	632	621	588	631	653	608
2029	634	622	584	632	650	609
2030	635	623	581	634	646	610

4.10 German Scenarios

German aggregate vkt projections range around a slowing upward base case trend. This is the combination of slightly declining forecast population with a trend in per person vkt that will be approaching saturation by the end of the forecast period (with the former starting to outweigh the latter by the mid 2020s).

Looking at Figure 4.10, it can be seen that for Germany, the GFC effect is the one generating the most significant downward deviation from the base case for most of the projection period.

Unemployment being unchanged is less significant. This is because unemployment in Germany is moderate in 2011, and the base case decline is also moderate (see Appendix C).

High and low petrol price scenarios are spread around the base case, with the medium scenario being almost identical with the base case. The high petrol price scenario causes the most significant downward deviation from the base-case traffic growth trend.

Figure 4.10 German vehicle kilometre scenarios

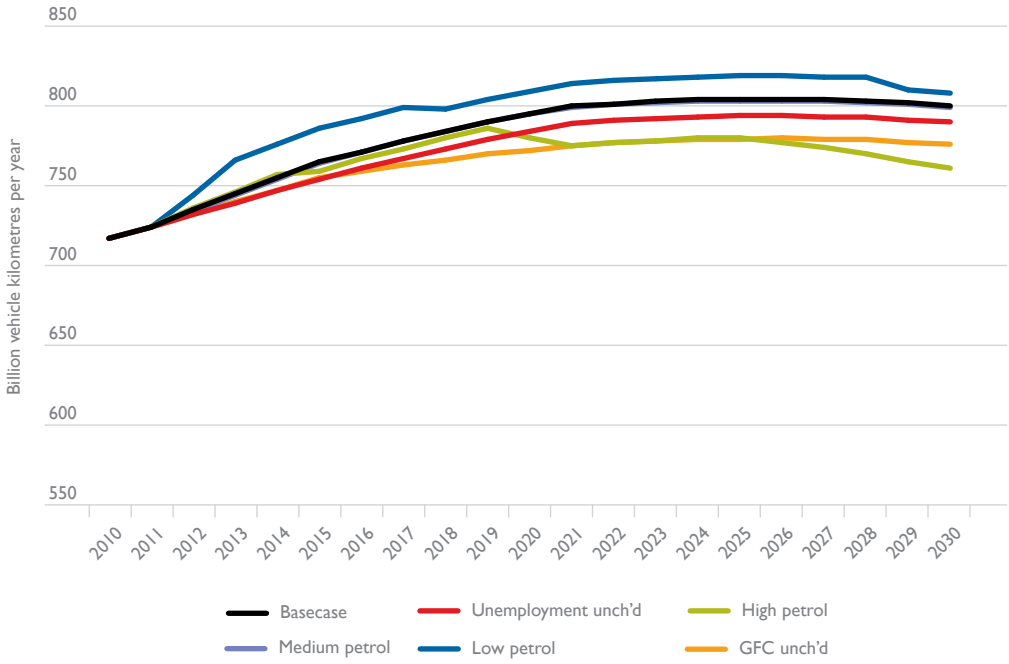


Table 4.10 German vehicle kilometre scenarios

Vehicle kilometres travelled (billion)						
	Basecase	Unemployment unchanged	Petrol prices			GFC unchanged
			High petrol	Medium petrol	Low petrol	
2010	717	717	717	717	717	717
2011	724	724	724	724	724	724
2012	735	732	736	734	744	732
2013	745	739	746	744	766	740
2014	755	747	757	754	776	747
2015	765	754	759	764	786	755
2016	771	761	767	771	792	759
2017	778	767	773	778	799	763
2018	784	773	780	784	798	766
2019	790	779	786	790	804	770
2020	795	784	780	795	809	772
2021	800	789	775	799	814	775
2022	801	791	777	801	816	777
2023	803	792	778	802	817	778
2024	804	793	780	803	818	779
2025	804	794	780	803	819	779
2026	804	794	777	803	819	780
2027	804	793	774	803	818	779
2028	803	793	770	802	818	779
2029	802	791	765	801	810	777
2030	800	790	761	799	808	776

4.11 Greek Scenarios

Greek aggregate vkt projections range around a slowing upward base case trend that reflects the saturation going on in trend per person vkt, given a basically stationary population.

Looking at Figure 4.11, it can be seen that unemployment being unchanged is the most significant of the scenarios. This is because unemployment in Greece is extraordinarily high in 2011, and the base case decline is major (see Appendix C).

Petrol prices are not significant in the scenarios, as they had no significant effect in the equation based on historical data.

Figure 4.11 Greek vehicle kilometre scenarios

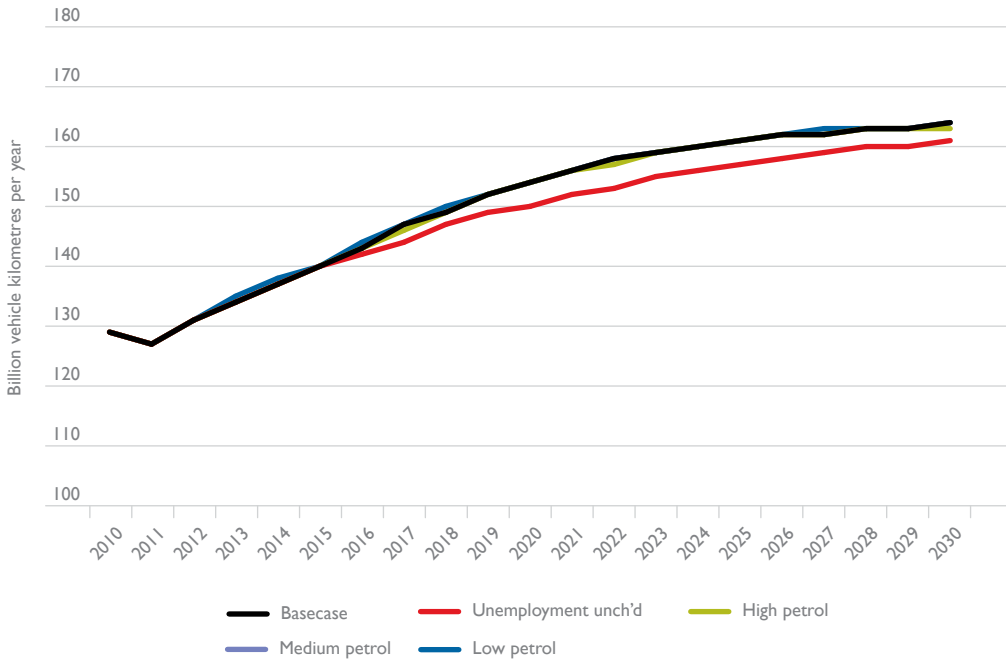


Table 4.11 Greek vehicle kilometre scenarios

Vehicle kilometres travelled (billion)						
	Basecase	Unemployment unchanged	Petrol prices			GFC unchanged
			High petrol	Medium petrol	Low petrol	
2010	129	129	129	129	129	129
2011	127	127	127	127	127	127
2012	131	131	131	131	131	131
2013	134	134	134	134	135	134
2014	137	137	137	137	138	137
2015	140	140	140	140	140	140
2016	143	142	143	143	144	143
2017	147	144	146	147	147	147
2018	149	147	149	149	150	149
2019	152	149	152	152	152	152
2020	154	150	154	154	154	154
2021	156	152	156	156	156	156
2022	158	153	157	158	158	158
2023	159	155	159	159	159	159
2024	160	156	160	160	160	160
2025	161	157	161	161	161	161
2026	162	158	162	162	162	162
2027	162	159	162	162	163	162
2028	163	160	163	163	163	163
2029	163	160	163	163	163	163
2030	164	161	163	164	164	164

4.12 Hungarian Scenarios

Hungarian aggregate vkt projections range around a slowing upward base case trend. This is the combination of moderately declining forecast population with a trend in per person vkt that will be nowhere near saturation even by the end of the forecast period.

Looking at Figure 4.12, it can be seen that for Hungary the GFC effect generates a significant downward deviation from the base case.

Figure 4.12 Hungarian vehicle kilometre scenarios

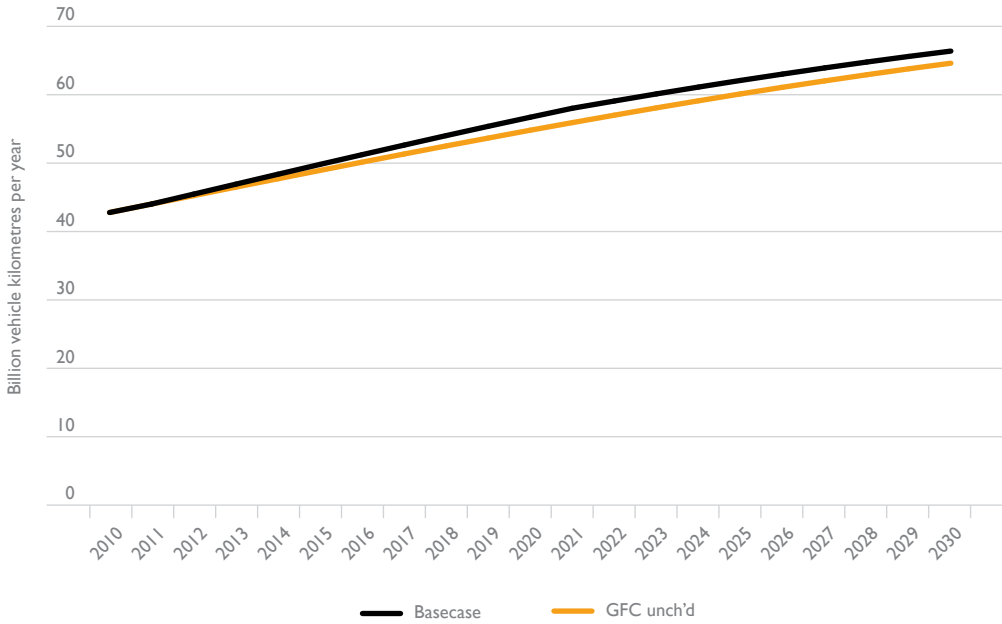


Table 4.12 Hungarian vehicle kilometre scenarios

Vehicle kilometres travelled (billion)		
	Basecase	GFC unchanged
2010	42.78	42.78
2011	44.02	44.02
2012	45.47	45.25
2013	46.92	46.49
2014	48.37	47.71
2015	49.81	48.93
2016	51.23	50.14
2017	52.63	51.33
2018	54.02	52.51
2019	55.38	53.66
2020	56.71	54.81
2021	58.02	55.92
2022	59.08	57.01
2023	60.12	58.08
2024	61.12	59.11
2025	62.09	60.12
2026	63.02	61.09
2027	63.92	62.02
2028	64.78	62.92
2029	65.60	63.79
2030	66.38	64.61

4.13 Irish Scenarios

Irish aggregate vkt projections range around an upward base case trend. Population growth is projected to be substantial, underpinning continual traffic growth even in the face of a per person vkt trend that will be saturated by 2028.

Looking at Figure 4.13, it can be seen that the faster upward trend in the base case to 2020 is due to the negative effect of high unemployment coming off (in Ireland's case the base-case decline was assumed to stretch to 2019).

For Ireland, the unemployment unchanged scenario is the one generating the most significant downward deviation from the base case. This is because unemployment in Ireland was very high in 2011, and the base case decline is major (see Appendix C).

High, medium and low petrol price scenarios are spread around the base case, but have limited effect. The high petrol price scenario starts to have a discernable effect by the end of the forecast period.

Figure 4.13 Irish vehicle kilometre scenarios

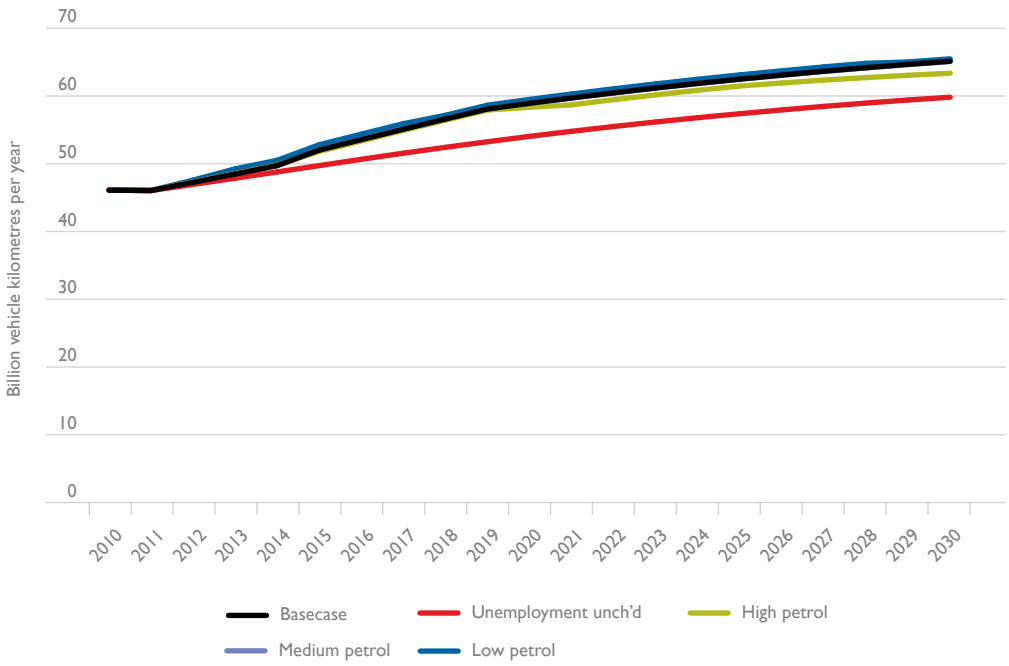


Table 4.13 Irish vehicle kilometre scenarios

Vehicle kilometres travelled (billion)					
	Basecase	Unemployment unchanged	Petrol prices		
			High petrol	Medium petrol	Low petrol
2010	46	46	46	46	46
2011	46	46	46	46	46
2012	47	47	47	47	48
2013	48	48	49	48	49
2014	50	49	50	50	51
2015	52	50	52	52	53
2016	54	51	53	54	54
2017	55	52	55	55	56
2018	57	52	56	57	57
2019	58	53	58	58	59
2020	59	54	58	59	59
2021	60	55	59	60	60
2022	60	55	59	60	61
2023	61	56	60	61	62
2024	62	57	61	62	62
2025	62	57	61	62	63
2026	63	58	62	63	64
2027	64	58	62	64	64
2028	64	59	63	64	65
2029	65	59	63	65	65
2030	65	60	63	65	65

4.14 Israeli Scenarios

Israeli aggregate vkt projections range around a sharply rising base case trend. This is the combination of fast-growing forecast population with a trend in per person vkt that will only be approaching saturation by the end of the forecast period (2027).

Looking at Figure 4.14, it can be seen that for Israel, the high petrol price effect is the one eventually generating the most significant downward deviation from the base case.

Unemployment being unchanged is equally significant. This is because unemployment in Israel is moderate in 2011, and the base case decline is substantial (see Appendix C).

High and low petrol price scenarios are spread around the base case, with the medium scenario being almost identical with the base case.

In the case of Israel, the over-riding trend is that of rapidly increasing traffic levels caused by rapid population growth.

Figure 4.14 Israeli vehicle kilometre scenarios

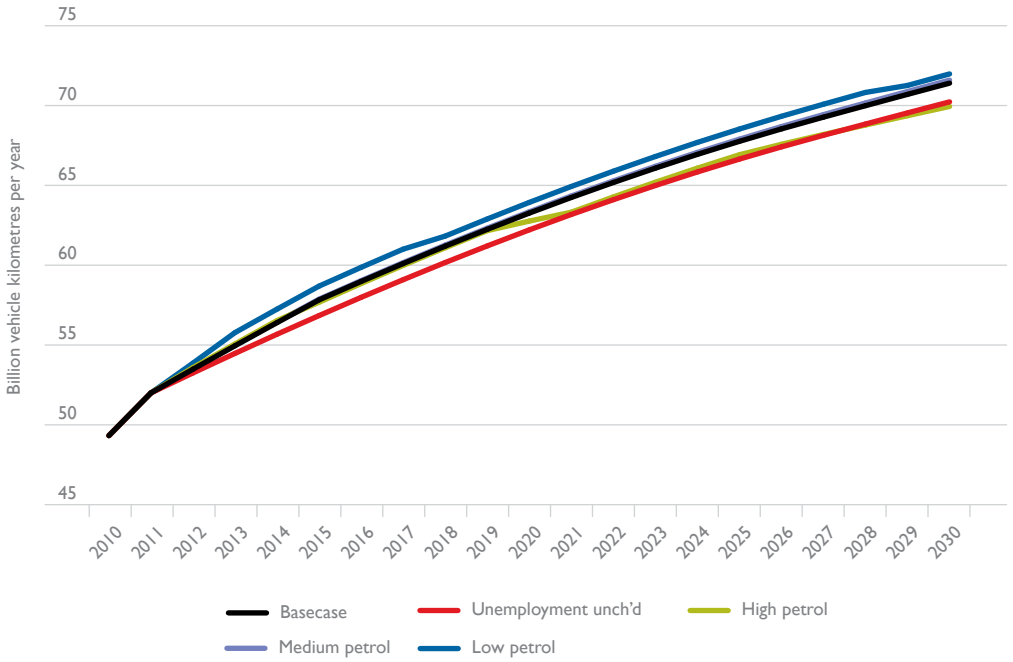


Table 4.14 Israeli vehicle kilometre scenarios

Vehicle kilometres travelled (billion)					
	Basecase	Unemployment unchanged	Petrol prices		
			High petrol	Medium petrol	Low petrol
2010	49	49	49	49	49
2011	52	52	52	52	52
2012	53	53	54	54	54
2013	55	54	55	55	56
2014	56	56	57	56	57
2015	58	57	58	58	59
2016	59	58	59	59	60
2017	60	59	60	60	61
2018	61	60	61	61	62
2019	62	61	62	62	63
2020	63	62	63	63	64
2021	64	63	63	64	65
2022	65	64	64	65	66
2023	66	65	65	66	67
2024	67	66	66	67	68
2025	68	67	67	68	69
2026	69	67	68	69	69
2027	69	68	68	69	70
2028	70	69	69	70	71
2029	71	70	69	71	71
2030	71	70	70	72	72

4.15 Italian Scenarios

Italian aggregate vkt projections range around what is (from 2020) a flat base case trend. The trend in per person vkt will saturate in 2015, and then population growth will effectively cease in 2020. Thereafter the trend in aggregate vkt is flat.

Looking at Figure 4.15, it can be seen that the faster upward trend in the base case to 2020 is due to the negative effects of unemployment and the GFC coming off.

For Italy, unemployment being unchanged is the most significant scenario to 2020. This is because unemployment in Italy was high in 2011, and the base case decline is substantial (see Appendix C).

High, medium and low petrol price scenarios are spread around the base case. For Italy, the petrol price produces substantial deviations of per person vkt from the saturating trend, and this is reflected in the scenarios. The high petrol price scenario has, by the end of the projections period, produced the largest downward deviation from the base case forecast.

Figure 4.15 Italian vehicle kilometre scenarios

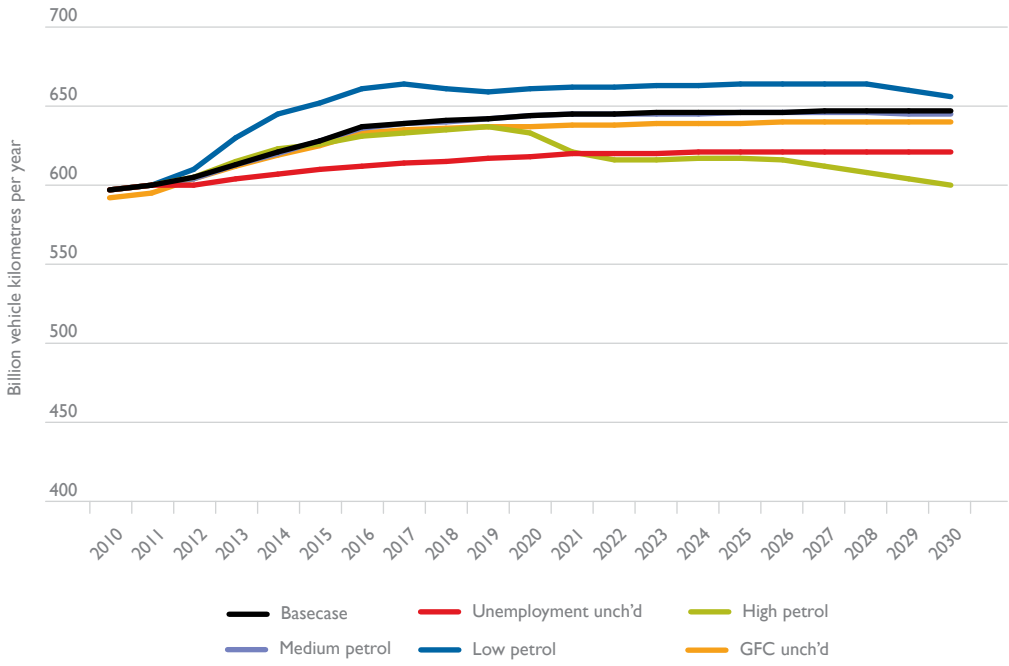


Table 4.15 Italian vehicle kilometre scenarios

Vehicle kilometres travelled (billion)						
	Basecase	Unemployment unchanged	Petrol prices			GFC unchanged
			High petrol	Medium petrol	Low petrol	
2010	597	597	597	597	597	592
2011	600	600	600	600	600	595
2012	605	600	605	604	610	604
2013	613	604	615	613	630	612
2014	621	607	623	620	645	619
2015	628	610	626	628	652	625
2016	637	612	631	636	661	633
2017	639	614	633	639	664	635
2018	641	615	635	640	661	636
2019	642	617	637	642	659	637
2020	644	618	633	644	661	637
2021	645	620	621	645	662	638
2022	645	620	616	645	662	638
2023	646	620	616	645	663	639
2024	646	621	617	645	663	639
2025	646	621	617	646	664	639
2026	646	621	616	646	664	640
2027	647	621	612	646	664	640
2028	647	621	608	646	664	640
2029	647	621	604	645	660	640
2030	647	621	600	645	656	640

4.16 Japanese Scenarios

Japanese aggregate vkt projections range around a declining base case trend. This is the combination of declining forecast population with a trend in per person vkt that will be saturated by 2015.

The model of vkt per person for Japan uses the 5-year average oil price as its major explanatory variable.

Looking at Figure 4.16, it can be seen that for Japan, the oil price scenarios produce substantial deviations from the base case.

High and low petrol price scenarios are spread around the base case, with the medium scenario being almost identical with the base case. The high oil price scenario produces a substantial downward deviation from the base-case projection of traffic levels.

Figure 4.16 Japanese vehicle kilometre scenarios

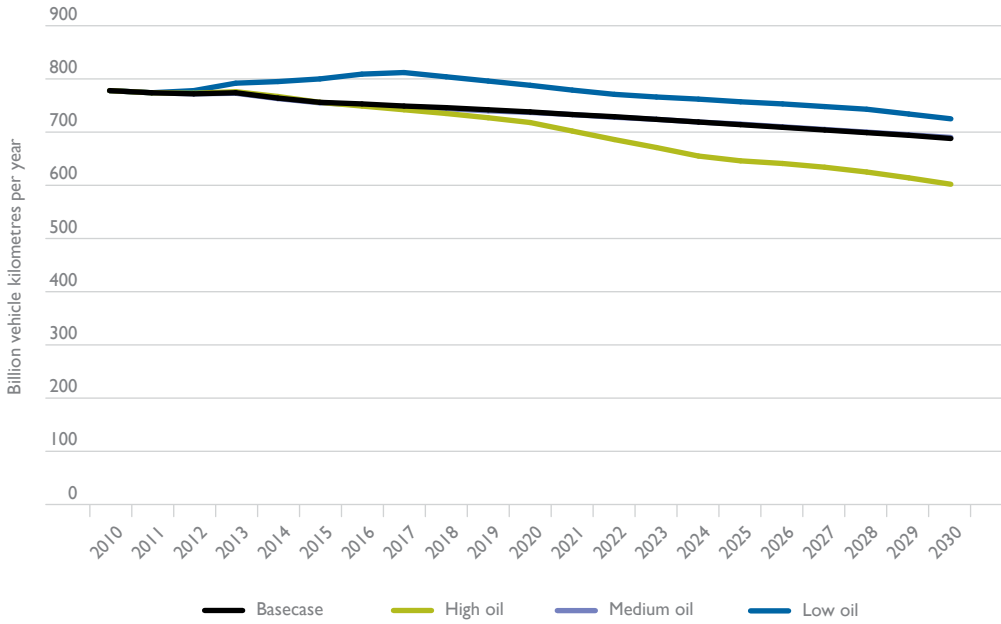


Table 4.16 Japanese vehicle kilometre scenarios

Vehicle kilometres travelled (billion)				
	Basecase	Oil Prices		
		High oil	Medium oil	Low oil
2010	778	778	778	778
2011	774	774	774	774
2012	772	773	772	778
2013	774	776	773	792
2014	764	767	763	795
2015	756	756	755	800
2016	753	749	751	809
2017	749	742	748	812
2018	746	735	744	804
2019	742	727	740	796
2020	738	718	737	788
2021	733	702	733	779
2022	729	686	728	771
2023	724	671	724	766
2024	719	655	719	762
2025	714	646	715	757
2026	709	641	710	753
2027	704	634	705	748
2028	699	625	700	743
2029	694	614	695	734
2030	688	602	690	725

4.17 Korean Scenarios

Korean aggregate vkt projections range around an upward base case trend.

Looking back at Figure 2.70, it can be seen that the faster upward trend in the base case to 2020 is due to the negative effect of the GFC coming off. Thus for Korea, the GFC effect is the one generating the most significant downward deviation from the base case.

Unemployment being unchanged is the least significant, being almost hidden under the base case line in Figure 4.17. This is because unemployment in Korea is low in 2011, and the base case decline is minor (see Appendix C).

Figure 4.17 Korean vehicle kilometre scenarios

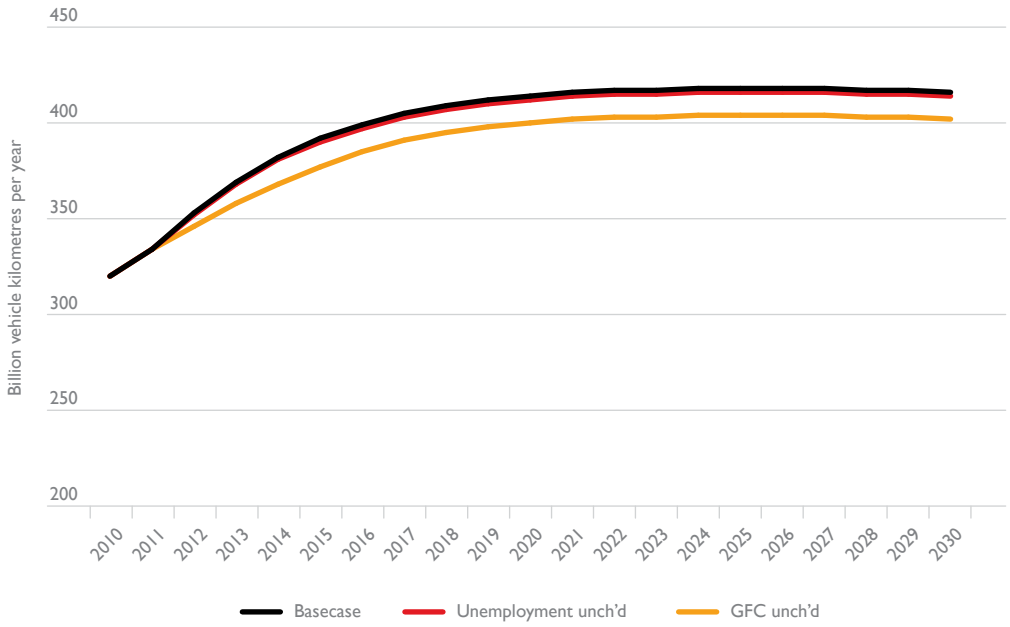


Table 4.17 Korean vehicle kilometre scenarios

Vehicle kilometres travelled (billion)			
	Basecase	Unemployment unchanged	GFC unchanged
2010	320	320	320
2011	334	334	334
2012	353	352	346
2013	369	368	358
2014	382	381	368
2015	392	390	377
2016	399	397	385
2017	405	403	391
2018	409	407	395
2019	412	410	398
2020	414	412	400
2021	416	414	402
2022	417	415	403
2023	417	415	403
2024	418	416	404
2025	418	416	404
2026	418	416	404
2027	418	416	404
2028	417	415	403
2029	417	415	403
2030	416	414	402

4.18 Dutch Scenarios

Dutch aggregate vkt projections range around a slowing upward base case trend. This is the combination of a moderately growing forecast population with a trend in per person vkt that will still not be saturated by the end of the forecast period.

Looking at Figure 4.18, it can be seen that for the Netherlands, the unemployment unchanged effect is the one generating the most downward deviation from the base case.

But even this effect is not very significant. This is because unemployment in the Netherlands is low in 2011, and the base case decline is minor (see Appendix C).

High and low petrol price scenarios are grouped around the base case, with the medium scenario being almost identical with the base case. The high petrol price scenario has, by the end of the projections period, produced the largest downward deviation from the base case forecast.

Figure 4.18 Dutch vehicle kilometre scenarios

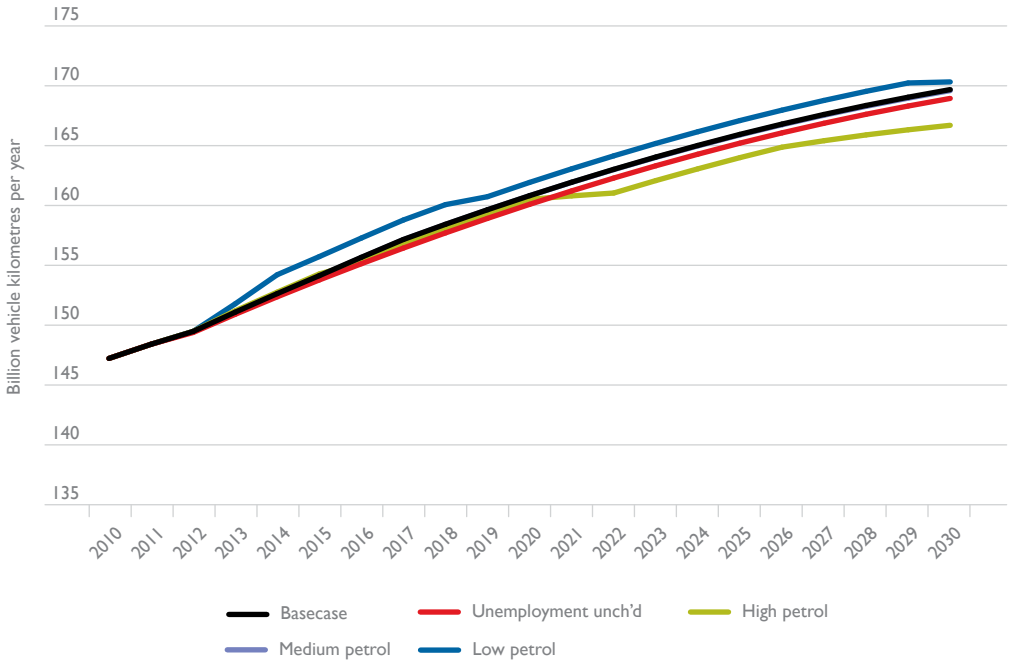


Table 4.18 Dutch vehicle kilometre scenarios

Vehicle kilometres travelled (billion)					
	Basecase	Unemployment unchanged	Petrol prices		
			High petrol	Medium petrol	Low petrol
2010	147	147	147	147	147
2011	148	148	148	148	148
2012	149	149	149	149	149
2013	151	151	151	151	152
2014	153	152	153	153	154
2015	154	154	154	154	156
2016	156	155	155	156	157
2017	157	156	157	157	159
2018	158	158	158	158	160
2019	160	159	159	160	161
2020	161	160	161	161	162
2021	162	161	161	162	163
2022	163	162	161	163	164
2023	164	163	162	164	165
2024	165	164	163	165	166
2025	166	165	164	166	167
2026	167	166	165	167	168
2027	168	167	165	168	169
2028	168	168	166	168	170
2029	169	168	166	169	170
2030	170	169	167	170	170

4.19 New Zealand Scenarios

New Zealand aggregate vkt scenarios range below an upward base case trend. The underlying trend in per person vkt will saturate in 2012, and the projected population growth is moderate.

Looking at Figure 4.19, it can be seen that the faster upward trend in the base case to 2020 is due to the negative effect of the GFC coming off (as well as unemployment coming down in the period to 2015).

For New Zealand, the GFC effect is the one generating the most significant downward deviation from the base case.

Unemployment being unchanged is the least significant. This is because unemployment in New Zealand is moderate in 2011, and the base case decline is minor (see Appendix C).

The price of petrol did not show up as significant in the New Zealand vkt modelling (see Chapter 2).

Figure 4.19 New Zealand vehicle kilometre scenarios

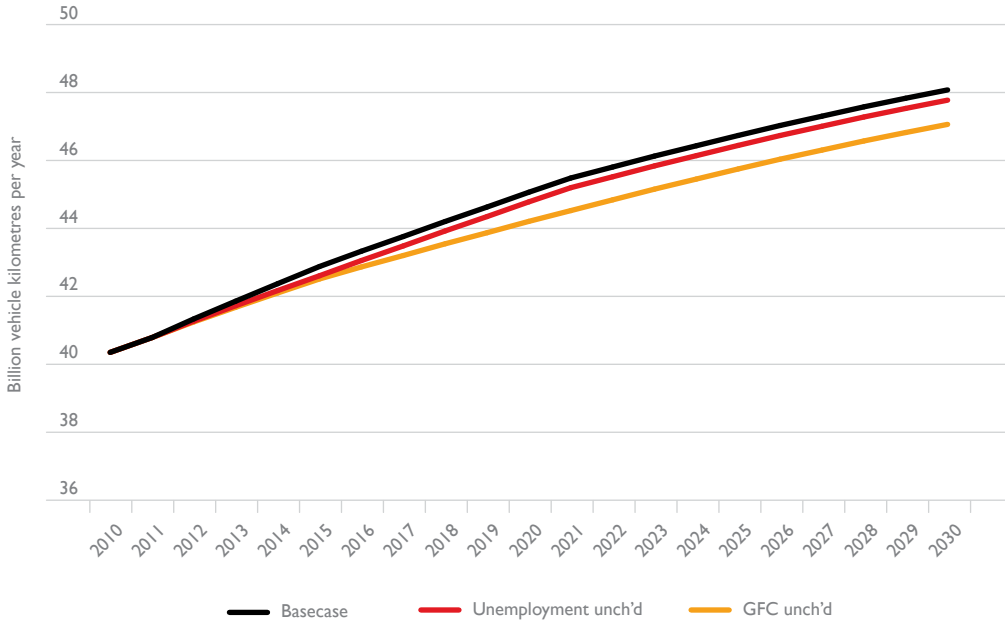


Table 4.19 New Zealand vehicle kilometre scenarios

Vehicle kilometres travelled (billion)			
	Basecase	Unemployment unchanged	GFC unchanged
2010	40	40	40
2011	41	41	41
2012	41	41	41
2013	42	42	42
2014	42	42	42
2015	43	43	43
2016	43	43	43
2017	44	43	43
2018	44	44	44
2019	45	44	44
2020	45	45	44
2021	45	45	45
2022	46	46	45
2023	46	46	45
2024	46	46	45
2025	47	46	46
2026	47	47	46
2027	47	47	46
2028	48	47	47
2029	48	48	47
2030	48	48	47

4.20 Norwegian Scenarios

Norwegian aggregate vkt projections range around a slow upward base case trend. This is the combination of a very slowly increasing forecast population with an underlying trend in per person vkt that will be saturated by 2014.

Looking at Figure 4.20, it can be seen that for Norway, the unemployment and GFC scenarios generate only minor downward deviation from the base case.

The GFC effect in Norway was minor in the modelling and so its removal is also minor.

Unemployment being unchanged is also not significant. This is because unemployment in Norway is low in 2011, and the base case decline is minor (see Appendix C).

High, medium and low petrol price scenarios are spread around the base case. The effects are substantial, because petrol price has always been the major influence on deviations from the underlying saturating trend in per person vkt. The high petrol price scenario thus generates a significant downward deviation from the base-case projection.

Figure 4.20 Norwegian vehicle kilometre scenarios

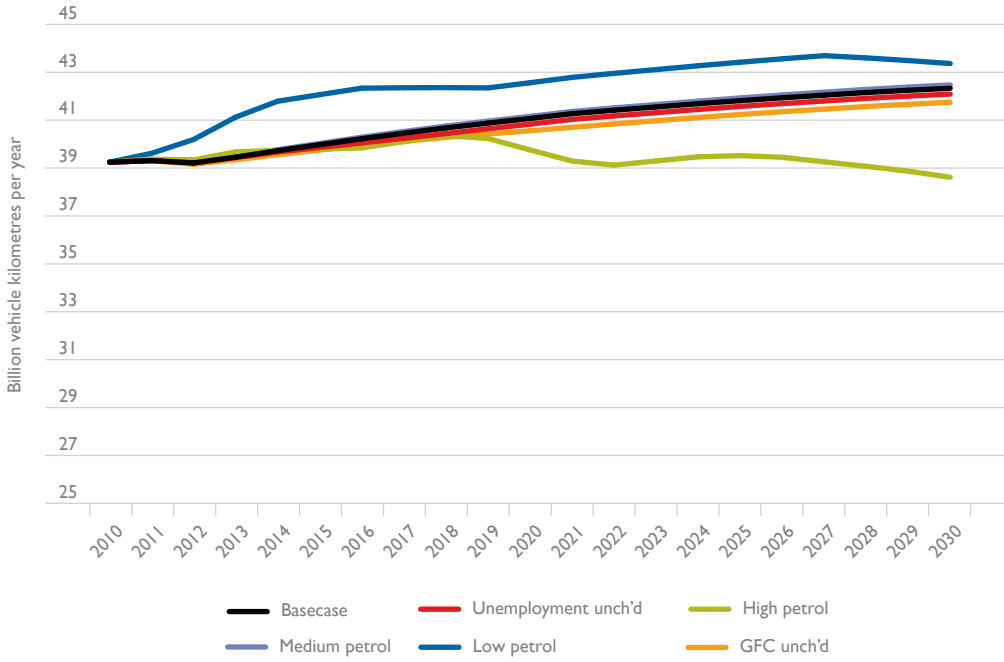


Table 4.20 Norwegian vehicle kilometre scenarios

Vehicle kilometres travelled (billion)

	Basecase	Unemployment unchanged	Petrol prices			GFC unchanged
			High petrol	Medium petrol	Low petrol	
2010	39	39	39	39	39	39
2011	39	39	39	39	40	39
2012	39	39	39	39	40	39
2013	39	39	40	39	41	39
2014	40	40	40	40	42	40
2015	40	40	40	40	42	40
2016	40	40	40	40	42	40
2017	40	40	40	41	42	40
2018	41	40	40	41	42	40
2019	41	41	40	41	42	40
2020	41	41	40	41	43	41
2021	41	41	39	41	43	41
2022	41	41	39	42	43	41
2023	42	41	39	42	43	41
2024	42	41	39	42	43	41
2025	42	42	40	42	43	41
2026	42	42	39	42	44	41
2027	42	42	39	42	44	41
2028	42	42	39	42	44	42
2029	42	42	39	42	43	42
2030	42	42	39	42	43	42

4.21 Spanish Scenarios

Spanish aggregate vkt projections show a sharp upward base case trend to 2020, as the effects of the GFC and very high unemployment are assumed to come off. Thereafter, the trend is set by moderate assumed population growth and an underlying per person vkt trend that is nearing saturation by the end of the projection period.

Looking at Figure 4.21, it can be seen that one of the drivers of the faster upward trend in the base case to 2020 is due to the negative effect of the GFC coming off. For Spain, the GFC effect is the one generating the most significant downward deviation from the base case.

But unemployment being unchanged is almost as significant. This is because unemployment in Spain is extremely high in 2011, and the base case decline is major (see Appendix C).

High, medium and low petrol price scenarios are spread around the base case.

Figure 4.21 Spanish vehicle kilometre scenarios

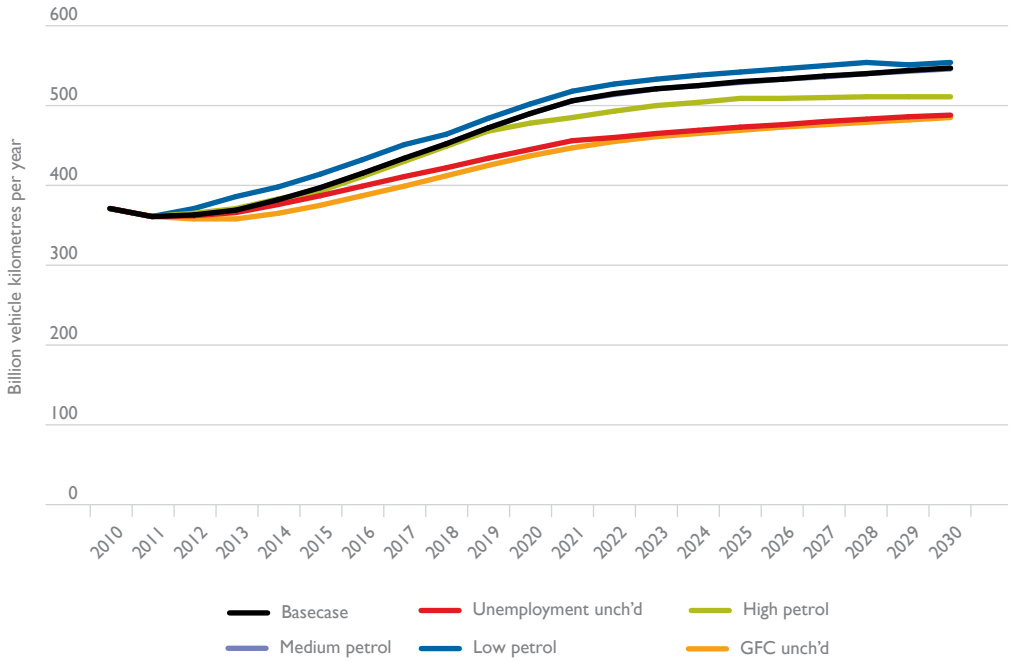


Table 4.21 Spanish vehicle kilometre scenarios

Vehicle kilometres travelled (billion)						
	Basecase	Unemployment unchanged	Petrol prices			GFC unchanged
			High petrol	Medium petrol	Low petrol	
2010	371	371	371	371	371	371
2011	361	361	361	361	361	361
2012	363	362	365	363	371	358
2013	369	366	371	369	386	358
2014	382	376	383	381	398	365
2015	397	387	393	397	414	375
2016	415	399	411	415	432	387
2017	434	411	430	433	451	399
2018	452	422	449	452	464	412
2019	472	434	468	472	484	425
2020	490	445	478	490	502	437
2021	506	456	485	506	518	447
2022	515	460	493	514	527	455
2023	521	465	500	521	533	461
2024	525	469	504	525	538	465
2025	530	473	509	529	542	469
2026	533	476	509	533	546	473
2027	537	480	510	536	550	476
2028	540	483	511	540	554	479
2029	544	486	511	543	551	482
2030	547	488	511	546	554	485

4.22 Swedish Scenarios

Swedish aggregate vkt projections range around an upward base case trend that mirrors the continued but slowing growth in the underlying trend in per person vkt (which will still not be saturated by the end of the forecast period). Population growth over the period is expected to be negligible.

Looking at Figure 4.22, it can be seen that unemployment being unchanged is significant. This is because unemployment in Sweden is high in 2011, and the base case decline is substantial (see Appendix C).

High, medium and low petrol price scenarios are spread around the base case. The high petrol price scenario generates the most deviation from the base-case projection of any of the scenarios.

Figure 4.22 Swedish vehicle kilometre scenarios

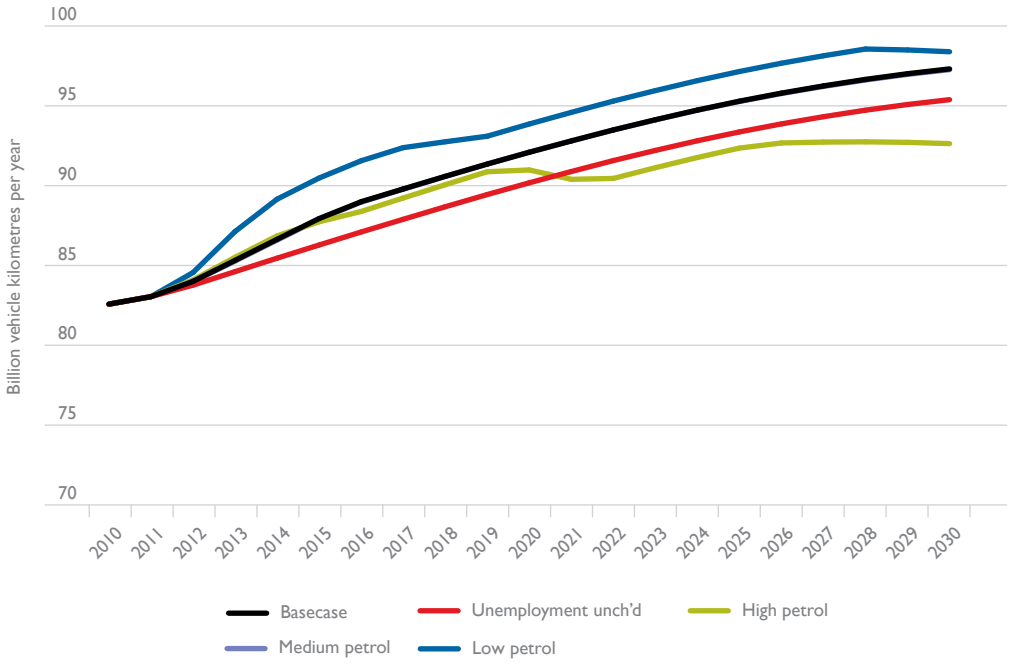


Table 4.22 Swedish vehicle kilometre scenarios

Vehicle kilometres travelled (billion)					
	Basecase	Unemployment unchanged	Petrol prices		
			High petrol	Medium petrol	Low petrol
2010	83	83	83	83	83
2011	83	83	83	83	83
2012	84	84	84	84	85
2013	85	85	86	85	87
2014	87	85	87	87	89
2015	88	86	88	88	90
2016	89	87	88	89	92
2017	90	88	89	90	92
2018	91	89	90	91	93
2019	91	89	91	91	93
2020	92	90	91	92	94
2021	93	91	90	93	95
2022	93	92	90	93	95
2023	94	92	91	94	96
2024	95	93	92	95	97
2025	95	93	92	95	97
2026	96	94	93	96	98
2027	96	94	93	96	98
2028	97	95	93	97	99
2029	97	95	93	97	98
2030	97	95	93	97	98

4.23 Swiss Scenarios

Swiss aggregate vkt projections are basically flat after the effects of higher unemployment are reduced. This flat trend is the combination of an almost stable forecast population with a trend in per person vkt that will be saturated by 2014.s

Looking at Figure 4.23, it can be seen that for Switzerland, the unemployment effect is the one generating the most significant downward deviation from the base case. This is because unemployment is the major variable in the Swiss modelling, and unemployment is moderate in 2011, with the base case decline being substantial (see Appendix C).

Petrol price scenarios have almost no effect in Switzerland.

Figure 4.23 Swiss vehicle kilometre scenarios

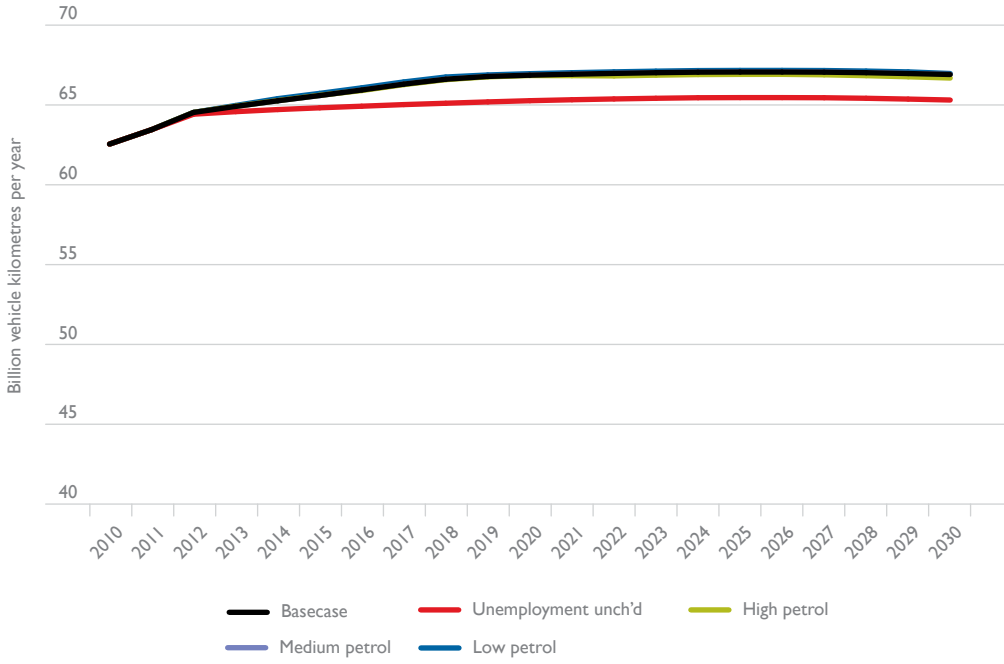


Table 4.23 Swiss vehicle kilometre scenarios

Vehicle kilometres travelled (billion)					
	Basecase	Unemployment unchanged	Petrol prices		
			High petrol	Medium petrol	Low petrol
2010	63	63	63	63	63
2011	63	63	63	63	63
2012	65	64	65	65	65
2013	65	65	65	65	65
2014	65	65	65	65	65
2015	66	65	66	66	66
2016	66	65	66	66	66
2017	66	65	66	66	66
2018	67	65	67	67	67
2019	67	65	67	67	67
2020	67	65	67	67	67
2021	67	65	67	67	67
2022	67	65	67	67	67
2023	67	65	67	67	67
2024	67	65	67	67	67
2025	67	65	67	67	67
2026	67	65	67	67	67
2027	67	65	67	67	67
2028	67	65	67	67	67
2029	67	65	67	67	67
2030	67	65	67	67	67

4.24 Turkish Scenarios

Turkish aggregate vkt projections range around an exponentially increasing base case trend. Vkt per person is tiny and is still in the exponentially increasing phase of the logistic (S-shaped) curve. In addition, substantial population growth is expected over the period.

Looking at Figure 4.24, it can be seen that none of the scenarios has much effect on the base-case forecast. Only the low and high petrol price scenarios are even discernably different from the base-case.

Figure 4.24 Turkish vehicle kilometre scenarios

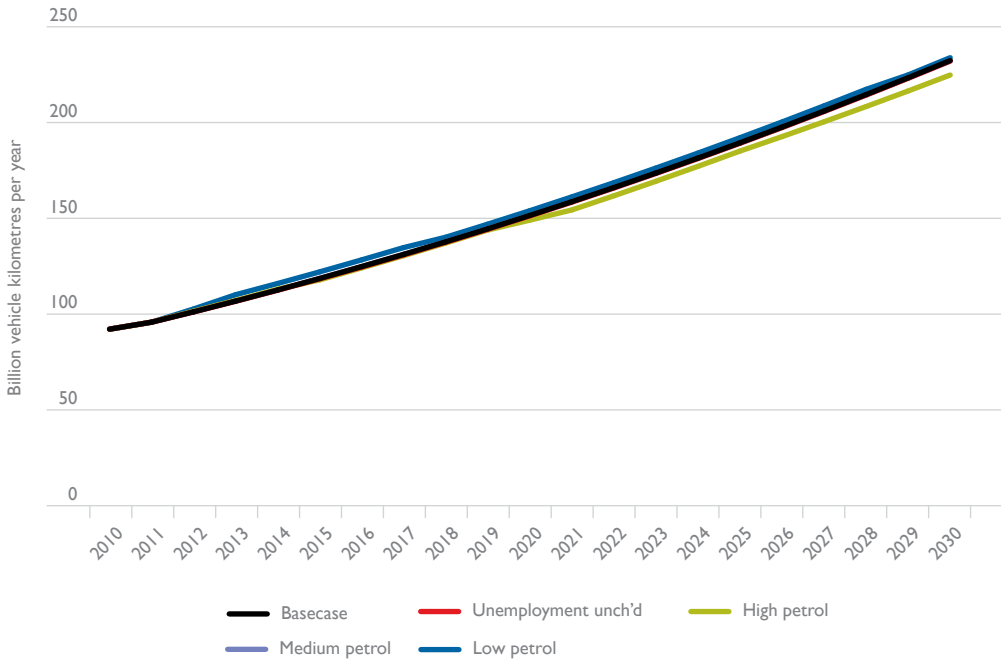


Table 4.24 Turkish vehicle kilometre scenarios

Vehicle kilometres travelled (billion)					
	Basecase	Unemployment unchanged	Petrol prices		
			High petrol	Medium petrol	Low petrol
2010	92.1	92	92	92	92
2011	96	96	96	96	96
2012	101	101	102	101	103
2013	107	107	107	107	110
2014	113	112	113	113	116
2015	119	118	118	119	122
2016	125	125	124	125	128
2017	131	131	131	131	135
2018	138	138	137	138	140
2019	145	144	144	145	147
2020	152	151	149	152	154
2021	159	158	154	159	161
2022	166	166	162	166	169
2023	174	173	169	174	176
2024	181	181	177	181	184
2025	189	189	185	189	192
2026	198	197	193	198	200
2027	206	206	200	206	209
2028	215	214	208	214	217
2029	223	223	216	223	225
2030	232	232	225	232	234

4.25 American Scenarios

American aggregate vkt projections range around a strong upward base case trend. This is the combination of substantial growth in forecast population with a trend in per person vkt that will still not be at saturation by the end of the forecast period.

Looking at Figure 4.25, it can be seen that for the United States, leaving the GFC effect on generates significant downward deviation from the base case.

Unemployment being unchanged is also significant. This is because unemployment in America is high in 2011, and the base case decline is major (see Appendix C).

High and low petrol price scenarios are spread around the base case, with the medium scenario being almost identical with the base case. The high petrol price scenario generates a substantial downward deviation from the base-case projection towards the end of the forecast period.

Figure 4.25 American vehicle kilometre scenarios

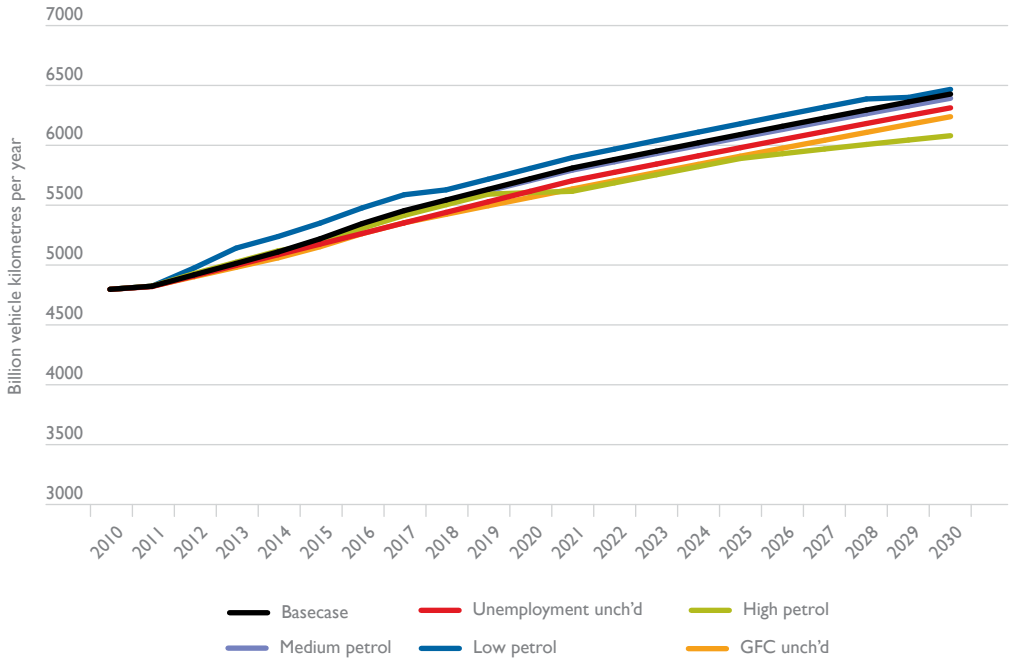


Table 4.25 American vehicle kilometre scenarios

Vehicle kilometres travelled (billion)						
	Basecase	Unemployment unchanged	Petrol prices			GFC unchanged
			High petrol	Medium petrol	Low petrol	
2010	4797	4797	4797	4797	4797	4797
2011	4823	4820	4823	4823	4823	4823
2012	4918	4909	4928	4917	4975	4902
2013	5013	4997	5023	5010	5141	4981
2014	5109	5086	5118	5104	5238	5060
2015	5219	5175	5181	5213	5350	5153
2016	5346	5263	5307	5338	5477	5262
2017	5454	5352	5415	5444	5587	5353
2018	5543	5440	5504	5532	5628	5424
2019	5632	5528	5592	5619	5717	5495
2020	5721	5616	5605	5706	5807	5565
2021	5810	5704	5616	5793	5897	5635
2022	5881	5774	5686	5862	5968	5704
2023	5951	5843	5754	5931	6040	5773
2024	6021	5912	5822	5998	6110	5841
2025	6090	5980	5890	6066	6180	5909
2026	6159	6048	5930	6132	6250	5976
2027	6227	6115	5969	6199	6319	6042
2028	6295	6182	6007	6264	6387	6108
2029	6362	6248	6044	6329	6400	6174
2030	6428	6313	6080	6393	6467	6239

Chapter 5
Conclusions

In Australia, as in other countries around the world, traffic growth has been a feature of the post World War Two experience. The automobile and commercial vehicles have multiplied, as living has increasingly been intertwined with mobility.

And yet in spite of its obvious benefits, traffic growth presents one of the key challenges to those tasked with assuring the continued benefits of mobility. It is therefore important to understand the nature, causes and outlooks for traffic growth.

This report has described an overview of the different patterns of traffic growth in Australia and in 24 other countries around the world. In addition it has modelled the determinants of growth in all these locations.

The main determinant of the pattern of growth in traffic per person has been a trend toward saturation in per capita traffic levels. After rapid growth in the sixties and seventies, growth in traffic per capita (all vehicle types) has consistently slowed, with many countries already at or approaching saturation. The study has shown how this trend toward saturation can be estimated.

The main results of the study are models of vkt per capita as a function of this saturating effect over time, of petrol prices, and of fluctuations in the economy. Each country is different, but the patterns of the models are amazingly similar. The models explain the common finding around the world of falling growth rates in aggregate traffic levels over the past four decades – a falling growth rate in population has been being reinforced by a declining rate of growth in traffic per person. Lately, there has been a significant effect from the global financial crisis in lowering traffic levels per capita around the world.

But there are also many differences in the patterns of traffic growth uncovered in this study. Levels of traffic per capita differ substantially across the sample, from high levels in the United States to low levels in Turkey (the latter being still in the exponential growth stage). The trend toward saturation also varies substantially, with some trends being highly curved and already reached saturation, while other trends are not even approaching saturation. Some jurisdictions respond much more substantially to changes in petrol prices than others, while some show substantial effects from changes in the economy.

But however much they are alike or differ, the models can be used to provide base-case forecasts of future trends in traffic growth in Australia and overseas countries. These are useful in a variety of contexts, for instance, in forecasting road fatalities from fatality rates (BITRE 2010), examining needs for infrastructure, forecasting traffic growth in cities (BITRE 2012), and many other uses.

Appendix A
Traffic Growth Modelling Data

Background

This Appendix presents independent variable data for annual models of Australia and twenty-four other countries around the world.

There were several datasets underlying the national models.

Population estimates for each country were available from the OECD (OECD 2011).There are several discontinuities in the population datasets. Rough adjustments were made to establish smooth series. Australian population figures before 1971 were adjusted upwards as before that date Aboriginals in the southern states were not counted as people. British population figures were multiplied by 57030/57358 prior to 1990, Canadian by 28014/26992 prior to 1992, Irish by 3966/4240 prior to 2005 and American by 282770/275130 prior to 2001.

Unemployment rates for each country were available from the OECD (OECD 2011). The unemployment rate for Germany before 1992 was taken as (6.6+8.2+9.2)/ (8.2+9.9+10.0) times the West German rate (the figures represent 3 years overlapping measurement of total Germany versus West Germany).

Real petrol prices in US dollars were derived for all of the 24 countries apart from Australia from a variety of sources, including Gaudry et al. (2002), IEA (2011), and GTZ (2009). For Australia, the real petrol price series used in the quarterly analysis of BITRE (2011) has been used.

Historical exchange rates and Consumer Price Indices were sourced from the OECD (OECD 2011). The projections used real 2010 prices and thus needed no CPI assumptions. Projections of real exchange rates were obtained from USDA-ERA (2011).

Population ('000)												
	Australia	Austria	Belgium	Britain	Canada	Czech Rep	Denmark	Finland	France	Germany	Greece	Hungary
1963	11216	7152	9251	53625	18931	9642	4666	4507	48553	74800	8480	10071
1964	11438	7200	9328	53991	19291	9699	4703	4539	49049	75500	8510	10104
1965	11664	7271	9499	54350	19644	9777	4758	4564	49802	76061	8550	10160
1966	11881	7322	9528	54643	20015	9815	4795	4581	50255	76734	8614	10197
1967	12086	7377	9581	54959	20378	9835	4836	4606	50650	76954	8716	10223
1968	12300	7415	9619	55214	20701	9851	4865	4626	51034	77249	8741	10275
1969	12561	7441	9660	55461	21001	9807	4891	4624	51470	77918	8773	10316
1970	12824	7467	9660	55632	21297	9795	4951	4606	51918	77772	8793	10338
1971	13067	7500	9651	55907	21962	9825	4963	4612	52432	78355	8831	10368
1972	13304	7544	9695	56079	22218	9862	4992	4640	52894	78717	8889	10398
1973	13505	7586	9727	56210	22492	9912	5022	4666	53333	78951	8929	10432
1974	13723	7599	9757	56224	22808	9976	5045	4691	53690	78966	8962	10479
1975	13893	7579	9788	56215	23143	10042	5060	4711	53955	78862	9047	10532
1976	14033	7566	9813	56206	23450	10105	5073	4726	54159	78299	9167	10589
1977	14192	7568	9823	56179	23726	10162	5088	4739	54378	78161	9308	10637
1978	14359	7562	9837	56167	23963	10213	5104	4753	54602	78066	9430	10673
1979	14516	7549	9842	56228	24202	10260	5117	4765	54836	78082	9548	10698
1980	14695	7549	9855	56314	24516	10289	5123	4780	55110	78295	9643	10707
1981	14923	7569	9863	56383	24820	10298	5122	4800	55399	78399	9729	10700
1982	15184	7574	9855	56331	25117	10304	5118	4827	55697	78293	9786	10683
1983	15393	7562	9858	56365	25367	10307	5114	4856	55929	78082	9841	10656
1984	15579	7561	9853	56435	25608	10309	5112	4882	56246	77797	9887	10619
1985	15788	7565	9858	56584	25843	10310	5114	4902	56490	77619	9923	10579
1986	16018	7570	9859	56751	26101	10309	5121	4918	56725	77635	9951	10534
1987	16264	7575	9865	56927	26449	10312	5127	4932	56989	77718	9974	10486
1988	16532	7585	9876	57096	26795	10314	5130	4946	57255	78116	9983	10443
1989	16814	7620	9928	57251	27282	10314	5133	4964	57821	78677	10031	10398
1990	17065	7678	9948	57411	27698	10310	5140	4986	58168	79365	10130	10374
1991	17284	7755	9987	57574	28031	10305	5154	5014	58514	79984	10251	10373
1992	17495	7841	10022	57736	28367	10316	5170	5042	58859	80570	10325	10369
1993	17667	7906	10068	57854	28682	10326	5189	5066	59169	81187	10383	10357
1994	17855	7936	10101	58006	28999	10330	5205	5088	59445	81422	10430	10343
1995	18072	7948	10131	58187	29302	10324	5228	5108	59712	81661	10458	10329
1996	18311	7959	10143	58345	29611	10312	5262	5125	59981	81896	10479	10311
1997	18518	7968	10170	58494	29907	10301	5284	5140	60254	82061	10502	10290
1998	18711	7977	10192	58680	30157	10291	5301	5153	60535	82024	10520	10267
1999	18926	7922	10213	58910	30404	10280	5322	5165	60824	82101	10537	10238
2000	19153	8012	10239	59140	30689	10270	5340	5176	61137	82213	10559	10211
2001	19413	8042	10263	59375	31021	10262	5359	5188	61479	82350	10582	10188
2002	19651	8082	10309	59602	31373	10256	5375	5201	61829	82489	10604	10165
2003	19895	8121	10356	59824	31676	10251	5391	5213	62171	82541	10626	10129
2004	20127	8172	10396	60127	31990	10246	5405	5228	62534	82517	10648	10108
2005	20395	8228	10446	60487	32299	10241	5419	5246	62912	82470	10668	10088
2006	20698	8269	10511	60847	32623	10235	5437	5266	63293	82377	10688	10072
2007	21072	8301	10585	61249	32976	10229	5461	5289	63682	82267	10706	10056
2008	21499	8337	10667	61643	33213	10221	5494	5313	64058	82110	10723	10038
2009	21965	8365	10753	61997	33487	10212	5523	5339	64420	81901	10737	10022
2010	22342	8389	10840	62348	33760	10202	5548	5344	64768	81707	10750	10000
2011	22741	8392	10841	62698	34031	10190	5562	5348	65103	81535	10760	9984
2012	23091	8395	10842	63047	34300	10177	5575	5352	65423	81369	10768	9966
2013	23432	8397	10843	63396	34568	10163	5588	5355	65729	81209	10773	9947
2014	23776	8398	10844	63743	34835	10147	5601	5358	66022	81059	10776	9927
2015	24117	8399	10845	64088	35100	10130	5614	5360	66301	80916	10776	9906
2016	24457	8400	10846	64430	35363	10110	5626	5362	66568	80785	10773	9883
2017	24798	8399	10847	64769	35624	10089	5639	5362	66822	80656	10768	9859
2018	25138	8399	10848	65105	35882	10066	5651	5363	67065	80520	10762	9834

(Continued)

Population ('000)													
	Ireland	Israel	Italy	Japan	Korea	Nether-lands	New Zealand	Norway	Spain	Sweden	Switzer-land	Turkey	USA
1963	2845	2407	51198	97032	27211	11890	2541	3653	31430	7581	5639	30509	188483
1964	2860	2498	51600	98067	27984	12042	2592	3680	31741	7627	5749	31227	191141
1965	2876	2578	51987	99170	28705	12292	2640	3723	32085	7734	5856	31951	193526
1966	2884	2641	52332	99938	29436	12455	2688	3753	32452	7808	5918	32678	195576
1967	2900	2694	52667	101109	30131	12597	2728	3785	32850	7868	5992	33411	197457
1968	2913	2747	52987	102254	30838	12725	2759	3819	33239	7914	6068	34165	199399
1969	2926	2817	53317	103470	31544	12873	2789	3851	33566	7968	6136	34952	201385
1970	2950	2903	53661	104665	32241	13032	2828	3877	33876	8043	6181	35758	203984
1971	2978	2997	54006	106100	32883	13194	2875	3903	34195	8098	6213	36580	206827
1972	3024	3096	54366	107595	33505	13330	2929	3933	34513	8122	6261	37493	209284
1973	3073	3197	54797	109104	34073	13438	2992	3961	34837	8137	6307	38503	211357
1974	3124	3286	55226	110573	34692	13541	3058	3985	35184	8161	6341	39513	213342
1975	3177	3354	55572	111940	35281	13653	3118	4007	35564	8193	6339	40530	215465
1976	3228	3424	55839	113094	35860	13770	3154	4026	35997	8222	6303	41472	217563
1977	3272	3496	56059	114165	36436	13853	3165	4043	36439	8252	6281	42377	219760
1978	3314	3570	56240	115190	37019	13937	3166	4059	36861	8276	6281	43275	222095
1979	3368	3653	56368	116155	37534	14030	3165	4073	37200	8294	6294	44165	224567
1980	3401	3737	56451	117060	38124	14144	3170	4086	37488	8310	6319	45048	227225
1981	3443	3801	56502	117902	38723	14246	3185	4100	37751	8320	6354	46253	229466
1982	3480	3858	56532	118728	39326	14310	3217	4115	37983	8325	6391	47464	231664
1983	3504	3927	56624	119536	39910	14362	3258	4128	38184	8329	6419	48661	233792
1984	3529	3997	56687	120305	40406	14420	3298	4140	38363	8337	6442	49840	235825
1985	3540	4068	56718	121049	40806	14491	3324	4153	38535	8350	6470	50997	237924
1986	3541	4140	56717	121660	41214	14572	3341	4167	38708	8370	6504	52127	240133
1987	3547	4210	56710	122239	41622	14665	3352	4187	38881	8398	6545	53243	242289
1988	3531	4282	56711	122745	42031	14761	3361	4209	39054	8437	6593	54356	244499
1989	3510	4355	56711	123205	42449	14849	3378	4227	39215	8493	6647	55462	246819
1990	3506	4478	56713	123611	42869	14952	3414	4241	39351	8559	6712	56561	249623
1991	3526	4649	56715	124101	43340	15066	3495	4262	39461	8617	6800	57650	252981
1992	3555	4822	56909	124567	43837	15174	3532	4286	39552	8668	6875	58731	256514
1993	3574	4998	57087	124938	44307	15275	3572	4312	39638	8719	6938	59801	259919
1994	3586	5175	57198	125265	44719	15382	3620	4325	39708	8781	6994	60867	263126
1995	3601	5353	57295	125570	45105	15459	3673	4359	39765	8831	7041	61940	266278
1996	3626	5515	57406	125859	45468	15528	3732	4381	39821	8843	7072	63018	269394
1997	3664	5660	57493	126157	45808	15604	3781	4405	39907	8846	7089	64098	272647
1998	3703	5809	57567	126472	46152	15699	3815	4431	40046	8851	7110	65177	275854
1999	3742	5960	57656	126667	46485	15802	3835	4462	40251	8858	7144	66254	279040
2000	3790	6115	57784	126926	46839	15908	3858	4491	40589	8872	7184	67329	282172
2001	3847	6251	57931	127316	47178	16017	3881	4514	41047	8896	7230	68405	285082
2002	3917	6370	58077	127486	47437	16123	3949	4538	41640	8925	7285	69479	287804
2003	3980	6492	58336	127694	47657	16223	4027	4565	42321	8958	7339	70549	290326
2004	4045	6618	58716	127787	47854	16318	4088	4592	43000	8994	7390	71614	293046
2005	4134	6743	59038	127768	48005	16407	4134	4623	43704	9030	7437	72674	295753
2006	4233	6867	59273	127770	48124	16491	4185	4661	44432	9081	7484	73726	298593
2007	4339	6990	59627	127771	48250	16571	4228	4709	45212	9148	7551	74768	301580
2008	4422	7112	60091	127692	48379	16645	4269	4768	45910	9220	7648	75794	304375
2009	4459	7234	60462	127510	48509	16716	4316	4829	46295	9299	7742	76806	307007
2010	4501	7354	60749	127234	48636	16783	4368	4889	46506	9379	7823	77804	310233
2011	4548	7473	61017	126905	48755	16847	4407	4950	46755	9395	7840	78786	313232
2012	4597	7591	61261	126530	48861	16908	4446	4966	47043	9410	7857	79749	316266
2013	4650	7707	61482	126111	48955	16967	4484	4983	47371	9426	7871	80694	319330
2014	4705	7822	61680	125648	49040	17024	4522	4999	47738	9443	7887	81619	322423
2015	4763	7935	61855	125142	49115	17079	4559	5015	48146	9461	7900	82523	325540
2016	4821	8047	62008	124595	49181	17132	4597	5032	48563	9479	7912	83407	328678
2017	4879	8157	62138	124010	49237	17184	4633	5049	48958	9498	7925	84273	331833
2018	4934	8266	62247	123389	49286	17235	4670	5067	49331	9518	7935	85121	335005

(Continued)

Population ('000) (continued)												
	Australia	Austria	Belgium	Britain	Canada	Czech Rep	Denmark	Finland	France	Germany	Greece	Hungary
2019	25479	8397	10849	65437	36136	10041	5663	5362	67297	80375	10753	9807
2020	25820	8395	10850	65761	36387	10013	5675	5361	67518	80222	10742	9780
2021	26160	8391	10851	66077	36634	9984	5687	5359	67728	80058	10730	9751
2022	26501	8387	10852	66384	36874	9952	5699	5356	67930	79881	10717	9721
2023	26841	8381	10853	66681	37109	9918	5710	5352	68122	79694	10702	9690
2024	27182	8373	10854	66968	37337	9882	5721	5347	68306	79496	10687	9657
2025	27523	8364	10855	67244	37559	9844	5731	5340	68482	79287	10671	9623
2026	27863	8353	10856	67508	37773	9804	5740	5333	68650	79067	10654	9588
2027	28204	8341	10857	67761	37981	9763	5748	5324	68812	78836	10637	9551
2028	28544	8327	10858	68002	38182	9720	5754	5314	68965	78594	10619	9513
2029	28885	8310	10859	68232	38377	9675	5760	5302	69111	78342	10601	9474
2030	29231	8293	10860	68451	38565	9629	5763	5289	69249	78082	10583	9434

Population ('000) (continued)													
	Ireland	Israel	Italy	Japan	Korea	Nether-lands	New Zealand	Norway	Spain	Sweden	Switzer-land	Turkey	USA
2019	4988	8373	62335	122734	49328	17284	4705	5085	49683	9537	7945	85949	338190
2020	5040	8479	62403	122046	49362	17332	4741	5102	50016	9556	7954	86757	341387
2021	5090	8583	62456	121329	49388	17378	4775	5120	50330	9573	7962	87545	344592
2022	5139	8685	62500	120585	49403	17422	4808	5138	50625	9591	7968	88314	347803
2023	5185	8786	62537	119817	49406	17464	4842	5155	50904	9605	7973	89063	351018
2024	5231	8886	62567	119026	49396	17503	4874	5172	51167	9619	7977	89791	354235
2025	5275	8984	62591	118216	49372	17540	4906	5187	51415	9629	7978	90498	357452
2026	5318	9081	62609	117387	49334	17573	4937	5202	51649	9636	7978	91185	360667
2027	5361	9177	62620	116540	49279	17603	4966	5216	51868	9641	7977	91854	363880
2028	5401	9272	62626	115677	49205	17630	4994	5230	52074	9643	7973	92504	367090
2029	5442	9366	62627	114799	49113	17653	5021	5241	52266	9642	7967	93133	370298
2030	5482	9459	62623	113905	49003	17673	5047	5252	52445	9637	7959	93743	373504

Consumer Price Indices (2010=100)

	Australia	Austria	Belgium	Britain	Canada	Czech Rep	Denmark	Finland	France	Germany	Greece	Hungary	Ireland
1965	8.69	21.56	17.69	7.76	14.44		10.78	10.50	12.52	28.19	1.22	1.80	7.20
1966	8.98	22.01	18.43	8.06	14.99		11.37	10.90	12.84	29.19	1.28	1.88	7.56
1967	9.22	22.88	18.93	8.26	15.53		12.24	11.49	13.20	29.72	1.30	1.96	7.79
1968	9.57	23.52	19.44	8.65	16.16		13.22	12.55	13.80	30.15	1.31	2.04	8.04
1969	9.81	24.24	20.17	9.12	16.89	22.26	13.68	12.82	14.64	30.73	1.34	2.12	8.41
1970	10.10	25.30	20.96	9.70	17.46	22.49	14.57	13.17	15.41	31.79	1.38	2.20	9.04
1971	10.57	26.49	21.87	10.61	17.93	22.57	15.43	14.03	16.24	33.46	1.42	2.28	9.78
1972	11.33	28.17	23.06	11.37	18.83	22.68	16.44	14.96	17.23	35.29	1.49	2.36	10.66
1973	11.98	30.30	24.66	12.41	20.23	22.81	17.97	16.57	18.50	37.77	1.71	2.44	11.57
1974	13.56	33.18	27.79	14.40	22.46	22.96	20.71	19.38	21.03	40.41	2.17	2.53	12.90
1975	15.80	35.98	31.34	17.89	24.86	23.13	22.70	22.83	23.48	42.80	2.47	2.57	15.09
1976	17.85	38.62	34.18	20.85	26.73	23.34	24.75	26.10	25.74	44.62	2.79	2.67	17.79
1977	20.32	40.74	36.61	24.15	28.86	23.59	27.45	29.18	28.19	46.28	3.13	2.81	20.18
1978	22.25	42.19	38.24	26.15	31.45	23.89	30.26	31.46	30.80	47.54	3.53	2.92	21.74
1979	24.08	43.76	39.95	29.66	34.33	24.24	33.16	33.80	34.07	49.46	4.20	3.06	24.63
1980	26.54	46.53	42.61	34.99	37.81	24.66	37.25	37.72	38.70	52.15	5.23	3.33	29.10
1981	29.01	49.69	45.86	39.14	42.52	25.16	41.63	41.99	43.85	55.46	6.52	3.49	35.03
1982	32.06	52.39	49.86	42.51	47.10	25.75	45.84	46.01	49.10	58.37	7.89	3.72	41.03
1983	35.76	54.14	53.68	44.47	49.86	26.45	49.01	49.86	53.75	60.29	9.48	3.99	45.33
1984	38.17	57.21	57.08	46.67	52.01	27.28	52.09	53.39	57.87	61.74	11.23	4.33	49.23
1985	39.81	59.03	59.86	49.51	54.07	28.27	54.53	56.16	61.24	63.02	13.39	4.63	51.93
1986	43.16	60.04	60.64	51.20	56.34	29.45	56.53	57.81	62.80	62.94	16.48	4.88	53.88
1987	47.21	60.88	61.58	53.33	58.79	30.84	58.81	60.19	64.86	63.09	19.18	5.30	55.58
1988	50.68	62.05	62.29	55.46	61.16	32.50	61.47	63.25	66.62	63.90	21.77	6.14	56.77
1989	54.37	63.64	64.23	58.36	64.21	34.47	64.41	67.42	68.95	65.68	24.75	7.19	59.09
1990	58.72	65.72	66.44	62.43	67.28	36.80	66.11	71.56	71.17	67.45	29.80	9.23	61.07
1991	61.83	67.91	68.58	67.13	71.06	39.58	67.69	74.65	73.47	70.15	35.60	12.44	62.99
1992	63.01	70.64	70.25	69.99	72.12	42.86	69.11	76.83	75.23	73.75	41.26	15.38	64.92
1993	63.65	73.21	72.18	71.75	73.47	46.69	69.98	78.51	76.80	76.99	47.20	18.84	65.86
1994	64.83	75.37	73.90	73.17	73.59	51.29	71.37	79.37	78.07	79.11	52.33	22.39	67.42
1995	66.88	77.06	74.98	75.11	75.17	56.15	72.86	79.99	79.47	80.50	57.01	28.73	69.12
1996	69.70	78.49	76.54	76.97	76.35	61.10	74.41	80.50	81.06	81.61	61.68	35.47	70.31
1997	70.64	79.52	77.78	78.34	77.59	66.26	76.04	81.46	82.02	83.18	65.09	41.97	71.30
1998	70.64	80.25	78.52	79.59	78.36	73.34	77.44	82.60	82.55	84.01	68.20	47.91	73.04
1999	71.52	80.71	79.40	80.65	79.72	74.88	79.37	83.56	82.99	84.47	70.00	52.70	74.23
2000	73.22	82.60	81.42	81.28	81.89	77.83	81.68	86.10	84.40	85.67	72.20	57.86	78.36
2001	77.63	84.79	83.43	82.29	83.96	81.49	83.60	88.32	85.77	87.34	74.64	63.14	82.18
2002	79.86	86.33	84.80	83.32	85.85	82.94	85.62	89.71	87.42	88.63	77.35	66.46	85.99
2003	82.33	87.50	86.15	84.46	88.22	83.03	87.41	90.49	89.26	89.56	80.08	69.56	88.99
2004	84.26	89.30	87.95	85.59	89.86	85.38	88.43	90.66	91.17	91.04	82.40	74.25	90.95
2005	86.32	91.35	90.41	87.35	91.85	86.96	90.03	91.23	92.75	92.42	85.32	76.89	93.14
2006	89.08	92.67	92.03	89.39	93.69	89.15	91.73	92.66	94.31	93.90	88.05	79.92	96.81
2007	91.66	94.68	93.70	91.46	95.69	91.76	93.30	94.98	95.71	96.03	90.60	86.28	101.57
2008	94.77	97.72	97.91	94.77	97.96	97.59	96.47	98.85	98.41	98.52	94.36	91.49	105.69
2009	97.71	98.22	97.86	96.82	98.25	98.61	97.75	98.85	98.49	98.89	95.50	95.34	100.96
2010	100	100	100	100	100	100	100	100	100	100	100	100	100

Consumer Price Indices (2010=100)

	Isreal	Italy	Japan	Korea	Nether-lands	New Zealand	Norway	Spain	Sweden	Switzer-land	Turkey	USA
1965	0.000872	5.27	25.24	3.02	19.81	5.69	10.95	4.01	11.01	28.16	0.000065	14.44
1966	0.000977	5.39	26.51	3.36	20.95	5.85	11.31	4.26	11.72	29.51	0.000071	14.86
1967	0.001094	5.60	27.57	3.73	21.67	6.20	11.83	4.54	12.22	30.69	0.000080	15.32
1968	0.001225	5.67	29.04	4.13	22.48	6.47	12.23	4.76	12.46	31.43	0.000085	15.96
1969	0.001372	5.82	30.56	4.64	24.15	6.79	12.60	4.86	12.79	32.21	0.000089	16.83
1970	0.001536	6.11	32.66	5.38	25.04	7.23	13.94	5.14	13.69	33.37	0.000097	17.79
1971	0.001720	6.40	34.71	6.11	26.91	7.98	14.80	5.56	14.70	35.57	0.000115	18.57
1972	0.001941	6.77	36.43	6.82	29.01	8.54	15.88	6.03	15.58	37.94	0.000133	19.17
1973	0.002331	7.50	40.66	7.04	31.33	9.23	17.06	6.71	16.63	41.26	0.000151	20.36
1974	0.003255	8.94	50.09	8.75	34.34	10.26	18.66	7.77	18.28	45.29	0.000187	22.61
1975	0.004535	10.45	55.97	10.97	37.85	11.77	20.84	9.08	20.07	48.32	0.000227	24.68
1976	0.005955	12.19	61.24	12.65	41.19	13.76	22.75	10.68	22.12	49.15	0.000267	26.11
1977	0.008016	14.27	66.22	13.92	43.83	15.74	24.82	13.30	24.65	49.79	0.000336	27.80
1978	0.012068	16.00	68.99	15.94	45.63	17.62	26.85	15.93	27.12	50.30	0.000544	29.92
1979	0.021519	18.37	71.56	18.86	47.55	20.03	28.12	18.43	29.07	52.13	0.000889	33.28
1980	0.049714	22.24	77.15	24.27	50.64	23.47	31.18	21.30	33.06	54.23	0.001727	37.78
1981	0.108	26.23	80.94	29.45	54.05	27.07	35.44	24.40	37.06	57.75	0.002377	41.70
1982	0.238	30.56	83.15	31.57	57.25	31.45	39.46	27.91	40.24	61.01	0.003070	44.27
1983	0.584	35.03	84.73	32.65	58.82	33.76	42.78	31.31	43.81	62.81	0.004033	45.66
1984	2.764	38.81	86.63	33.39	60.76	35.84	45.48	34.84	47.34	64.66	0.005985	47.66
1985	11.18	42.39	88.41	34.21	62.13	41.37	48.05	37.92	50.83	66.88	0.008676	49.34
1986	16.57	44.86	88.95	35.15	62.19	46.83	51.50	41.25	52.98	67.38	0.01168	50.30
1987	19.86	46.99	89.06	36.22	61.76	54.21	55.99	43.42	55.20	68.35	0.01622	52.10
1988	23.08	49.36	89.64	38.81	62.21	57.66	59.73	45.52	58.42	69.63	0.02738	54.23
1989	27.76	52.45	91.69	41.02	62.88	60.96	62.45	48.61	62.18	71.83	0.04470	56.83
1990	32.53	55.84	94.50	44.54	64.43	64.68	65.02	51.87	68.63	75.71	0.07165	59.91
1991	38.71	59.33	97.58	48.70	66.46	66.36	67.25	54.95	75.11	80.14	0.11892	62.44
1992	43.33	62.46	99.26	51.72	68.58	67.03	68.83	58.21	76.89	83.38	0.20226	64.34
1993	48.07	65.35	100.52	54.20	70.35	67.90	70.40	60.87	80.53	86.12	0.33594	66.25
1994	54.01	67.99	101.21	57.60	72.32	69.08	71.39	63.74	82.27	86.86	0.68940	67.97
1995	59.44	71.55	101.09	60.18	73.71	71.67	73.13	66.72	84.29	88.42	1.304	69.88
1996	66.14	74.42	101.22	63.15	75.17	73.31	74.05	69.09	84.73	89.14	2.352	71.93
1997	72.09	75.94	103.01	65.95	76.81	74.18	75.95	70.45	85.29	89.60	4.367	73.61
1998	76.01	77.43	103.70	70.90	78.33	75.12	77.68	71.75	85.06	89.62	8.064	74.75
1999	79.96	78.71	103.35	71.48	80.05	75.04	79.49	73.40	85.46	90.34	13.29	76.39
2000	80.86	80.71	102.62	73.10	81.90	77.00	81.94	75.93	86.23	91.75	20.59	78.96
2001	81.75	82.96	101.84	76.07	85.31	79.02	84.41	78.65	88.30	92.66	31.80	81.18
2002	86.40	85.00	100.93	78.17	88.12	81.14	85.50	81.06	90.21	93.25	46.10	82.48
2003	87.02	87.28	100.68	80.92	89.98	82.56	87.62	83.53	91.94	93.85	56.05	84.37
2004	86.66	89.20	100.67	83.82	91.09	84.45	88.03	86.06	92.29	94.60	60.87	86.62
2005	87.81	90.97	100.39	86.13	92.62	87.01	89.37	88.96	92.71	95.71	65.85	89.54
2006	89.66	92.87	100.64	88.03	93.70	89.94	91.45	92.09	93.97	96.72	72.17	92.42
2007	90.10	94.57	100.69	90.27	95.21	92.08	92.12	94.66	96.05	97.43	78.49	95.07
2008	94.24	97.74	102.08	94.49	97.58	95.72	95.59	98.52	99.35	99.80	86.69	98.70
2009	97.38	98.50	100.70	97.16	98.74	97.75	97.66	98.23	98.86	99.32	92.11	98.38
2010	100	100	100	100	100	100	100	100	100	100	100	100

Unemployment (per cent)

	Australia	Austria	Belgium	Britain	Canada	Czech Rep	Denmark	Finland	France	Germany	Greece	Hungary	Ireland
1963	2.2	2.1	1.7	2.0	5.5		2.1	1.5	1.4	0.7	5.0		5.0
1964	1.7	1.9	1.5	1.4	4.7		1.5	1.5	1.1	0.6	4.7		4.7
1965	1.2	1.9	1.7	1.2	3.9		1.2	1.4	1.4	0.6	4.8		4.6
1966	1.4	1.8	1.8	1.1	3.3		1.4	1.5	1.4	0.6	5.0		5.9
1967	1.5	1.8	2.5	2.0	3.8		1.2	2.9	1.9	1.8	5.4		5.1
1968	1.6	1.6	3.0	2.2	4.5		1.2	4.0	2.4	1.3	5.6		5.4
1969	1.5	2.0	2.3	2.1	4.4		1.1	2.8	2.1	0.7	5.3		5.0
1970	1.6	1.4	1.9	2.2	5.7		0.7	1.9	2.3	0.7	4.2		5.9
1971	1.9	0.9	1.8	3.3	6.4		1.1	2.3	2.5	0.8	3.1		6.9
1972	2.6	0.8	2.3	3.7	6.3		1.0	2.5	2.5	1.1	2.1		6.2
1973	2.3	0.7	2.3	2.6	5.6		0.7	2.4	2.5	1.1	2.0		5.7
1974	2.7	0.8	2.5	2.6	5.4		1.6	1.8	2.6	2.5	2.1		5.4
1975	4.9	1.2	4.3	4.0	6.9		4.0	2.6	3.8	4.5	2.3		9.3
1976	4.8	1.2	5.4	5.5	7.1		4.1	3.9	4.1	4.4	1.9		9.1
1977	5.7	1.1	6.2	5.8	8.1		5.0	5.9	4.7	4.3	1.7		8.8
1978	6.3	1.2	6.6	5.7	8.3		5.7	7.3	4.9	4.1	1.8		8.3
1979	6.3	1.2	7.0	5.3	7.4		4.8	6.0	5.6	3.6	1.9		6.8
1980	6.1	1.1	7.6	6.8	7.5		5.5	4.7	5.8	3.6	2.8		7.4
1981	5.8	1.4	9.3	10.4	7.5		7.2	4.9	7.0	5.3	4.0		10.5
1982	7.2	2.2	10.9	10.9	11.0		7.8	5.4	8.0	7.2	5.8		11.6
1983	10.0	2.6	11.9	11.7	11.8		8.4	5.5	7.7	8.7	7.9		14.0
1984	9.0	2.6	12.3	11.6	11.2		7.9	5.2	9.2	8.7	8.1		15.6
1985	8.3	2.8	11.4	11.8	10.6		6.6	5.0	9.6	8.9	7.8		16.7
1986	8.1	3.1	11.3	11.8	9.7		5.0	5.4	9.7	8.6	7.4		17.1
1987	8.1	3.3	11.3	10.8	8.8		5.0	5.0	9.8	8.5	7.4		17.0
1988	7.2	3.1	10.1	8.8	7.8		5.7	4.5	9.4	8.3	7.7		16.4
1989	6.2	2.9	8.3	7.2	7.5		6.8	3.1	8.8	7.5	7.5		15.2
1990	6.9	3.2	7.2	6.8	8.1	0.8	7.2	3.1	8.4	6.9	7.0	1.4	13.0
1991	9.6	3.4	7.0	8.4	10.3	4.4	7.9	6.6	8.9	6.0	7.7	6.8	14.8
1992	10.5	3.5	7.7	9.7	11.2	2.8	8.6	11.6	9.8	6.3	8.7	9.8	15.2
1993	10.7	4.0	8.2	10.3	11.4	4.4	9.5	16.2	11.0	7.6	9.7	11.9	15.8
1994	9.5	3.8	9.8	9.6	10.4	4.3	7.7	16.4	11.6	8.2	9.6	10.7	14.8
1995	8.4	3.9	9.3	8.6	9.5	4.1	6.8	15.2	11.0	8.0	10.0	10.2	12.2
1996	8.3	4.3	9.6	8.2	9.6	3.9	6.3	14.4	11.5	8.7	10.3	9.9	11.9
1997	8.4	4.4	8.9	7.1	9.1	4.8	5.2	12.5	11.4	9.4	10.2	8.7	10.4
1998	7.8	4.5	9.1	6.1	8.3	6.4	4.9	11.3	11.0	9.1	10.8	7.8	7.9
1999	7.0	3.9	8.6	6.0	7.6	8.6	5.1	10.1	10.4	8.3	11.9	7.0	5.9
2000	6.4	3.6	7.0	5.4	6.8	8.7	4.3	9.7	9.0	7.5	11.2	6.4	4.5
2001	6.8	3.6	6.6	4.9	7.2	8.0	4.5	9.1	8.3	7.6	10.4	5.7	3.9
2002	6.4	4.2	7.5	5.0	7.7	7.3	4.6	9.1	8.6	8.4	9.9	5.8	4.5
2003	5.9	4.3	8.2	4.8	7.6	7.8	5.4	9.0	9.0	9.3	9.3	5.7	4.6
2004	5.5	4.9	8.5	4.7	7.2	8.3	5.5	8.8	9.2	9.8	10.2	6.1	4.5
2005	5.0	5.2	8.5	4.8	6.8	7.9	4.8	8.3	9.3	10.6	9.6	7.2	4.7
2006	4.8	4.8	8.3	5.4	6.3	7.2	3.9	7.7	9.2	9.8	8.8	7.5	4.6
2007	4.4	4.4	7.5	5.3	6.0	5.3	3.8	6.9	8.4	8.4	8.1	7.4	4.7
2008	4.2	3.8	7.0	5.6	6.1	4.4	3.4	6.4	7.8	7.6	7.7	7.8	6.3
2009	5.6	4.8	7.9	7.6	8.3	6.7	6.0	8.2	9.5	7.7	9.5	10.0	11.8
2010	5.2	4.4	8.3	7.8	8.0	7.3	7.4	8.4	9.8	7.1	12.6	11.2	13.7
2011	5.0	4.1	6.6	8.3	7.0	6.8	7.2	7.0	8.7	5.9	16.4	10.7	14.2

Unemployment (per cent)

	Ireland	Israel	Italy	Japan	Korea	Nether-lands	New Zealand	Norway	Spain	Sweden	Switzer-land	Turkey	USA
1963	5.0	3.8	3.9	1.3	8.1	0.6	0.1	1.3	1.3	1.7	0.020	10.0	5.7
1964	4.7	3.8	4.3	1.1	7.7	0.5	0.1	1.1	1.5	1.6	0.028	9.7	5.2
1965	4.6	3.8	5.4	1.2	7.3	0.6	0.1	0.9	1.5	1.2	0.009	9.8	4.5
1966	5.9	3.8	5.9	1.3	7.1	0.8	0.1	0.8	1.4	1.6	0.010	9.6	3.8
1967	5.1	3.8	5.4	1.3	6.1	1.6	0.1	0.7	1.9	2.1	0.010	10.3	3.8
1968	5.4	3.8	5.7	1.2	5.0	1.5	0.8	1.1	1.9	2.2	0.008	10.8	3.6
1969	5.0	3.8	5.7	1.1	4.7	1.0	0.3	1.1	1.5	1.9	0.010	11.5	3.5
1970	5.9	3.8	5.5	1.1	4.5	1.1	0.1	1.4	1.5	1.5	0.006	6.3	4.8
1971	6.9	3.5	5.5	1.2	4.5	1.4	0.2	1.4	2.0	2.5	0.003	6.6	5.8
1972	6.2	2.7	6.4	1.4	4.5	2.4	0.5	1.7	3.0	2.7	0.003	6.2	5.5
1973	5.7	2.6	6.4	1.3	4.0	2.5	0.2	1.5	2.7	2.4	0.003	6.6	4.8
1974	5.4	3.0	5.4	1.4	4.1	3.0	0.1	1.5	3.2	2.0	0.002	7.2	5.5
1975	9.3	3.1	5.9	1.9	4.1	5.8	0.2	2.3	4.7	1.6	0.3	7.4	8.3
1976	9.1	3.6	6.8	2.0	3.9	6.2	0.3	1.8	4.6	1.6	0.7	8.8	7.6
1977	8.8	3.9	7.2	2.0	3.8	6.0	0.3	1.5	5.2	1.8	0.4	9.8	6.9
1978	8.3	3.6	7.3	2.2	3.2	5.7	1.7	1.7	7.0	2.2	0.3	9.9	6.0
1979	6.8	2.9	7.8	2.1	3.8	5.8	1.9	2.0	8.7	2.1	0.3	8.7	5.8
1980	7.4	4.8	7.7	2.0	5.2	4.3	2.2	1.7	11.5	2.1	0.2	8.1	7.0
1981	10.5	5.1	8.0	2.2	4.5	5.8	3.6	2.0	14.2	2.6	0.2	7.1	7.5
1982	11.6	5.0	8.7	2.4	4.4	7.7	3.5	2.6	16.0	3.3	0.4	7.0	9.5
1983	14.0	4.5	9.5	2.6	4.1	8.3	5.7	3.4	17.5	3.7	0.9	7.7	9.6
1984	15.6	5.9	10.1	2.7	3.8	8.1	5.7	3.2	20.2	3.3	1.1	7.6	7.5
1985	16.7	6.7	10.4	2.6	4.0	7.3	4.2	2.6	21.6	2.9	0.9	7.1	7.2
1986	17.1	7.1	11.2	2.8	3.8	6.5	4.2	2.0	21.1	2.7	0.7	7.9	7.0
1987	17.0	6.1	12.1	2.8	3.1	6.3	4.2	2.1	20.3	2.2	0.7	8.3	6.2
1988	16.4	6.4	12.1	2.5	2.5	6.2	5.7	3.2	19.3	1.8	0.6	8.4	5.5
1989	15.2	8.9	12.1	2.3	2.6	5.7	7.3	4.9	17.3	1.5	0.5	8.6	5.3
1990	13.0	9.6	11.5	2.1	2.5	5.1	8.0	5.2	16.3	1.7	0.5	8.0	5.6
1991	14.8	10.6	11.0	2.1	2.4	4.8	10.6	5.5	16.4	3.1	1.7	8.2	6.8
1992	15.2	11.2	10.6	2.2	2.5	4.9	10.7	5.9	18.5	5.6	2.7	8.5	7.5
1993	15.8	10.0	10.2	2.5	2.9	5.6	9.8	6.0	22.8	9.0	3.6	8.9	6.9
1994	14.8	7.8	11.2	2.9	2.5	6.2	8.4	5.4	24.2	9.3	3.6	8.6	6.1
1995	12.2	6.9	11.7	3.2	2.1	7.0	6.5	4.9	23.0	8.8	3.2	7.6	5.6
1996	11.9	6.7	11.7	3.4	2.0	6.4	6.3	4.8	22.1	9.6	3.5	6.6	5.4
1997	10.4	7.7	11.8	3.4	2.6	5.4	6.8	4.0	20.7	9.9	3.9	6.8	4.9
1998	7.9	8.5	11.9	4.1	7.0	4.3	7.7	3.2	18.7	8.2	3.3	6.9	4.5
1999	5.9	8.9	11.5	4.7	6.6	3.6	7.1	3.2	15.7	6.7	2.8	7.7	4.2
2000	4.5	8.8	10.7	4.7	4.4	3.0	6.2	3.4	13.9	5.6	2.5	6.5	4.0
2001	3.9	9.4	9.6	5.0	4.0	2.6	5.5	3.6	10.6	5.9	2.2	8.4	4.8
2002	4.5	10.3	9.1	5.4	3.3	3.1	5.3	3.9	11.5	6.0	2.9	10.3	5.8
2003	4.6	10.7	8.8	5.3	3.6	4.1	4.8	4.2	11.5	6.6	3.9	10.5	6.0
2004	4.5	10.4	8.1	4.7	3.7	5.1	4.0	4.3	11.0	7.4	4.1	10.8	5.5
2005	4.7	9.0	7.8	4.4	3.7	5.3	3.8	4.5	9.2	7.7	4.2	10.6	5.1
2006	4.6	8.4	6.9	4.1	3.5	4.3	3.9	3.4	8.5	7.1	3.8	10.2	4.6
2007	4.7	7.3	6.2	3.9	3.2	3.6	3.7	2.6	8.3	6.1	3.4	10.3	4.6
2008	6.3	6.1	6.8	4.0	3.2	3.1	4.2	2.5	11.4	6.2	3.2	9.7	5.8
2009	11.8	7.6	7.8	5.1	3.6	3.7	6.1	3.2	18.0	8.3	4.1	12.5	9.3
2010	13.7	7.4	8.4	5.1	3.7	4.5	6.5	3.5	20.1	8.4	4.2	10.6	9.6
2011	14.2	5.2	7.8	4.7	3.4	4.2	6.4	3.3	20.9	6.6	3.3	9.2	9.0

Exchange Rates (US$ per currency)													
	$A	adj Euro	adj Euro	Pound	C$	Koruny	Kroner	adj Euro	adj Euro	adj Euro	adj Euro	Forint	adj Euro
	Australia	Austria	Belgium	Britain	Canada	Czech Rep	Denmark	Finland	France	Germany	Greece	Hungary	Ireland
1965	0.8977	1.8895	1.2395	0.3558	1.0780		6.9071	0.5382	0.7518	2.0550	0.0880	60.0	0.4535
1966	0.8986	1.8895	1.2395	0.3574	1.0773		6.9071	0.5382	0.7595	2.0401	0.0880	60.0	0.4535
1967	0.8989	1.8895	1.2395	0.4145	1.0787		6.9565	0.5802	0.7529	2.0514	0.0880	60.0	0.4598
1968	0.8989	1.8895	1.2395	0.4183	1.0775		7.5000	0.7064	0.7589	2.0519	0.0880	60.0	0.5291
1969	0.9001	1.8895	1.2395	0.4154	1.0768		7.5000	0.7064	0.8524	1.8929	0.0880	60.0	0.5291
1970	0.8929	1.8895	1.2395	0.4167	1.0449	21.1596	7.5000	0.7064	0.8467	1.8713	0.0880	60.0	0.5291
1971	0.8827	1.8139	1.2114	0.4109	1.0098	21.2519	7.4169	0.7038	0.8450	1.7848	0.0880	59.4	0.5218
1972	0.8387	1.6799	1.0911	0.4004	0.9899	21.3443	6.9493	0.6974	0.7690	1.6303	0.0880	55.3	0.5084
1973	0.7035	1.4229	0.9662	0.4082	1.0001	21.4364	6.0495	0.6427	0.6796	1.3665	0.0869	48.3	0.5183
1974	0.6967	1.3584	0.9656	0.4278	0.9780	21.5241	6.0949	0.6347	0.7339	1.3231	0.0880	46.7	0.5431
1975	0.7639	1.2657	0.9117	0.4520	1.0172	21.6955	5.7462	0.6187	0.6534	1.2579	0.0941	43.6	0.5740
1976	0.8183	1.3037	0.9570	0.5565	0.9860	21.9724	6.0450	0.6499	0.7286	1.2874	0.1072	41.6	0.7066
1977	0.9018	1.2011	0.8885	0.5733	1.0634	22.2494	6.0032	0.6777	0.7491	1.1873	0.1081	40.8	0.7279
1978	0.8737	1.0553	0.7807	0.5215	1.1407	22.5263	5.5146	0.6925	0.6880	1.0270	0.1078	37.6	0.6622
1979	0.8946	0.9715	0.7268	0.4722	1.1714	22.8032	5.2610	0.6551	0.6486	0.9371	0.1087	35.4	0.6204
1980	0.8782	0.9402	0.7249	0.4303	1.1692	23.0801	5.6359	0.6274	0.6442	0.9294	0.1251	32.4	0.6179
1981	0.8702	1.1574	0.9204	0.4976	1.1989	23.3570	7.1234	0.7258	0.8285	1.1555	0.1626	34.5	0.7889
1982	0.9859	1.2397	1.1326	0.5724	1.2337	23.6338	8.3324	0.8107	1.0019	1.2407	0.1960	37.1	0.8946
1983	1.1100	1.3054	1.2675	0.6597	1.2324	23.9112	9.1450	0.9368	1.1619	1.3055	0.2584	43.2	1.0217
1984	1.1395	1.4541	1.4324	0.7518	1.2951	24.1975	10.3566	1.0108	1.3323	1.4551	0.3308	48.5	1.1714
1985	1.4319	1.5036	1.4719	0.7792	1.3655	24.6398	10.5964	1.0424	1.3698	1.5052	0.4053	49.8	1.2007
1986	1.4960	1.1095	1.1074	0.6822	1.3895	25.1105	8.0910	0.8526	1.0559	1.1103	0.4108	45.6	0.9436
1987	1.4282	0.9188	0.9255	0.6119	1.3260	25.5814	6.8403	0.7393	0.9163	0.9190	0.3975	47.2	0.8544
1988	1.2799	0.8973	0.9115	0.5622	1.2307	26.0523	6.7315	0.7035	0.9081	0.8979	0.4166	50.9	0.8335
1989	1.2646	0.9615	0.9768	0.6112	1.1840	26.5200	7.3102	0.7217	0.9726	0.9612	0.4768	59.8	0.8959
1990	1.2811	0.8263	0.8284	0.5632	1.1668	27.0493	6.1886	0.6431	0.8301	0.8261	0.4652	63.7	0.7677
1991	1.2838	0.8485	0.8465	0.5670	1.1457	27.6932	6.3965	0.6801	0.8601	0.8485	0.5352	75.4	0.7889
1992	1.3616	0.7986	0.7970	0.5698	1.2087	28.3318	6.0361	0.7534	0.8070	0.7985	0.5602	79.6	0.7463
1993	1.4706	0.8453	0.8576	0.6668	1.2901	29.1528	6.4839	0.9607	0.8634	0.8453	0.6734	93.4	0.8599
1994	1.3678	0.8301	0.8294	0.6534	1.3656	28.7851	6.3606	0.8785	0.8464	0.8297	0.7117	106.0	0.8490
1995	1.3490	0.7327	0.7308	0.6337	1.3724	26.5407	5.6024	0.7344	0.7609	0.7327	0.6802	128.2	0.7920
1996	1.2779	0.7694	0.7675	0.6410	1.3635	27.1449	5.7987	0.7726	0.7799	0.7694	0.7067	154.7	0.7936
1997	1.3474	0.8869	0.8868	0.6108	1.3846	31.6984	6.6045	0.8731	0.8898	0.8866	0.8015	190.1	0.8376
1998	1.5918	0.8996	0.8998	0.6038	1.4835	32.2812	6.7008	0.8988	0.8994	0.8997	0.8670	215.2	0.8917
1999	1.5500	0.9386	0.9386	0.6181	1.4857	34.5693	6.9762	0.9386	0.9386	0.9386	0.8977	240.1	0.9386
2000	1.7248	1.0854	1.0854	0.6609	1.4851	38.5984	8.0831	1.0854	1.0854	1.0854	1.0737	284.8	1.0854
2001	1.9334	1.1175	1.1175	0.6947	1.5488	38.0353	8.3228	1.1175	1.1175	1.1175	1.1176	286.0	1.1175
2002	1.8406	1.0626	1.0626	0.6672	1.5693	32.7385	7.8947	1.0626	1.0626	1.0626	1.0613	253.7	1.0626
2003	1.5419	0.8860	0.8860	0.6125	1.4011	28.2090	6.5877	0.8860	0.8860	0.8860	0.8853	222.9	0.8860
2004	1.3598	0.8054	0.8054	0.5462	1.3010	25.6998	5.9911	0.8054	0.8054	0.8054	0.8048	200.9	0.8054
2005	1.3095	0.8041	0.8041	0.5500	1.2118	23.9574	5.9969	0.8041	0.8041	0.8041	0.8048	199.4	0.8041
2006	1.3280	0.7971	0.7971	0.5435	1.1344	22.5956	5.9468	0.7971	0.7971	0.7971	0.7969	210.4	0.7971
2007	1.1951	0.7306	0.7306	0.4998	1.0741	20.2937	5.4437	0.7306	0.7306	0.7306	0.7306	183.6	0.7306
2008	1.1922	0.6827	0.6827	0.5440	1.0670	17.0717	5.0981	0.6827	0.6827	0.6827	0.6827	172.1	0.6827
2009	1.2822	0.7198	0.7198	0.6419	1.1431	19.0630	5.3609	0.7198	0.7198	0.7198	0.7198	202.3	0.7198
2010	1.0902	0.7550	0.7550	0.6472	1.0302	19.0983	5.6241	0.7550	0.7550	0.7550	0.7550	207.9	0.7550

Exchange Rates (US$ per currency)													
	Shekels Isreal	adj Euro Italy	Yen Japan	Won Korea	adj Euro Nether-lands	NZ$ New Zealand	Kroner Norway	adj Euro Spain	Kronor Sweden	Francs Switzer-land	Liras Turkey	synthetic Euro	SDR
1965	56792	0.3248	363.2	275.0	1.6427	0.7192	7.1429	0.3590	5.1832	4.3111		1.1420	1.000
1966	52243	0.3247	364.8	271.3	1.6427	0.7192	7.1429	0.3590	5.1832	4.3201		1.1420	1.000
1967	47945	0.3244	364.2	270.5	1.6427	0.7337	7.1429	0.3690	5.1682	4.3181		1.1420	1.000
1968	44643	0.3242	360.0	276.7	1.6427	0.8929	7.1429	0.4189	5.1832	4.2951		1.1420	1.000
1969	42043	0.3252	360.1	288.2	1.6427	0.8929	7.1429	0.4189	5.1732	4.3111		1.1420	1.000
1970	39735	0.3239	360.0	310.6	1.6427	0.8929	7.1429	0.4189	5.1732	4.3091	0.000011	1.1420	0.966
1971	39138	0.3194	349.3	347.2	1.5893	0.8806	7.0418	0.4161	5.1168	4.0768	0.000015	1.1052	1.020
1972	38207	0.3012	303.2	392.9	1.4564	0.8368	6.5883	0.3863	4.7624	3.8043	0.000014	1.0158	1.065
1973	29984	0.3011	271.7	398.3	1.2686	0.7368	5.7658	0.3502	4.3673	3.1363	0.000014	0.8770	1.196
1974	20050	0.3359	292.1	404.5	1.2199	0.7154	5.5397	0.3467	4.4394	2.9088	0.000014	0.8743	1.203
1975	18391	0.3372	296.8	484.0	1.1476	0.8323	5.2269	0.3450	4.1522	2.5880	0.000014	0.8250	1.212
1976	14915	0.4299	296.6	484.0	1.1998	1.0049	5.4565	0.4021	4.3559	2.4903	0.000016	0.8798	1.154
1977	12108	0.4557	268.5	484.0	1.1137	1.0303	5.3235	0.4565	4.4816	2.3618	0.000018	0.8490	1.169
1978	10536	0.4383	210.4	484.0	0.9818	0.9644	5.2423	0.4608	4.5185	1.7618	0.000024	0.7615	1.258
1979	6026	0.4291	219.1	484.0	0.9103	0.9785	5.0641	0.4034	4.2871	1.6561	0.000030	0.7058	1.294
1980	2916	0.4423	226.7	607.4	0.9022	1.0267	4.9392	0.4309	4.2296	1.6947	0.000074	0.7047	1.299
1981	1676	0.5871	220.5	681.0	1.1323	1.1528	5.7395	0.5549	5.0634	1.9662	0.000109	0.8899	1.176
1982	830	0.6985	249.1	731.1	1.2117	1.3326	6.4540	0.6603	6.2826	2.0406	0.000160	1.0046	1.102
1983	333	0.7844	237.5	775.8	1.2951	1.4968	7.2964	0.8620	7.6671	2.1216	0.000222	1.1131	1.067
1984	84.138	0.9074	237.5	806.0	1.4560	1.7640	8.1615	0.9662	8.2718	2.3848	0.000360	1.2583	1.023
1985	22.819	0.9861	238.5	870.0	1.5072	2.0234	8.5972	1.0220	8.6039	2.4081	0.000514	1.3110	1.024
1986	13.465	0.7699	168.5	881.5	1.1118	1.9132	7.3947	0.8417	7.1236	1.7562	0.000667	0.9984	1.179
1987	10.775	0.6677	144.6	822.6	0.9192	1.6946	6.7375	0.7421	6.3404	1.4736	0.000846	0.8484	1.301
1988	8.6582	0.6717	128.2	731.5	0.8969	1.5264	6.5170	0.7010	6.1272	1.4811	0.00138	0.8334	1.343
1989	7.8801	0.7079	138.0	671.5	0.9623	1.6722	6.9045	0.7109	6.4469	1.6323	0.00210	0.8871	1.284
1990	6.7155	0.6187	144.8	707.8	0.8263	1.6762	6.2597	0.6126	5.9188	1.3689	0.00259	0.7646	1.359
1991	5.8184	0.6403	134.7	733.4	0.8484	1.7335	6.4829	0.6242	6.0475	1.4449	0.00409	0.7884	1.368
1992	5.3134	0.6370	126.7	780.7	0.7980	1.8618	6.2145	0.6160	5.8238	1.4124	0.00672	0.7528	1.408
1993	5.2678	0.8110	111.2	802.7	0.8428	1.8505	7.0941	0.7643	7.7834	1.4771	0.0107	0.8366	1.396
1994	4.6803	0.8320	102.2	803.4	0.8259	1.6865	7.0576	0.8046	7.7160	1.3524	0.0283	0.8306	1.437
1995	4.0811	0.8411	94.1	771.3	0.7286	1.5239	6.3352	0.7490	7.1333	1.1736	0.0449	0.7568	1.522
1996	3.7012	0.7967	108.8	804.5	0.7650	1.4549	6.4498	0.7610	6.7060	1.2537	0.0793	0.7744	1.451
1997	3.5247	0.8793	121.0	951.3	0.8854	1.5124	7.0734	0.8798	7.6349	1.4582	0.1519	0.8832	1.373
1998	3.5997	0.8968	130.9	1401.4	0.9002	1.8683	7.5451	0.8977	7.9499	1.4422	0.2607	0.8988	1.358
1999	3.7032	0.9387	113.9	1188.8	0.9386	1.8896	7.7992	0.9387	8.2624	1.5192	0.4188	0.9383	1.365
2000	3.8116	1.0852	107.8	1131.0	1.0854	2.2012	8.8018	1.0852	9.1622	1.6924	0.6252	1.0855	1.317
2001	4.0663	1.1177	121.5	1291.0	1.1175	2.3788	8.9917	1.1177	10.3291	1.6907	1.2256	1.1177	1.271
2002	4.2330	1.0613	125.4	1251.1	1.0626	2.1622	7.9838	1.0613	9.7371	1.5344	1.5072	1.0624	1.299
2003	4.1956	0.8853	115.9	1191.6	0.8860	1.7221	7.0802	0.8853	8.0863	1.3354	1.5009	0.8860	1.404
2004	4.3904	0.8048	108.2	1145.3	0.8054	1.5087	6.7408	0.8048	7.3489	1.2373	1.4255	0.8054	1.481
2005	4.5769	0.8048	110.2	1024.1	0.8041	1.4203	6.4425	0.8047	7.4731	1.2457	1.3436	0.8041	1.473
2006	4.6436	0.7969	116.3	954.8	0.7971	1.5421	6.4133	0.7969	7.3783	1.2539	1.4285	0.7971	1.473
2007	4.4847	0.7306	117.8	929.3	0.7306	1.3607	5.8617	0.7306	6.7588	1.2004	1.3033	0.7306	1.534
2008	3.8586	0.6827	103.4	1102.1	0.6827	1.4227	5.6400	0.6827	6.5911	1.0831	1.3015	0.6827	1.580
2009	3.9323	0.7198	93.6	1276.9	0.7198	1.6002	6.2883	0.7198	7.6538	1.0881	1.5500	0.7198	1.540
2010	3.7390	0.7550	87.8	1156.1	0.7550	1.3875	6.0442	0.7550	7.2075	1.0429	1.5028	0.7550	1.530

Real Petrol prices (US2010c/l)

	Australia	Austria	Belgium	Britain	Canada	Czech Rep	Denmark	Finland	France	Germany	Greece	Hungary	Ireland
1965	59.08	82.90	94.22	100.28	59.41		99.59	120.34	131.41	93.29	116.88	69.16	110.66
1966	60.32	83.09	103.69	107.44	59.97		96.70	128.26	127.59	90.58	113.49	67.15	112.14
1967	60.80	83.37	100.89	89.51	59.73		107.81	103.89	126.76	88.13	110.42	65.34	93.43
1968	59.44	80.00	96.80	98.43	59.04		104.70	99.68	127.90	84.57	105.95	62.71	102.76
1969	57.06	75.89	91.83	96.94	58.02		101.82	94.56	113.60	80.22	100.51	59.47	101.23
1970	57.53	70.58	89.78	96.60	58.03		102.78	90.42	108.39	75.76	94.92	56.16	100.87
1971	59.94	67.70	100.79	101.28	59.63		104.51	99.12	116.90	93.42	91.04	64.64	105.75
1972	62.79	76.22	92.07	92.36	59.57		107.01	90.11	113.76	97.67	101.37	56.32	96.47
1973	76.36	113.90	117.72	94.26	59.24		135.50	117.82	129.61	124.87	111.93	58.91	98.43
1974	81.81	140.79	122.48	161.82	63.42		167.22	145.64	161.82	145.52	194.19	64.73	168.99
1975	81.02	119.14	133.47	132.72	63.17		142.21	127.98	156.43	123.31	175.39	56.88	138.60
1976	77.90	128.90	141.29	111.12	68.94		173.34	164.45	160.01	132.75	177.79	53.34	133.34
1977	70.27	151.51	150.27	108.85	65.63		169.80	156.74	165.45	167.79	161.09	64.05	139.32
1978	75.31	155.74	153.01	106.96	59.35		167.13	161.78	204.23	148.79	186.52	72.47	128.36
1979	90.07	163.50	166.44	140.59	60.54		193.17	165.53	214.14	157.16	202.78	76.79	139.69
1980	96.63	171.67	190.14	174.15	64.24	140.46	213.05	204.85	203.26	163.45	210.40	77.92	174.15
1981	97.85	152.83	160.60	162.42	77.18	132.60	178.73	184.97	161.41	145.16	169.38	91.84	163.38
1982	89.30	144.62	134.03	144.18	85.25	118.74	160.90	163.16	149.15	124.76	147.80	84.52	164.75
1983	86.25	130.38	122.50	130.06	87.25	109.58	145.17	144.95	121.85	113.49	124.59	82.79	160.71
1984	87.51	115.65	105.04	113.34	83.15	102.66	121.32	132.65	115.19	99.50	102.85	80.22	141.68
1985	74.49	112.65	104.74	112.08	80.46	97.69	117.35	126.27	136.79	95.68	100.53	80.26	142.28
1986	69.26	120.02	103.37	109.04	69.28	84.41	157.99	123.57	138.37	95.09	110.83	83.19	158.19
1987	73.74	136.09	116.02	118.73	73.11	80.79	186.05	141.55	163.42	107.55	109.33	84.43	168.02
1988	76.69	129.24	112.72	122.63	74.67	76.43	178.88	147.53	143.32	103.23	100.32	74.41	163.02
1989	77.28	123.97	119.31	116.28	77.43	73.83	164.84	144.61	152.10	111.19	83.56	64.53	153.93
1990	88.66	134.40	134.86	124.34	81.69	66.08	148.38	162.40	149.60	112.57	125.28	74.24	146.27
1991	82.91	121.05	134.94	126.53	79.52	89.82	131.14	151.13	140.10	118.33	123.65	112.20	135.77
1992	77.29	131.16	136.36	124.65	70.54	96.71	129.78	111.53	140.49	129.38	141.56	96.52	132.08
1993	69.24	119.66	126.01	111.53	63.46	94.93	121.38	113.75	131.44	118.10	119.96	107.55	111.78
1994	71.80	123.73	127.05	115.73	57.75	97.21	124.47	133.18	133.79	131.69	122.44	107.40	110.57
1995	73.50	150.10	134.76	121.71	58.09	101.26	149.12	157.80	149.41	144.36	128.77	100.22	116.22
1996	77.30	142.20	136.27	123.08	59.52	105.56	152.94	157.80	152.60	139.45	134.50	102.11	121.02
1997	72.94	122.73	127.81	137.89	58.58	92.01	135.45	133.89	136.04	121.43	110.73	93.54	117.99
1998	57.49	112.58	113.96	143.28	49.16	90.05	127.10	126.39	127.07	110.39	94.85	103.75	106.15
1999	60.07	108.87	113.46	149.46	52.32	90.63	137.20	126.37	125.56	113.82	88.84	115.54	101.85
2000	64.04	108.17	121.94	153.11	62.08	91.22	130.05	132.44	127.19	115.40	90.71	102.59	104.32
2001	55.47	98.43	111.11	134.41	55.99	87.75	120.62	122.24	114.20	110.56	83.10	107.78	97.99
2002	56.55	97.90	111.71	133.20	54.31	93.10	124.70	122.67	115.71	117.30	83.97	113.97	97.56
2003	68.96	115.31	136.17	147.07	62.35	107.31	146.99	146.61	136.04	143.40	99.06	132.74	116.51
2004	82.54	133.45	163.55	169.51	72.14	121.89	160.70	163.55	152.08	159.83	116.47	150.07	136.60
2005	94.14	141.11	177.78	176.05	85.16	134.44	167.05	168.19	161.25	167.08	122.40	145.19	144.44
2006	101.22	145.64	183.64	181.76	93.19	140.69	173.21	174.82	167.90	172.24	131.43	140.66	151.61
2007	109.39	158.93	199.24	198.67	99.79	151.74	187.03	186.86	183.26	191.03	145.83	173.55	160.66
2008	119.83	178.98	216.08	199.47	109.38	173.82	202.90	211.18	201.24	207.77	164.73	202.63	181.80
2009	94.82	147.28	185.83	157.24	84.39	141.70	179.56	181.31	170.44	182.86	141.77	167.72	155.33
2010	115.40	157.21	192.84	180.63	100.08	156.69	190.08	189.26	178.00	187.54	187.94	180.00	172.31

Real Petrol prices (US2010c/l)

	Isreal	Italy	Japan	Korea	Nether-lands	New Zealand	Norway	Spain	Sweden	Switzer-land	Turkey	USA
1965	85.09	121.72	94.75	74.54	96.13	67.78	103.74	96.13	97.59	103.74	74.69	56.88
1966	85.09	128.93	89.98	80.13	98.71	65.81	114.16	93.34	101.07	107.44	72.52	56.87
1967	85.09	125.45	87.55	85.45	98.66	69.91	111.08	90.82	104.49	111.08	77.75	57.20
1968	85.09	120.37	83.38	87.91	97.80	55.80	106.58	87.15	100.26	87.77	79.00	55.79
1969	85.09	123.71	79.10	89.17	93.37	52.93	101.11	82.67	89.52	77.32	74.94	54.70
1970	85.16	137.04	78.07	90.01	98.29	49.99	112.33	78.07	100.38	78.63	79.21	52.92
1971	81.07	139.52	91.58	88.11	116.90	51.18	118.52	86.73	101.35	91.58	88.13	51.81
1972	76.30	146.99	90.11	84.30	121.08	67.58	112.64	78.85	95.36	95.74	71.49	49.74
1973	85.80	159.06	88.37	81.44	164.95	82.48	141.39	94.26	99.75	111.93	66.47	50.18
1974	112.86	199.58	161.82	107.25	194.19	86.31	167.22	134.85	131.93	167.22	106.51	61.18
1975	99.47	184.87	132.72	102.47	156.43	80.58	151.69	142.21	115.94	146.95	93.59	61.20
1976	99.81	217.79	155.56	109.17	168.90	97.78	164.45	146.67	133.80	146.67	81.49	60.16
1977	99.23	204.63	165.45	112.30	165.45	108.85	187.21	126.30	126.97	165.45	141.23	58.90
1978	85.11	196.88	174.82	115.74	166.46	105.96	166.79	147.74	129.55	171.47	171.60	55.59
1979	101.02	195.57	165.83	130.10	178.15	106.05	167.93	182.41	144.69	191.96	180.15	68.21
1980	119.59	216.23	179.70	133.91	191.08	126.77	198.76	172.77	173.53	182.35	181.55	87.04
1981	115.06	187.13	166.50	131.18	162.42	123.79	181.85	158.63	157.30	153.30	176.62	87.30
1982	108.76	171.98	148.70	119.65	147.34	116.16	161.36	141.70	134.14	140.34	189.96	75.03
1983	105.58	169.03	139.26	109.08	133.13	104.00	147.80	121.85	112.46	126.78	164.59	69.68
1984	96.73	154.06	128.04	102.95	118.17	94.87	133.91	104.91	100.70	108.10	143.57	65.16
1985	90.94	140.25	118.97	93.94	112.28	93.23	121.00	100.32	103.34	103.97	145.21	62.42
1986	81.59	170.72	145.25	79.71	120.98	85.96	128.14	109.24	108.94	112.02	126.56	46.48
1987	91.95	192.19	160.54	87.20	150.76	101.66	145.19	125.29	119.26	126.97	101.71	46.20
1988	94.74	192.71	166.89	94.21	147.16	108.25	151.58	116.14	126.46	120.42	106.11	44.27
1989	96.54	176.45	151.82	104.75	145.18	95.00	147.24	126.75	123.45	113.99	118.35	45.83
1990	106.05	175.30	139.54	102.53	146.16	94.30	192.56	134.56	155.11	125.28	137.43	49.64
1991	101.90	175.74	146.36	107.24	158.00	87.75	176.32	135.10	185.25	114.49	135.64	46.59
1992	101.97	177.91	147.18	105.48	154.43	80.82	169.44	130.83	157.01	100.81	130.07	44.60
1993	94.36	179.93	160.17	106.00	142.71	77.75	148.91	109.61	130.35	115.82	110.84	42.53
1994	95.41	189.03	170.52	105.27	156.81	78.42	171.85	120.29	139.43	122.44	128.98	41.79
1995	106.55	153.53	167.44	109.36	166.33	84.44	185.52	132.21	152.45	136.47	147.36	41.96
1996	109.66	162.55	133.89	117.17	164.56	86.48	184.20	118.86	150.67	117.04	99.99	44.08
1997	113.20	146.03	117.25	119.13	147.31	81.25	163.63	103.70	133.72	103.93	104.31	43.00
1998	117.47	137.09	101.28	106.07	140.27	60.84	150.60	96.37	117.97	93.71	97.06	36.36
1999	133.55	134.42	113.66	124.59	139.51	59.84	153.55	96.23	116.05	91.89	113.33	39.63
2000	132.13	126.16	122.11	139.76	135.35	61.57	152.03	95.58	131.48	104.77	118.10	49.74
2001	119.82	116.05	106.32	122.13	126.54	54.22	131.31	88.94	112.70	98.43	99.70	46.35
2002	110.68	119.72	100.76	125.60	130.54	57.70	136.07	92.99	115.89	102.25	118.81	43.02
2003	121.88	141.90	108.67	128.71	155.04	72.33	156.89	109.37	137.84	116.44	142.46	48.76
2004	129.78	161.51	119.82	137.58	179.46	89.07	170.98	124.64	156.52	130.80	158.64	56.42
2005	137.79	169.31	126.15	155.73	187.78	103.80	187.39	132.54	163.72	136.91	210.72	66.95
2006	145.12	174.47	127.92	168.73	192.06	109.03	193.30	138.49	168.58	141.78	210.34	73.58
2007	154.86	186.86	124.87	172.61	210.03	120.12	209.64	149.00	181.27	147.56	232.35	77.91
2008	182.95	204.65	153.80	155.83	228.10	129.03	225.05	164.44	193.69	166.97	249.80	87.10
2009	156.29	173.97	130.57	125.93	189.64	101.83	192.03	141.49	161.97	140.77	204.74	63.04
2010	176.52	180.52	151.40	147.83	199.06	127.36	209.94	154.30	180.80	156.96	245.00	73.43

Per cent Tax

	Australia	Austria	Belgium	Britain	Canada	Czech Rep	Denmark	Finland	France	Germany	Greece	Hungary	Ireland
1965	34.4	59.4	69.4	66.7	52.1		55.4	66.0	76.1	60.0	68.2	43.7	64.8
1966	33.9	60.6	72.6	68.6	50.7		55.4	66.0	76.1	60.0	68.2	41.2	64.8
1967	32.3	61.8	73.0	68.6	49.8		55.4	66.0	74.5	64.0	71.1	39.5	57.7
1968	32.3	61.8	73.1	72.6	52.3		57.0	66.0	75.4	64.0	71.1	48.7	68.7
1969	31.8	61.8	72.5	73.0	52.2		59.5	62.0	76.1	64.0	71.1	43.7	62.2
1970	33.2	61.8	72.3	69.2	51.4		56.2	62.0	74.4	64.0	71.1	43.0	63.1
1971	36.6	61.8	74.0	67.2	44.2		57.9	62.0	72.3	64.0	71.1	43.1	66.4
1972	37.7	59.1	75.2	64.0	44.4		57.9	61.0	71.7	53.0	66.0	41.4	61.8
1973	39.8	48.0	72.1	56.0	42.5		51.3	54.0	67.9	70.0	66.0	31.1	44.8
1974	38.1	47.2	60.3	51.0	37.8		44.6	45.0	59.7	61.0	70.0	29.3	68.4
1975	32.1	47.2	58.8	49.0	35.0		43.8	42.0	57.2	61.0	72.0	28.5	63.3
1976	29.5	61.2	58.2	49.0	32.9		52.1	45.0	60.7	61.0	65.0	27.1	61.4
1977	28.6	61.2	62.3	51.0	31.6		52.1	47.0	60.5	62.0	65.0	27.1	65.2
1978	26.2	61.2	59.5	50.0	30.1		52.9	50.0	68.8	60.0	65.0	21.4	52.1
1979	19.2	61.5	54.0	44.0	28.0		51.3	50.0	62.6	60.0	65.0	14.7	37.8
1980	17.0	56.9	54.0	44.3	26.2	28.6	45.5	50.0	57.7	51.0	65.0	13.2	50.2
1981	16.3	60.5	53.7	48.2	26.0	27.1	43.8	50.0	51.3	48.8	65.0	21.1	55.6
1982	16.9	61.6	54.1	52.2	28.8	28.2	48.8	50.0	50.9	49.6	65.5	23.4	60.7
1983	21.7	63.6	54.8	53.6	29.0	29.2	45.5	50.0	54.1	50.5	66.0	30.5	53.7
1984	24.3	66.1	55.1	53.6	27.5	29.6	44.6	50.0	58.9	50.1	66.5	32.8	51.6
1985	23.4	68.0	57.3	53.0	27.3	29.5	43.0	38.0	62.4	50.4	67.0	50.9	52.0
1986	39.9	74.2	67.3	62.3	29.1	32.9	61.2	51.0	75.5	63.4	67.5	54.4	59.8
1987	43.0	76.0	67.3	61.6	29.0	32.5	59.5	51.0	75.5	58.9	68.0	57.4	61.1
1988	46.8	75.2	65.0	62.3	30.3	32.4	58.7	55.0	75.5	61.0	68.5	50.0	64.3
1989	48.3	74.0	60.6	57.1	30.5	31.4	75.0	55.0	73.1	60.2	69.0	37.8	62.7
1990	42.9	70.3	60.0	59.5	30.6	26.2	62.6	57.0	73.1	75.1	69.5	53.9	65.9
1991	46.7	70.0	57.1	64.9	41.9	48.6	61.0	59.0	70.5	79.1	70.0	70.6	69.0
1992	46.7	73.0	66.0	66.1	42.6	56.6	64.6	64.0	73.1	75.3	70.0	70.3	69.8
1993	46.8	76.0	70.2	67.3	48.0	58.4	63.2	73.0	76.9	76.4	65.0	74.3	68.4
1994	55.5	66.0	74.2	70.0	49.1	59.5	66.5	72.0	81.6	80.5	74.7	73.4	68.3
1995	57.0	69.1	76.6	73.0	50.3	60.0	70.5	75.0	85.5	80.8	72.8	65.8	70.6
1996	56.9	67.9	78.5	75.3	48.5	60.4	71.3	76.0	83.4	78.0	62.1	69.8	68.8
1997	58.1	66.9	77.4	76.2	47.7	59.3	70.4	76.0	81.8	76.3	63.5	73.2	67.6
1998	62.7	69.9	82.7	82.9	52.8	64.1	72.9	79.0	86.0	80.8	64.1	72.9	69.1
1999	61.4	68.6	79.3	82.2	49.3	62.9	71.9	70.0	82.9	75.6	64.8	66.8	67.8
2000	49.4	60.0	65.1	76.0	41.6	56.9	66.6	63.8	68.8	70.6	52.8	67.4	58.1
2001	51.0	61.7	66.9	82.0	42.9	57.9	68.7	64.9	72.5	72.9	54.5	72.2	58.3
2002	51.6	63.6	68.4	80.4	42.7	61.0	70.1	66.4	74.3	74.5	55.5	70.4	63.1
2003	49.7	63.3	66.7	80.9	42.0	60.3	69.8	67.2	75.0	74.9	55.3	68.7	63.3
2004	46.4	61.1	64.8	73.6	39.1	59.5	68.8	65.3	71.9	72.5	51.7	65.8	63.8
2005	41.8	57.3	62.3	69.2	35.3	56.9	62.5	62.5	67.1	68.2	49.5	59.6	59.9
2006	37.9	55.1	60.2	66.5	33.3	56.1	60.0	59.9	64.0	65.4	47.5	54.6	57.0
2007	37.9	56.8	59.2	66.2	31.8	56.3	59.4	60.2	63.7	65.3	48.6	51.5	57.0
2008	34.4	55.4	57.8	62.0	28.1	56.3	57.8	58.9	61.1	62.8	47.5	63.0	53.5
2009	40.0	61.5	62.9	65.8	32.8	60.4	61.8	63.2	66.6	66.5	55.5	60.6	63.6
2010	39.3	56.0	58.5	65.6	31.4	59.4	55.7	58.7	61.5	62.2	61.8	55.8	59.0

Per cent Tax

	Isreal	Italy	Japan	Korea	Nether-lands	New Zealand	Norway	Spain	Sweden	Switzer-land	Turkey	USA
1965	56.8	74.6	58.2		61.2	41.2	64.0	58.9	65.0	63.1	64.0	33.5
1966	56.8	76.6	59.5		63.3	41.2	67.0	58.9	68.0	63.1	64.0	32.8
1967	56.8	76.8	59.5		65.4	37.8	66.0	58.9	65.0	62.4	65.0	32.0
1968	56.8	76.6	59.8		72.1	36.7	63.0	58.9	65.0	66.1	85.0	31.5
1969	56.8	78.4	59.8		74.6	50.3	66.0	58.9	67.0	66.9	85.0	31.7
1970	56.8	80.5	57.2		74.5	47.0	69.0	58.9	69.0	68.5	88.0	31.0
1971	56.8	80.5	54.9		72.6	46.9	69.0	54.7	69.0	70.5	82.0	30.8
1972	56.8	80.5	54.7		60.5	42.0	68.0	54.7	71.0	65.7	67.0	30.8
1973	56.8	70.5	60.2		68.3	42.0	65.0	50.0	65.0	63.2	67.0	28.4
1974	56.8	68.2	36.0		63.2	44.4	61.0	53.0	54.0	59.4	42.0	21.0
1975	56.8	65.7	34.2		60.0	61.6	59.0	63.8	53.0	60.1	42.0	19.2
1976	56.8	71.0	38.1		61.6	43.0	59.0	64.0	54.0	60.3	42.0	18.0
1977	56.8	71.5	39.1		61.3	38.9	59.0	64.0	49.0	63.0	38.5	19.0
1978	56.8	71.5	44.8		56.6	44.1	59.0	62.0	56.0	63.8	38.5	19.0
1979	56.8	68.0	36.8		53.6	50.8	55.5	63.0	52.0	55.3	38.5	14.1
1980	56.8	62.0	36.8		51.6	35.9	51.7	63.0	50.0	50.6	35.0	10.0
1981	56.8	58.0	32.4		46.3	30.6	50.0	50.0	47.0	47.4	28.0	9.0
1982	56.8	62.0	31.9		50.2	29.2	48.1	43.0	44.0	47.0	26.0	10.0
1983	56.8	69.0	35.2		44.5	35.4	49.2	36.0	42.0	50.2	25.0	15.3
1984	56.8	68.0	35.9		38.0	37.9	50.3	37.0	45.0	50.0	51.0	16.6
1985	56.8	68.0	37.6		38.0	43.0	50.8	36.0	49.5	49.8	47.0	16.7
1986	56.8	74.0	47.3		47.0	46.4	60.6	44.7	57.7	54.7	58.6	20.8
1987	56.8	81.3	43.9		43.0	47.7	59.8	44.7	58.7	55.4	53.1	21.9
1988	56.8	80.7	46.2		63.0	47.8	61.1	44.7	62.0	55.5	60.0	22.5
1989	56.8	78.6	44.8		66.0	48.6	59.1	64.0	60.0	53.3	52.2	23.3
1990	56.8	76.4	41.4	50.0	66.1	45.6	53.1	69.0	72.4	55.0	53.1	29.5
1991	56.8	76.3	44.6	51.8	65.2	47.1	62.6	70.5	54.1	55.4	56.1	28.1
1992	56.8	76.2	46.3	53.7	73.1	47.3	71.6	69.9	70.1	63.3	63.7	34.5
1993	56.8	76.1	47.5	55.5	72.3	47.5	73.3	48.3	77.7	65.4	64.9	35.6
1994	56.8	68.5	52.9	57.3	72.6	49.3	67.3	50.9	73.5	71.3	66.4	33.9
1995	55.0	76.0	58.4	59.1	74.9	49.0	72.3	69.3	72.8	72.1	67.9	34.0
1996	55.0	76.0	56.6	61.0	72.2	46.7	71.2	69.0	78.1	75.6	68.0	30.0
1997	55.0	74.0	60.0	62.8	72.4	46.7	76.1	68.7	78.2	72.1	70.0	32.0
1998	65.3	76.4	60.0	64.6	75.9	50.2	77.6	68.7	84.8	79.6	72.0	36.8
1999	66.9	72.5	60.0	66.4	74.0	51.1	75.6	67.8	80.9	77.1	71.0	33.2
2000	67.1	64.9	56.5	68.3	66.4	43.8	68.7	59.2	67.0	60.4	62.0	25.7
2001	68.9	66.4	56.0	67.2	69.2	44.5	67.6	59.9	67.9	62.1	63.0	26.8
2002	66.3	68.4	56.4	66.3	71.0	49.2	70.0	62.4	70.0	64.3	70.1	28.7
2003	65.9	67.8	55.4	66.6	69.1	49.7	68.9	62.3	70.4	63.2	71.2	24.8
2004	61.2	66.3	52.7	63.6	66.9	47.2	66.6	59.4	68.4	59.6	68.4	21.1
2005	56.7	62.9	48.0	61.2	65.4	46.0	64.5	55.3	65.3	55.2	69.0	17.3
2006	53.8	60.6	45.3	59.0	63.7	42.1	62.7	52.6	63.4	52.2	64.3	18.7
2007	52.8	60.1	44.7	58.0	63.1	43.0	62.5	53.5	63.4	51.5	62.6	17.7
2008	51.4	57.6	40.3	53.0	61.3	39.5	60.7	51.0	62.0	49.0	59.7	15.6
2009	57.8	62.4	51.2	56.2	68.8	44.5	63.5	57.4	65.3	55.8	63.0	21.6
2010	56.5	58.0	46.7	52.7	64.1	43.8	61.9	52.9	62.2	52.0	55.3	18.2

Appendix B
Traffic Data

Background

This Appendix presents sources, corrections and final data for traffic in Australia and twenty-four other countries around the world.

Traffic estimates for each jurisdiction were sourced from four sources: Gaudry et al. (2002), the International Road Federation (IRF 2010), the International Road Traffic Accident Database (OECD 2011), and the International Transport Forum (ITF 2011). Data for Australia was sourced from BITRE (2011). Data on numbers of vehicles (and thus average distance) were also sourced. Where there were no VKT data when there were vehicle types (as typically for mopeds and mofas and 'other' vehicles), the average distances were assumed to be a fraction of the car distance travelled. Corrections to VKT have been made when average distances or VKT jumped un-naturally. The final traffic series estimates are presented in Table A10.

AUSTRALIA

	VKT		(B VKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	40.71	0.47	0.47	5.66			47.31	14173	6000	34237	16857			14337	2872	78	14	336			3300
1964	44.36	0.43	0.50	5.77			51.06	14339	6000	35102	17063			14516	3094	71	14	338			3518
1965	48.07	0.41	0.52	5.86			54.86	14483	6000	35423	17402			14673	3319	68	15	337			3739
1966	51.14	0.40	0.54	5.88			57.96	14650	6000	36204	17657			14841	3491	67	15	333			3905
1967	54.15	0.44	0.57	6.11			61.27	14776	6000	36822	17948			14966	3665	73	15	340			4094
1968	57.53	0.53	0.59	6.03			64.67	14816	6000	37406	18267			14982	3883	88	16	330			4317
1969	62.33	0.63	0.62	6.22			69.81	15223	6000	38523	18585			15340	4095	105	16	335			4551
1970	67.02	0.77	0.65	6.38			74.82	15466	6300	39322	18788			15550	4333	122	17	340			4811
1971	70.57	1.01	0.66	6.36			78.60	15246	6645	38472	19338			15330	4629	153	17	329			5128
1972	75.22	1.10	0.65	6.46			83.43	15456	5789	37495	19386			15430	4866	190	17	333			5407
1973	78.34	1.20	0.68	6.51			86.72	15584	6168	37986	19627			15568	5027	195	18	332			5571
1974	84.01	1.30	0.68	6.77			92.76	15770	6525	37723	19302			15735	5327	199	18	351			5895
1975	88.17	1.40	0.69	6.94			97.19	15629	6862	37101	18955			15601	5642	204	19	366			6230
1976	91.52	1.64	0.69	7.28			101.12	15478	7850	36437	19623			15530	5913	209	19	371			6512
1977	96.92	1.68	0.70	7.35			106.65	15706	7853	35674	19631			15732	6171	214	20	374			6779
1978	101.14	1.73	0.71	7.32			110.90	15777	7898	35122	20109			15812	6411	219	20	364			7014
1979	104.24	1.77	0.73	7.73			114.47	15641	7891	34473	21642			15752	6664	224	21	357			7267
1980	104.85	1.90	0.77	8.45			115.97	15385	8272	35260	22765			15591	6815	230	22	371			7438
1981	106.92	2.00	0.82	9.01			118.74	15130	8503	36281	23225			15397	7066	235	23	388			7712
1982	112.01	2.18	0.86	10.03			125.07	15131	9051	36950	24005			15471	7402	241	23	418			8084
1983	112.53	2.20	0.96	9.26			124.95	14774	8920	37350	23015			15069	7617	247	26	402			8291
1984	118.46	2.25	1.06	9.57			131.34	15066	8909	37727	23387			15356	7863	253	28	409			8553
1985	123.59	2.28	1.16	9.94			136.97	15170	8816	38011	24136			15480	8147	259	30	412			8848
1986	127.70	2.10	1.24	9.89			140.93	15293	7930	38903	24277			15565	8351	265	32	407			9055
1987	130.73	2.00	1.32	9.97			144.03	15417	7375	39896	25023			15685	8480	271	33	399			9182
1988	137.35	1.92	1.41	10.64			151.32	15897	6914	40758	26792			16185	8640	278	35	397			9349
1989	144.04	2.00	1.50	10.77			158.31	16247	7032	40908	26993			16515	8865	284	37	399			9585
1990	147.91	1.80	1.59	10.97			162.27	16170	6200	42059	27358			16431	9147	290	38	401			9876
1991	147.78	1.62	1.53	10.19			161.12	15732	5678	39511	25492			15926	9393	285	39	400			10117
1992	151.35	1.61	1.50	10.01			164.48	15848	5560	36289	24991			15996	9550	290	41	400			10282
1993	156.29	1.62	1.51	10.21			169.63	16073	5446	35071	25235			16205	9724	297	43	405			10468
1994	160.66	1.59	1.57	10.54			174.37	16317	5361	35657	26078			16463	9846	297	44	404			10591
1995	166.65	1.57	1.61	11.13			180.97	16425	5250	35441	27247			16603	10146	300	46	409			10900

(Continued)

AUSTRALIA (continued)

	VKT (B VKT)							Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	169.87	1.52	1.66	11.67			184.73	16240	5100	35796	28177			16465	10460	299	47	414			11220
1997	171.53	1.52	1.67	12.36			187.08	16086	4930	34836	29634			16358	10663	308	48	417			11436
1998	174.45	1.46	1.71	12.64			190.26	15810	4545	35025	29697			16083	11034	321	49	425			11830
1999	178.77	1.40	1.73	12.72			194.63	15751	4244	34190	29778			16008	11349	331	51	427			12158
2000	182.50	1.42	1.78	12.99			198.69	15780	4141	33733	30614			16043	11565	343	53	424			12385
2001	181.46	1.46	1.82	12.79			197.53	15410	4121	33769	30211			15668	11775	355	54	423			12607
2002	186.57	1.55	1.84	13.25			203.20	15507	4200	33756	31110			15776	12031	370	54	426			12881
2003	191.72	1.52	1.88	13.67			208.80	15476	3988	33695	31822			15752	12388	382	56	430			13255
2004	200.50	1.60	1.90	14.01			218.01	15752	3988	33513	31900			16000	12728	401	57	439			13625
2005	201.40	1.72	1.91	14.42			219.46	15392	3988	32911	31692			15642	13085	432	58	455			14030
2006	201.13	1.88	1.96	14.85			219.82	14947	3988	32475	31507			15204	13456	470	60	471			14458
2007	204.01	2.09	1.99	15.30			223.40	14770	3988	31905	31479			15008	13812	525	63	486			14886
2008	204.74	2.28	2.03	15.61			224.67	14349	3928	31051	30638			14565	14269	581	66	509			15426
2009	204.05	2.44	2.09	15.49			224.07	14009	3829	30065	29756			14187	14566	638	69	521			15794
2010	206.08	2.59	2.12	15.64			226.43	13831	3865	29863	29433			14001	14900	670	71	531			16173

AUSTRIA

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	5.73	0.69	0.27	2.73	0.73	0.60	10.74	10922	2514	55000	34453	1635	3301	7125	524	273	5	79	444	183	1508
1964	6.76	0.66	0.28	2.88	0.75	0.64	11.97	11528	2654	55000	34453	1635	3301	7586	586	249	5	83	459	195	1578
1965	7.98	0.64	0.29	3.03	0.78	0.68	13.40	12168	2801	55000	34453	1635	3301	8074	656	227	5	88	476	207	1659
1966	9.49	0.60	0.30	3.17	0.82	0.77	15.16	12844	2957	55540	34757	1668	3529	8666	739	204	5	91	490	219	1749
1967	11.01	0.56	0.32	3.38	0.84	0.87	16.98	13363	3076	56079	35060	1701	3755	9255	824	181	6	97	496	232	1835
1968	12.56	0.51	0.33	3.51	0.86	0.97	18.75	13935	3208	56619	35364	1735	3978	9832	902	160	6	99	497	244	1907
1969	14.19	0.46	0.34	3.65	0.87	1.08	20.59	14377	3310	57158	35667	1768	4193	10390	987	140	6	102	490	257	1981
1970	15.62	0.43	0.35	3.88	0.87	1.18	22.35	14870	3423	57698	35971	1801	4401	10930	1050	127	6	108	484	269	2044
1971	17.03	0.40	0.37	4.19	0.89	1.28	24.15	15223	3505	58237	36275	1834	4587	11413	1118	113	6	116	483	280	2116
1972	19.04	0.36	0.38	4.47	0.90	1.38	26.53	15377	3540	58777	36578	1868	4748	11830	1238	102	6	122	483	291	2243
1973	21.04	0.33	0.40	4.86	0.93	1.47	29.03	15420	3550	59316	36882	1901	4880	12172	1364	93	7	132	487	302	2385
1974	22.20	0.28	0.41	4.97	0.90	1.54	30.31	15420	3550	59856	37185	1934	4986	12446	1440	80	7	134	466	309	2435
1975	23.57	0.28	0.43	5.16	0.92	1.60	31.96	15420	3550	60395	37489	1968	5044	12593	1529	80	7	138	468	317	2538
1976	24.59	0.30	0.45	5.33	0.97	1.64	33.28	15294	3646	60935	38221	1995	5037	12568	1608	82	7	139	486	325	2648
1977	26.39	0.31	0.47	5.50	1.02	1.70	35.39	15444	3829	61475	38150	1973	5078	12672	1709	82	8	144	516	334	2793
1978	28.08	0.32	0.49	5.58	1.02	1.73	37.21	15293	3795	62014	37475	1878	5037	12560	1836	83	8	149	544	343	2963
1979	29.80	0.33	0.49	5.67	0.99	1.80	39.08	15633	3419	62554	36614	1855	5136	12814	1906	96	8	155	534	351	3050
1980	30.00	0.34	0.51	6.49	0.96	1.83	40.13	15010	3133	63537	39484	1807	5079	12655	1999	109	8	164	531	360	3171
1981	30.24	0.35	0.52	6.72	0.93	1.84	40.61	14405	3084	62616	38231	1815	4969	12377	2100	115	8	176	512	371	3281
1982	30.55	0.37	0.52	6.81	0.98	1.87	41.10	14136	3314	61622	37549	1988	4951	12339	2161	111	9	181	492	377	3331
1983	30.80	0.38	0.53	6.90	0.98	1.88	41.47	13962	3595	62117	37425	1896	4893	12182	2206	106	9	184	515	384	3404
1984	31.92	0.39	0.53	7.18	1.01	1.94	42.97	14153	3618	62619	38129	1897	4954	12339	2256	109	9	188	530	391	3482
1985	35.67	0.41	0.52	7.30	0.99	2.11	47.00	15468	3705	61267	37646	1855	5291	13231	2306	110	9	194	535	399	3553
1986	38.20	0.42	0.53	7.50	0.96	2.23	49.84	16157	3896	62505	37930	1776	5495	13752	2364	108	9	198	540	406	3624
1987	40.72	0.43	0.54	7.70	0.93	2.35	52.68	16704	4056	63450	38023	1771	5696	14268	2438	107	9	203	523	413	3692
1988	40.44	0.45	0.55	7.90	0.88	2.35	52.56	16117	4229	63518	37422	1738	5586	13980	2509	106	9	211	504	421	3760
1989	41.04	0.47	0.56	8.08	0.78	2.37	53.29	15771	4038	64398	35995	1597	5527	13783	2602	116	9	224	486	429	3866
1990	41.48	0.48	0.56	8.34	0.72	2.49	54.08	15294	4067	64531	35333	1533	5696	13577	2713	119	9	236	470	437	3983
1991	42.73	0.51	0.56	8.47	0.63	2.68	55.58	15290	4299	63636	35029	1469	6114	13783	2795	118	9	242	430	439	4032
1992	44.67	0.54	0.56	8.72	0.57	2.92	57.98	15420	4317	65362	35247	1405	6579	14053	2897	125	9	247	404	444	4126
1993	45.50	0.56	0.57	8.76	0.52	2.96	58.87	15005	4104	65311	34080	1341	6526	13758	3032	136	9	257	391	454	4279
1994	47.38	0.59	0.58	8.98	0.48	3.24	61.24	15055	3996	65362	34063	1277	7020	13902	3147	148	9	264	377	461	4405
1995	48.30	0.61	0.59	9.02	0.45	3.21	62.17	14853	3728	65588	33362	1213	6861	13721	3252	164	9	270	368	468	4531

(Continued)

AUSTRIA (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	49.97	0.64	0.58	9.19	0.42	3.58	64.38	14880	3502	64442	33157	1149	7546	13802	3358	184	9	277	362	474	4664
1997	51.00	0.67	0.58	9.23	0.39	3.58	65.45	14789	3299	64411	32860	1085	7405	13685	3449	202	9	281	358	484	4783
1998	52.05	0.69	0.58	9.27	0.36	3.50	66.45	14726	3115	64335	32239	1021	7085	13558	3535	221	9	288	355	494	4901
1999	53.70	0.72	0.59	9.41	0.34	3.60	68.36	14787	2951	65622	31772	957	7165	13564	3632	244	9	296	357	502	5040
2000	54.38	0.74	0.59	9.71	0.32	3.60	69.33	14512	2754	64561	31869	893	7059	13352	3747	268	9	305	354	510	5193
2001	55.36	0.78	0.59	9.86	0.31	3.60	70.50	14462	2775	64561	31563	878	6990	13308	3828	280	9	312	353	515	5298
2002	56.70	0.82	0.59	10.02	0.30	3.60	72.03	14511	2776	64117	31688	876	6936	13355	3908	295	9	316	347	519	5394
2003	57.69	0.86	0.59	10.32	0.30	3.60	73.36	14470	2918	64277	32250	990	6875	13493	3987	293	9	320	304	524	5437
2004	58.44	0.88	0.59	10.53	0.30	3.60	74.34	14416	2898	63915	32288	987	6816	13459	4054	305	9	326	301	528	5523
2005	59.41	0.91	0.59	10.88	0.30	3.60	75.70	14459	2892	62713	32679	1013	6757	13525	4109	316	9	333	297	533	5597
2006	59.87	0.93	0.59	11.42	0.29	3.60	76.70	14403	2840	63434	33699	963	6699	13528	4157	326	9	339	301	537	5670
2007	61.04	0.97	0.59	12.12	0.30	3.60	78.61	14515	2921	63461	35125	1021	6642	13737	4205	331	9	345	290	542	5722
2008	62.29	1.01	0.59	12.07	0.30	3.60	79.86	14670	2930	63448	34085	1024	6581	13775	4246	345	9	354	296	547	5797
2009															4285	361	9	363	303	552	5873
2010															4360	377	10	371	306	557	5981

BELGIUM

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	14.10	0.60	0.28	4.16	0.73	0.27	20.13	12828	3443	39531	21380	1635	3993	10120	1099	175	7	194	446	68	1989
1964	15.55	0.58	0.32	4.31	0.71	0.30	21.77	12960	3443	42445	21148	1635	4113	10427	1200	168	7	204	435	73	2088
1965	16.80	0.48	0.34	4.50	0.68	0.33	23.13	12173	3443	37444	20345	1635	4055	10284	1380	140	9	221	418	81	2249
1966	18.47	0.34	0.37	4.68	0.61	0.36	24.83	11998	3443	35581	20608	1558	4156	10542	1540	98	10	227	394	87	2356
1967	20.51	0.27	0.40	4.86	0.59	0.40	27.04	12306	3443	33717	20871	1567	4328	10981	1667	80	12	233	379	92	2463
1968	21.49	0.22	0.42	5.05	0.55	0.42	28.15	11895	3443	31853	21135	1481	4280	10862	1806	64	13	239	371	98	2592
1969	22.56	0.16	0.44	5.24	0.56	0.44	29.40	11898	3443	29989	21398	1463	4315	10951	1896	46	15	245	380	102	2684
1970	24.19	0.12	0.45	5.44	0.57	0.47	31.24	11895	3443	28125	21662	1441	4334	10999	2034	34	16	251	397	108	2840
1971	25.52	0.13	0.46	5.50	0.58	0.50	32.69	11993	2830	26824	21653	1445	4346	11031	2128	47	17	254	403	114	2963
1972	27.24	0.15	0.47	5.70	0.61	0.52	34.68	12122	2344	25944	22079	1472	4376	11106	2247	64	18	258	417	119	3123
1973	29.03	0.17	0.48	5.96	0.67	0.55	36.85	12287	1835	25211	22745	1515	4400	11168	2362	91	19	262	439	126	3300
1974	31.11	0.19	0.49	6.23	0.71	0.59	39.32	12572	1989	26000	23253	1509	4481	11373	2474	94	19	268	470	132	3457
1975	32.04	0.20	0.49	6.18	0.79	0.59	40.28	12259	2126	24550	22704	1471	4325	10974	2614	95	20	272	534	136	3671
1976	33.78	0.22	0.51	6.47	0.82	0.62	42.41	12336	2190	25550	23601	1480	4367	11080	2738	100	20	274	554	142	3828
1977	36.02	0.24	0.54	6.85	0.75	0.67	45.07	12545	2274	26900	24746	1505	4528	11491	2871	106	20	277	501	148	3923
1978	39.54	0.27	0.58	7.51	0.72	0.75	49.38	13299	2557	29050	26929	1596	4881	12391	2973	106	20	279	453	154	3985
1979	40.13	0.28	0.58	7.56	0.67	0.77	50.00	13043	2564	29050	26081	1565	4822	12241	3077	110	20	290	428	159	4084
1980	40.62	0.29	0.58	7.63	0.62	0.78	50.52	12857	2584	28850	25530	1543	4787	12154	3159	113	20	299	403	163	4157
1981	41.39	0.30	0.57	7.71	0.61	0.81	51.39	12911	2521	30105	27060	1549	4829	12265	3206	117	19	285	396	167	4190
1982	42.78	0.30	0.57	7.92	0.62	0.84	53.03	13239	2467	30211	27780	1589	4953	12581	3231	122	19	285	388	170	4215
1983	43.27	0.30	0.56	7.94	0.59	0.86	53.53	13260	2381	31333	27468	1591	4966	12618	3263	126	18	289	372	174	4242
1984	44.88	0.31	0.57	8.15	0.59	0.90	55.39	13599	2388	33529	27711	1632	5093	12942	3300	129	17	294	364	176	4280
1985	45.77	0.31	0.57	8.22	0.58	0.92	56.37	13692	2385	33294	27205	1642	5126	13027	3343	130	17	302	356	179	4327
1986	48.95	0.32	0.58	8.91	0.52	0.99	60.27	14360	2477	36000	28542	1579	5412	13756	3409	130	16	312	332	182	4381
1987	51.36	0.33	0.57	9.45	0.52	1.03	63.25	14684	2504	35875	28797	1556	5545	14091	3498	131	16	328	331	185	4489
1988	55.00	0.34	0.58	10.23	0.54	1.09	67.79	15219	2595	36438	29837	1641	5773	14668	3614	131	16	343	329	188	4621
1989	58.18	0.35	0.58	11.01	0.52	1.14	71.78	15574	2597	36375	30423	1577	5926	15054	3736	134	16	362	328	192	4768
1990	59.89	0.35	0.57	11.11	0.51	1.15	73.58	15499	2540	35688	29240	1553	5888	14953	3864	139	16	380	327	195	4921
1991	62.63	0.47	0.60	11.72	0.49	1.19	77.10	15776	3168	39867	29375	1515	6008	15256	3970	149	15	399	323	198	5054
1992	63.84	0.59	0.61	12.03	0.45	1.20	78.72	15876	3640	40733	29713	1446	6064	15394	4021	161	15	405	314	198	5114
1993	64.83	0.70	0.62	12.31	0.43	1.21	80.11	15774	4006	41467	29816	1409	6046	15346	4110	175	15	413	307	200	5220
1994	66.98	0.83	0.65	12.81	0.41	1.25	82.92	15909	4460	43000	29858	1349	6111	15509	4210	187	15	429	301	204	5346
1995	67.68	0.95	0.65	13.05	0.38	1.26	83.97	15840	4760	43533	29530	1293	6095	15470	4273	200	15	442	292	206	5428

(Continued)

BELGIUM (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	68.59	0.98	0.66	13.35	0.35	1.26	85.18	15807	4613	43733	29214	1220	6089	15451	4339	212	15	457	283	207	5513
1997	69.92	1.02	0.66	13.61	0.32	1.27	86.79	15836	4516	44267	28525	1161	6093	15458	4415	225	15	477	274	209	5615
1998	72.42	1.06	0.68	14.23	0.29	1.31	89.99	16121	4415	45467	28743	1117	6204	15739	4492	241	15	495	264	211	5718
1999	72.46	1.09	0.69	15.01	0.26	1.30	90.81	15806	4192	45933	28641	1023	6118	15518	4584	261	15	524	255	213	5852
2000	72.50	1.01	0.67	15.58	0.23	1.30	91.28	15497	3637	44333	28422	953	6019	15265	4678	278	15	548	245	216	5980
2001	73.27	1.05	0.69	16.14	0.22	1.30	92.68	15459	3585	45933	28171	939	6021	15266	4740	294	15	573	233	216	6071
2002	73.87	1.10	0.71	16.68	0.20	1.32	93.88	15431	3578	47467	28412	932	6037	15307	4787	306	15	587	219	219	6133
2003	73.81	1.13	0.73	17.07	0.21	1.33	94.28	15309	3536	48600	28302	1048	6011	15244	4821	319	15	603	204	222	6184
2004	74.59	1.18	0.76	17.66	0.20	1.35	95.73	15304	3638	50333	28212	1047	6038	15312	4874	323	15	626	190	224	6252
2005	74.50	1.21	0.77	18.08	0.19	1.35	96.09	15148	3486	51467	27727	1062	5984	15174	4918	346	15	652	176	226	6333
2006	75.23	1.25	0.80	18.73	0.16	1.38	97.55	15119	3472	53067	27952	1011	6000	15215	4976	360	15	670	161	230	6412
2007	76.62	1.30	0.83	19.60	0.16	1.40	99.91	15176	3475	55267	28366	1067	6055	15354	5049	375	15	691	145	232	6507
2008	75.70	1.32	0.84	19.46	0.13	1.39	98.84	14754	3399	52188	27334	1029	5896	14949	5131	388	16	712	130	235	6612
2009																					
2010																					

BRITAIN

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	83.79	7.60	4.00	33.80	0.95	3.99	134.13	10988	6609	64075	23377	1721	4405	11425	7626	1150	62	1446	550	906	11740
1964	95.90	7.60	4.00	35.60	0.90	4.22	148.22	11932	6909	64075	23888	1721	4731	12243	8038	1100	62	1490	525	891	12106
1965	111.28	6.60	3.90	36.20	0.86	4.36	163.19	12807	6150	62474	23926	1721	4974	12837	8689	1073	62	1513	500	876	12713
1966	121.56	6.00	3.90	36.50	0.79	4.42	173.17	13113	6600	65677	23732	1703	5131	13217	9270	909	59	1538	464	861	13102
1967	131.65	5.20	3.80	35.90	0.80	4.30	181.65	13115	5607	63424	23146	1670	5082	13065	10038	927	60	1551	482	846	13904
1968	139.82	4.70	3.80	36.50	0.77	4.30	189.89	13263	5690	62707	23338	1651	5175	13286	10542	826	61	1564	469	831	14292
1969	145.10	4.20	3.80	36.70	0.74	4.25	194.79	13255	5669	63103	23480	1630	5209	13359	10947	741	60	1563	455	816	14582
1970	155.00	3.24	3.60	37.90	0.76	4.37	204.87	13806	4813	60781	25385	1672	5453	13929	11227	673	59	1493	455	801	14708
1971	165.00	3.13	3.50	39.40	0.77	4.15	215.95	14329	5179	58519	25370	1727	5683	14486	11515	605	60	1553	444	731	14908
1972	174.70	2.91	3.50	40.60	0.79	4.23	226.73	14484	5091	56863	26093	1759	5767	14691	12062	572	62	1556	448	733	15433
1973	184.03	3.10	3.46	42.58	0.81	4.23	238.21	14471	5871	56715	26849	1784	5823	14821	12717	528	61	1586	454	727	16073
1974	179.96	3.42	3.28	42.56	0.81	4.04	234.08	13333	6590	53354	25637	1673	5422	13794	13497	519	62	1660	487	745	16970
1975	181.57	4.19	3.24	42.14	0.86	4.11	236.12	13313	7862	52066	24774	1699	5393	13722	13639	533	62	1701	509	763	17207
1976	190.33	5.34	3.33	43.78	0.99	4.35	248.12	13845	8691	51218	25708	1806	5587	14215	13747	615	65	1703	546	778	17454
1977	194.02	5.26	3.23	43.78	0.95	4.30	251.54	13812	7711	49195	26076	1765	5561	14144	14047	682	66	1679	538	773	17785
1978	202.28	5.26	3.31	45.17	0.88	3.44	260.34	14389	7421	51139	24752	1766	5790	14668	14058	709	65	1825	498	594	17748
1979	201.32	5.60	3.35	45.30	0.78	3.21	259.56	14309	7605	52400	22985	1697	5789	14539	14069	736	64	1971	458	555	17853
1980	215.01	6.85	3.52	45.73	0.82	3.02	274.95	14668	8295	54581	22426	1765	5858	14807	14658	826	64	2039	466	516	18569
1981	219.46	7.84	3.50	45.08	1.03	3.52	280.43	14559	8722	54811	22140	2184	5783	14641	15073	899	64	2036	473	609	19154
1982	227.31	8.17	3.52	44.41	1.05	3.32	287.79	14889	9083	55155	21812	2233	5895	14910	15267	899	64	2036	472	563	19301
1983	231.22	7.19	3.70	44.87	1.08	3.11	291.16	14739	8159	57342	21760	2211	5844	14768	15687	881	64	2062	489	532	19715
1984	244.01	7.19	3.86	47.11	0.92	3.81	306.89	14855	7747	59840	21441	2228	5862	14840	16426	928	64	2197	415	650	20680
1985	250.46	6.67	3.66	48.18	0.70	3.48	313.14	14806	7690	57136	21517	1776	5878	14860	16916	867	64	2239	395	592	21073
1986	264.44	6.46	3.69	50.10	0.61	3.59	328.89	15133	7983	57280	21743	1664	6020	15215	17475	809	64	2304	367	596	21615
1987	284.63	6.15	4.08	55.05	0.56	3.86	354.33	15865	8189	62893	23247	1682	6353	16057	17941	751	65	2368	335	607	22067
1988	305.40	5.52	4.31	59.96	0.52	4.06	379.77	16098	7693	64310	23663	1736	6474	16359	18971	717	67	2534	299	627	23215
1989	331.27	5.49	4.53	65.14	0.46	4.27	411.15	16730	7771	67113	24768	1694	6751	17056	19801	706	67	2630	270	632	24106
1990	336.06	5.11	4.55	64.63	0.41	4.18	414.94	16547	7478	67054	24371	1658	6683	16877	20309	684	68	2652	248	625	24586
1991	336.29	5.01	4.79	66.16	0.32	4.03	416.60	16543	7754	71918	25593	1589	6757	17057	20328	646	67	2585	202	596	24424
1992	338.00	4.27	4.59	65.02	0.26	3.89	416.03	16475	7037	68930	25486	1501	6731	16987	20516	607	67	2551	173	578	24492
1993	338.10	3.55	4.62	65.85	0.21	3.84	416.18	16237	5951	69804	26028	1451	6667	16823	20823	597	66	2530	147	576	24739
1994	345.03	3.60	4.63	68.11	0.18	3.80	425.33	16225	6087	69486	26964	1376	6706	16916	21265	591	67	2526	129	566	25144
1995	351.12	3.60	4.90	69.95	0.15	3.74	433.46	16363	6110	74019	27926	1336	6799	17146	21458	589	66	2505	113	550	25281

(Continued)

BRITAIN (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	359.92	3.63	5.01	72.43	0.13	3.70	444.82	16139	5724	73330	28348	1246	6731	16969	22302	634	68	2555	105	549	26213
1997	365.80	3.85	5.16	75.41	0.11	3.72	454.04	15977	5845	74017	28882	1172	6700	16889	22895	659	70	2611	94	555	26884
1998	370.60	4.01	5.25	78.54	0.10	3.69	462.18	15867	5557	75352	29569	1100	6682	16839	23356	721	70	2656	93	552	27448
1999	377.44	4.40	5.30	79.72	0.10	3.58	470.54	15702	5544	72970	29190	1016	6606	16642	24038	793	73	2731	97	542	28274
2000	376.81	4.47	5.16	80.55	0.10	3.35	470.43	15400	5274	68923	28902	947	6487	16335	24468	848	75	2787	106	516	28800
2001	382.76	4.71	5.16	81.72	0.10	3.20	477.64	15197	5243	69297	28384	923	6401	16109	25187	899	74	2879	111	500	29650
2002	392.91	4.98	5.21	83.32	0.10	3.23	489.74	15204	5182	69551	28072	918	6389	16078	25842	961	75	2968	109	505	30460
2003	393.06	5.49	5.39	86.34	0.11	3.32	493.71	14946	5360	71226	28097	1023	6306	15871	26298	1025	76	3073	110	526	31108
2004	398.06	5.05	5.23	90.16	0.11	3.47	502.07	14696	4663	67909	27794	1006	6202	15613	27087	1082	77	3244	109	559	32158
2005	397.19	5.33	5.17	91.60	0.10	3.53	502.93	14402	4824	67195	27319	1009	6091	15336	27579	1105	77	3353	101	580	32795
2006	402.62	5.11	5.39	94.30	0.09	3.97	511.47	14467	4522	70000	26305	968	6084	15328	27830	1129	77	3585	95	652	33368
2007	404.09	5.50	5.54	97.78	0.09	4.07	517.06	14315	4690	71883	26320	1007	6043	15227	28228	1172	77	3715	91	674	33957
2008	401.75	5.05	5.18	96.83	0.09	4.12	513.03	14151	4207	66462	25787	987	5951	14998	28390	1201	78	3755	90	693	34207
2009	400.67	5.15	5.15	92.97	0.08	4.20	508.23	14079	4264	66051	24979	987	5951	14836	28459	1207	78	3722	85	706	34257
2010																					

CANADA

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	43.73	0.24	0.48	15.90	0.05	0.52	60.92	9618	3206	13381	12734	1603	9618	10171	4547	74	36	1249	30	54	5990
1964	46.91	0.24	0.49	16.84	0.05	0.55	65.08	9807	3269	13643	12984	1634	9807	10369	4783	74	36	1297	30	56	6276
1965	50.10	0.35	0.50	17.81	0.05	0.58	69.39	9995	3332	13906	13234	1666	9995	10535	5012	105	36	1345	30	58	6587
1966	53.64	0.40	0.53	20.02	0.05	0.66	75.29	10308	3436	14341	13648	1718	10308	10887	5204	115	37	1467	30	64	6916
1967	56.65	0.42	0.54	20.07	0.05	0.66	78.39	10153	3384	14125	13443	1692	10153	10693	5580	126	38	1493	30	65	7331
1968	60.76	0.47	0.56	21.70	0.05	0.71	84.27	10391	3464	14456	13757	1732	10391	10945	5848	136	39	1578	30	69	7699
1969	64.16	0.51	0.58	23.40	0.05	0.77	89.48	10504	3501	14613	13907	1751	10504	11074	6108	147	40	1683	30	73	8080
1970	66.85	0.56	0.61	24.88	0.05	0.82	93.77	10650	3550	14817	14101	1775	10650	11235	6277	157	41	1765	30	77	8347
1971	69.39	0.69	0.61	25.75	0.05	0.93	97.43	10474	3491	14571	13867	1746	10474	11019	6625	199	42	1857	30	89	8842
1972	73.64	0.87	0.63	27.83	0.05	0.45	103.47	10464	3488	14558	13854	1744	10464	10994	7037	249	43	2009	30	43	9411
1973	74.25	0.96	0.61	29.05	0.05	0.48	105.39	9952	3317	13846	13176	1659	9952	10460	7460	288	44	2205	30	48	10075
1974	77.07	1.02	0.60	30.85	0.05	0.52	110.12	9603	3201	13360	12715	1601	9603	10101	8025	320	45	2427	30	54	10901
1975	78.75	1.04	0.60	32.15	0.05	0.51	113.09	9382	3127	13053	12422	1564	9382	9883	8394	331	46	2588	30	54	11443
1976	80.07	1.07	0.65	34.62	0.05	0.54	117.00	9415	3138	13098	12465	1569	9415	9948	8505	341	50	2777	32	57	11762
1977	83.85	1.16	0.66	37.09	0.06	0.57	123.40	9360	3120	13022	12393	1560	9360	9893	8958	372	51	2993	38	61	12473
1978	87.93	1.09	0.71	42.47	0.05	0.60	132.86	9629	3210	13396	12749	1605	9629	10257	9132	341	53	3331	33	62	12952
1979	94.88	1.13	0.75	47.04	0.06	0.58	144.43	10158	3386	14131	13448	1693	10158	10848	9341	333	53	3498	33	57	13315
1980	97.26	1.31	0.75	47.72	0.07	0.51	147.62	10130	3377	14093	13412	1688	10130	10783	9601	389	53	3558	39	50	13690
1981	96.93	1.39	0.77	52.00	0.07	0.54	151.68	10212	3404	14207	13521	1702	10212	10920	9491	407	54	3846	39	53	13890
1982	92.61	1.36	0.71	49.67	0.07	0.53	144.93	9450	3150	13147	12512	1575	9450	10099	9799	431	54	3970	42	56	14352
1983	97.51	1.52	0.77	52.41	0.07	0.57	152.85	9765	3255	13584	12928	1627	9765	10423	9986	467	57	4054	43	58	14665
1984	107.12	1.66	0.77	52.47	0.07	0.65	162.74	10613	3538	14764	14051	1769	10613	11263	10094	470	52	3734	37	61	14448
1985	114.99	1.67	0.81	55.42	0.06	0.71	173.66	11035	3678	15352	14610	1839	11035	11719	10420	453	53	3793	35	64	14818
1986	127.22	1.68	0.91	59.91	0.07	0.84	190.63	11699	3900	16276	15490	1950	11699	12431	10874	430	56	3868	35	72	15335
1987	134.91	1.71	1.02	70.49	0.07	0.94	209.13	12383	4128	17227	16395	2064	12383	13256	10895	414	59	4299	34	76	15777
1988	145.44	1.59	1.08	77.74	0.07	1.09	227.01	12928	4309	17986	17116	2155	12928	13895	11250	370	60	4542	31	84	16337
1989	151.39	1.52	1.15	81.63	0.07	0.95	236.71	13145	4382	18288	17404	2191	13145	14157	11517	348	63	4690	30	72	16720
1990	156.59	1.47	1.19	83.62	0.06	0.92	243.84	13327	4442	18540	17644	2221	13327	14360	11750	331	64	4739	28	69	16981
1991	164.68	1.50	1.22	76.90	0.06	0.74	245.10	13944	4648	19399	18461	2324	13944	14908	11810	322	63	4166	27	53	16441
1992	171.67	1.48	1.25	77.57	0.06	0.69	252.72	14275	4758	19860	18900	2379	14275	15244	12026	312	63	4104	26	48	16579
1993	180.56	1.52	1.30	80.54	0.06	0.70	264.68	14835	4945	20638	19641	2472	14835	15836	12171	307	63	4101	25	47	16714
1994	191.22	1.57	1.38	85.41	0.06	0.82	280.46	15477	5159	21532	20492	2580	15477	16530	12355	304	64	4168	23	53	16967
1995	194.75	1.55	1.40	87.07	0.06	0.94	285.77	15691	5230	21829	20774	2615	15691	16765	12412	297	64	4191	22	60	17046

(Continued)

CANADA (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	197.03	1.53	1.41	92.20	0.06	0.95	293.18	15877	5292	22088	21021	2646	15877	17016	12410	289	64	4386	21	60	17230
1997	202.26	1.58	1.48	91.55	0.05	1.57	298.49	15879	5293	22091	21024	2647	15879	16983	12738	298	67	4354	20	99	17576
1998	201.72	1.65	1.50	93.02	0.05	1.15	299.09	15815	5272	22002	20939	2636	15815	16925	12755	313	68	4443	20	73	17671
1999	207.25	1.48	1.69	94.82	0.05	1.07	306.37	16227	5409	22575	21484	2705	16227	17387	12772	274	75	4413	20	66	17620
2000	214.35	1.68	1.74	90.79	0.05	0.96	309.57	16227	5409	22575	21484	2705	16227	17292	13209	311	77	4226	20	59	17902
2001	222.96	1.72	1.74	85.47	0.05	0.83	312.78	16243	5414	22597	21505	2707	16243	17217	13727	318	77	3974	20	51	18167
2002	229.75	1.97	1.89	84.18	0.06	0.73	318.58	16894	5631	24205	18341	2816	16894	17054	13599	350	78	4590	20	44	18681
2003	226.00	1.97	1.61	85.00	0.05	0.57	315.21	15870	5290	20692	20424	2645	15870	16669	14241	373	78	4162	20	36	18910
2004	226.62	2.14	1.69	85.28	0.05	0.44	316.23	15732	5244	21935	20490	2622	15732	16556	14405	409	77	4162	20	28	19101
2005	236.66	2.39	1.55	78.06	0.05	0.47	319.19	16155	5385	19846	19869	2692	16155	16668	14650	444	78	3929	20	29	19150
2006	237.12	2.58	1.72	89.02	0.05	0.50	330.99	15975	5325	21463	20712	2663	15975	16753	14843	485	80	4298	20	31	19757
2007	240.84	2.70	1.78	91.44	0.05	0.26	337.06	15490	5163	21434	20673	2582	15490	16352	15548	522	83	4423	20	17	20613
2008	240.79	2.81	1.78	84.82	0.05	0.33	330.58	14882	4961	21179	20033	2480	14882	15662	16180	567	84	4234	20	22	21107
2009	256.58	3.01	1.78	76.70	0.05	0.32	338.45	15195	5065	20698	20191	2533	15195	15810	16886	595	86	3799	20	21	21407
2010																					

CZECH

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963																					
1964																					
1965																					
1966																					
1967																					
1968																					
1969																					
1970																					
1971																					
1972																					
1973																					
1974																					
1975																					
1976																					
1977																					
1978																					
1979																					
1980							23.40							7128	1723	546	20	131	665	198	3283
1981							23.40							6913	1811	542	21	135	673	203	3385
1982							23.40							6783	1873	524	21	136	691	205	3450
1983							23.40							6711	1917	511	21	135	697	206	3487
1984							23.40							6663	1956	490	22	136	694	214	3512
1985							23.39							6555	2012	481	23	137	694	221	3568
1986							24.05							6637	2066	465	23	139	704	227	3624
1987							24.72							6741	2103	464	23	141	701	235	3667
1988							25.38							6772	2181	451	24	144	703	245	3748
1989							26.05							6813	2248	446	24	147	706	252	3823
1990							26.71							6791	2330	445	26	153	714	265	3933
1991							28.12							6963	2411	453	26	156	719	273	4038
1992							29.52							7166	2483	453	26	158	721	279	4120
1993							30.93							7331	2580	455	26	156	720	282	4219
1994							32.33							7414	2747	451	25	148	700	290	4361
1995							33.74							7801	2924	403	19	184	509	286	4325

(Continued)

CZECH (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996							34.70							7768	3043	404	20	203	511	286	4467
1997							36.10							7785	3193	406	20	225	512	281	4637
1998							39.00							8038	3392	410	21	247	520	262	4852
1999							40.30							8140	3493	407	20	260	520	251	4951
2000							40.48							8488	3440	346	19	268	454	242	4769
2001							41.23							8733	3439	318	18	276	431	239	4721
2002							43.19							9064	3530	317	18	296	438	166	4765
2003							45.68							9259	3647	316	21	323	444	182	4933
2004							47.19							9418	3706	313	21	340	438	193	5011
2005							50.26							9720	3816	318	20	371	439	207	5171
2006							51.69							9552	3959	334	20	415	460	223	5411
2007							53.62							9446	4109	354	20	468	469	257	5677
2008							55.32							9254	4280	384	20	534	476	284	5978
2009							55.32							8873	4423	414	20	590	478	310	6235
2010															4435	430	20	587	473	326	6271

DENMARK

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	10.08	0.82	0.22	1.65	2.20	0.56	15.53	18360	7882	59459	7916	5570	4310	11176	549	104	4	209	395	129	1390
1964	11.42	0.75	0.23	1.83	2.20	0.59	17.02	18652	7882	60526	8188	5570	4500	11653	612	95	4	223	395	131	1461
1965	12.60	0.67	0.25	1.90	2.20	0.62	18.24	18667	7882	64103	8333	5584	4640	12007	675	85	4	228	394	133	1519
1966	13.94	0.59	0.26	2.12	1.97	0.64	19.52	18721	7711	61905	9068	4975	4750	12278	745	76	4	234	396	135	1590
1967	15.28	0.50	0.27	2.34	1.74	0.67	20.80	18767	7723	62791	9766	4372	4857	12543	814	65	4	240	398	137	1658
1968	16.62	0.42	0.28	2.56	1.51	0.69	22.08	18805	7270	62222	10432	3775	4945	12759	884	58	5	245	400	139	1730
1969	17.96	0.33	0.29	2.78	1.28	0.71	23.35	18838	6680	61702	11067	3200	5031	12972	953	50	5	251	400	141	1800
1970	19.30	0.25	0.30	3.00	1.05	0.73	24.63	18866	5695	60000	11673	2605	5099	13136	1023	44	5	257	403	143	1875
1971	20.10	0.20	0.30	3.10	1.05	0.73	25.48	18663	5025	56604	12551	2599	5169	13307	1077	40	5	247	404	142	1915
1972	21.10	0.20	0.30	3.20	1.10	0.74	26.64	18396	5376	54545	14884	2552	5241	13476	1147	37	6	215	431	141	1977
1973	21.70	0.18	0.30	3.40	1.15	0.74	27.47	18038	4977	52632	17085	2596	5273	13548	1203	36	6	199	443	141	2028
1974	20.50	0.17	0.30	3.50	1.17	0.69	26.33	16466	4766	50847	16204	2594	4896	12571	1245	36	6	216	451	141	2095
1975	21.40	0.17	0.30	3.60	1.20	0.72	27.39	17038	4682	49180	16744	2592	5033	12923	1256	36	6	215	463	143	2119
1976	22.70	0.17	0.30	3.80	1.12	0.75	28.84	17529	4652	47619	16667	2440	5178	13292	1295	37	6	228	459	145	2170
1977	23.40	0.17	0.40	3.90	1.15	0.76	29.78	17489	4687	61491	15600	2620	5239	13442	1338	36	7	250	439	146	2216
1978	23.90	0.17	0.40	4.00	1.00	0.80	30.27	17382	4871	58514	15267	2941	5443	13977	1375	35	7	262	340	147	2166
1979	22.80	0.17	0.40	5.00	0.85	0.81	30.03	16193	4924	56267	18868	3080	5465	14041	1408	35	7	265	276	148	2139
1980	21.50	0.17	0.40	4.80	0.75	0.78	28.40	15109	4947	54414	18182	2941	5178	13309	1423	34	7	264	255	150	2134
1981	21.00	0.20	0.40	4.70	0.58	0.80	27.68	15108	5664	52493	18577	3791	5411	13931	1390	35	8	253	153	148	1987
1982	19.83	0.24	0.45	5.26	0.53	0.80	27.10	14504	6417	55875	21658	3759	5416	13949	1367	37	8	243	141	147	1943
1983	20.58	0.26	0.46	5.36	0.65	0.81	28.12	15158	6854	57625	22691	3801	5585	14377	1358	38	8	236	171	145	1956
1984	21.79	0.26	0.46	5.64	0.65	0.83	29.63	15673	6667	57875	23776	3801	5791	14896	1390	39	8	237	171	144	1989
1985	22.88	0.27	0.47	6.00	0.60	0.85	31.06	15885	6700	59125	24473	3774	5938	15263	1440	40	8	245	159	143	2035
1986	24.14	0.28	0.48	6.60	0.55	0.88	32.93	16085	6707	60000	25498	3793	6111	15697	1501	41	8	259	145	144	2098
1987	25.53	0.28	0.47	6.92	0.50	0.89	34.60	16389	6714	58875	25171	3759	6245	16027	1558	42	8	275	133	143	2159
1988	27.25	0.29	0.49	6.56	0.41	0.90	35.91	17172	7008	61575	22936	3227	6389	16383	1587	42	8	286	128	141	2192
1989	28.10	0.30	0.48	6.30	0.42	0.91	36.51	17604	7194	60344	21429	4628	6565	16833	1596	42	8	294	90	139	2169
1990	29.01	0.31	0.50	6.30	0.42	0.95	37.49	18247	7045	62498	22027	4773	6780	17389	1590	44	8	286	88	140	2156
1991	30.04	0.33	0.53	6.33	0.42	0.95	38.60	18891	7500	66127	21525	4807	6968	17863	1590	44	8	294	88	137	2161
1992	31.40	0.33	0.50	6.40	0.56	0.98	40.17	19700	7333	50002	21405	6659	7234	18535	1594	45	10	299	84	135	2167
1993	31.62	0.33	0.50	6.45	0.57	0.97	40.43	19701	7174	45729	21201	7019	7239	18543	1605	46	11	304	81	134	2181
1994	32.26	0.33	0.48	6.66	0.44	0.96	41.13	19940	7021	36770	21350	5681	7311	18713	1618	47	13	312	77	131	2198
1995	33.76	0.33	0.59	5.97	0.45	0.97	42.07	20958	6796	41929	18595	6164	7483	19148	1611	49	14	321	73	129	2197

(Continued)

DENMARK (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	34.76	0.36	0.64	6.10	0.45	0.95	43.24	20762	6980	48846	18364	6513	7465	19081	1674	51	13	332	69	127	2266
1997	35.93	0.39	0.63	6.22	0.46	0.94	44.56	20720	6875	45000	18333	7084	7474	19089	1734	56	14	339	66	126	2335
1998	36.80	0.41	0.63	6.46	0.48	0.94	45.72	20639	6900	48308	18668	7757	7498	19139	1783	60	13	346	62	125	2389
1999	38.10	0.45	0.63	6.74	0.48	0.95	47.35	20971	7031	44786	19424	10000	7689	19617	1817	64	14	347	48	124	2414
2000	38.19	0.48	0.63	6.98	0.48	0.92	47.67	20719	7000	44929	19276	8224	7581	19323	1843	69	14	362	58	121	2467
2001	38.04	0.52	0.63	7.27	0.44	0.89	47.78	20516	7000	44643	19491	6800	7506	19121	1854	74	14	373	65	119	2499
2002	38.85	0.55	0.63	7.45	0.46	0.88	48.82	20744	7064	44714	18901	6809	7538	19191	1873	78	14	394	68	117	2544
2003	38.05	0.57	0.61	7.40	0.46	0.85	47.94	20155	6864	43445	18364	6651	7459	18647	1888	83	14	403	69	114	2571
2004	38.02	0.60	0.61	7.55	0.45	0.82	48.05	20064	6832	43247	18281	6621	7407	18559	1895	88	14	413	68	111	2589
2005	37.07	0.61	0.57	7.38	0.42	0.75	46.79	18827	6411	40583	17155	6213	6949	17440	1969	95	14	430	67	108	2683
2006	37.87	0.67	0.57	7.66	0.39	0.73	47.89	18802	6403	40527	17131	6205	6933	17422	2014	105	14	447	64	105	2749
2007	38.95	0.76	0.61	7.97	0.37	0.72	49.39	18862	6423	40656	17186	6224	6946	17471	2065	119	15	464	60	104	2827
2008	39.29	0.83	0.55	8.07	0.34	0.69	49.77	18256	6217	39351	16634	6024	6712	16902	2152	134	14	485	57	103	2945
2009	40.10	0.90	0.55	7.50	0.32	0.69	50.07	18376	6257	39609	16743	6064	6800	17011	2182	144	14	448	53	102	2943
2010																					

FINLAND

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	6.72	0.74	0.54	2.17	0.66	0.02	10.84	21990	7330	78437	26598	2983	6028	15096	305	101	7	82	220	3	718
1964	8.38	0.75	0.54	2.20	0.67	0.02	12.56	22290	7430	78836	26981	2983	6325	15837	376	101	7	82	225	3	793
1965	10.09	0.69	0.52	2.40	0.78	0.02	14.49	22202	7401	74509	28446	2983	6410	16047	454	93	7	84	262	3	903
1966	11.43	0.57	0.53	2.60	0.84	0.02	15.99	22599	7533	74043	29213	2935	6613	16556	506	76	7	89	285	3	966
1967	12.97	0.58	0.54	2.80	0.85	0.03	17.76	23525	7842	72717	28866	2995	6975	17463	551	74	7	97	284	4	1017
1968	13.80	0.44	0.55	2.90	0.87	0.03	18.59	23769	7923	71802	29897	2959	7152	17909	581	56	8	97	293	4	1038
1969	14.78	0.39	0.58	3.20	0.81	0.03	19.79	22983	7661	73782	31683	2826	7227	18097	643	51	8	101	286	5	1094
1970	16.59	0.36	0.60	3.30	0.81	0.04	21.69	23305	7768	73928	34021	2823	7506	18798	712	46	8	97	286	5	1154
1971	17.71	0.34	0.61	3.55	0.80	0.04	23.05	23519	7840	73975	34466	2834	7702	19286	753	44	8	103	282	5	1195
1972	18.82	0.33	0.63	3.67	0.75	0.04	24.25	23010	7670	75332	32193	2795	7695	19267	818	43	8	114	270	5	1258
1973	20.08	0.34	0.62	3.83	0.69	0.04	25.59	22456	7485	73556	33017	2768	7763	19438	894	45	8	116	248	5	1317
1974	20.78	0.36	0.64	3.92	0.60	0.05	26.34	22180	7393	74488	32667	2662	7832	19595	937	49	9	120	224	6	1344
1975	21.60	0.36	0.64	3.85	0.54	0.05	27.04	21683	7228	73980	30800	2602	7761	19411	996	50	9	125	207	6	1393
1976	22.36	0.35	0.64	3.87	0.51	0.05	27.79	21651	7217	72390	30234	2598	7811	19535	1033	49	9	128	197	7	1423
1977	22.68	0.33	0.64	3.88	0.47	0.05	28.05	21088	7029	72145	29173	2531	7698	19262	1075	47	9	133	185	7	1456
1978	23.23	0.31	0.64	3.90	0.43	0.05	28.57	20831	6944	72843	28676	2500	7679	19228	1115	45	9	136	174	7	1486
1979	23.76	0.29	0.64	3.91	0.41	0.06	29.08	20320	6773	72513	28129	2438	7549	18915	1170	43	9	139	169	8	1537
1980	24.10	0.28	0.64	3.94	0.39	0.07	29.42	19660	6553	71405	27552	2359	7354	18425	1226	43	9	143	167	9	1597
1981	24.56	0.28	0.65	4.02	0.39	0.07	29.96	19198	6399	71791	26980	2304	7238	18075	1279	43	9	149	168	9	1657
1982	25.44	0.28	0.66	4.13	0.38	0.06	30.95	18814	6271	72799	26645	2258	7126	17797	1352	44	9	155	170	9	1739
1983	26.26	0.29	0.67	4.24	0.36	0.07	31.89	18621	6207	73667	26173	2234	7090	17714	1410	46	9	162	163	10	1801
1984	27.10	0.29	0.67	4.33	0.35	0.08	32.82	18386	6129	73878	25774	2206	7030	17570	1474	48	9	168	158	11	1868
1985	28.22	0.30	0.67	4.51	0.33	0.08	34.11	18252	6084	74304	25920	2189	7013	17573	1546	50	9	174	151	11	1941
1986	29.17	0.31	0.67	4.84	0.29	0.08	35.35	18005	6002	73096	26889	1979	6994	17527	1620	51	9	180	145	12	2017
1987	31.12	0.29	0.67	4.94	0.27	0.09	37.38	18321	6107	72566	26277	1942	7127	17858	1699	48	9	188	137	12	2093
1988	33.39	0.32	0.67	5.11	0.26	0.10	39.85	18593	6198	72597	25808	2005	7230	18122	1796	51	9	198	131	14	2199
1989	35.51	0.32	0.67	5.36	0.23	0.11	42.20	18721	6240	72292	25047	1895	7295	18285	1897	52	9	214	121	15	2308
1990	36.33	0.34	0.68	5.64	0.22	0.13	43.34	18734	6245	75556	23115	1878	7261	18208	1939	55	9	244	115	18	2380
1991	36.00	0.37	0.65	5.39	0.19	0.15	42.76	18721	6240	72222	20417	1798	7146	17928	1923	60	9	264	108	21	2385
1992	36.05	0.38	0.64	5.66	0.17	0.16	43.07	18621	6207	71111	21439	1696	7164	17975	1936	62	9	264	103	22	2396
1993	35.50	0.40	0.64	5.69	0.17	0.17	42.57	18954	6318	80000	21718	1693	7282	18278	1873	64	8	262	99	23	2329
1994	35.40	0.40	0.63	5.70	0.15	0.16	42.44	18900	6300	78750	22530	1603	7309	18343	1873	64	8	253	94	22	2314
1995	35.76	0.41	0.62	5.79	0.14	0.15	42.87	18811	6270	77500	23253	1536	7326	18382	1901	65	8	249	88	21	2332

(Continued)

FINLAND (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	36.00	0.40	0.62	5.90	0.13	0.14	43.20	18528	6176	77500	23413	1430	7230	18136	1943	65	8	252	94	20	2382
1997	36.79	0.42	0.62	6.12	0.13	0.15	44.23	18886	6295	77500	23629	1385	7356	18450	1948	66	8	259	96	20	2397
1998	38.08	0.43	0.60	6.12	0.13	0.14	45.50	18842	6281	75000	22921	1306	7310	18332	2021	69	8	267	98	19	2482
1999	39.19	0.46	0.59	6.23	0.12	0.13	46.72	18814	6271	65556	22171	1217	7266	18215	2083	73	9	281	101	18	2565
2000	39.82	0.50	0.59	6.31	0.12	0.13	47.45	18649	6216	65556	21519	1147	7176	17989	2135	80	9	293	103	18	2638
2001	40.68	0.57	0.60	6.38	0.12	0.12	48.46	18825	6275	59500	20970	1143	7199	18042	2161	91	10	304	103	17	2686
2002	41.68	0.65	0.60	6.48	0.12	0.12	49.64	18986	6329	59500	20703	1146	7229	18115	2195	103	10	313	103	16	2740
2003	42.57	0.72	0.59	6.64	0.14	0.11	50.77	18710	6237	59000	20734	1280	7122	17844	2275	116	10	320	108	16	2845
2004	43.53	0.80	0.59	6.78	0.15	0.11	51.95	18547	6182	58500	20719	1269	7041	17639	2347	130	10	327	116	15	2945
2005	44.22	0.87	0.58	6.88	0.16	0.10	52.81	18198	6066	52727	19366	1275	6838	17129	2430	143	11	355	129	15	3083
2006	44.61	0.93	0.58	6.96	0.17	0.09	53.34	17801	5934	52727	19121	1191	6664	16690	2506	156	11	364	145	14	3196
2007	45.56	1.02	0.58	7.11	0.21	0.09	54.57	17728	5909	52727	18910	1247	6585	16490	2570	172	11	376	166	14	3309
2008	45.29	1.06	0.58	7.12	0.22	0.08	54.35	16938	5646	48333	18013	1182	6256	15664	2674	188	12	395	188	13	3470
2009	45.95	1.19	0.58	6.82	0.28	0.08	54.90	16547	5516	44615	17487	1158	6009	15045	2777	216	13	390	240	13	3649
2010																					

FRANCE

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	69.90	1.29	1.91	26.78	7.24	0.15	107.27	9670	3578	23252	9370	1547	2915	7030	7228	361	82	2858	4677	53	15260
1964	79.80	1.15	2.05	29.34	7.93	0.17	120.44	9992	3697	25041	10152	1599	3065	7396	7987	310	82	2890	4960	56	16285
1965	89.90	1.12	2.05	31.79	8.25	0.19	133.30	10394	3846	25041	10788	1663	3249	7847	8649	290	82	2947	4960	60	16987
1966	99.40	1.06	2.20	34.81	8.68	0.22	146.37	10555	3905	26371	11700	1689	3376	8154	9417	271	83	2976	5140	64	17951
1967	107.00	0.76	2.20	36.68	9.08	0.23	155.94	10550	3904	25927	12249	1688	3422	8268	10142	194	85	2994	5378	67	18860
1968	116.00	0.77	2.05	37.96	9.55	0.25	166.58	10780	3988	23799	12735	1725	3508	8486	10761	194	86	2981	5539	70	19631
1969	124.50	0.88	1.91	38.42	9.93	0.26	175.90	10935	4046	21740	12759	1750	3550	8601	11385	217	88	3011	5677	74	20451
1970	133.10	0.96	1.91	40.29	10.36	0.28	186.89	11119	4114	21392	13053	1779	3624	8783	11971	232	89	3086	5823	77	21278
1971	147.00	1.17	1.91	41.63	11.03	0.30	203.03	11670	4318	21392	13390	1867	3677	9206	12596	271	89	3109	5909	80	22055
1972	162.00	1.45	2.05	42.98	11.43	0.33	220.23	12153	4497	23508	13554	1945	3846	9629	13330	321	87	3171	5879	85	22872
1973	181.00	1.36	2.20	45.66	12.20	0.36	242.77	12787	4731	25187	14264	2046	4077	10208	14155	287	87	3201	5963	89	23782
1974	182.70	1.44	2.20	47.00	11.89	0.37	245.60	12241	4529	24683	14190	1959	3954	9900	14925	318	89	3312	6072	93	24809
1975	189.84	1.42	2.20	47.70	12.22	0.38	253.77	12257	4535	24199	13878	1961	3950	9890	15489	314	91	3437	6231	97	25659
1976	195.81	1.69	2.30	47.80	11.86	0.40	259.85	12272	4541	24812	13656	1964	3983	9972	15956	372	93	3500	6038	100	26058
1977	204.81	1.71	2.30	48.90	11.60	0.42	269.73	12287	4546	24344	13780	1966	4036	10106	16668	376	94	3549	5900	103	26691
1978	214.53	1.97	2.40	50.80	11.14	0.44	281.29	12302	4552	24932	14106	1968	4109	10290	17438	434	96	3601	5660	108	27337
1979	224.65	2.18	2.40	52.90	10.68	0.48	293.29	12318	4558	24479	14495	1971	4285	10476	18238	478	98	3649	5420	112	27995
1980	234.35	2.43	2.48	55.00	10.22	0.50	304.98	12333	4563	24871	14790	1973	4251	10645	19002	532	100	3719	5180	117	28649
1981	242.56	2.66	2.55	56.67	9.62	0.53	314.59	12348	4569	25096	14972	1976	4362	10809	19643	583	102	3785	4870	121	29103
1982	250.15	2.76	2.57	58.33	8.90	0.55	323.27	12363	4574	25320	15088	1978	4409	10985	20233	604	102	3866	4500	124	29429
1983	255.00	2.92	2.64	60.00	8.32	0.56	329.44	12379	4580	25545	15142	1981	4440	11118	20600	638	103	3963	4200	127	29631
1984	256.00	2.96	2.66	62.00	7.66	0.57	331.86	12308	4554	25770	15395	1969	4477	11212	20800	651	103	4027	3890	128	29599
1985	262.00	2.97	2.69	63.00	7.06	0.59	338.31	12423	4596	25994	15567	1988	4569	11442	21090	647	103	4047	3550	129	29566
1986	275.00	3.01	2.66	67.00	6.61	0.63	354.91	12791	4733	26219	16428	2047	4775	11959	21500	637	102	4079	3229	132	29677
1987	292.00	3.14	2.69	73.64	6.27	0.68	378.42	13291	4918	26444	17651	2127	5038	12628	21970	639	102	4172	2950	134	29967
1988	305.00	3.24	2.52	81.02	5.94	0.72	398.43	13546	5012	26668	18875	2167	5221	13095	22515	646	94	4292	2740	138	30426
1989	310.00	3.30	2.40	88.42	5.53	0.75	410.39	13510	4999	26893	20098	2162	5309	13326	22946	661	89	4399	2560	140	30795
1990	314.97	3.40	2.27	96.40	5.22	0.77	423.02	13497	4994	27118	21322	2160	5408	13568	23336	680	84	4521	2415	143	31179
1991	319.51	3.53	2.19	104.14	4.89	0.80	435.05	13484	4989	27342	22545	2157	5505	13806	23695	707	80	4619	2265	146	31512
1992	323.07	3.63	2.16	111.94	4.56	0.83	446.18	13471	4984	27567	23769	2155	5604	14049	23982	728	78	4709	2115	147	31760
1993	326.15	3.84	2.18	119.35	4.24	0.84	456.61	13459	4980	27792	24993	2153	5656	14279	24233	772	78	4776	1970	149	31979
1994	328.52	3.84	2.20	126.42	4.01	0.87	465.87	13446	4975	28016	26216	2151	5790	14503	24433	773	78	4822	1865	151	32122
1995	333.58	3.78	2.22	132.58	3.84	0.90	476.90	13433	4970	28241	26865	2149	5850	14653	24833	761	78	4935	1785	153	32546

(Continued)

FRANCE (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	337.81	3.73	2.28	134.42	3.76	0.91	482.91	13420	4965	28466	26676	2147	5852	14657	25172	751	80	5039	1750	155	32948
1997	344.09	3.80	2.35	138.16	3.61	0.93	492.93	13407	4961	28690	26731	2145	5871	14705	25664	765	82	5169	1682	158	33520
1998	349.46	3.98	2.37	147.67	3.53	0.96	507.96	13394	4956	28915	27872	2143	5951	14905	26090	803	82	5298	1645	161	34079
1999	358.76	4.24	2.39	154.21	3.40	0.99	523.99	13381	4951	29140	28462	2141	5990	15005	26810	856	82	5418	1590	166	34922
2000	367.37	4.55	2.35	156.61	3.12	1.02	535.02	13369	4946	29364	28321	2139	5994	15013	27480	920	80	5530	1458	170	35638
2001	374.76	4.78	2.37	166.01	3.08	1.05	552.05	13356	4942	29589	29262	2137	6055	15168	28060	968	80	5673	1442	174	36397
2002	382.94	5.03	2.41	159.58	3.03	1.06	554.06	13343	4937	29814	27438	2135	5944	14888	28700	1019	81	5816	1421	178	37215
2003	388.70	5.20	2.43	157.71	2.96	1.07	558.07	13330	4932	30038	26716	2133	5899	14777	29160	1054	81	5903	1387	181	37766
2004	393.66	5.38	2.48	145.44	2.89	1.07	550.92	13317	4927	30263	24296	2131	5848	14399	29560	1091	82	5986	1357	184	38260
2005	397.80	5.57	2.50	147.20	2.83	1.07	556.97	13304	4923	30488	24302	2129	5748	14397	29900	1131	82	6057	1331	186	38687
2006	395.80	5.75	2.60	148.60	2.75	1.07	556.57	13193	4882	31325	24417	2111	5722	14331	30000	1177	83	6086	1303	187	38836
2007	398.00	6.08	2.70	150.77	2.66	1.08	561.28	13157	4868	32530	24527	2105	5719	14326	30250	1248	83	6147	1262	189	39179
2008	392.20	6.52	2.70	148.49	2.49	1.07	553.47	12742	4715	32143	23649	2039	5532	13858	30780	1383	84	6279	1221	193	39940
2009	395.90	6.61	2.80	143.30	2.37	1.06	552.05	12785	4730	32941	22750	2046	5496	13766	30967	1398	85	6299	1159	194	40102
2010																					

GERMANY

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	121.51	4.77	2.13	21.40	3.86	1.62	155.28	16308	4835	48289	22118	2547	1762	13064	7451	986	44	967	1516	922	11886
1964	136.09	4.65	2.19	22.37	4.02	1.59	170.91	16314	4901	49197	22169	2549	1637	13259	8342	949	45	1009	1576	969	12890
1965	152.00	4.51	2.29	23.08	4.17	1.55	187.60	16323	4934	50128	22214	2551	1524	13437	9312	913	46	1039	1635	1017	13962
1966	166.53	4.36	2.44	24.81	4.66	1.52	204.32	16338	4979	51372	22981	2753	1424	13664	10193	877	47	1080	1692	1064	14954
1967	181.31	4.22	2.43	26.55	5.15	1.49	221.14	16750	5021	49434	23690	2945	1337	14090	10825	840	49	1121	1748	1112	15695
1968	196.00	4.07	2.58	28.28	5.64	1.46	238.02	16969	5059	50611	24346	3128	1256	14400	11550	804	51	1162	1803	1159	16529
1969	210.34	3.65	2.57	30.02	6.13	1.41	254.13	16691	4996	48834	24954	3301	1172	14397	12602	731	53	1203	1856	1207	17652
1970	224.63	3.54	2.80	31.77	6.61	1.37	270.73	16361	4844	51413	25518	3467	1094	14307	13729	731	54	1245	1908	1254	18922
1971	241.70	3.47	2.89	32.19	6.75	1.49	288.49	16334	4832	50660	24551	3395	1165	14317	14797	718	57	1311	1988	1278	20150
1972	249.47	3.47	3.05	33.25	7.29	1.59	298.11	15924	4774	50237	24627	3318	1229	14002	15666	726	61	1350	2196	1291	21290
1973	261.27	3.53	3.14	34.57	7.81	1.67	311.99	15911	4686	49587	24800	3243	1277	13962	16421	754	63	1394	2408	1305	22345
1974	258.95	3.62	3.26	32.26	8.33	1.75	308.17	15377	4607	49416	23011	3174	1342	13387	16840	785	66	1402	2623	1305	23021
1975	280.04	3.67	3.43	31.70	8.95	1.88	329.66	16009	4546	50490	22641	3105	1428	13755	17492	807	68	1400	2883	1316	23966
1976	292.80	3.76	3.44	35.03	9.33	2.01	346.37	15783	4454	49451	24790	3036	1521	13705	18551	844	70	1413	3074	1321	25273
1977	305.81	3.88	3.59	36.93	9.45	2.15	361.81	15530	4374	49661	25414	2974	1614	13596	19691	886	72	1453	3179	1330	26612
1978	320.25	3.96	3.66	39.77	9.71	2.30	379.65	15394	4297	49345	26761	2912	1671	13560	20804	922	74	1486	3336	1375	27998
1979	334.91	4.10	3.76	40.14	9.55	2.51	394.97	15097	4216	48963	25744	2854	1806	13375	22184	973	77	1559	3347	1390	29529
1980	340.21	4.34	3.86	41.83	9.88	2.76	402.88	14856	4135	49109	26224	2831	1918	13186	22900	1050	79	1595	3489	1440	30553
1981	326.64	4.74	3.89	38.80	8.76	3.04	385.87	13902	4032	48954	23759	2740	2078	12429	23497	1177	79	1633	3198	1461	31045
1982	340.98	5.31	3.93	36.48	8.34	3.32	398.36	14251	3925	49451	22572	2686	2229	12618	23927	1353	79	1616	3105	1491	31571
1983	352.71	5.77	3.94	37.23	7.85	3.61	411.11	14435	3843	49606	23181	2633	2369	12796	24434	1501	79	1606	2982	1526	32128
1984	364.46	6.07	3.91	39.26	7.17	3.92	424.79	14508	3784	49747	24342	2583	2518	12972	25121	1605	79	1613	2774	1556	32747
1985	366.15	6.18	3.88	39.08	6.78	4.19	426.26	14187	3738	49891	24020	2534	2653	12754	25808	1655	78	1627	2675	1580	33422
1986	395.19	6.15	3.87	40.32	6.04	4.53	456.10	14694	3702	49812	24320	2491	2818	13288	26895	1662	78	1658	2424	1607	34325
1987	421.36	6.06	3.92	40.46	5.59	4.86	482.25	15106	3674	49865	23827	2602	2984	13740	27895	1649	79	1698	2147	1630	35097
1988	445.75	5.94	3.94	42.59	5.23	5.25	508.70	15434	3642	50133	24364	2525	3185	14107	28880	1632	79	1748	2072	1649	36060
1989	458.23	5.93	4.02	42.66	5.03	5.68	521.54	15380	3606	51172	23554	2558	3398	14109	29794	1643	79	1811	1967	1673	36966
1990	482.99	6.01	4.10	45.79	5.04	6.29	550.22	15357	3601	51577	23628	2498	3820	14180	31451	1669	79	1938	2018	1646	38801
1991	496.41	5.91	4.02	55.01	4.91	6.86	573.11	15222	3438	50064	25827	2408	4329	14270	32612	1719	80	2130	2037	1583	40161
1992	509.96	5.29	3.89	58.12	4.61	6.62	588.49	15227	3039	47877	24340	2364	4584	14321	33490	1741	81	2388	1948	1444	41092
1993	517.82	5.03	3.81	58.64	3.89	6.58	595.76	15086	2921	47376	22485	2046	4798	14183	34324	1721	80	2608	1900	1371	42005
1994	528.14	5.57	3.74	63.34	3.83	6.94	611.56	15049	3048	47027	23032	2042	5145	14230	35094	1827	79	2750	1877	1349	42977
1995	535.13	6.01	3.70	67.70	4.00	7.12	623.66	15007	3021	48186	23353	2186	5362	14245	35659	1989	77	2899	1830	1328	43781

(Continued)

GERMANY (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	539.47	6.55	3.70	65.80	3.80	7.30	626.63	14913	3026	48753	21882	2153	5615	14085	36174	2166	76	3007	1765	1300	44488
1997	542.73	7.24	3.70	66.40	3.80	7.30	631.16	14864	3038	49333	21419	2250	5756	14017	36513	2382	75	3100	1689	1268	45027
1998	550.78	7.78	3.70	70.50	4.00	8.50	645.26	14975	3034	49928	22024	2311	6875	14155	36779	2566	74	3201	1731	1236	45587
1999	566.22	8.46	3.72	74.15	4.27	7.87	664.69	15159	3037	49043	22127	2475	6482	14293	37353	2786	76	3351	1725	1214	46504
2000	559.47	8.89	3.74	75.18	3.83	8.07	659.17	14798	3037	49280	21741	2425	6765	14013	37808	2926	76	3458	1578	1193	47039
2001	575.54	9.41	3.72	77.36	4.04	8.31	678.37	14899	3145	47838	21651	2427	6963	14095	38631	2991	78	3573	1664	1193	48130
2002	583.56	9.68	3.63	75.75	3.75	8.46	684.83	14898	3103	46783	20713	2396	7185	14043	39170	3119	78	3657	1567	1178	48768
2003	577.85	9.95	3.57	75.77	3.94	8.57	679.65	14662	3104	46506	20673	2384	7423	13823	39412	3206	77	3665	1653	1155	49168
2004	591.16	10.13	3.56	76.78	4.23	8.68	694.54	14878	3085	46389	20920	2391	7674	13984	39735	3284	77	3670	1770	1131	49666
2005	578.16	10.33	3.50	76.64	4.31	8.68	681.62	14437	3079	45607	20702	2392	7817	13607	40046	3356	77	3702	1802	1110	50093
2006	586.34	10.51	3.50	78.54	4.58	8.45	691.91	14415	3071	46693	20932	2539	7817	13618	40676	3421	75	3752	1802	1081	50808
2007	587.50	10.80	3.40	85.60	4.60	8.21	700.11	14294	3103	45333	22297	2383	7817	13601	41100	3480	75	3839	1930	1050	51474
2008	584.60	11.10	3.30	86.40	4.70	8.21	698.31	14195	3113	44000	21996	2414	7817	13494	41184	3566	75	3928	1947	1050	51750
2009	590.82	11.39	3.30	88.40	5.20	8.21	707.31	14298	3113	44000	21996	2414	7817	13530	41321	3659	75	4019	2153	1050	52277
2010	601.03	11.71	3.30	90.45	5.75	8.21	720.45	14400	3113	44000	21996	2414	7817	13563	41738	3763	75	4112	2381	1050	53119

GREECE

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	0.94	1.04	0.24	2.07	0.12	0.01	4.41	13925	25000	30000	42000	1987	5570	19548	68	42	8	49	58	1	226
1964	1.24	1.10	0.24	2.41	0.13	0.01	5.14	15231	24826	29829	41762	1987	6092	19767	82	44	8	58	67	1	260
1965	1.54	1.21	0.25	2.67	0.16	0.01	5.83	14793	24653	29658	41524	1987	5917	19085	104	49	8	64	79	1	306
1966	1.96	1.32	0.26	2.99	0.19	0.01	6.72	15985	24479	29487	41286	2076	6394	19286	122	54	9	72	90	1	349
1967	2.35	1.42	0.27	3.28	0.21	0.01	7.54	16305	24306	29316	41048	2076	6522	19111	144	58	9	80	102	1	395
1968	2.87	1.51	0.29	3.56	0.24	0.01	8.47	16861	24132	29145	40810	2099	6744	19011	170	63	10	87	115	1	445
1969	3.26	1.58	0.29	3.93	0.26	0.01	9.34	16731	23958	28974	40572	2057	6693	18784	195	66	10	97	128	1	497
1970	4.42	1.64	0.30	4.28	0.34	0.01	10.99	19469	23785	28803	40334	2358	7788	19717	227	69	11	106	144	1	557
1971	5.12	1.70	0.31	4.73	0.38	0.01	12.25	19394	23611	28632	40096	2337	7758	19514	264	72	11	118	162	1	628
1972	5.90	1.71	0.33	4.96	0.43	0.02	13.34	19472	22500	28461	38424	2365	7789	18983	303	76	11	129	181	2	703
1973	7.14	1.80	0.35	5.59	0.52	0.02	15.41	20576	22500	28290	37500	2537	8231	19378	347	80	12	149	205	2	795
1974	6.35	1.73	0.36	6.15	0.45	0.01	15.06	16830	20843	28119	36618	2020	6732	17380	377	83	13	168	223	2	866
1975	7.03	1.66	0.35	6.65	0.49	0.02	16.20	16014	19046	27948	34112	1922	6405	16326	439	87	13	195	256	3	993
1976	8.35	1.71	0.38	7.47	0.57	0.02	18.50	16401	18780	27777	33337	1968	6560	16333	509	91	14	224	292	3	1133
1977	9.20	1.80	0.40	8.91	0.62	0.02	20.94	14815	18557	27606	33994	1778	5926	15581	621	97	15	262	346	3	1344
1978	10.30	1.90	0.43	10.18	0.68	0.02	23.51	14148	18812	27435	33705	1698	5659	15164	728	101	16	302	400	4	1550
1979	11.76	1.83	0.44	10.18	0.77	0.03	25.01	14307	18553	27264	28917	1717	5723	14347	822	99	16	352	449	5	1743
1980	12.43	1.76	0.45	10.90	0.82	0.04	26.40	14468	18293	27093	28535	1736	5787	14399	859	96	17	382	473	7	1833
1981	13.09	1.93	0.46	11.67	0.88	0.05	28.08	14350	18034	27118	26959	1722	5740	14110	912	107	17	433	513	8	1990
1982	14.48	2.17	0.52	13.24	0.99	0.05	31.44	14537	17775	28778	27071	1744	5815	14289	996	122	18	489	567	8	2200
1983	15.33	2.43	0.58	13.98	1.05	0.05	33.42	14336	17515	31944	26486	1720	5734	14071	1069	139	18	528	612	9	2375
1984	17.01	2.62	0.57	15.00	1.17	0.05	36.43	14857	17256	31778	26690	1783	5943	14335	1145	152	18	562	655	9	2541
1985	18.87	2.75	0.52	15.81	1.27	0.07	39.29	14991	16997	27368	26971	1798	5996	14316	1259	162	19	586	708	11	2745
1986	20.34	2.91	0.51	16.65	1.24	0.07	41.73	15011	16738	27053	27252	1650	6004	14272	1355	174	19	611	754	11	2924
1987	21.76	3.02	0.51	17.57	1.28	0.07	44.20	15226	16478	25550	27533	1614	6090	14376	1429	183	20	638	793	12	3075
1988	23.12	3.21	0.52	18.69	1.39	0.07	46.99	15370	16219	25850	27814	1657	6148	14497	1504	198	20	672	836	12	3242
1989	24.92	3.50	0.52	20.00	1.40	0.08	50.42	15525	15960	24857	28095	1572	6210	14562	1605	219	21	712	893	13	3463
1990	27.20	4.04	0.50	21.37	1.52	0.08	54.70	15666	15701	24000	28375	1570	6267	14604	1736	257	21	753	966	13	3746
1991	28.11	4.57	0.49	22.32	1.60	0.09	57.19	15821	15441	22409	28656	1520	6328	14516	1777	296	22	779	1052	14	3940
1992	29.20	5.16	0.50	22.28	1.58	0.09	58.82	15964	15182	22864	28937	1454	6386	14477	1829	340	22	770	1088	14	4063
1993	31.56	5.79	0.51	23.73	1.72	0.09	63.40	16110	14923	22174	29218	1439	6444	14428	1959	388	23	812	1198	14	4394
1994	33.32	6.41	0.51	24.43	1.77	0.09	66.53	16064	14937	21042	29261	1362	6425	14218	2074	429	24	835	1303	14	4679
1995	35.25	7.11	0.52	25.27	1.76	0.10	70.00	15988	14926	20880	29076	1305	6395	14181	2205	476	25	869	1346	15	4936

(Continued)

GREECE (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	37.27	7.74	0.58	26.04	1.73	0.10	73.46	15935	14940	23320	28934	1230	6374	14109	2339	518	25	900	1410	15	5207
1997	39.68	8.52	0.58	26.95	1.69	0.10	77.51	15873	14925	22192	28758	1164	6349	14096	2500	571	26	937	1450	15	5499
1998	41.94	9.27	0.57	28.49	1.64	0.10	82.00	15680	14641	22010	28861	1087	6272	14038	2675	633	26	987	1505	15	5841
1999	44.21	10.21	0.59	29.66	1.58	0.09	86.34	15093	14358	21827	28965	976	6037	13645	2929	711	27	1024	1621	16	6328
2000	48.57	10.99	0.58	30.73	1.46	0.10	92.43	15203	14074	21644	29068	935	6081	13927	3195	781	27	1057	1561	16	6637
2001	52.74	11.48	0.58	31.68	1.50	0.10	98.09	15404	13461	21462	29172	935	6162	13985	3424	853	27	1086	1608	16	7014
2002	56.91	11.70	0.57	32.47	1.52	0.10	103.28	15609	12848	21279	29275	942	6244	14103	3646	911	27	1109	1614	16	7323
2003	60.71	11.87	0.57	33.23	1.75	0.10	108.23	15810	12235	21096	29379	1082	6324	14238	3840	970	27	1131	1617	17	7602
2004	65.24	12.12	0.56	34.17	1.71	0.11	113.91	16013	11621	20913	29482	1096	6405	14459	4074	1043	27	1159	1558	17	7878
2005	67.94	12.37	0.56	35.09	1.84	0.11	117.91	15789	11008	20731	29586	1107	6316	14165	4303	1124	27	1186	1667	17	8324
2006	71.79	12.66	0.55	36.22	1.77	0.11	123.11	15802	10498	20548	29689	1057	6321	14163	4543	1206	27	1220	1679	17	8692
2007	75.09	13.47	0.55	37.42	1.67	0.11	128.32	15648	10373	20365	29793	1100	6259	14391	4799	1299	27	1256	1518	18	8917
2008	76.17	14.24	0.54	38.57	1.61	0.11	131.24	15162	10249	20183	29896	1058	6065	14152	5024	1389	27	1290	1526	18	9274
2009	73.90	14.67	0.54	39.06	1.61	0.11	129.88	14400	10124	20000	30000	1036	5937	13702	5132	1449	27	1302	1551	18	9479
2010																					

HUNGARY

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963															59	41	8	34	147	12	301
1964															71	47	8	40	171	12	350
1965															86	54	8	47	199	12	406
1966															99	61	8	63	233	12	477
1967															117	68	8	79	269	12	553
1968															145	74	9	95	282	12	616
1969															164	83	9	111	298	14	679
1970															191	92	9	127	318	14	751
1971															239	104	9	143	342	14	851
1972															284	114	11	140	374	16	939
1973															333	121	11	133	387	16	1001
1974															400	126	11	124	394	16	1071
1975															481	124	11	130	407	19	1171
1976															568	128	12	140	420	21	1289
1977															641	132	13	131	416	21	1354
1978															720	136	16	132	395	25	1425
1979															820	140	18	134	393	30	1536
1980															934	144	21	142	388	28	1657
1981															1014	148	22	128	372	28	1712
1982															1105	153	23	140	359	30	1810
1983															1182	153	25	146	336	30	1872
1984															1258	153	24	159	344	35	1973
1985															1344	153	25	173	353	35	2083
1986															1436	153	25	183	361	35	2193
1987															1539	155	26	197	371	37	2324
1988															1660	157	27	211	375	37	2467
1989															1790	160	27	196	378	37	2588
1990															1868	162	24	208	382	36	2680
1991							24.95							8949	1945	169	26	224	386	38	2788
1992							24.94							8749	2015	166	24	228	379	38	2850
1993							24.75							8602	2058	163	23	229	367	37	2877
1994							25.50							8792	2092	158	22	238	354	37	2901
1995							27.53							9174	2177	157	21	258	349	39	3001

(Continued)

HUNGARY (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996							29.40							9513	2245	159	20	292	342	33	3091
1997							29.17							9441	2264	151	19	303	324	29	3090
1998							30.02							9670	2298	138	19	315	307	27	3104
1999							32.86							11156	2218	97	19	312	274	25	2945
2000							32.97							11116	2256	88	18	322	258	24	2966
2001							33.00							10678	2365	91	18	342	250	24	3090
2002							33.27							10268	2483	93	18	380	242	24	3240
2003							34.94							10279	2630	98	18	396	233	24	3399
2004							36.56							10300	2777	103	18	407	221	24	3550
2005							37.33							10388	2828	114	17	410	200	24	3593
2006							39.57							10804	2889	123	18	428	180	24	3662
2007							41.42							11107	2954	130	18	444	159	24	3729
2008							43.25							11426	3012	136	18	459	136	24	3785
2009							42.46							11112	3055	142	18	471	111	24	3821
2010							40.95														

IRELAND

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	4.70	0.45	0.18	2.08	0.06	0.43	7.88	20500	9500	17500	22000	2752	7456	17167	229	47	10	95	22	57	459
1964	5.21	0.46	0.18	2.15	0.06	0.44	8.50	20491	9500	17687	22001	2752	7373	17295	254	49	10	98	21	59	491
1965	5.83	0.49	0.18	2.22	0.06	0.45	9.23	20483	9500	17875	22001	2752	7295	17426	285	52	10	101	21	61	529
1966	6.18	0.47	0.19	2.24	0.05	0.46	9.59	20476	9500	18062	22002	2659	7177	17541	302	50	11	102	19	63	547
1967	6.53	0.45	0.20	2.29	0.05	0.47	9.99	20468	9500	18250	22002	2606	7067	17612	319	48	11	104	20	66	567
1968	6.89	0.43	0.21	2.31	0.05	0.48	10.36	20460	9500	18437	22003	2547	6965	17689	337	45	11	105	19	68	586
1969	7.24	0.41	0.21	2.36	0.05	0.49	10.75	20453	9500	18624	22003	2515	6870	17766	354	43	12	107	19	71	605
1970	8.01	0.39	0.22	2.47	0.05	0.50	11.64	20445	9500	18812	22004	2476	6781	17904	392	41	12	112	20	73	650
1971	8.54	0.38	0.21	2.28	0.05	0.51	11.97	20437	9500	18999	22004	2463	7426	18122	418	40	11	104	20	68	661
1972	9.07	0.37	0.22	2.30	0.05	0.52	12.53	20430	9500	19187	22005	2481	7464	18208	444	39	11	105	20	69	688
1973	9.82	0.37	0.24	2.51	0.05	0.53	13.51	20422	9500	19374	22005	2518	7000	18211	481	39	12	114	21	75	742
1974	9.94	0.36	0.26	2.73	0.05	0.54	13.87	20414	9500	19561	22006	2450	6524	18113	487	38	13	124	22	82	766
1975	10.43	0.35	0.25	2.65	0.06	0.55	14.28	20407	9500	19749	22006	2449	6899	18233	511	37	13	120	23	79	783
1976	11.23	0.35	0.28	2.73	0.06	0.55	15.20	20385	9611	19936	22007	2446	6790	18268	551	36	14	124	26	81	832
1977	12.13	0.34	0.29	3.03	0.07	0.55	16.41	21166	10000	20124	23974	2540	6434	19099	573	34	14	127	26	85	859
1978	13.35	0.33	0.29	3.31	0.06	0.54	17.89	20892	10774	20311	25260	2507	6631	19380	639	31	14	131	26	82	923
1979	14.06	0.33	0.28	3.44	0.06	0.54	18.70	20488	11714	21483	27104	2459	7208	19617	686	28	13	127	24	75	953
1980	14.80	0.34	0.30	3.57	0.06	0.54	19.61	20079	12214	22156	26952	2409	6891	19329	737	28	14	132	25	78	1014
1981	15.05	0.32	0.29	3.60	0.06	0.53	19.86	19366	11601	21935	27311	2324	7125	18894	777	28	13	132	26	75	1051
1982	15.30	0.31	0.30	3.63	0.06	0.53	20.13	21485	11833	23319	27702	2578	7277	20563	712	26	13	131	24	73	979
1983	15.55	0.29	0.29	3.66	0.06	0.53	20.39	21503	11620	21936	26824	2580	6859	20391	723	25	13	137	25	77	1000
1984	15.80	0.27	0.29	3.70	0.05	0.53	20.63	22092	10513	21493	24538	2651	6818	20588	715	26	13	151	20	77	1002
1985	16.05	0.26	0.29	3.73	0.05	0.52	20.89	22473	9853	21059	23225	2695	6691	20660	714	26	14	160	19	78	1011
1986	16.30	0.24	0.23	3.76	0.04	0.52	21.08	22758	9192	17407	22539	2502	6826	20768	716	26	13	167	17	76	1015
1987	16.55	0.27	0.25	3.81	0.04	0.52	21.45	22337	10500	17400	21372	2368	6611	20347	741	26	15	178	16	78	1054
1988	16.94	0.26	0.24	3.95	0.03	0.51	21.93	22466	10400	16407	20968	2423	6406	20388	754	25	15	188	14	80	1076
1989	18.37	0.23	0.28	4.38	0.03	0.51	23.79	23607	9200	18073	21721	2390	6137	21330	778	25	15	202	12	83	1115
1990	19.27	0.24	0.26	4.68	0.03	0.51	24.98	24059	10478	16890	21775	2411	6099	21749	801	23	15	215	12	83	1149
1991	19.71	0.27	0.24	4.59	0.02	0.50	25.33	23439	10640	15485	20543	2251	5783	21077	841	25	16	223	10	87	1202
1992	20.54	0.25	0.28	4.71	0.02	0.50	26.30	23939	9960	16166	20875	2181	5376	21421	858	25	18	225	9	93	1228
1993	21.56	0.27	0.30	4.81	0.02	0.50	27.45	24195	11083	16636	22061	2162	5176	21879	891	24	18	218	7	96	1254
1994	22.89	0.26	0.33	5.28	0.01	0.49	29.27	24381	10792	18119	23806	2068	4987	22365	939	24	18	222	7	99	1309
1995	23.97	0.28	0.36	5.86	0.01	0.49	30.97	24211	12087	18899	25463	1977	4810	22601	990	23	19	230	6	102	1370

(Continued)

IRELAND (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	25.41	0.30	0.40	5.91	0.01	0.49	32.51	24040	12292	19484	24849	1856	4599	22405	1057	24	20	238	6	106	1451
1997	27.07	0.29	0.40	6.02	0.01	0.48	34.28	23869	12258	19372	23779	1751	4403	22153	1134	24	21	253	5	110	1547
1998	28.37	0.29	0.41	6.13	0.01	0.48	35.70	23699	12225	19266	22748	1643	4221	21879	1197	24	21	270	6	114	1632
1999	29.86	0.29	0.42	6.25	0.01	0.48	37.30	23528	10837	18549	21589	1522	4122	21564	1269	27	23	289	6	116	1730
2000	30.81	0.29	0.43	6.36	0.01	0.48	38.37	23358	9413	18363	20472	1437	3926	21181	1319	31	23	311	7	121	1812
2001	32.00	0.29	0.44	6.47	0.01	0.47	39.68	23105	8818	18291	19728	1403	3775	20862	1385	33	24	328	7	125	1902
2002	32.67	0.27	0.43	6.38	0.01	0.47	40.23	22564	8121	17559	18522	1362	3634	20256	1448	33	24	345	7	129	1986
2003	33.19	0.28	0.46	6.88	0.01	0.47	41.29	22024	8114	18108	18610	1507	3399	19838	1507	35	26	369	7	137	2081
2004	34.01	0.28	0.48	7.34	0.01	0.46	42.58	21484	8057	18120	18740	1470	3234	19475	1583	35	26	392	7	143	2186
2005	34.81	0.28	0.50	7.85	0.01	0.46	43.90	20944	8176	17857	18906	1468	3104	19137	1662	34	28	415	7	148	2294
2006	36.30	0.28	0.53	8.72	0.01	0.46	46.30	20403	8086	17097	19344	1365	3456	19015	1779	35	31	451	7	132	2435
2007	37.40	0.30	0.60	9.47	0.01	0.45	48.23	19863	8135	17000	19446	1397	3214	18622	1883	37	35	487	7	141	2590
2008	38.22	0.32	0.64	9.62	0.01	0.45	49.27														
2009																					
2010																					

ISRAEL

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	1.107	0.141	0.197	0.636	0.042		2.123	21888	9501	58672	22708	2829		19019	51	15	3	28	15		112
1964	1.388	0.169	0.212	0.753	0.049		2.571	21571	9613	59149	23583	2829		19064	64	18	4	32	17		135
1965	1.780	0.192	0.244	0.803	0.059		3.078	21059	9056	61368	19372	2829		17886	85	21	4	41	21		172
1966	1.994	0.220	0.257	0.744	0.055		3.270	21429	11081	61929	16522	2783		17992	93	20	4	45	20		182
1967	2.120	0.251	0.288	0.930	0.055		3.644	21355	12088	65477	18961	2716		18793	99	21	4	49	20		194
1968	2.397	0.277	0.314	1.103	0.055		4.146	21280	13090	69025	21400	2649		19686	113	21	5	52	21		211
1969	2.724	0.298	0.350	1.551	0.051		4.974	20250	14176	71780	26076	2490		20693	135	21	5	59	20		240
1970	3.184	0.321	0.372	1.932	0.053		5.862	21058	15045	65262	28271	2551		21932	151	21	6	68	21		267
1971	3.583	0.297	0.420	2.172	0.050		6.522	20237	14019	72300	29838	2439		21938	177	21	6	73	20		297
1972	4.322	0.313	0.449	2.443	0.050		7.577	21195	15611	74196	30652	2574		23029	204	20	6	80	19		329
1973	4.866	0.291	0.428	2.725	0.044		8.355	20186	15695	66841	30866	2490		22455	241	19	6	88	18		372
1974	5.273	0.266	0.409	2.945	0.039		8.932	19177	15778	59485	31079	2406		21810	275	17	7	95	16		410
1975	5.345	0.238	0.408	3.067	0.035		9.093	18602	15386	57746	31902	2374		21615	287	15	7	96	15		421
1976	5.407	0.192	0.436	3.107	0.032		9.174	18190	13396	59641	31684	2373		21312	297	14	7	98	14		430
1977	5.466	0.196	0.447	3.031	0.029		9.169	17479	14273	58660	29892	2233		20449	313	14	8	101	13		448
1978	6.344	0.194	0.450	2.550	0.027		9.565	17577	14411	57251	23697	2158		19038	361	13	8	108	13		502
1979	6.847	0.183	0.431	2.794	0.025		10.280	17010	13946	51983	24548	2018		18691	403	13	8	114	12		550
1980	6.895	0.189	0.442	3.105	0.024		10.655	16630	14328	49460	26585	2002		18836	415	13	9	117	12		566
1981	7.180	0.191	0.427	2.914	0.025		10.737	15637	13866	45340	23106	1970		17285	459	14	9	126	13		621
1982	7.737	0.198	0.450	3.101	0.025		11.510	15473	13706	47084	23908	1901		17258	500	14	10	130	13		667
1983	8.281	0.205	0.473	3.293	0.025		12.276	15309	13546	48828	24709	1831		17224	541	15	10	133	14		713
1984	8.811	0.211	0.497	3.491	0.025		13.035	15145	13386	50572	25511	1762		17184	582	16	10	137	14		759
1985	9.328	0.218	0.521	3.694	0.025		13.786	14981	13226	52317	26312	1692		17139	623	16	10	140	15		804
1986	9.831	0.224	0.546	3.904	0.025		14.530	14817	13067	54061	27114	1623		17091	663	17	10	144	15		850
1987	10.321	0.230	0.571	4.119	0.025		15.266	14653	12909	55805	27915	1553		17039	704	18	10	148	16		896
1988	11.384	0.250	0.568	4.669	0.027		16.898	14951	13481	53360	31643	1612		17699	761	19	11	148	17		955
1989	12.254	0.263	0.592	4.823	0.027		17.959	15585	13636	55487	31651	1578		18219	786	19	11	152	17		986
1990	12.805	0.302	0.565	4.842	0.028		18.542	15775	14932	51925	30895	1581		18225	812	20	11	157	18		1017
1991	13.574	0.324	0.586	5.330	0.028		19.842	15832	15277	53650	31477	1521		18416	857	21	11	169	19		1077
1992	15.338	0.362	0.640	6.424	0.031		22.795	16451	15535	56145	33733	1499		19351	932	23	11	190	20		1178
1993	16.387	0.403	0.643	7.242	0.035		24.710	16583	14875	53796	34105	1482		19562	988	27	12	212	24		1263
1994	18.206	0.461	0.684	8.160	0.040		27.551	17216	14780	53561	33060	1460		20031	1058	31	13	247	27		1375
1995	19.540	0.537	0.716	9.797	0.043		30.633	17420	15483	54171	37422	1422		20961	1122	35	13	262	30		1461

(Continued)

ISRAEL (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	20.391	0.554	0.764	9.905	0.042		31.656	17211	14922	55638	35645	1329		20484	1185	37	14	278	32		1545
1997	21.317	0.569	0.767	10.841	0.042		33.536	17186	14595	56455	37008	1260		20710	1240	39	14	293	33		1619
1998	23.011	0.577	0.955	9.490	0.042		34.075	17729	14238	63726	31638	1229		20188	1298	40	15	300	35		1688
1999	23.275	0.580	1.004	10.065	0.039		34.963	17352	14174	59744	32789	1123		20085	1341	41	17	307	35		1741
2000	24.361	0.582	1.143	10.359	0.037		36.482	17131	13848	63338	32993	1054		19919	1422	42	18	314	35		1832
2001	25.508	0.612	1.172	10.424	0.037		37.753	17167	13718	62380	31540	1042		19715	1486	45	19	330	35		1915
2002	25.542	0.632	1.200	10.551	0.035		37.960	16781	14288	62696	31047	1013		19367	1522	44	19	340	35		1960
2003	26.143	0.630	1.203	10.927	0.040		38.943	16917	15057	62882	31987	1158		19645	1545	42	19	342	34		1982
2004	26.500	0.610	1.240	11.378	0.039		39.767	16636	14155	64786	32641	1139		19515	1593	43	19	349	34		2038
2005	28.179	0.610	1.252	11.648	0.040		41.729	17057	12911	63822	32826	1196		19802	1652	47	20	355	34		2107
2006	28.857	0.649	1.298	12.401	0.037		43.242	16865	12362	63181	34694	1128		19884	1711	52	21	357	33		2175
2007	30.490	0.722	1.370	12.375	0.039		44.996	16889	11646	64292	34371	1188		19722	1805	62	21	360	33		2282
2008	32.322	0.796	1.389	12.628	0.034		47.169	16996	10618	61025	34822	1186		19731	1902	75	23	363	28		2391
2009	33.712	0.842	1.390	12.348	0.027		48.319	17104	9680	57925	35279	1184		19682	1971	87	24	350	23		2455
2010																					

ITALY

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	26.79	22.57	0.95	15.11	2.50		67.91	7656	9995	41051	29051	1144		8005	3500	2258	23	520	2182		8484
1964	31.45	21.70	1.01	15.04	2.54		71.75	8039	10454	41872	27959	1144		8180	3913	2076	24	538	2220		8771
1965	39.80	21.75	1.04	15.19	2.65		80.42	8513	10357	41452	27092	1144		8311	4675	2100	25	561	2316		9676
1966	53.53	19.17	1.05	16.10	2.03		91.87	9782	9423	39324	26904	1270		9441	5473	2034	27	598	1600		9731
1967	61.76	18.20	1.07	17.27	2.13		100.43	9716	9582	37906	27052	1237		9435	6357	1900	28	638	1721		10644
1968	75.02	18.00	1.10	17.96	2.43		114.51	10261	10283	36966	26560	1277		9810	7311	1750	30	676	1906		11673
1969	89.19	18.23	1.18	18.73	2.74		130.06	10905	10755	37441	26220	1341		10274	8179	1695	31	714	2040		12659
1970	108.04	18.10	1.20	19.89	2.17		149.41	11967	9959	36374	26445	1450		11382	9028	1817	33	752	1496		13127
1971	131.48	20.84	1.27	20.95	2.79		177.33	12914	12115	37328	26045	1556		12200	10181	1720	34	804	1796		14535
1972	140.97	21.08	1.34	20.54	2.87		186.80	12468	11884	37165	24302	1514		11780	11307	1774	36	845	1895		15857
1973	140.63	21.32	1.39	20.66	3.29		187.29	11265	11841	36470	23347	1389		10656	12484	1800	38	885	2369		17576
1974	140.29	21.55	1.43	20.74	3.04		187.05	10450	11613	34970	22060	1254		10010	13425	1856	41	940	2424		18686
1975	139.94	21.78	1.48	21.35	2.64		187.20	9783	11585	33675	21835	1174		9622	14304	1880	44	978	2249		19455
1976	143.27	21.80	1.67	22.35	2.66		191.76	9513	11262	35635	21851	1142		9401	15060	1936	47	1023	2331		20397
1977	146.94	21.93	1.89	23.82	2.52		197.10	9227	13064	38662	22679	1107		9393	15925	1679	49	1050	2280		20983
1978	161.13	22.06	2.10	24.10	3.01		212.41	9786	14338	40435	25126	1174		9842	16466	1538	52	959	2567		21582
1979	166.69	22.18	2.43	26.61	3.55		221.46	10264	15746	44964	25357	1232		10237	16241	1409	54	1049	2880		21633
1980	168.11	22.31	2.60	29.12	3.56		225.70	9847	17481	44813	24956	1182		9992	17073	1276	58	1167	3013		22587
1981	174.21	22.44	2.72	30.96	3.46		233.79	9850	16829	43885	24496	1182		10045	17686	1333	62	1264	2929		23274
1982	183.93	22.91	2.85	32.56	3.61		245.86	9887	15465	42558	24292	1186		10021	18603	1481	67	1340	3042		24533
1983	175.76	24.71	3.02	32.46	3.92		239.86	8960	15588	42595	22526	1075		9100	19616	1585	71	1441	3646		26359
1984	181.10	26.43	3.17	34.38	3.70		248.77	8882	15583	43976	23487	1066		9184	20389	1696	72	1464	3467		27088
1985	188.34	27.23	3.30	35.74	3.61		258.22	9017	13615	43448	22898	1082		9267	20888	2000	76	1561	3341		27866
1986	193.24	27.94	3.64	36.83	3.68		265.32	8590	12675	46665	22424	1024		8840	22495	2204	78	1642	3595		30014
1987	203.66	30.81	3.80	38.36	3.57		280.20	8668	12946	51345	22548	1026		9001	23495	2380	74	1701	3480		31130
1988	216.05	33.15	4.04	39.40	3.51		296.14	8884	13751	53138	21888	1044		9265	24320	2411	76	1800	3358		31965
1989	236.83	36.72	4.41	41.50	3.57		323.04	9364	15106	56601	21830	1093		9799	25290	2431	78	1901	3267		32967
1990	257.81	39.74	4.63	47.06	3.44		352.68	9815	15833	59324	22880	1137		10391	26267	2510	78	2057	3029		33941
1991	267.76	40.64	4.73	49.52	3.64		366.29	9767	15979	59872	23091	1139		10353	27416	2543	79	2145	3196		35379
1992	282.36	40.90	4.67	52.63	3.85		384.42	9930	16186	60647	23390	1146		10488	28435	2527	77	2250	3363		36652
1993	298.16	41.36	4.64	54.33	4.09		402.58	10055	16284	61012	23531	1144		10553	29652	2540	76	2309	3572		38149
1994	310.75	42.85	4.76	58.05	4.37		420.78	10475	16930	63435	24466	1181		10974	29665	2531	75	2373	3698		38342
1995	316.29	44.14	4.96	62.43	4.42		432.24	10438	16977	63610	24533	1175		11003	30301	2600	78	2545	3760		39284

(Continued)

ITALY (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	318.22	44.95	5.34	73.45	4.54		446.51	10399	17178	64361	24823	1180		11132	30600	2617	83	2959	3850		40109
1997	325.31	47.20	5.50	78.09	4.51		460.62	10494	17489	65527	25273	1193		11330	31000	2699	84	3090	3783		40656
1998	329.01	52.86	5.72	82.67	4.73		474.98	10594	17761	66546	25666	1202		11508	31056	2976	86	3221	3936		41275
1999	337.75	59.49	5.81	85.58	5.17		493.79	10542	17621	66023	25464	1183		11423	32038	3376	88	3361	4365		43228
2000	343.54	66.11	5.97	89.39	5.36		510.39	10543	17715	66375	25600	1181		11485	32584	3732	90	3492	4543		44441
2001	351.00	72.09	6.14	94.47	5.66		529.35	10560	17799	66689	25720	1177		11541	33239	4050	92	3673	4813		45867
2002	355.36	77.95	6.21	98.39	5.93		543.84	10543	17814	66745	25742	1169		11553	33706	4376	93	3822	5076		47073
2003	366.12	82.39	6.28	100.06	6.10		560.95	10671	18009	67475	26024	1172		11679	34310	4575	93	3845	5207		48030
2004	362.36	91.80	6.47	105.81	5.47		571.91	10666	18590	69654	26864	1200		12040	33973	4938	93	3939	4557		47499
2005	355.34	97.01	6.63	109.56	4.60		573.14	10187	18342	68725	26506	1175		11862	34882	5289	96	4133	3918		48319
2006	360.92	104.48	6.65	114.17	4.39		590.62	10230	18691	70032	27010	1188		12080	35281	5590	95	4227	3700		48893
2007	364.64	110.96	6.74	118.24	4.16		604.73	10220	18938	70958	27367	1194		12233	35680	5859	95	4320	3482		49436
2008	356.03	112.87	6.75	119.68	3.83		599.14	9980	18762	70298	27113	1173		12113	35673	6016	96	4414	3264		49463
2009	351.25	114.71	6.68	120.98	3.51		597.12	9757	18572	69587	26838	1151		11984	36000	6176	96	4508	3046		49826
2010															36200	6341	97	4500	2828		49966

JAPAN

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	20.94	26.11	2.78	45.40	5.17	5.55	105.94	20971	6990	36845	17051	2588	6990	10323	998	3735	75	2662	1996	794	10262
1964	25.91	26.07	3.33	57.27	5.93	5.76	124.28	19148	6383	38667	17813	2588	6383	10413	1353	4085	86	3215	2293	903	11934
1965	34.00	28.66	3.59	62.11	6.81	6.59	141.76	19263	6421	37789	15999	2588	6421	10225	1765	4464	95	3882	2633	1026	13864
1966	43.49	29.99	3.90	79.94	7.11	7.37	171.80	18969	6323	35054	17602	2464	6323	10916	2293	4742	111	4542	2885	1166	15739
1967	58.10	31.43	4.28	97.33	7.53	8.15	206.81	18715	6238	33579	18151	2383	6238	11427	3104	5038	127	5362	3160	1306	18098
1968	76.21	31.14	4.71	116.39	7.45	8.71	244.60	18078	6026	32779	18423	2250	6026	11874	4215	5167	144	6317	3311	1446	20601
1969	96.57	30.23	5.01	128.25	7.26	9.10	276.42	17212	5737	31370	17661	2116	5737	11856	5611	5269	160	7262	3428	1586	23315
1970	120.58	30.22	5.39	139.43	7.17	9.77	312.56	16974	5658	30648	17297	2056	5658	12070	7104	5342	176	8061	3486	1726	25895
1971	137.40	26.40	5.38	140.35	6.88	9.16	325.57	15323	5108	28305	16433	1846	5108	11469	8967	5169	190	8541	3727	1793	28387
1972	146.27	22.35	5.67	150.04	6.37	8.40	339.11	13586	4529	28766	16806	1650	4529	11103	10766	4936	197	8928	3862	1854	30543
1973	164.01	19.73	5.47	148.73	6.38	8.17	352.49	12880	4293	26573	15785	1588	4293	10721	12734	4596	206	9422	4017	1903	32878
1974	161.01	15.76	5.32	139.59	5.58	7.62	334.88	10964	3655	24850	13992	1316	3655	9428	14686	4312	214	9977	4245	2084	35518
1975	176.04	14.96	5.45	146.15	5.94	7.70	356.23	10950	3650	24890	14171	1314	3650	9541	16076	4098	219	10313	4520	2109	37335
1976	186.08	13.94	5.47	164.67	6.16	7.25	383.57	10656	3552	24859	16257	1279	3552	9939	17463	3925	220	10129	4815	2041	38593
1977	205.37	13.75	5.72	182.91	6.84	8.01	422.61	10983	3661	25779	16888	1318	3661	10336	18698	3757	222	10831	5189	2189	40886
1978	220.36	13.00	5.90	188.16	7.64	8.88	443.94	10991	3664	26321	16546	1319	3664	10226	20050	3549	224	11372	5795	2423	43413
1979	235.01	12.33	5.96	196.50	8.79	9.37	467.95	10927	3642	26256	16402	1311	3642	10090	21507	3385	227	11980	6705	2572	46376
1980	241.46	11.61	6.05	197.28	9.71	9.48	475.59	10546	3515	26518	15593	1266	3515	9617	22896	3304	228	12652	7674	2697	49451
1981	247.16	11.34	6.09	197.09	10.92	9.65	482.25	10346	3449	26598	14875	1241	3449	9229	23890	3289	229	13250	8794	2799	52251
1982	255.97	11.38	6.08	196.60	12.27	9.94	492.24	10303	3434	26422	14019	1236	3434	8913	24843	3314	230	14024	9922	2895	55228
1983	259.74	11.43	6.16	199.33	13.72	9.94	500.33	10079	3360	26800	13483	1210	3360	8555	25770	3401	230	14784	11342	2959	58486
1984	265.10	11.77	6.31	206.66	15.40	9.98	515.21	9960	3320	27448	13329	1195	3320	8339	26616	3544	230	15504	12885	3007	61786
1985	275.56	12.30	6.35	216.50	15.81	10.26	536.77	10066	3355	27617	13274	1207	3355	8423	27374	3665	230	16310	13094	3057	63730
1986	285.29	12.83	6.46	229.91	17.68	10.57	562.74	10161	3387	27944	13358	1211	3387	8395	28076	3787	231	17211	14609	3121	67035
1987	295.08	13.45	6.63	234.15	18.23	11.68	579.21	10298	3433	28438	12879	1219	3433	8352	28654	3917	233	18181	14958	3403	69346
1988	308.63	14.23	6.74	247.35	18.19	12.06	607.20	10470	3490	28791	12858	1231	3490	8520	29478	4077	234	19237	14783	3456	71265
1989	328.38	15.06	6.96	251.88	17.96	12.55	632.79	10670	3557	29252	12330	1246	3557	8595	30776	4235	238	20429	14417	3529	73624
1990	365.60	16.18	7.11	255.87	18.23	13.31	676.31	11207	3736	29510	12087	1299	3736	8904	32621	4332	241	21169	14033	3564	75960
1991	387.02	16.18	7.19	263.11	17.28	13.35	704.10	11082	3694	29207	12288	1276	3694	9014	34924	4379	246	21412	13539	3613	78113
1992	405.73	15.99	7.07	265.41	16.33	13.38	723.91	10943	3648	28500	12390	1251	3648	9067	37076	4384	248	21421	13048	3667	79844
1993	413.03	15.65	6.93	263.79	15.07	13.06	727.53	10600	3533	27847	12424	1204	3533	8972	38964	4430	249	21233	12521	3695	81092
1994	425.55	15.56	6.81	261.98	14.12	12.97	736.99	10437	3479	27448	12485	1177	3479	8965	40772	4473	248	20984	11999	3729	82205
1995	446.39	15.69	6.77	267.13	13.49	13.12	762.58	10459	3486	27624	12857	1171	3486	9134	42679	4499	245	20777	11522	3763	83485

(Continued)

JAPAN (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	464.12	15.64	6.71	266.93	12.89	13.21	779.51	10388	3463	27597	12988	1155	3463	9174	44680	4518	243	20553	11165	3814	84973
1997	475.60	15.19	6.64	262.14	12.13	13.17	784.88	10147	3382	27671	12967	1120	3382	9069	46871	4491	240	20216	10836	3895	86549
1998	482.55	14.72	6.52	256.98	11.41	13.14	785.33	9927	3309	27167	12990	1088	3309	8971	48611	4450	240	19783	10488	3971	87543
1999	501.53	14.77	6.60	256.92	11.13	13.59	804.54	10052	3351	27735	13372	1093	3351	9144	49896	4407	238	19213	10181	4055	87990
2000	508.26	14.57	6.62	260.85	10.64	13.64	814.57	9934	3311	28047	13901	1073	3311	9193	51165	4399	236	18764	9920	4119	88603
2001	526.42	14.78	6.76	257.64	10.38	13.89	829.86	10039	3346	28774	14031	1076	3346	9299	52438	4416	235	18362	9644	4150	89245
2002	529.21	14.70	6.65	254.97	9.84	13.58	828.95	9884	3295	28311	14162	1051	3295	9239	53541	4462	235	18004	9355	4122	89719
2003	529.72	14.60	6.66	257.00	9.37	13.17	830.52	9712	3237	28592	14587	1025	3237	9217	54541	4510	233	17619	9137	4067	90107
2004	526.32	14.47	6.67	248.73	8.90	12.71	817.80	9533	3178	28728	14444	999	3178	9073	55213	4555	232	17220	8915	4000	90135
2005	520.14	14.34	6.65	242.09	8.44	12.18	803.84	9289	3096	28664	14304	966	3096	8887	55994	4631	232	16925	8740	3934	90456
2006	514.11	14.18	6.66	241.85	7.96	11.66	796.42	9005	3002	28685	14324	929	3002	8715	57091	4724	232	16884	8567	3886	91384
2007	515.02	14.38	6.73	241.88	7.65	11.56	797.22	8953	2984	28996	14525	917	2984	8718	57522	4818	232	16653	8345	3874	91444
2008	503.83	14.27	6.57	236.48	7.23	11.22	779.58	8743	2914	28433	14392	888	2914	8551	57624	4895	231	16431	8135	3850	91166
2009	511.33	14.66	6.55	228.13	7.04	11.18	778.88	8836	2945	28351	14208	891	2945	8575	57866	4977	231	16057	7902	3795	90828
2010	508.81	14.79	6.50	224.74	6.77	11.04	772.65	8770	2933	28500	14300	880	2933	8541	58020	5042	228	15716	7694	3764	90464

KOREA

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963																					
1964																					
1965																					
1966																					
1967																					
1968																					
1969																					
1970															61	3	17	49	22	15	167
1971	2.04	0.04	4.25	1.16	0.11	0.15	7.75	30000	10000	250000	21537	4521	6818	41056	68	4	17	54	24	22	189
1972	2.05	0.04	4.36	1.18	0.11	0.21	7.95	29262	9754	242115	21537	4410	4877	36867	70	4	18	55	25	44	216
1973	2.22	0.05	4.45	1.40	0.12	0.42	8.66	28524	9508	234231	21537	4299	6339	33212	78	5	19	65	28	66	261
1974	2.11	0.06	4.53	1.66	0.12	0.61	9.09	27786	9262	226346	21537	4187	6946	30688	76	6	20	77	29	88	296
1975	2.27	0.06	4.81	1.79	0.13	0.79	9.85	27048	9016	218461	21537	4076	9016	31222	84	7	22	83	32	88	316
1976	2.53	0.06	5.05	2.02	0.25	0.77	10.69	26310	8770	210576	21537	4050	7016	27198	96	7	24	94	62	110	393
1977	3.21	0.06	5.47	2.54	0.31	0.94	12.53	25572	8524	202692	21537	3854	6746	25260	126	7	27	118	79	139	496
1978	4.59	0.10	6.04	3.49	0.38	1.15	15.75	24834	8278	194807	21537	3616	6651	23544	185	12	31	162	106	173	669
1979	5.04	0.15	7.10	4.46	0.50	1.20	18.46	20884	6961	186922	21537	3109	5305	20614	241	22	38	207	160	227	895
1980	4.52	0.20	7.64	4.89	0.51	1.37	19.14	18162	6054	181911	21537	2788	4873	18832	249	32	42	227	184	282	1016
1981	5.44	0.33	7.69	5.15	0.69	1.91	21.22	20333	6778	150818	21120	3050	5461	17855	268	49	51	244	227	350	1189
1982	5.54	0.51	8.33	5.52	0.88	2.11	22.90	18114	6038	126192	20926	2717	5008	15602	306	84	66	264	326	422	1468
1983	7.13	0.77	8.72	6.56	1.14	2.63	26.95	18707	6236	100280	21576	2806	5211	14924	381	124	87	304	405	505	1806
1984	8.24	0.99	8.89	7.17	1.25	2.98	29.52	17705	5902	82360	19907	2656	5026	13629	465	168	108	360	472	593	2166
1985	9.69	1.20	9.13	8.18	1.34	3.44	32.98	17406	5802	71326	19814	2651	5174	13332	557	207	128	413	504	665	2474
1986	13.14	1.71	9.92	9.37	1.64	4.38	40.16	19780	6593	63986	19814	2971	5893	14102	664	260	155	473	552	744	2848
1987	16.13	2.05	10.71	10.82	1.70	4.74	46.14	19098	6366	53530	19814	2828	5388	13596	844	322	200	546	602	879	3393
1988	21.65	2.59	11.93	12.58	1.88	5.67	56.30	19361	6454	45891	19814	2827	5990	13982	1118	402	260	635	665	947	4027
1989	26.66	2.74	12.64	15.24	1.74	5.40	64.41	17101	5700	39131	19814	2461	5377	13301	1559	481	323	769	707	1004	4843
1990	33.15	3.20	14.64	18.53	1.78	5.35	76.64	15977	5326	38121	20036	2266	5054	13153	2075	600	384	925	785	1058	5827
1991	45.50	4.04	15.88	21.82	1.98	5.88	95.10	16678	5559	37111	20259	2331	5092	13656	2728	727	428	1077	849	1155	6964
1992	57.18	4.76	17.47	25.85	2.04	6.36	113.66	16521	5507	36100	20481	2274	5020	13799	3461	864	484	1262	899	1267	8237
1993	68.29	5.35	18.53	30.00	2.02	6.75	130.94	15988	5329	35090	20704	2167	5065	13758	4271	1004	528	1449	932	1333	9517
1994	80.15	5.97	19.83	34.42	1.98	6.92	149.27	15566	5189	34079	20927	2077	4854	13689	5149	1150	582	1645	954	1425	10905
1995	100.06	7.25	20.27	38.43	2.11	7.91	176.03	16659	5553	33069	21149	2188	5237	14407	6006	1306	613	1817	965	1511	12218

(Continued)

KOREA (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	116.89	8.32	21.25	41.95	2.12	8.54	199.07	16956	5652	32058	21372	2192	5351	14688	6894	1471	663	1963	967	1596	13554
1997	122.11	8.66	22.32	44.74	1.92	8.56	208.33	16096	5365	31048	21595	2047	5503	14381	7586	1613	719	2072	940	1556	14486
1998	127.43	9.67	25.71	45.93	1.87	8.72	219.32	16809	5603	30038	21817	2103	4809	14653	7581	1725	856	2105	888	1813	14968
1999	129.48	10.43	28.82	50.65	1.74	9.98	231.10	16521	5507	29027	22040	2032	5319	14668	7837	1894	993	2298	856	1877	15755
2000	137.29	10.35	31.52	51.59	2.21	10.63	243.58	16983	5661	28017	20544	2053	5578	14736	8084	1829	1125	2511	1076	1905	16530
2001	146.21	9.31	33.95	61.34	2.61	10.43	263.84	16424	5475	27006	22485	1951	5435	14785	8902	1701	1257	2728	1338	1919	17845
2002	156.92	9.17	33.15	69.07	2.86	10.31	281.46	16115	5372	25996	23865	1881	5369	14772	9737	1707	1275	2894	1520	1920	19054
2003	168.39	9.45	33.43	75.97	3.03	10.48	300.76	16382	5461	26810	25189	1878	5501	15195	10279	1730	1247	3016	1616	1906	19794
2004	173.26	9.40	31.94	78.59	3.09	10.36	306.64	16313	5438	26532	25665	1836	5484	15190	10621	1728	1204	3062	1682	1890	20187
2005	212.07	10.98	32.22	77.56	3.72	12.01	348.56	19067	6356	28642	25002	2106	6332	16805	11122	1727	1125	3102	1768	1897	20741
2006	212.15	10.65	32.50	70.60	3.65	11.56	341.10	18278	6093	29385	22534	1981	6093	15990	11607	1748	1106	3133	1841	1897	21332
2007	225.66	11.10	32.78	67.24	3.77	11.79	352.34	18650	6217	29663	21204	1982	6243	16050	12100	1785	1105	3171	1903	1889	21953
2008	220.27	10.67	33.06	65.19	3.54	11.11	343.83	17644	5881	30141	20284	1838	5976	15354	12484	1814	1097	3214	1926	1859	22393
2009	189.43	10.85	33.68	58.88	3.02	9.40	305.25	15174	5881	30614	18116	1549	5110	13587	12484	1844	1100	3250	1948	1840	22467
2010	199.78	11.03	35.51	62.09	3.02	9.92	321.35														

NETHERLANDS

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	12.81	1.84	0.44	4.05	6.79	0.04	25.96	15241	12000	52849	21488	4800	5276	9941	841	153	8	188	1414	8	2611
1964	15.97	1.71	0.46	4.30	6.85	0.04	29.33	15679	11816	54114	20858	4701	5276	10314	1018	145	8	206	1458	8	2844
1965	19.18	1.63	0.48	4.53	6.90	0.04	32.77	15829	11632	56791	20446	4601	5276	10605	1212	140	9	222	1500	8	3090
1966	22.59	1.48	0.49	4.71	7.10	0.04	36.41	15454	11447	57158	19688	4502	5151	10635	1462	129	9	239	1577	8	3424
1967	26.45	1.30	0.49	5.31	7.30	0.04	40.88	15451	11263	56250	20368	4403	5150	10868	1712	115	9	261	1657	8	3762
1968	30.75	1.11	0.50	5.60	7.48	0.04	45.48	15678	11079	56494	19683	4303	5226	11087	1961	100	9	284	1739	9	4102
1969	34.91	0.88	0.51	5.78	7.87	0.05	50.00	15787	10895	64250	22527	4312	5262	11388	2211	81	8	256	1825	9	4390
1970	39.15	0.77	0.52	5.84	7.80	0.05	54.12	15908	10711	65125	21898	4105	5303	11475	2461	72	8	267	1900	9	4717
1971	41.68	0.69	0.50	6.12	7.66	0.05	56.70	15493	10526	55556	24204	4029	5164	11507	2691	66	9	253	1900	9	4927
1972	44.20	0.62	0.50	6.68	7.30	0.05	59.35	15352	10342	55556	25596	3946	5117	11709	2879	60	9	261	1850	10	5069
1973	46.19	0.61	0.53	6.70	7.07	0.06	61.15	15161	10158	65625	24891	4040	5054	11886	3047	60	8	269	1750	11	5145
1974	46.18	0.64	0.53	6.72	6.42	0.06	60.54	14561	9974	58333	24307	3667	4854	11459	3171	64	9	277	1750	12	5283
1975	48.41	0.67	0.54	6.72	5.76	0.06	62.16	14600	9790	59889	24469	3494	4867	11664	3316	68	9	275	1650	12	5330
1976	49.93	0.69	0.56	6.80	5.11	0.06	63.15	14424	9605	70125	24996	3653	4808	12085	3462	72	8	272	1400	12	5226
1977	52.83	0.75	0.56	6.81	4.43	0.06	65.44	14523	9421	69625	25291	3689	4841	12567	3638	80	8	269	1200	12	5207
1978	54.92	0.76	0.57	6.93	3.80	0.09	67.06	14443	8494	63111	25606	3455	4814	12679	3803	89	9	271	1100	18	5289
1979	58.80	0.82	0.53	7.29	2.95	0.10	70.49	14511	8723	59222	25793	3278	4837	13157	4052	94	9	283	900	20	5358
1980	62.61	0.88	0.56	7.66	2.66	0.14	74.51	14789	8869	55700	26811	3325	4930	13652	4234	99	10	286	800	29	5457
1981	61.88	0.83	0.56	8.02	2.09	0.17	73.55	14348	7518	51182	27791	2883	4783	13416	4313	110	11	289	725	35	5482
1982	63.80	0.96	0.57	8.38	1.94	0.15	75.80	14661	8119	51727	28768	2874	4887	13837	4352	118	11	291	675	31	5478
1983	66.08	0.86	0.57	8.75	2.22	0.15	78.63	14884	7099	51909	29030	3502	4961	14199	4439	121	11	301	634	31	5538
1984	68.25	0.81	0.58	9.08	2.10	0.14	80.96	15102	6618	52636	29172	3962	5034	14660	4519	123	11	311	530	28	5522
1985	68.75	0.70	0.59	9.63	1.70	0.12	81.49	14945	5661	53636	28669	3184	4982	14475	4600	124	11	336	534	25	5630
1986	72.39	0.72	0.58	10.44	1.80	0.13	86.06	15595	5878	52818	28526	3191	5198	15017	4642	123	11	366	564	25	5731
1987	74.70	0.76	0.59	11.38	1.60	0.13	89.15	15709	6032	53545	28328	3101	5236	15280	4755	126	11	402	516	25	5835
1988	79.03	0.72	0.59	12.51	1.70	0.13	94.68	16059	5523	54000	29214	3295	5353	15698	4921	130	11	428	516	25	6031
1989	81.34	0.80	0.61	13.11	1.60	0.13	97.59	15994	5638	55455	29066	3376	5331	15771	5086	141	11	451	474	25	6188
1990	81.29	0.89	0.62	13.93	1.50	0.14	98.36	15644	5735	51750	29231	3074	5215	15481	5196	155	12	476	488	26	6353
1991	83.23	0.98	0.63	14.77	1.20	0.13	100.93	15932	5368	52083	29961	2620	5311	15785	5224	182	12	493	458	25	6394
1992	85.66	1.08	0.62	15.97	1.20	0.13	104.67	16170	4771	51833	30171	2727	5390	16028	5297	227	12	529	440	25	6530
1993	85.34	1.34	0.62	16.83	1.30	0.13	105.56	15771	5049	51750	29984	2808	5257	15667	5411	265	12	561	463	25	6737
1994	89.09	1.35	0.62	16.94	1.20	0.13	109.33	16030	4631	56545	30025	2268	5343	15670	5558	291	11	564	529	24	6977
1995	89.97	1.36	0.64	17.89	1.20	0.13	111.19	15972	4406	53667	31568	2264	5324	15719	5633	308	12	567	530	24	7074

(Continued)

NETHERLANDS (continued)

	VKT (BVKT)							Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	89.66	1.46	0.65	18.65	1.20	0.14	111.74	15620	4346	58727	31773	2230	5207	15441	5740	335	11	587	538	26	7237
1997	92.46	1.51	0.64	18.93	1.20	0.15	114.89	15748	4194	58545	30360	2299	5249	15491	5871	360	11	623	522	29	7416
1998	93.08	1.62	0.64	22.43	1.28	0.17	119.22	15210	4120	58364	32203	2426	5070	15321	6120	392	11	696	529	33	7781
1999	97.99	1.66	0.64	22.24	1.32	0.18	124.03	16011	4235	58182	29148	2494	5337	15803	6120	392	11	763	529	33	7848
2000	100.93	1.68	0.61	23.45	1.34	0.19	128.19	15911	4058	55455	28044	2505	5304	15684	6343	414	11	836	533	36	8173
2001	100.63	1.75	0.61	24.45	1.26	0.21	128.91	15390	4002	55000	27198	2500	5130	15290	6539	438	11	899	504	40	8431
2002	99.39	1.82	0.61	25.91	1.27	0.21	129.21	14810	3946	55000	27509	2500	4937	14893	6711	461	11	942	508	43	8676
2003	104.16	1.92	0.61	27.26	1.25	0.24	135.43	15194	3891	55000	27821	2500	5065	15241	6855	494	11	980	499	47	8886
2004	105.10	1.98	0.61	28.41	1.09	0.25	137.43	15212	3835	55000	28132	2500	5071	15391	6909	516	11	1010	434	49	8929
2005	105.45	2.03	0.61	29.47	1.20	0.26	139.00	15081	3779	55000	28443	2500	5027	15266	6992	537	11	1036	478	51	9105
2006	106.73	2.06	0.61	28.90	1.21	0.28	139.78	15049	3723	55000	28755	2500	5016	15193	7092	553	11	1005	484	55	9200
2007	108.29	2.08	0.61	28.92	1.16	0.29	141.34	14977	3667	55000	29066	2500	4992	15157	7230	568	11	995	463	58	9325
2008	109.90	2.11	0.61	29.64	1.18	0.30	143.74	14867	3612	55000	29377	2500	4956	15086	7392	585	11	1009	470	61	9528
2009	110.95	2.15	0.61	30.82	1.15	0.25	145.93	14711	3556	55000	29689	2500	4904	15030	7542	606	11	1038	460	52	9709
2010	112.08	2.20	0.61	32.04	1.13	0.22	148.26	14565	3500	55000	30000	2500	4855	14981	7695	628	11	1068	450	44	9896

NEW ZEALAND

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	5.74	0.25	0.13	2.06	0.02		8.21	9175	8490	44541	15000	1529		10128	626	29	3	137	15		810
1964	6.44	0.27	0.14	2.18	0.03		9.04	9419	8716	43169	14209	1570		10199	683	30	3	153	16		886
1965	6.72	0.26	0.14	2.26	0.03		9.40	9351	8652	43314	14046	1558		10119	719	30	3	161	17		929
1966	8.04	0.28	0.14	2.54	0.03		11.02	10405	9628	43488	15759	1734		11214	773	29	3	161	17		983
1967	8.41	0.24	0.14	2.53	0.03		11.36	10495	8645	43662	15557	1749		11214	802	28	3	163	17		1013
1968	8.69	0.24	0.14	2.57	0.03		11.67	10517	8562	43836	15588	1753		11228	827	28	3	165	17		1039
1969	9.63	0.23	0.14	2.65	0.03		12.68	11265	8474	44039	15928	1877		11865	855	27	3	167	17		1069
1970	10.26	0.28	0.14	2.81	0.04		13.51	11399	9668	44039	15912	1900		11996	900	29	3	176	19		1126
1971	11.02	0.30	0.14	3.17	0.04		14.67	11699	8452	44039	17231	1950		12372	942	35	3	184	22		1186
1972	12.12	0.37	0.14	3.24	0.05		15.92	12100	8855	44039	17214	2017		12654	1001	42	3	188	23		1258
1973	12.85	0.45	0.13	3.47	0.05		16.95	12066	8451	44026	17697	2011		12639	1065	53	3	196	24		1341
1974	13.63	0.58	0.14	3.55	0.05		17.95	12150	9264	44013	17593	2025		12692	1122	62	3	202	25		1414
1975	14.25	0.61	0.15	3.58	0.05		18.64	12234	9161	45886	17488	2039		12725	1164	67	3	205	25		1464
1976	14.71	0.65	0.14	3.95	0.05		19.50	12319	9059	43463	17383	2053		12815	1194	72	3	227	25		1522
1977	15.01	0.64	0.14	3.86	0.05		19.70	12403	8956	42927	17279	2067		12850	1210	71	3	224	25		1533
1978	15.44	0.62	0.14	4.01	0.05		20.26	12487	8853	42390	17174	2081		12918	1236	70	3	233	25		1568
1979	16.02	0.74	0.13	4.06	0.05		21.01	12571	8750	41853	17069	2095		12927	1274	85	3	238	25		1625
1980	16.55	0.86	0.13	4.20	0.05		21.79	12655	8647	41317	16964	2109		12952	1307	99	3	248	25		1682
1981	16.65	0.91	0.14	4.55	0.05		22.30	12504	8544	40780	16860	2084		12845	1332	106	3	270	25		1736
1982	17.13	0.90	0.15	4.63	0.05		22.87	12538	8441	40244	16755	2090		12861	1367	107	4	276	25		1778
1983	17.65	0.87	0.16	4.72	0.05		23.46	12601	8339	39707	16650	2100		12907	1401	104	4	284	25		1818
1984	18.21	0.83	0.18	4.65	0.05		23.93	12664	8236	39170	16545	2111		12939	1438	101	5	281	24		1850
1985	18.78	0.79	0.19	4.89	0.05		24.71	12726	8133	38634	16441	2121		13004	1476	97	5	297	24		1900
1986	19.36	0.77	0.19	4.94	0.05		25.31	12789	8030	38097	16336	2131		13041	1514	96	5	303	24		1941
1987	19.94	0.74	0.21	5.00	0.05		25.93	12851	7927	37560	16231	2142		13082	1551	94	5	308	24		1982
1988	20.52	0.64	0.23	5.05	0.05		26.49	12914	7824	37024	16127	2152		13154	1589	82	6	313	23		2014
1989	21.11	0.54	0.25	5.10	0.05		27.05	12976	7722	36487	16022	2163		13226	1627	70	7	318	23		2045
1990	21.70	0.45	0.27	5.16	0.05		27.62	13039	7619	35950	15917	2173		13299	1664	59	8	324	23		2077
1991	22.37	0.39	0.30	5.18	0.05		28.28	13101	7516	35414	15812	2184		13359	1707	52	8	328	22		2117
1992	23.04	0.33	0.29	5.29	0.05		28.99	13164	7413	34877	15708	2194		13416	1750	44	8	337	22		2161
1993	23.71	0.28	0.28	5.48	0.05		29.81	13226	7310	34341	15603	2204		13472	1793	39	8	351	21		2213
1994	24.40	0.25	0.29	5.53	0.05		30.51	13289	7207	33804	15498	2215		13522	1836	35	9	357	21		2256
1995	25.08	0.25	0.30	5.57	0.05		31.25	13352	7104	33267	15394	2225		13559	1879	35	9	362	20		2305

(Continued)

NEW ZEALAND (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	25.77	0.20	0.30	5.73	0.04		32.06	13414	7002	32731	15289	2236		13617	1921	29	9	375	20		2354
1997	26.47	0.18	0.32	5.76	0.04		32.78	13477	6899	32194	15184	2246		13662	1964	27	10	379	19		2399
1998	27.18	0.20	0.34	5.79	0.04		33.54	13539	6796	31657	15079	2257		13695	2007	29	11	384	18		2449
1999	27.88	0.21	0.35	5.85	0.04		34.33	13602	6693	31121	14975	2267		13729	2050	32	11	390	17		2501
2000	28.31	0.23	0.40	5.90	0.04		34.87	13670	6590	30584	14870	2277		13774	2071	34	13	397	17		2532
2001	28.82	0.24	0.41	6.10	0.04		35.60	13336	6487	30047	15131	2244		13535	2161	37	14	403	16		2631
2002	29.83	0.25	0.42	6.17	0.03		36.71	13250	6384	29511	15073	2214		13449	2251	39	14	410	15		2729
2003	30.57	0.26	0.43	6.24	0.03		37.54	13288	6282	28974	15014	2183		13467	2301	42	15	416	14		2788
2004	31.47	0.28	0.45	6.42	0.03		38.64	13099	6179	28438	14956	2153		13298	2402	45	16	429	14		2906
2005	31.72	0.31	0.47	6.61	0.03		39.14	12741	6077	28371	14898	2122		12987	2489	51	17	444	13		3014
2006	31.54	0.38	0.50	6.76	0.02		39.20	12331	5978	28304	14839	2092		12621	2558	63	18	456	12		3106
2007	32.16	0.44	0.52	6.89	0.02		40.02	12370	5880	28238	14781	2062		12629	2599	75	18	466	10		3169
2008	31.90	0.51	0.56	7.07	0.02		40.05	12124	5784	28172	14781	2021		12415	2631	88	20	478	9		3226
2009	31.84	0.53	0.55	6.95	0.02		39.89	12212	5689	28106	14781	2021		12473	2607	93	20	470	8		3198
2010																					

NORWAY

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	4.18	0.28	0.20	1.32	0.66	0.15	6.80	13098	6164	34347	11925	6402	5239	11073	320	46	6	111	103	28	614
1964	4.77	0.26	0.20	1.50	0.61	0.15	7.50	13098	6224	34064	13090	5645	5239	11294	364	42	6	115	108	29	664
1965	5.44	0.25	0.21	1.59	0.59	0.16	8.24	13098	7248	34089	13545	5261	5239	11509	416	35	6	117	112	30	716
1966	6.09	0.24	0.22	1.74	0.55	0.16	9.00	13100	8602	34152	14557	4799	5240	11774	465	28	6	120	115	31	765
1967	6.74	0.23	0.23	1.78	0.54	0.16	9.67	13074	9991	34254	14645	4662	5230	11895	515	23	7	121	116	31	813
1968	7.38	0.23	0.24	1.81	0.53	0.16	10.33	12962	11212	33925	14630	4560	5185	11924	569	20	7	123	115	32	867
1969	8.18	0.22	0.24	1.87	0.52	0.18	11.21	13222	11398	33944	14530	4515	5289	12156	619	19	7	129	115	33	922
1970	9.18	0.22	0.25	1.95	0.51	0.18	12.30	13228	13409	33954	14575	4428	5291	12272	694	16	7	134	116	34	1002
1971	9.82	0.20	0.24	1.86	0.46	0.25	12.83	13235	13830	31396	13478	4011	5294	12047	742	14	7	138	115	48	1065
1972	10.42	0.20	0.24	1.94	0.46	0.31	13.56	13241	16989	32644	13108	3968	5296	12032	787	12	7	148	115	58	1127
1973	11.10	0.19	0.25	2.00	0.45	0.35	14.35	13247	21105	33081	13514	3928	5299	12122	838	9	8	148	114	67	1184
1974	11.80	0.19	0.26	1.96	0.43	0.40	15.04	13254	23647	32290	13611	3854	5302	12141	890	8	8	144	113	76	1238
1975	12.68	0.18	0.26	1.86	0.42	0.46	15.85	13304	27447	31531	13478	3664	5322	12148	953	6	8	138	113	86	1305
1976	13.81	0.16	0.27	1.86	0.37	0.53	16.99	13516	22295	30985	13478	3222	5406	12254	1022	7	9	138	114	97	1387
1977	14.84	0.16	0.28	1.96	0.36	0.60	18.20	13417	17098	30168	13713	3212	5367	12192	1106	9	9	143	113	112	1493
1978	15.40	0.16	0.28	2.02	0.37	0.67	18.89	13435	15999	28093	13897	3206	5374	12183	1146	10	10	145	114	125	1551
1979	16.15	0.16	0.29	1.93	0.37	0.75	19.64	13574	12361	26440	12711	3194	5430	12139	1190	13	11	152	115	138	1618
1980	16.62	0.14	0.29	1.90	0.33	0.80	20.08	13646	9360	25518	12520	2824	5459	12108	1218	15	11	152	116	146	1658
1981	17.31	0.14	0.30	1.80	0.34	0.85	20.74	13719	9000	25254	11758	2847	5487	12089	1262	16	12	153	118	155	1716
1982	18.02	0.15	0.29	1.84	0.36	0.92	21.57	13791	9544	22573	11560	2945	5516	12110	1307	16	13	159	121	166	1782
1983	18.93	0.16	0.30	1.87	0.37	0.98	22.61	13863	8817	21269	11271	2871	5545	12095	1366	18	14	166	129	177	1870
1984	19.66	0.16	0.30	2.04	0.38	1.04	23.59	13936	9117	20001	11408	2945	5574	12163	1411	18	15	179	130	187	1940
1985	20.42	0.17	0.31	2.18	0.41	1.10	24.58	14008	8789	19196	10995	3029	5603	12153	1458	19	16	198	136	196	2023
1986	21.71	0.19	0.32	2.65	0.45	1.17	26.49	14080	9048	18675	11382	3176	5632	12249	1542	21	17	233	142	208	2163
1987	22.79	0.20	0.33	2.86	0.45	1.24	27.87	14072	8080	17890	10774	3103	5629	12148	1620	25	18	265	146	220	2294
1988	23.04	0.19	0.33	3.06	0.45	1.28	28.34	13958	7560	17132	10768	3112	5583	12052	1651	25	19	284	143	230	2352
1989	23.39	0.19	0.33	3.14	0.45	1.35	28.86	14181	6690	16792	10690	3199	5673	12172	1650	29	20	294	141	238	2371
1990	23.56	0.20	0.32	3.23	0.45	1.39	29.14	14358	6633	16200	10760	3232	5743	12294	1641	30	20	300	138	242	2371
1991	23.40	0.20	0.32	3.31	0.44	1.37	29.05	14261	6733	15286	10756	3181	5705	12212	1641	30	21	308	138	241	2379
1992	23.43	0.21	0.33	3.40	0.43	1.39	29.18	14270	6774	14348	10926	3216	5708	12243	1642	31	23	311	134	243	2384
1993	23.78	0.23	0.34	3.48	0.42	1.42	29.66	14441	6818	12519	11054	3152	5776	12363	1647	33	27	315	132	245	2399
1994	24.18	0.24	0.35	3.61	0.39	1.43	30.20	14560	6750	12069	11167	3144	5824	12486	1661	36	29	323	125	245	2419
1995	24.36	0.27	0.33	3.80	0.38	1.42	30.55	14488	6872	10710	11328	3186	5795	12473	1682	39	31	335	118	245	2450

(Continued)

NORWAY (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	25.39	0.31	0.34	3.86	0.37	1.47	31.73	14824	7093	10212	11029	3226	5930	12684	1713	43	33	350	115	248	2502
1997	25.51	0.36	0.34	4.29	0.37	1.46	32.34	14585	7137	10118	11989	3228	5834	12651	1749	51	34	358	114	250	2556
1998	26.29	0.43	0.34	4.29	0.37	1.50	33.22	14721	7016	9829	11382	3228	5888	12642	1786	61	35	377	114	255	2628
1999	26.34	0.45	0.34	4.31	0.38	1.51	33.33	14521	5797	9556	11026	3290	5808	12377	1814	78	36	391	114	260	2693
2000	26.87	0.49	0.34	4.43	0.39	1.58	34.10	14508	5711	9243	10700	3355	5803	12279	1852	85	37	414	116	273	2777
2001	27.50	0.52	0.34	4.52	0.40	1.61	34.89	14680	5786	9743	10593	3343	5872	12373	1873	90	35	427	121	274	2820
2002	28.51	0.56	0.34	4.48	0.42	1.72	36.04	15004	5909	10088	10228	3232	6001	12491	1900	95	34	438	131	287	2885
2003	28.92	0.60	0.34	4.20	0.44	1.74	36.24	14954	6022	10719	9396	3101	5982	12309	1934	99	32	447	141	291	2944
2004	28.89	0.63	0.35	4.43	0.45	1.72	36.48	14607	6146	11387	9683	3162	5843	12132	1978	103	31	457	143	295	3007
2005	29.26	0.68	0.37	4.49	0.47	1.73	37.00	14423	6314	12586	9490	3224	5769	11996	2029	107	29	473	146	300	3084
2006	29.13	0.74	0.34	4.77	0.49	1.72	37.18	13969	6522	12593	9592	3255	5588	11694	2085	113	27	497	149	308	3179
2007	29.74	0.78	0.35	4.84	0.52	1.69	37.93	13802	6175	14120	9424	3325	5521	11554	2155	126	25	514	156	307	3283
2008	30.13	0.85	0.36	4.92	0.52	1.67	38.45	13716	6318	15652	9412	3206	5486	11502	2197	134	23	523	162	304	3343
2009	30.17	0.91	0.36	5.00	0.54	1.67	38.64														
2010																					

SPAIN

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	10.70	1.71	0.46	4.26	0.96	0.15	18.25	31117	1360	24280	14510	3850	12447	8380	344	1259	19	294	251	12	2178
1964	14.42	1.71	0.49	4.93	1.06	0.15	22.76	29861	1360	24280	14510	3850	11944	9521	483	1259	20	340	276	13	2390
1965	19.42	1.71	0.51	5.70	1.19	0.15	28.68	28656	1360	24280	14510	3850	11462	10728	678	1259	21	392	310	14	2674
1966	26.15	1.71	0.52	6.58	1.27	0.16	36.40	27499	1360	24280	14510	3571	11000	11913	951	1259	22	454	356	14	3055
1967	35.23	1.71	0.56	7.39	1.40	0.16	46.44	26389	1360	24280	14510	3360	10556	13056	1335	1259	23	509	416	15	3557
1968	41.38	1.74	0.57	8.37	1.48	0.16	53.69	25324	1360	23509	14510	3152	10130	13424	1634	1280	24	577	469	16	4000
1969	48.46	1.74	0.60	9.25	1.58	0.16	61.79	24243	1360	23461	14510	2981	9697	13763	1999	1282	25	638	529	17	4489
1970	54.56	1.72	0.61	10.14	1.64	0.16	68.83	22947	1360	22412	14510	2780	9179	13830	2378	1267	27	699	589	17	4977
1971	62.37	1.70	0.78	10.87	1.76	0.15	77.63	22398	1360	27673	14510	2699	8959	14175	2785	1247	28	749	650	17	5476
1972	75.79	1.66	0.97	11.68	2.04	0.19	92.33	23287	1360	32241	14510	2828	9315	15259	3255	1219	30	805	721	20	6051
1973	77.87	1.57	1.06	12.64	2.03	0.21	95.40	20473	1310	34399	14510	2524	8189	14159	3804	1200	31	871	806	26	6738
1974	80.24	1.60	1.09	13.47	2.07	0.26	98.72	18619	1358	33275	14510	2336	7448	13398	4310	1178	33	928	885	35	7368
1975	86.25	1.70	1.22	14.17	2.20	0.27	105.82	17944	1470	36240	14510	2290	7177	13269	4807	1159	34	977	962	37	7975
1976	89.05	1.54	1.37	14.13	2.27	0.29	108.64	16641	1344	38576	13804	2171	6656	12572	5351	1142	35	1023	1046	43	8642
1977	96.84	1.57	1.31	14.96	2.38	0.34	117.39	16290	1364	35969	13809	2081	6516	12478	5945	1149	36	1083	1143	52	9408
1978	105.41	1.62	1.36	15.30	2.46	0.37	126.52	16142	1383	36443	13276	1982	6457	12415	6530	1171	37	1152	1243	58	10191
1979	109.55	1.55	1.46	16.18	2.46	0.39	131.58	15523	1283	38121	13262	1841	6209	12050	7058	1204	38	1220	1337	63	10919
1980	112.93	1.66	1.47	16.46	2.57	0.41	135.49	14944	1346	37534	12725	1799	5978	11663	7557	1231	39	1293	1427	69	11617
1981	115.27	1.67	1.50	16.80	2.74	0.43	138.41	14513	1327	38313	12459	1828	5805	11381	7943	1257	39	1348	1500	75	12162
1982	118.86	1.70	1.32	16.49	3.10	0.46	141.92	14228	1325	33700	11696	2001	5691	11161	8354	1283	39	1409	1550	81	12716
1983	119.29	1.71	1.33	17.04	2.95	0.49	142.81	13689	1305	33373	11585	1859	5476	10811	8714	1310	40	1471	1585	89	13209
1984	121.07	1.74	1.42	17.98	2.92	0.52	145.65	13643	1289	34672	12439	1829	5457	10866	8874	1350	41	1445	1599	95	13404
1985	120.46	1.75	1.38	17.65	2.59	0.53	144.36	12991	1306	32899	11541	1558	5196	10350	9273	1342	42	1529	1660	101	13947
1986	132.51	1.76	1.52	19.41	2.60	0.61	158.41	13742	1322	36189	11560	1511	5497	10903	9643	1334	42	1679	1722	111	14530
1987	137.81	1.78	1.58	20.19	2.55	0.67	164.57	13486	1339	36763	11079	1429	5394	10744	10219	1326	43	1822	1783	125	15318
1988	148.83	1.75	1.71	21.32	2.74	0.80	177.15	13798	1327	38802	10789	1488	5519	10994	10787	1318	44	1976	1844	144	16113
1989	167.47	1.72	1.74	22.70	2.82	0.98	197.42	14603	1316	38590	10498	1479	5841	11574	11468	1310	45	2162	1905	167	17058
1990	183.92	1.70	1.97	23.82	3.02	1.16	215.59	15332	1304	42766	10208	1537	6133	12089	11996	1302	46	2333	1967	190	17834
1991	200.36	1.67	2.01	24.74	3.11	1.34	233.25	15982	1293	42766	9918	1535	6393	12533	12537	1294	47	2495	2028	210	18611
1992	216.81	1.65	2.07	25.51	3.15	1.49	250.69	16548	1281	44064	9627	1507	6619	12922	13102	1287	47	2650	2089	226	19401
1993	233.26	1.62	2.10	25.54	3.24	1.63	267.39	17354	1270	44728	9337	1551	6942	13486	13441	1279	47	2735	2090	235	19827
1994	241.27	1.62	2.13	25.57	3.09	1.74	275.42	17567	1258	45392	9046	1490	7027	13621	13734	1290	47	2826	2076	247	20220
1995	231.07	1.62	2.07	25.72	2.76	1.74	264.98	16259	1247	44021	8756	1327	6504	12713	14212	1301	47	2937	2079	267	20843

(Continued)

SPAIN (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	241.56	1.62	2.14	25.88	2.64	1.87	275.70	16374	1236	44542	8466	1264	6549	12801	14753	1308	48	3057	2087	285	21538
1997	241.56	1.62	2.23	26.21	2.41	1.96	275.99	15791	1224	44542	8175	1158	6316	12392	15297	1326	50	3206	2083	310	22273
1998	253.35	1.65	2.32	27.93	2.29	2.19	289.72	15993	1213	44542	8229	1109	6397	12568	15841	1358	52	3394	2066	342	23053
1999	265.14	1.67	2.41	29.65	2.15	2.47	303.47	16182	1201	44542	8224	1047	6473	12717	16384	1389	54	3605	2049	382	23864
2000	283.82	1.69	2.45	30.89	2.09	2.83	323.77	16725	1190	44542	8173	1029	6690	13119	16970	1420	55	3780	2033	422	24680
2001	296.77	1.75	2.49	31.56	2.02	3.13	337.73	16812	1178	44542	7992	1021	6725	13198	17653	1484	56	3949	1983	465	25590
2002	310.00	1.77	2.54	34.04	2.10	3.40	353.85	17015	1167	44542	7992	1027	6806	13305	18219	1517	57	4259	2044	500	26596
2003	321.93	1.75	2.49	34.88	2.53	3.78	367.35	17226	1155	44542	7992	1179	6891	13449	18688	1514	56	4364	2144	548	27314
2004	330.19	1.84	2.54	36.80	2.59	4.18	378.14	16897	1144	44542	7992	1157	6759	13187	19542	1612	57	4604	2242	618	28675
2005	337.80	1.97	2.58	38.76	2.70	4.62	388.44	16681	1093	44542	7992	1169	6673	12962	20250	1806	58	4850	2312	693	29969
2006	340.94	2.14	2.67	40.87	2.52	4.98	394.13	16194	1042	44542	7992	1083	6478	12559	21053	2058	60	5114	2327	769	31381
2007	343.29	2.63	2.72	42.78	2.70	5.26	399.37	15776	1137	44542	7992	1109	6311	12195	21760	2311	61	5353	2430	833	32748
2008	342.61	2.84	2.76	43.21	2.60	5.29	399.32	15471	1137	44542	7992	1080	6189	11963	22145	2501	62	5406	2411	855	33380
2009																					
2010																					

SWEDEN

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	18.10	0.41	0.62	5.26	0.54	1.02	25.95	11632	3849	64400	40123	700	4653	9303	1556	107	10	131	766	219	2789
1964	20.07	0.38	0.65	5.22	0.51	1.07	27.90	12049	4276	64751	39854	700	4819	9796	1666	88	10	131	732	222	2848
1965	23.12	0.34	0.69	5.19	0.47	1.16	30.96	12898	5293	66537	38694	664	5159	10560	1793	64	10	134	706	225	2932
1966	26.42	0.31	0.72	5.15	0.48	1.28	34.36	13988	6027	65040	38723	720	5595	11522	1889	51	11	133	669	228	2982
1967	27.57	0.28	0.75	5.12	0.45	1.29	35.45	13952	5838	62124	37339	718	5581	11709	1976	48	12	137	624	231	3028
1968	28.72	0.25	0.78	5.08	0.41	1.30	36.54	13867	5589	62145	36816	714	5547	11871	2071	44	13	138	578	234	3078
1969	29.87	0.22	0.81	5.05	0.37	1.29	37.61	13618	5034	59931	35534	701	5447	11905	2194	43	14	142	530	237	3159
1970	31.02	0.19	0.85	5.01	0.33	1.30	38.70	13560	4111	59356	35042	698	5424	12060	2288	45	14	143	479	240	3209
1971	32.87	0.19	0.85	4.95	0.33	1.36	40.54	13947	4156	60072	34124	718	5579	12400	2357	45	14	145	466	243	3270
1972	34.72	0.19	0.89	4.93	0.32	1.38	42.43	14133	4341	56686	34718	728	5653	12687	2457	44	16	142	442	244	3345
1973	38.47	0.21	0.97	5.18	0.32	1.52	46.67	15372	4489	59839	35745	791	6149	13863	2503	47	16	145	409	247	3367
1974	36.82	0.21	0.88	4.72	0.29	1.41	44.32	13952	4120	53270	31905	718	5581	12650	2639	50	16	148	398	252	3503
1975	37.68	0.21	0.81	4.65	0.28	1.40	45.03	13651	4120	57515	30175	703	5460	12380	2760	50	14	154	402	257	3637
1976	40.78	0.21	0.77	4.97	0.28	1.51	48.52	14154	4327	58218	31650	729	5662	12927	2881	49	13	157	387	266	3754
1977	42.82	0.21	0.75	5.21	0.25	1.67	50.90	14987	4587	58443	31564	772	5995	13828	2857	46	13	165	322	278	3681
1978	44.00	0.21	0.74	5.32	0.24	1.77	52.28	15406	4565	58485	31491	793	6162	14232	2856	46	13	169	303	287	3674
1979	44.89	0.22	0.74	5.41	0.21	1.82	53.28	15649	4596	58209	31277	806	6260	14573	2868	47	13	173	265	290	3656
1980	45.33	0.16	0.86	5.23	0.19	1.85	53.61	15724	2963	66896	29354	810	6290	14676	2883	54	13	178	231	294	3653
1981	44.96	0.17	0.86	5.24	0.18	1.86	53.27	15538	2507	65703	28813	824	6215	14505	2893	69	13	182	216	299	3672
1982	45.45	0.19	0.88	5.36	0.17	1.88	53.91	15479	2163	66054	28790	820	6191	14455	2936	86	13	186	205	303	3729
1983	46.14	0.20	0.89	5.49	0.16	1.88	54.75	15344	1980	65657	28425	809	6138	14354	3007	100	14	193	194	307	3814
1984	46.57	0.21	0.89	5.55	0.15	1.88	55.25	15116	1935	65114	27490	797	6047	14175	3081	108	14	202	182	311	3898
1985	48.05	0.23	0.90	5.72	0.14	1.93	56.96	15247	2143	65647	27229	827	6099	14366	3151	105	14	210	168	317	3965
1986	48.40	0.23	0.89	5.78	0.13	1.91	57.33	14875	2240	64228	26491	831	5950	14086	3254	104	14	218	160	321	4070
1987	51.29	0.25	0.91	6.18	0.13	1.97	60.74	15235	2505	65940	26883	825	6094	14499	3367	101	14	230	154	324	4189
1988	53.93	0.27	0.94	6.62	0.12	2.01	63.90	15485	2710	66567	26927	822	6194	14812	3483	100	14	246	146	325	4314
1989	56.59	0.29	0.98	7.20	0.12	2.09	67.26	15815	2969	67378	26955	864	6326	15191	3578	98	15	267	140	330	4428
1990	55.69	0.29	0.96	7.36	0.12	2.07	66.50	15472	2910	64267	24956	863	6189	14834	3600	100	15	295	139	334	4483
1991	56.17	0.30	0.97	7.44	0.12	2.07	67.06	15510	2903	64533	23984	863	6204	14829	3621	103	15	310	139	334	4522
1992	56.85	0.33	0.97	7.39	0.12	2.11	67.76	15820	2991	64667	23835	841	6328	15063	3594	109	15	310	138	333	4499
1993	55.64	0.33	0.94	7.22	0.11	2.06	66.31	15602	2930	67286	23679	868	6241	14874	3566	114	14	305	129	330	4458
1994	56.27	0.34	0.95	7.35	0.11	2.05	67.06	15655	2974	68071	24325	865	6262	14978	3594	114	14	302	126	327	4477
1995	56.90	0.35	0.97	7.49	0.11	2.04	67.85	15671	3000	69286	24628	865	6268	15026	3631	115	14	304	126	326	4516

(Continued)

SWEDEN (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	57.13	0.36	0.98	7.56	0.11	2.03	68.17	15632	3060	65467	24536	893	6253	15009	3655	117	15	308	122	325	4542
1997	57.21	0.38	0.98	7.66	0.11	2.00	68.34	15451	3090	65467	24535	908	6180	14870	3703	122	15	312	120	324	4596
1998	57.67	0.39	0.98	7.92	0.11	1.98	69.04	15208	3015	65200	24581	932	6083	14686	3792	130	15	322	117	325	4701
1999	58.93	0.43	0.98	8.30	0.11	1.98	70.73	15239	3109	65067	24568	1019	6096	14769	3867	137	15	338	107	325	4789
2000	59.65	0.47	0.95	8.60	0.12	1.98	71.76	15168	3120	63000	24291	1112	6067	14690	3933	150	15	354	107	326	4885
2001	60.25	0.51	0.92	8.97	0.14	1.96	72.75	15066	3214	65643	23971	1312	6026	14605	3999	159	14	374	109	326	4981
2002	61.96	0.58	0.93	9.51	0.16	2.00	75.14	15417	3176	66214	24008	1391	6167	14876	4019	182	14	396	115	325	5051
2003	62.55	0.63	0.91	9.77	0.18	2.03	76.07	15463	3109	65214	23839	1533	6185	14864	4045	201	14	410	120	328	5118
2004	62.97	0.67	0.89	10.07	0.20	2.02	76.82	15453	3106	63571	23851	1406	6181	14779	4075	217	14	422	143	327	5198
2005	61.69	0.63	0.84	10.98	0.24	1.96	76.34	14988	2668	64923	24950	1513	5995	14429	4116	235	13	440	160	327	5291
2006	63.19	0.68	0.86	11.71	0.28	1.99	78.70	15211	2724	66000	25395	1572	6084	14615	4154	250	13	461	180	327	5385
2007	65.53	0.69	0.84	12.32	0.32	2.04	81.74	15595	2554	60214	25675	1575	6238	14883	4202	269	14	480	200	327	5492
2008	66.99	0.71	0.84	12.29	0.33	2.04	83.20	15734	2488	64231	24383	1530	6293	14855	4258	287	13	504	215	324	5601
2009	67.19	0.73	0.83	12.36	0.34	2.02	83.47	15706	2448	63846	24235	1532	6282	14799	4278	297	13	510	220	322	5640
2010	67.16	0.74	0.83	12.48	0.31	2.07	83.59	15615	2448	63846	24235	1532	6438	14783	4301	303	13	515	201	321	5654

SWITZERLAND

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	13.16	1.05	0.11	1.77	1.05	0.38	17.53	17599	4969	10280	26525	5000	7039	13473	748	212	11	67	209	54	1301
1964	15.04	1.00	0.12	2.01	1.18	0.44	19.79	17915	4969	10280	26525	4750	7166	13764	839	202	11	76	248	62	1438
1965	16.18	0.95	0.12	2.14	1.32	0.46	21.17	17599	4969	10280	26525	4486	7039	13544	919	192	12	81	294	65	1563
1966	18.04	0.90	0.14	2.31	1.42	0.50	23.30	17915	4970	10668	26954	4182	7166	13739	1007	182	13	86	340	69	1696
1967	19.38	0.86	0.15	2.48	1.52	0.52	24.90	17917	4972	11086	27471	3950	7167	13718	1081	172	13	90	385	73	1815
1968	20.71	0.81	0.16	2.65	1.62	0.53	26.48	17545	4974	11645	28368	3766	7018	13538	1180	162	14	93	431	76	1956
1969	22.05	0.76	0.17	2.82	1.72	0.56	28.09	17188	4976	11805	28052	3618	6875	13323	1283	152	15	101	476	81	2108
1970	23.39	0.71	0.19	2.99	1.83	0.59	29.68	16910	4979	11239	27953	3496	6764	13150	1383	142	17	107	522	87	2257
1971	24.48	0.62	0.20	3.04	1.98	0.65	30.96	16791	5212	10791	25513	3497	6716	13027	1458	118	18	119	567	96	2377
1972	25.60	0.62	0.21	3.31	2.11	0.67	32.51	16440	5430	10677	26464	3498	6576	12901	1557	114	19	125	603	101	2520
1973	26.32	0.63	0.22	3.33	2.21	0.68	33.38	15933	5625	9956	25189	3500	6373	12573	1652	112	22	132	630	107	2655
1974	26.57	0.66	0.23	3.24	2.30	0.68	33.68	15420	5848	9821	23838	3498	6168	12190	1723	112	23	136	658	110	2763
1975	27.74	0.55	0.20	3.15	2.30	0.70	34.64	15465	6089	8883	22669	3500	6186	12302	1794	90	22	139	658	113	2816
1976	28.15	0.55	0.21	2.94	2.33	0.69	34.88	15104	5830	9275	21029	3505	6041	12025	1864	94	23	140	666	113	2900
1977	29.90	0.59	0.22	3.20	2.36	0.71	36.98	15468	5657	9361	22507	3502	6187	12355	1933	105	23	142	675	115	2993
1978	30.72	0.67	0.24	3.22	2.36	0.74	37.94	14948	5407	9590	21039	3503	5979	12031	2055	123	25	153	674	124	3154
1979	31.29	0.63	0.24	3.52	2.40	0.76	38.83	14525	5217	9472	21870	3502	5810	11853	2154	120	25	161	685	131	3276
1980	32.07	0.68	0.24	3.77	2.35	0.79	39.90	14273	4993	9547	22296	3502	5709	11780	2247	137	25	169	671	138	3387
1981	32.39	0.74	0.27	4.00	2.29	0.82	40.51	13531	4843	10574	23780	3333	5413	11317	2394	153	26	168	688	151	3580
1982	33.99	0.85	0.29	4.08	2.08	0.86	42.15	13746	4758	11062	22910	3171	5498	11491	2473	178	26	178	656	157	3668
1983	34.91	0.87	0.30	4.21	2.03	0.91	43.22	13846	4631	11417	22168	3004	5538	11483	2521	187	26	190	675	165	3764
1984	36.46	0.90	0.29	4.23	1.84	0.94	44.66	14286	4523	11639	21922	2844	5714	11814	2552	199	25	193	647	164	3780
1985	36.47	0.96	0.29	4.30	1.73	0.98	44.72	13935	4399	11809	21378	2679	5574	11526	2617	218	25	201	644	175	3880
1986	37.82	0.98	0.31	4.45	1.58	1.04	46.17	14116	4354	12382	21488	2511	5646	11692	2679	226	25	207	628	184	3949
1987	38.81	1.04	0.32	4.60	1.44	1.08	47.28	14199	4321	12680	21096	2349	5679	11763	2733	240	25	218	613	190	4019
1988	40.32	1.05	0.33	4.76	1.27	1.21	48.94	14688	4047	12523	20947	2211	5875	12119	2745	260	27	227	574	206	4038
1989	41.65	1.11	0.35	4.91	1.11	1.16	50.30	14382	3974	12034	20390	2084	5753	12027	2896	279	29	241	535	202	4182
1990	42.65	1.16	0.36	4.59	0.86	1.19	50.82	14288	3890	11548	18222	1854	5715	11983	2985	299	31	252	465	209	4241
1991	43.74	1.22	0.37	4.68	0.72	1.22	51.96	14305	3825	10912	18147	1689	5722	12054	3058	320	34	258	428	213	4311
1992	43.18	1.27	0.38	4.70	0.60	1.21	51.33	13969	3771	10714	18284	1524	5587	11857	3091	336	35	257	393	217	4329
1993	42.26	1.29	0.37	4.66	0.51	1.19	50.27	13588	3695	10686	18403	1360	5435	11591	3110	348	35	253	372	219	4337
1994	43.20	1.30	0.37	4.78	0.42	1.20	51.27	13649	3633	10389	18660	1197	5459	11691	3165	357	36	256	351	220	4385
1995	43.82	1.35	0.38	4.85	0.39	1.21	52.00	13572	3639	10135	18523	1183	5429	11675	3229	371	37	262	333	222	4454

(Continued)

SWITZERLAND (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	44.06	1.39	0.37	4.82	0.37	1.19	52.20	13483	3626	9737	18335	1170	5393	11629	3268	382	38	263	317	221	4489
1997	44.67	1.48	0.37	4.86	0.35	1.20	52.92	13444	3596	9462	18405	1154	5378	11609	3323	411	39	264	299	223	4559
1998	45.57	1.55	0.37	4.96	0.32	1.21	53.98	13470	3559	9436	18566	1141	5388	11651	3383	435	39	267	284	225	4633
1999	46.70	1.64	0.37	5.10	0.30	1.21	55.33	13470	3541	9200	18624	1125	5388	11684	3467	464	40	274	265	225	4735
2000	48.06	1.73	0.37	5.25	0.27	1.22	56.91	13558	3508	9350	18821	1113	5423	11801	3545	494	40	279	239	225	4822
2001	48.51	1.82	0.38	5.22	0.23	1.23	57.38	13363	3488	9146	18330	1050	5345	11647	3630	521	41	285	220	230	4927
2002	49.06	1.89	0.38	5.23	0.21	1.22	57.98	13256	3470	8952	18028	995	5302	11560	3701	545	42	290	208	230	5016
2003	49.53	1.97	0.38	5.26	0.18	1.22	58.54	13193	3473	8682	18027	963	5277	11529	3754	567	44	292	190	231	5078
2004	50.02	2.03	0.39	5.36	0.16	1.22	59.17	13125	3475	8667	17983	872	5250	11475	3811	583	45	298	188	232	5157
2005	50.46	2.06	0.41	5.43	0.15	1.22	59.72	13060	3476	8826	17681	820	5224	11439	3864	592	46	307	178	234	5221
2006	50.81	2.12	0.42	5.56	0.14	1.25	60.30	13028	3479	9152	17720	817	5211	11415	3900	609	46	314	175	239	5283
2007	51.21	2.16	0.43	5.68	0.14	1.24	60.85	12944	3493	8958	17515	812	5178	11361	3956	619	48	324	170	239	5356
2008	51.95	2.23	0.43	5.67	0.14	1.27	61.67	13020	3499	8714	17380	815	5208	11393	3990	637	49	326	168	243	5413
2009	52.35	2.27	0.43	5.74	0.13	1.26	62.18	13055	3530	8451	17485	811	5222	11435	4010	643	51	328	164	242	5438
2010																					

TURKEY

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	1.03	0.07	0.36	1.16	0.06	0.20	2.88	14260	4753	18579	14425	2164	5704	11506	72	15	19	81	29	34	250
1964	1.26	0.11	0.42	1.40	0.07	0.22	3.47	15797	5266	20527	18613	2164	6319	13303	79	21	20	75	30	35	261
1965	1.44	0.14	0.43	1.52	0.07	0.25	3.85	16107	5369	19577	19198	2164	6443	13355	89	26	22	79	33	38	288
1966	1.72	0.18	0.46	1.67	0.08	0.28	4.37	16917	5639	19822	20997	2197	6767	13973	101	32	23	79	36	41	313
1967	2.03	0.24	0.57	2.03	0.10	0.34	5.30	17898	5966	20750	20937	2279	7159	14410	113	40	27	97	43	48	368
1968	2.37	0.30	0.68	2.55	0.11	0.40	6.40	18879	6293	21516	24006	2350	7552	15574	125	47	32	106	48	53	411
1969	2.70	0.35	0.70	2.64	0.13	0.46	6.98	19688	6563	19324	22382	2421	7875	15291	137	53	36	118	54	58	457
1970	2.88	0.42	0.78	2.82	0.14	0.50	7.54	20875	6958	21005	22973	2529	8350	15897	138	61	37	123	56	60	474
1971	3.02	0.45	0.82	3.05	0.15	0.51	8.00	19939	6646	20850	23359	2403	7976	15535	151	68	40	130	61	64	515
1972	3.83	0.51	0.88	3.39	0.18	0.61	9.41	20689	6896	20017	23914	2513	8276	15946	185	74	44	142	70	74	590
1973	4.70	0.52	1.01	3.67	0.21	0.71	10.83	20045	6682	19684	23055	2471	8018	15560	235	78	51	159	83	89	696
1974	5.88	0.53	1.10	4.00	0.24	0.83	12.58	19349	6450	19710	22856	2427	7739	15291	304	82	56	175	99	107	822
1975	7.88	0.56	1.04	4.75	0.30	1.03	15.55	18773	6258	16483	23564	2395	7509	15030	420	89	63	202	125	137	1035
1976	8.58	0.58	1.08	5.47	0.34	1.13	17.17	18197	6066	15150	23129	2374	7279	14657	471	95	71	236	142	156	1172
1977	10.23	0.64	1.20	6.17	0.39	1.35	19.99	19086	6362	15253	22789	2438	7634	15097	536	100	79	271	161	177	1324
1978	9.73	0.59	1.45	7.10	0.35	1.27	20.48	16277	5426	17012	24544	1998	6511	14110	598	108	85	289	177	194	1452
1979	8.87	0.53	1.53	7.20	0.31	1.14	19.58	13468	4489	16712	23225	1598	5387	12357	659	119	91	310	194	212	1584
1980	5.98	0.47	1.57	7.23	0.23	0.82	16.31	10086	3362	16412	21907	1214	4034	10500	593	140	96	330	191	204	1553
1981	6.63	0.57	1.62	7.08	0.27	0.91	17.07	10582	3527	16112	20589	1333	4233	10355	626	161	100	344	203	214	1648
1982	7.45	0.69	1.66	6.92	0.34	1.02	18.08	11329	3776	15812	19270	1593	4531	10381	658	183	105	359	212	224	1741
1983	8.26	0.77	1.74	6.75	0.35	1.12	19.00	11840	3947	15512	17952	1608	4736	10332	698	195	112	376	221	237	1839
1984	8.02	0.75	1.82	7.65	0.33	1.08	19.64	9558	3186	15212	16979	1281	3823	8984	839	235	120	450	261	282	2186
1985	7.92	0.74	1.90	8.40	0.29	1.06	20.31	8079	2693	14912	16005	969	3232	8009	980	275	128	525	302	326	2535
1986	7.96	0.74	1.99	9.00	0.27	1.05	21.02	7098	2366	14613	15032	780	2839	7288	1122	314	136	599	342	371	2884
1987	9.42	0.88	1.94	9.57	0.30	1.24	23.34	7456	2485	13331	14219	790	2982	7233	1263	354	145	673	376	416	3227
1988	10.25	1.00	2.15	9.92	0.32	1.33	24.97	7291	2430	13729	13867	786	2916	7030	1406	411	156	715	406	456	3551
1989	12.87	1.25	2.37	11.37	0.36	1.63	29.85	7960	2653	14043	14814	806	3184	7500	1617	471	169	768	445	511	3980
1990	13.73	1.30	2.36	10.95	0.36	1.69	30.39	7285	2428	12818	13301	730	2914	6749	1885	536	184	823	497	578	4503
1991	13.43	1.25	2.30	10.33	0.33	1.61	29.24	6266	2089	11571	11887	602	2506	5855	2144	597	198	869	544	642	4994
1992	14.76	1.29	2.48	11.28	0.33	1.73	31.86	5844	1948	11121	11888	532	2338	5576	2525	662	223	949	615	739	5713
1993	16.74	1.31	2.56	11.51	0.34	1.86	34.32	5202	1734	10086	11474	465	2081	5010	3218	758	253	1003	722	895	6849
1994	18.29	1.59	2.40	10.56	0.35	2.10	35.30	6041	2014	8991	9987	512	2417	5269	3028	789	267	1057	688	870	6699
1995	21.06	1.78	2.52	11.25	0.38	2.41	39.40	6517	2172	8993	10127	532	2607	5571	3232	820	280	1111	706	925	7073

(Continued)

TURKEY (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	21.75	1.79	2.78	13.08	0.35	2.47	42.22	6292	2097	9461	11227	486	2517	5647	3457	854	294	1165	724	983	7477
1997	24.98	2.00	2.98	14.57	0.36	2.79	47.69	6632	2211	9707	11950	486	2653	5961	3767	905	307	1219	748	1053	7999
1998	26.46	2.05	3.16	16.10	0.35	2.89	51.01	6533	2178	9875	11692	453	2613	5958	4050	941	320	1377	767	1107	8563
1999	26.65	2.13	3.15	15.93	0.32	3.08	51.25	6542	2181	9428	10777	423	2617	5829	4073	976	334	1478	755	1176	8792
2000	31.56	2.41	3.07	16.86	0.34	3.45	57.68	7136	2379	8653	10319	439	2855	6133	4422	1011	354	1634	775	1208	9404
2001	34.05	2.58	2.86	15.73	0.34	3.70	59.25	7508	2503	7960	9307	456	3003	6178	4535	1031	359	1690	743	1232	9590
2002	33.20	2.52	2.84	15.62	0.33	3.69	58.20	7218	2406	7844	8864	436	2887	5937	4600	1047	362	1762	753	1278	9802
2003	33.80	2.57	2.82	15.72	0.39	3.77	59.08	7191	2397	7644	8569	492	2877	5861	4700	1073	369	1835	791	1312	10081
2004	38.40	2.89	3.33	16.03	0.43	4.20	65.29	7111	2370	7064	8406	487	2844	5745	5400	1219	472	1907	889	1478	11365
2005	40.49	3.37	3.44	17.20	0.47	4.49	69.46	7014	2338	6856	7992	492	2806	5589	5773	1441	502	2152	959	1601	12428
2006	43.19	4.27	3.39	18.00	0.48	4.85	74.18	7033	2344	6351	7484	470	2813	5439	6141	1823	533	2405	1011	1725	13639
2007	47.12	4.86	3.50	18.99	0.55	5.34	80.37	7281	2427	6229	7248	512	2912	5515	6472	2003	562	2620	1081	1834	14573
2008	47.50	5.08	3.45	18.82	0.54	5.41	80.81	6989	2330	5911	6697	488	2796	5240	6797	2181	583	2810	1114	1936	15422
2009																					
2010																					

USA

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1963	1062.53	1.60	5.22	215.08	1.52		1285.95	19264	2035	17541	16098	1926		18270	55157	787	298	13360	786		70388
1964	1115.61	2.02	5.38	227.11	1.56		1351.69	19404	2048	17620	16207	1940		18364	57495	986	305	14013	806		73605
1965	1167.92	2.07	5.57	237.02	1.61		1414.20	19431	1498	17735	16020	1943		18265	60105	1382	314	14795	830		77426
1966	1226.30	2.74	5.65	240.43	1.65		1476.78	19381	1564	17553	16304	1938		18244	63274	1753	322	14746	849		80945
1967	1261.94	3.08	5.70	252.26	1.66		1524.64	18993	1575	16880	16363	1899		17932	66443	1953	338	15417	872		85023
1968	1326.52	3.31	5.79	271.89	1.74		1609.25	19056	1469	15893	15201	1906		17678	69612	2255	364	17886	913		91030
1969	1398.89	3.67	5.87	285.75	1.79		1695.97	19853	1444	16116	15990	1985		18407	70461	2540	364	17871	903		92139
1970	1466.72	4.38	5.88	296.80	1.84		1775.62	19842	1553	15550	15790	1984		18335	73919	2824	378	18797	927		96845
1971	1546.14	5.31	5.94	326.52	1.91		1885.81	20133	1588	14965	16432	2013		18606	76797	3344	397	19871	947		101356
1972	1634.18	6.38	5.94	365.99	1.98		2014.46	20323	1696	14592	17176	2032		18851	80412	3760	407	21308	973		106861
1973	1673.57	7.65	6.20	409.83	2.00		2099.24	19812	1749	14580	17632	1981		18492	84473	4371	425	23244	1008		113521
1974	1611.60	8.01	6.45	419.46	1.89		2047.43	18556	1614	14439	17031	1856		17364	86851	4966	447	24630	1020		117914
1975	1654.32	8.29	6.71	451.25	1.90		2122.47	18718	1669	14529	17503	1872		17598	88384	4964	462	25781	1015		120606
1976	1725.14	8.84	6.71	499.05	1.94		2241.68	18902	1791	14042	17902	1890		17850	91269	4933	478	27876	1028		125584
1977	1774.79	9.35	6.86	552.98	1.96		2345.93	19082	1894	13972	18864	1908		18218	93007	4933	491	29314	1025		128770
1978	1834.41	10.54	7.08	616.25	1.97		2470.25	18998	2164	14020	19666	1900		18393	96556	4868	505	31336	1038		134303
1979	1781.82	12.71	7.11	641.45	1.88		2444.98	18165	2345	13500	19489	1816		17718	98094	5422	527	32914	1035		137991
1980	1778.55	15.03	7.46	643.08	1.82		2445.95	17658	2640	14102	19101	1766		17269	100721	5694	529	33667	1029		141640
1981	1805.83	15.83	7.47	669.95	1.82		2500.90	17659	2714	13741	18130	1766		17057	102262	5831	544	36953	1032		146622
1982	1844.03	14.67	7.74	697.57	1.88		2565.89	17875	2550	13840	18406	1787		17288	103163	5754	559	37898	1050		148424
1983	1911.51	12.97	7.86	725.93	1.80		2660.07	18164	2322	13479	18818	1816		17620	105235	5585	583	38577	993		150973
1984	1973.80	13.00	7.85	773.10	1.80		2769.56	18239	2373	13433	19014	1824		17761	108218	5480	584	40659	989		155930
1985	2010.04	13.45	7.85	824.44	1.78		2857.56	17908	2471	13229	18882	1791		17538	112242	5444	593	43662	996		162937
1986	2056.02	13.91	8.19	874.21	1.77		2954.09	18174	2676	13779	19220	1817		17863	113129	5199	594	45484	973		165379
1987	2137.95	14.07	8.58	930.05	1.77		3092.43	18491	2880	14249	19616	1849		18247	115619	4886	602	47413	958		169478
1988	2227.41	14.84	8.81	1008.12	1.79		3260.97	19000	3238	14304	19870	1900		18729	117230	4584	616	50736	943		174110
1989	2277.57	15.36	9.13	1070.59	1.77		3374.41	19232	3474	14600	20063	1923		18984	118426	4420	625	53361	922		177754
1990	2296.82	14.15	9.22	1129.60	1.73		3451.52	19313	3322	14697	20131	1931		19088	118926	4259	627	56112	896		180820
1991	2271.84	13.59	9.25	1199.71	1.65		3496.04	19095	3253	14666	20602	1910		19117	118975	4177	631	58234	864		182880
1992	2311.07	14.15	9.30	1280.69	1.60		3616.81	19203	3481	14417	21387	1920		19469	120347	4065	645	59881	834		185772
1993	2325.67	14.67	9.86	1344.19	1.55		3695.93	19212	3687	15072	21451	1921		19539	121055	3978	654	62662	806		189155
1994	2348.37	15.16	10.31	1419.01	1.50		3794.35	19249	4036	15394	21476	1925		19632	121997	3757	670	66074	778		193276
1995	2379.18	14.51	10.33	1493.68	1.45		3899.14	19305	3722	15061	21572	1930		19711	123242	3897	686	69240	751		197816

(Continued)

USA (continued)

	VKT		(BVKT)					Average Distance							Number of vehicles ('000)						
	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	VKT total	Cars/ LCV	MCs	Buses	Trucks	MPs	Other	Veh total
1996	2412.63	14.69	10.56	1561.43	1.40		4000.70	19361	3793	15197	21551	1936		19771	124613	3872	695	72451	721		202352
1997	2459.72	14.93	11.01	1635.41	1.34		4122.41	19729	3901	15775	21990	1973		20183	124673	3826	698	74371	680		204248
1998	2503.98	15.22	11.28	1703.22	1.29		4234.99	19878	3925	15750	21972	1988		20290	125966	3879	716	77516	646		208723
1999	2521.53	15.67	11.31	1779.94	1.21		4329.67	19875	3774	15520	21992	1988		20299	126869	4152	729	80935	611		213296
2000	2543.95	15.50	11.35	1847.74	1.14		4419.68	19915	3566	15217	21946	1992		20311	127740	4346	746	84196	573		217601
2001	2567.62	15.51	11.39	1907.28	1.06		4502.86	19923	3318	15185	21998	1992		20326	128874	4675	750	86703	531		221533
2002	2594.04	15.37	11.02	1975.07	0.98		4596.47	19924	3072	14476	22013	1992		20323	130197	5004	761	89723	490		226175
2003	2594.64	15.41	10.92	2030.76	0.88		4652.61	19724	2870	14049	21851	1972		20134	131550	5370	777	92937	447		231081
2004	2620.42	16.29	10.95	2123.71	0.80		4772.16	19662	2824	13767	21646	1966		20021	133275	5768	795	98110	405		238353
2005	2598.90	18.46	11.23	2183.04	0.69		4812.32	19225	2964	13917	21110	1923		19563	135183	6227	807	103411	361		245989
2006	2597.83	19.39	10.91	2221.99	0.59		4850.71	18979	2903	13277	20760	1898		19270	136882	6679	822	107033	310		251726
2007	2583.34	21.90	11.22	2258.52	0.48		4875.46	18751	3068	13458	20532	1875		19045	137773	7138	834	110002	256		256003
2008	2498.63	23.31	11.45	2186.55	0.39		4720.32														
2009							4758.56														
2010							4828.79														

Appendix C
Scenario Calculations Data

Background

This Appendix presents the assumptions for, and the calculations of, the five scenarios for each country.

AUSTRALIA

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	22342	5.20	5.20	77.45	77.45	77.45	77.45	1.090159486	84.43	84.43	84.43	84.43	76.98	76.98	76.98	76.98
2011	22741	5.00	5.00	104.09	104.09	104.09	104.09	1.00	103.84	103.84	103.84	103.84	91.49	91.49	91.49	91.49
2012	23091	4.75	5.00		100	105	80	0.98		98.23	102.90	78.58		87.30	90.79	72.61
2013	23432	4.50	5.00		100	105	50	0.96		95.79	100.99	47.90		85.48	89.36	49.67
2014	23776	4.25	5.00		100	106	50	0.96		95.85	101.68	47.93		85.52	89.88	49.69
2015	24117	4.00	5.00		120	107	50	0.94		113.02	100.54	47.09		98.35	89.02	49.07
2016	24457	4.00	5.00		120	107	50	0.94		113.17	101.30	47.16		98.47	89.59	49.12
2017	24798	4.00	5.00		120	108	50	0.93		111.26	100.20	46.36		97.04	88.77	48.52
2018	25138	4.00	5.00		120	109	70	0.93		111.48	101.01	65.03		97.20	89.38	62.48
2019	25479	4.00	5.00		120	109	70	0.91		109.77	100.07	64.03		95.93	88.67	61.73
2020	25820	4.00	5.00		150	110	70	0.92		137.65	101.00	64.24		116.77	89.37	61.89
2021	26160	4.00	5.00		180	111	70	0.90		162.66	100.05	63.26		135.46	88.66	61.15
2022	26501	4.00	5.00		180	111	70	0.91		163.17	100.97	63.46		135.84	89.35	61.30
2023	26841	4.00	5.00		180	112	70	0.89		160.68	100.02	62.49		133.98	88.64	60.58
2024	27182	4.00	5.00		180	113	70	0.90		161.19	100.93	62.68		134.36	89.32	60.73
2025	27523	4.00	5.00		180	113	70	0.88		158.73	99.97	61.73		132.52	88.60	60.01
2026	27863	4.00	5.00		190	114	70	0.88		168.08	100.88	61.92		139.51	89.28	60.16
2027	28204	4.00	5.00		200	115	70	0.87		174.22	99.91	60.98		144.10	88.56	59.45
2028	28544	4.00	5.00		210	115	70	0.87		183.51	100.81	61.17		151.05	89.23	59.59
2029	28885	4.00	5.00		220	116	90	0.87		191.08	100.77	78.17		156.70	89.20	72.30
2030	29231	4.00	5.00		230	117	90	0.86		198.54	100.73	77.69		162.29	89.16	71.94

AUSTRALIA

	Excise tax	Real 2010 sales tax 10%				Real 2010 total petrol price				GFC effect		Other variables		
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Pre78time	Time	Time sq'd
2010	38.14	11.51	11.51	11.51	11.51	126.64	126.64	126.64	126.64	5.80	5.80	7	46	2116
2011	37.21	12.87	12.87	12.87	12.87	141.57	141.57	141.57	141.57	7.40	7.40	7	46	2116
2012	36.30		12.36	12.71	10.89	141.57	135.96	139.80	119.80	6.66	7.40	7	46	2116
2013	35.42		12.09	12.48	8.51	141.57	132.98	137.25	93.60	5.92	7.40	7	46	2116
2014	34.55		12.01	12.44	8.42	141.57	132.08	136.87	92.67	5.18	7.40	7	46	2116
2015	33.71		13.21	12.27	8.28	141.57	145.27	135.01	91.06	4.44	7.40	7	46	2116
2016	32.89		13.14	12.25	8.20	141.57	144.49	134.73	90.21	3.70	7.40	7	46	2116
2017	32.09		12.91	12.09	8.06	141.57	142.04	132.94	88.67	2.96	7.40	7	46	2116
2018	31.30		12.85	12.07	9.38	141.57	141.35	132.75	103.16	2.22	7.40	7	46	2116
2019	30.54		12.65	11.92	9.23	141.57	139.11	131.14	101.50	1.48	7.40	7	46	2116
2020	29.79		14.66	11.92	9.17	141.57	161.22	131.08	100.85	0.74	7.40	7	46	2116
2021	29.07		16.45	11.77	9.02	141.57	180.98	129.50	99.24	0.00	7.40	7	46	2116
2022	28.36		16.42	11.77	8.97	141.57	180.62	129.48	98.63	0.00	7.40	7	46	2116
2023	27.67		16.16	11.63	8.82	141.57	177.81	127.93	97.07	0.00	7.40	7	46	2116
2024	26.99		16.14	11.63	8.77	141.57	177.49	127.94	96.49	0.00	7.40	7	46	2116
2025	26.33		15.89	11.49	8.63	141.57	174.74	126.43	94.98	0.00	7.40	7	46	2116
2026	25.69		16.52	11.50	8.58	141.57	181.72	126.46	94.43	0.00	7.40	7	46	2116
2027	25.07		16.92	11.36	8.45	141.57	186.08	124.98	92.97	0.00	7.40	7	46	2116
2028	24.45		17.55	11.37	8.40	141.57	193.05	125.05	92.45	0.00	7.40	7	46	2116
2029	23.86		18.06	11.31	9.62	141.57	198.62	124.36	105.77	0.00	7.40	7	46	2116
2030	23.28		18.56	11.24	9.52	141.57	204.12	123.68	104.74	0.00	7.40	7	46	2116

AUSTRIA

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	8389	4.40	4.40	77.45	77.45	77.45	77.45	0.755046667	58.48	58.48	58.48	58.48	52.69	52.69	52.69	52.69
2011	8392	4.10	4.10	104.09	104.09	104.09	104.09	0.7003	72.90	72.90	72.90	72.90	60.20	60.20	60.20	60.20
2012	8395	3.93	4.10		100	105	80	0.7017		70.17	73.51	56.14		58.78	60.52	51.47
2013	8397	3.75	4.10		100	105	50	0.7000		70.00	73.79	35.00		58.69	60.67	40.45
2014	8398	3.58	4.10		100	106	50	0.6954		69.54	73.77	34.77		58.46	60.66	40.33
2015	8399	3.40	4.10		120	107	50	0.6890		82.68	73.55	34.45		65.30	60.54	40.16
2016	8400	3.40	4.10		120	107	50	0.6832		81.98	73.38	34.16		64.94	60.45	40.01
2017	8399	3.40	4.10		120	108	50	0.6779		81.34	73.26	33.89		64.61	60.39	39.87
2018	8399	3.40	4.10		120	109	70	0.6726		80.71	73.13	47.08		64.28	60.33	46.75
2019	8397	3.40	4.10		120	109	70	0.6674		80.09	73.01	46.72		63.95	60.26	46.56
2020	8395	3.40	4.10		150	110	70	0.6652		99.79	73.22	46.57		74.22	60.37	46.48
2021	8391	3.40	4.10		180	111	70	0.6631		119.36	73.42	46.42		84.42	60.48	46.40
2022	8387	3.40	4.10		180	111	70	0.6610		118.98	73.63	46.27		84.22	60.58	46.32
2023	8381	3.40	4.10		180	112	70	0.6589		118.60	73.82	46.12		84.02	60.69	46.25
2024	8373	3.40	4.10		180	113	70	0.6567		118.20	74.01	45.97		83.82	60.78	46.17
2025	8364	3.40	4.10		180	113	70	0.6545		117.80	74.20	45.81		83.61	60.88	46.09
2026	8353	3.40	4.10		190	114	70	0.6522		123.92	74.38	45.65		86.80	60.97	46.00
2027	8341	3.40	4.10		200	115	70	0.6500		129.99	74.55	45.50		89.96	61.06	45.92
2028	8327	3.40	4.10		210	115	70	0.6477		136.02	74.72	45.34		93.11	61.15	45.84
2029	8310	3.40	4.10		220	116	90	0.6455		142.00	74.89	58.09		96.22	61.24	52.49
2030	8293	3.40	4.10		230	117	90	0.6434		147.99	75.08	57.91		99.34	61.34	52.39

AUSTRIA													
	Excise tax	Real 2010 sales tax 20%				Real 2010 total petrol price				GFC effect		Other variables	
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Time	Time sq'd
2010	47.50	20.04	20.04	20.04	20.04	120.23	120.23	120.23	120.23	1.00	1.00	46	2116
2011	47.50	21.54	21.54	21.54	21.54	129.25	129.25	129.25	129.25	1.00	1.00	47	2209
2012	47.50		21.26	21.60	19.79	129.25	127.54	129.63	118.76	0.90	1.00	48	2304
2013	47.50		21.24	21.63	17.59	129.25	127.43	129.80	105.54	0.80	1.00	49	2401
2014	47.50		21.19	21.63	17.57	129.25	127.15	129.79	105.40	0.70	1.00	50	2500
2015	47.50		22.56	21.61	17.53	129.25	135.36	129.65	105.20	0.60	1.00	51	2601
2016	47.50		22.49	21.59	17.50	129.25	134.93	129.55	105.01	0.50	1.00	52	2704
2017	47.50		22.42	21.58	17.47	129.25	134.53	129.47	104.85	0.40	1.00	53	2809
2018	47.50		22.36	21.57	18.85	129.25	134.13	129.39	113.10	0.30	1.00	54	2916
2019	47.50		22.29	21.55	18.81	129.25	133.74	129.32	112.87	0.20	1.00	55	3025
2020	47.50		24.34	21.57	18.80	129.25	146.06	129.44	112.78	0.10	1.00	56	3136
2021	47.50		26.38	21.60	18.78	129.25	158.30	129.57	112.68	0.00	1.00	57	3249
2022	47.50		26.34	21.62	18.76	129.25	158.07	129.70	112.59	0.00	1.00	58	3364
2023	47.50		26.30	21.64	18.75	129.25	157.83	129.82	112.50	0.00	1.00	59	3481
2024	47.50		26.26	21.66	18.73	129.25	157.58	129.94	112.40	0.00	1.00	60	3600
2025	47.50		26.22	21.68	18.72	129.25	157.33	130.06	112.30	0.00	1.00	61	3721
2026	47.50		26.86	21.69	18.70	129.25	161.16	130.17	112.20	0.00	1.00	62	3844
2027	47.50		27.49	21.71	18.68	129.25	164.95	130.28	112.11	0.00	1.00	63	3969
2028	47.50		28.12	21.73	18.67	129.25	168.73	130.39	112.01	0.00	1.00	64	4096
2029	47.50		28.74	21.75	20.00	129.25	172.47	130.49	119.98	0.00	1.00	65	4225
2030	47.50		29.37	21.77	19.98	129.25	176.21	130.61	119.87	0.00	1.00	66	4356

BELGIUM

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	10840	8.30	8.30	77.45	77.45	77.45	77.45	0.755046667	58.48	58.48	58.48	58.48	60.11	60.11	60.11	60.11
2011	10841	6.60	6.60	104.09	104.09	104.09	104.09	0.70	72.90	72.90	72.90	72.90	69.87	69.87	69.87	69.87
2012	10842	6.33	6.60		100	105	80	0.70		70.17	73.51	56.14		68.02	70.28	58.52
2013	10843	6.05	6.60		100	105	50	0.70		70.00	73.79	35.00		67.90	70.47	44.21
2014	10844	5.78	6.60		100	106	50	0.70		69.54	73.77	34.77		67.60	70.46	44.06
2015	10845	5.50	6.60		120	107	50	0.69		82.68	73.55	34.45		76.49	70.31	43.84
2016	10846	5.50	6.60		120	107	50	0.68		81.98	73.38	34.16		76.02	70.19	43.64
2017	10847	5.50	6.60		120	108	50	0.68		81.34	73.26	33.89		75.59	70.11	43.46
2018	10848	5.50	6.60		120	109	70	0.67		80.71	73.13	47.08		75.16	70.03	52.39
2019	10849	5.50	6.60		120	109	70	0.67		80.09	73.01	46.72		74.74	69.95	52.15
2020	10850	5.50	6.60		150	110	70	0.67		99.79	73.22	46.57		88.07	70.08	52.04
2021	10851	5.50	6.60		180	111	70	0.66		119.36	73.42	46.42		101.32	70.22	51.94
2022	10852	5.50	6.60		180	111	70	0.66		118.98	73.63	46.27		101.06	70.36	51.84
2023	10853	5.50	6.60		180	112	70	0.66		118.60	73.82	46.12		100.81	70.50	51.74
2024	10854	5.50	6.60		180	113	70	0.66		118.20	74.01	45.97		100.54	70.62	51.64
2025	10855	5.50	6.60		180	113	70	0.65		117.80	74.20	45.81		100.27	70.75	51.53
2026	10856	5.50	6.60		190	114	70	0.65		123.92	74.38	45.65		104.41	70.87	51.43
2027	10857	5.50	6.60		200	115	70	0.65		129.99	74.55	45.50		108.52	70.99	51.32
2028	10858	5.50	6.60		210	115	70	0.65		136.02	74.72	45.34		112.60	71.10	51.21
2029	10859	5.50	6.60		220	116	90	0.65		142.00	74.89	58.09		116.65	71.22	59.85
2030	10860	5.50	6.60		230	117	90	0.64		147.99	75.08	57.91		120.70	71.34	59.72

BELGIUM														
	Excise tax	Real 2010 sales tax 21%				Real 2010 total petrol price				GFC effect		Other variables		
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Time73	Time	Time sq'd
2010	61.00	25.43	25.43	25.43	25.43	146.54	146.54	146.54	146.54	1.00	1.00	11	48	2304
2011	61.00	27.48	27.48	27.48	27.48	158.35	158.35	158.35	158.35	1.00	1.00	11	49	2401
2012	61.00		27.09	27.57	25.10	156.12	156.12	158.85	144.62	0.90	1.00	11	50	2500
2013	61.00		27.07	27.61	22.09	156.12	155.97	159.08	127.31	0.80	1.00	11	51	2601
2014	61.00		27.01	27.61	22.06	156.12	155.60	159.07	127.12	0.70	1.00	11	52	2704
2015	61.00		28.87	27.58	22.02	156.12	166.37	158.88	126.86	0.60	1.00	11	53	2809
2016	61.00		28.77	27.55	21.98	156.12	165.79	158.75	126.62	0.50	1.00	11	54	2916
2017	61.00		28.68	27.53	21.94	156.12	165.27	158.65	126.40	0.40	1.00	11	55	3025
2018	61.00		28.59	27.52	23.81	156.12	164.75	158.54	137.20	0.30	1.00	11	55	3025
2019	61.00		28.50	27.50	23.76	156.12	164.24	158.44	136.91	0.20	1.00	11	55	3025
2020	61.00		31.31	27.53	23.74	156.12	180.38	158.61	136.78	0.10	1.00	11	55	3025
2021	61.00		34.09	27.56	23.72	156.12	196.41	158.78	136.66	0.00	1.00	11	55	3025
2022	61.00		34.03	27.59	23.70	156.12	196.10	158.95	136.54	0.00	1.00	11	55	3025
2023	61.00		33.98	27.61	23.68	156.12	195.78	159.11	136.42	0.00	1.00	11	55	3025
2024	61.00		33.92	27.64	23.65	156.12	195.46	159.26	136.29	0.00	1.00	11	55	3025
2025	61.00		33.87	27.67	23.63	156.12	195.13	159.42	136.16	0.00	1.00	11	55	3025
2026	61.00		34.74	27.69	23.61	156.12	200.14	159.56	136.04	0.00	1.00	11	55	3025
2027	61.00		35.60	27.72	23.59	156.12	205.12	159.70	135.91	0.00	1.00	11	55	3025
2028	61.00		36.46	27.74	23.56	156.12	210.06	159.85	135.78	0.00	1.00	11	55	3025
2029	61.00		37.31	27.77	25.38	156.12	214.96	159.98	146.22	0.00	1.00	11	55	3025
2030	61.00		38.16	27.79	25.35	156.12	219.86	160.14	146.07	0.00	1.00	11	55	3025

BRITAIN

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	62348	7.80	7.80	77.45	77.45	77.45	77.45	0.647179	50.12	50.12	50.12	50.12	41.61	41.61	41.61	41.61
2011	62698	8.30	8.30	104.09	104.09	104.09	104.09	0.61	63.65	63.65	63.65	63.65	50.34	50.34	50.34	50.34
2012	63047	7.49	8.30		100	105	80	0.61		60.95	63.85	48.76		48.60	50.47	40.74
2013	63396	6.69	8.30		100	105	50	0.61		60.71	64.00	30.36		48.44	50.57	28.87
2014	63743	5.88	8.30		100	106	50	0.60		60.05	63.70	30.02		48.01	50.37	28.65
2015	64088	5.08	8.30		120	107	50	0.59		71.22	63.36	29.68		55.22	50.15	28.43
2016	64430	5.08	8.30		120	107	50	0.59		70.46	63.07	29.36		54.73	49.96	28.22
2017	64769	5.08	8.30		120	108	50	0.58		69.89	62.94	29.12		54.36	49.88	28.07
2018	65105	5.08	8.30		120	109	70	0.58		69.30	62.80	40.43		53.98	49.79	35.36
2019	65437	5.08	8.30		120	109	70	0.57		68.74	62.67	40.10		53.62	49.70	35.15
2020	65761	5.08	8.30		150	110	70	0.57		85.59	62.80	39.94		64.49	49.79	35.05
2021	66077	5.08	8.30		180	111	70	0.57		102.30	62.93	39.78		75.26	49.87	34.95
2022	66384	5.08	8.30		180	111	70	0.57		101.93	63.07	39.64		75.02	49.97	34.85
2023	66681	5.08	8.30		180	112	70	0.56		101.52	63.19	39.48		74.76	50.04	34.75
2024	66968	5.08	8.30		180	113	70	0.56		101.09	63.30	39.31		74.48	50.11	34.64
2025	67244	5.08	8.30		180	113	70	0.56		100.66	63.40	39.14		74.20	50.18	34.53
2026	67508	5.08	8.30		190	114	70	0.56		105.75	63.47	38.96		77.49	50.22	34.42
2027	67761	5.08	8.30		200	115	70	0.55		110.84	63.57	38.79		80.77	50.28	34.31
2028	68002	5.08	8.30		210	115	70	0.55		115.89	63.66	38.63		84.03	50.35	34.20
2029	68232	5.08	8.30		220	116	90	0.55		120.88	63.75	49.45		87.24	50.40	41.18
2030	68451	5.08	8.30		230	117	90	0.55		125.83	63.84	49.24		90.43	50.46	41.04

BRITAIN														
	Excise tax	Real 2010 sales tax 20%				Real 2010 total petrol price				GFC effect		Other variables		
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Time73	Time	Time sq'd
2010	57.20	19.76	19.76	19.76	19.76	118.58	118.58	118.58	118.58	1.00	1.00	11	48	2304
2011	59.00	21.87	21.87	21.87	21.87	131.20	131.20	131.20	131.20	1.00	1.00	11	49	2401
2012	59.00		21.52	21.89	19.95	131.20	129.12	131.36	119.68	0.90	1.00	11	50	2500
2013	59.00		21.49	21.91	17.57	131.20	128.93	131.48	105.44	0.80	1.00	11	51	2601
2014	59.00		21.40	21.87	17.53	131.20	128.42	131.24	105.18	0.70	1.00	11	52	2704
2015	59.00		22.84	21.83	17.49	131.20	137.07	130.98	104.91	0.60	1.00	11	53	2809
2016	59.00		22.75	21.79	17.44	131.20	136.47	130.75	104.67	0.50	1.00	11	54	2916
2017	59.00		22.67	21.78	17.41	131.20	136.03	130.65	104.48	0.40	1.00	11	54	2916
2018	59.00		22.60	21.76	18.87	131.20	135.58	130.54	113.23	0.30	1.00	11	54	2916
2019	59.00		22.52	21.74	18.83	131.20	135.14	130.44	112.98	0.20	1.00	11	54	2916
2020	59.00		24.70	21.76	18.81	131.20	148.18	130.55	112.86	0.10	1.00	11	54	2916
2021	59.00		26.85	21.77	18.79	131.20	161.11	130.64	112.73	0.00	1.00	11	54	2916
2022	59.00		26.80	21.79	18.77	131.20	160.83	130.76	112.62	0.00	1.00	11	54	2916
2023	59.00		26.75	21.81	18.75	131.20	160.51	130.85	112.50	0.00	1.00	11	54	2916
2024	59.00		26.70	21.82	18.73	131.20	160.18	130.93	112.37	0.00	1.00	11	54	2916
2025	59.00		26.64	21.84	18.71	131.20	159.84	131.01	112.24	0.00	1.00	11	54	2916
2026	59.00		27.30	21.84	18.68	131.20	163.79	131.07	112.10	0.00	1.00	11	54	2916
2027	59.00		27.95	21.86	18.66	131.20	167.72	131.14	111.97	0.00	1.00	11	54	2916
2028	59.00		28.61	21.87	18.64	131.20	171.63	131.22	111.84	0.00	1.00	11	54	2916
2029	59.00		29.25	21.88	20.04	131.20	175.49	131.28	120.22	0.00	1.00	11	54	2916
2030	59.00		29.89	21.89	20.01	131.20	179.32	131.35	120.05	0.00	1.00	11	54	2916

CANADA

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	33760	7.99	7.99	77.45	77.45	77.45	77.45	1.030162783	79.79	79.79	79.79	79.79	69.46	69.46	69.46	69.46
2011	34031	7.00	7.00	104.09	104.09	104.09	104.09	0.96	99.58	99.58	99.58	99.58	79.42	79.42	79.42	79.42
2012	34300	6.79	7.00		100	105	80	0.94		93.88	98.35	75.11		76.56	78.80	67.11
2013	34568	6.57	7.00		100	105	50	0.93		93.21	98.27	46.61		76.22	78.76	52.77
2014	34835	6.36	7.00		100	106	50	0.93		92.65	98.29	46.33		75.94	78.77	52.62
2015	35100	6.14	7.00		120	107	50	0.92		110.50	98.30	46.04		84.92	78.78	52.48
2016	35363	6.14	7.00		120	107	50	0.92		109.82	98.30	45.76		84.58	78.78	52.34
2017	35624	6.14	7.00		120	108	50	0.91		109.15	98.30	45.48		84.24	78.78	52.20
2018	35882	6.14	7.00		120	109	70	0.90		108.48	98.30	63.28		83.90	78.78	61.16
2019	36136	6.14	7.00		120	109	70	0.90		107.82	98.29	62.89		83.57	78.77	60.96
2020	36387	6.14	7.00		150	110	70	0.89		133.95	98.28	62.51		96.72	78.77	60.77
2021	36634	6.14	7.00		180	111	70	0.89		159.75	98.27	62.13		109.70	78.76	60.58
2022	36874	6.14	7.00		180	111	70	0.88		158.77	98.24	61.74		109.20	78.75	60.38
2023	37109	6.14	7.00		180	112	70	0.88		157.79	98.22	61.36		108.71	78.74	60.19
2024	37337	6.14	7.00		180	113	70	0.87		156.81	98.19	60.98		108.22	78.72	60.00
2025	37559	6.14	7.00		180	113	70	0.87		155.84	98.16	60.61		107.73	78.71	59.81
2026	37773	6.14	7.00		190	114	70	0.86		163.49	98.12	60.23		111.58	78.69	59.62
2027	37981	6.14	7.00		200	115	70	0.86		171.03	98.08	59.86		115.38	78.67	59.44
2028	38182	6.14	7.00		210	115	70	0.85		178.47	98.04	59.49		119.12	78.65	59.25
2029	38377	6.14	7.00		220	116	90	0.84		185.82	98.00	76.02		122.82	78.63	67.56
2030	38565	6.14	7.00		230	117	90	0.84		193.06	97.95	75.55		126.46	78.60	67.33

CANADA														
	Excise tax	Real 2010 sales tax 5%				Real 2010 total petrol price				GFC effect		Other variables		
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Time75	Time	Time sq'd
2010	27.50	4.85	4.85	4.85	4.85	101.81	101.81	101.81	101.81	1.00	1.00	13	45	2025
2011	28.50	5.40	5.40	5.40	5.40	113.32	113.32	113.32	113.32	1.00	1.00	13	45	2025
2012	28.50		5.25	5.37	4.78	113.32	110.31	112.67	100.39	0.90	1.00	13	45	2025
2013	28.50		5.24	5.36	4.06	113.32	109.95	112.62	85.33	0.80	1.00	13	45	2025
2014	28.50		5.22	5.36	4.06	113.32	109.66	112.63	85.18	0.70	1.00	13	45	2025
2015	28.50		5.67	5.36	4.05	113.32	119.09	112.64	85.03	0.60	1.00	13	45	2025
2016	28.50		5.65	5.36	4.04	113.32	118.73	112.64	84.88	0.50	1.00	13	45	2025
2017	28.50		5.64	5.36	4.03	113.32	118.37	112.64	84.73	0.40	1.00	13	45	2025
2018	28.50		5.62	5.36	4.48	113.32	118.02	112.64	94.14	0.30	1.00	13	45	2025
2019	28.50		5.60	5.36	4.47	113.32	117.67	112.64	93.93	0.20	1.00	13	45	2025
2020	28.50		6.26	5.36	4.46	113.32	131.48	112.63	93.73	0.10	1.00	13	45	2025
2021	28.50		6.91	5.36	4.45	113.32	145.11	112.62	93.53	0.00	1.00	13	45	2025
2022	28.50		6.89	5.36	4.44	113.32	144.59	112.61	93.33	0.00	1.00	13	45	2025
2023	28.50		6.86	5.36	4.43	113.32	144.07	112.60	93.12	0.00	1.00	13	45	2025
2024	28.50		6.84	5.36	4.42	113.32	143.56	112.58	92.92	0.00	1.00	13	45	2025
2025	28.50		6.81	5.36	4.42	113.32	143.05	112.57	92.73	0.00	1.00	13	45	2025
2026	28.50		7.00	5.36	4.41	113.32	147.08	112.55	92.53	0.00	1.00	13	45	2025
2027	28.50		7.19	5.36	4.40	113.32	151.07	112.53	92.33	0.00	1.00	13	45	2025
2028	28.50		7.38	5.36	4.39	113.32	155.00	112.51	92.14	0.00	1.00	13	45	2025
2029	28.50		7.57	5.36	4.80	113.32	158.88	112.48	100.87	0.00	1.00	13	45	2025
2030	28.50		7.75	5.36	4.79	113.32	162.71	112.46	100.62	0.00	1.00	13	45	2025

CZECH REPUBLIC

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	10202	7.30	7.30	60.28	60.28	60.28	60.28	0.1909825	11.51	11.51	11.51	11.51	12.37	12.37	12.37	12.37
2011	10190	6.80	6.80	80.33	80.33	80.33	80.33	0.17	13.79	13.79	13.79	13.79	15.07	15.07	15.07	15.07
2012	10177	6.29	6.80	0.00	77.24	80.82	62.20	0.17		13.07	13.67	10.52		14.21	14.93	11.20
2013	10163	5.78	6.80	0.00	77.24	81.32	39.62	0.17		12.88	13.56	6.61		13.99	14.80	6.58
2014	10147	5.27	6.80	0.00	77.24	81.82	39.62	0.16		12.73	13.49	6.53		13.82	14.71	6.48
2015	10130	4.76	6.80	0.00	92.29	82.32	39.62	0.16		15.01	13.39	6.44		16.51	14.59	6.38
2016	10110	4.76	6.80	0.00	92.29	82.82	39.62	0.16		14.81	13.29	6.36		16.27	14.47	6.28
2017	10089	4.76	6.80	0.00	92.29	83.32	39.62	0.16		14.62	13.20	6.28		16.05	14.37	6.18
2018	10066	4.76	6.80	0.00	92.29	83.82	54.67	0.16		14.44	13.11	8.55		15.83	14.27	8.88
2019	10041	4.76	6.80	0.00	92.29	84.32	54.67	0.15		14.26	13.03	8.45		15.62	14.16	8.75
2020	10013	4.76	6.80	0.00	114.87	84.81	54.67	0.15		17.60	13.00	8.38		19.58	14.13	8.67
2021	9984	4.76	6.80	0.00	137.44	85.31	54.67	0.15		20.92	12.98	8.32		23.49	14.11	8.60
2022	9952	4.76	6.80	0.00	137.44	85.81	54.67	0.15		20.77	12.97	8.26		23.32	14.10	8.53
2023	9918	4.76	6.80	0.00	137.44	86.31	54.67	0.15		20.63	12.96	8.21		23.16	14.08	8.47
2024	9882	4.76	6.80	0.00	137.44	86.81	54.67	0.15		20.50	12.95	8.15		23.00	14.07	8.40
2025	9844	4.76	6.80	0.00	137.44	87.31	54.67	0.15		20.39	12.95	8.11		22.87	14.07	8.35
2026	9804	4.76	6.80	0.00	144.97	87.81	54.67	0.15		21.39	12.95	8.07		24.05	14.08	8.30
2027	9763	4.76	6.80	0.00	152.49	88.30	54.67	0.15		22.38	12.96	8.02		25.22	14.08	8.25
2028	9720	4.76	6.80	0.00	160.02	88.80	54.67	0.15		23.38	12.97	7.99		26.40	14.10	8.21
2029	9675	4.76	6.80	0.00	167.54	89.30	69.72	0.15		24.37	12.99	10.14		27.57	14.12	10.75
2030	9629	4.76	6.80	0.00	175.07	89.80	69.72	0.14		25.35	13.00	10.10		28.73	14.14	10.70

CZECH REPUBLIC												
	Excise tax	Real 2010 sales tax 20%				Real 2010 total petrol price				GFC effect		Other variables
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Time
2010	12.80	5.03	5.03	5.03	5.03	30.21	30.21	30.21	30.21	1.00	1.00	22
2011	12.80	5.57	5.57	5.57	5.57	33.44	33.44	33.44	33.44	1.00	1.00	23
2012	12.80		5.40	5.55	4.80	33.44	32.42	33.28	28.81	0.90	1.00	24
2013	12.80		5.36	5.52	3.88	33.44	32.15	33.12	23.25	0.80	1.00	25
2014	12.80		5.32	5.50	3.86	33.44	31.94	33.01	23.14	0.70	1.00	26
2015	12.80		5.86	5.48	3.84	33.44	35.18	32.87	23.02	0.60	1.00	27
2016	12.80		5.81	5.45	3.82	33.44	34.88	32.73	22.90	0.50	1.00	28
2017	12.80		5.77	5.43	3.80	33.44	34.62	32.60	22.78	0.40	1.00	29
2018	12.80		5.73	5.41	4.34	33.44	34.36	32.48	26.01	0.30	1.00	30
2019	12.80		5.68	5.39	4.31	33.44	34.11	32.36	25.86	0.20	1.00	31
2020	12.80		6.48	5.39	4.29	33.44	38.85	32.32	25.76	0.10	1.00	32
2021	12.80		7.26	5.38	4.28	33.44	43.55	32.30	25.68	0.00	1.00	33
2022	12.80		7.22	5.38	4.27	33.44	43.35	32.28	25.60	0.00	1.00	34
2023	12.80		7.19	5.38	4.25	33.44	43.15	32.26	25.52	0.00	1.00	35
2024	12.80		7.16	5.37	4.24	33.44	42.96	32.24	25.44	0.00	1.00	36
2025	12.80		7.13	5.37	4.23	33.44	42.80	32.25	25.38	0.00	1.00	37
2026	12.80		7.37	5.38	4.22	33.44	44.22	32.25	25.32	0.00	1.00	38
2027	12.80		7.60	5.38	4.21	33.44	45.62	32.26	25.26	0.00	1.00	39
2028	12.80		7.84	5.38	4.20	33.44	47.04	32.28	25.21	0.00	1.00	40
2029	12.80		8.07	5.38	4.71	33.44	48.44	32.30	28.26	0.00	1.00	41
2030	12.80		8.31	5.39	4.70	33.44	49.84	32.32	28.20	0.00	1.00	42

DENMARK

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	5548	7.40	7.40	77.45	77.45	77.45	77.45	5.62408	435.58	435.58	435.58	435.58	4.39	4.39	4.39	4.39
2011	5562	7.20	7.20	104.09	104.09	104.09	104.09	5.20	541.73	541.73	541.73	541.73	5.08	5.08	5.08	5.08
2012	5575	6.78	7.20		100	105	80	5.21		521.24	546.04	416.99		4.95	5.11	4.27
2013	5588	6.35	7.20		100	105	50	5.20		520.44	548.65	260.22		4.94	5.13	3.26
2014	5601	5.93	7.20		100	106	50	5.18		517.90	549.40	258.95		4.93	5.13	3.25
2015	5614	5.50	7.20		120	107	50	5.14		616.57	548.47	256.91		5.57	5.13	3.23
2016	5626	5.50	7.20		120	107	50	5.10		611.57	547.40	254.82		5.54	5.12	3.22
2017	5639	5.50	7.20		120	108	50	5.05		606.36	546.08	252.65		5.50	5.11	3.21
2018	5651	5.50	7.20		120	109	70	5.01		600.88	544.47	350.52		5.47	5.10	3.84
2019	5663	5.50	7.20		120	109	70	4.96		595.55	542.93	347.41		5.43	5.09	3.82
2020	5675	5.50	7.20		150	110	70	4.94		741.10	543.76	345.84		6.38	5.10	3.81
2021	5687	5.50	7.20		180	111	70	4.92		885.32	544.58	344.29		7.31	5.10	3.80
2022	5699	5.50	7.20		180	111	70	4.90		881.34	545.38	342.74		7.29	5.11	3.79
2023	5710	5.50	7.20		180	112	70	4.87		877.38	546.15	341.20		7.26	5.11	3.78
2024	5721	5.50	7.20		180	113	70	4.85		873.43	546.92	339.67		7.24	5.12	3.77
2025	5731	5.50	7.20		180	113	70	4.83		869.51	547.66	338.14		7.21	5.12	3.76
2026	5740	5.50	7.20		190	114	70	4.81		913.69	548.38	336.62		7.50	5.13	3.75
2027	5748	5.50	7.20		200	115	70	4.79		957.45	549.09	335.11		7.78	5.13	3.74
2028	5754	5.50	7.20		210	115	70	4.77		1000.81	549.78	333.60		8.06	5.14	3.73
2029	5760	5.50	7.20		220	116	90	4.74		1043.75	550.45	426.99		8.34	5.14	4.34
2030	5763	5.50	7.20		230	117	90	4.72		1086.29	551.11	425.07		8.62	5.14	4.33

DENMARK														
	Excise tax	Real 2010 sales tax 25%				Real 2010 total petrol price				GFC effect		Other variables		
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Time73	Time	Time sq'd
2010	3.82	2.05	2.05	2.05	2.05	10.27	10.27	10.27	10.27	1.00	1.00	11	48	2304
2011	3.82	2.23	2.23	2.23	2.23	11.13	11.13	11.13	11.13	1.00	1.00	11	49	2401
2012	3.82		2.19	2.23	2.02	11.13	10.96	11.16	10.12	0.90	1.00	11	49	2401
2013	3.82		2.19	2.24	1.77	11.13	10.96	11.18	8.84	0.80	1.00	11	49	2401
2014	3.82		2.19	2.24	1.77	11.13	10.94	11.19	8.83	0.70	1.00	11	49	2401
2015	3.82		2.35	2.24	1.76	11.13	11.74	11.18	8.82	0.60	1.00	11	49	2401
2016	3.82		2.34	2.23	1.76	11.13	11.70	11.17	8.80	0.50	1.00	11	49	2401
2017	3.82		2.33	2.23	1.76	11.13	11.65	11.16	8.78	0.40	1.00	11	49	2401
2018	3.82		2.32	2.23	1.92	11.13	11.61	11.15	9.58	0.30	1.00	11	49	2401
2019	3.82		2.31	2.23	1.91	11.13	11.57	11.14	9.55	0.20	1.00	11	49	2401
2020	3.82		2.55	2.23	1.91	11.13	12.75	11.15	9.54	0.10	1.00	11	49	2401
2021	3.82		2.78	2.23	1.91	11.13	13.92	11.15	9.53	0.00	1.00	11	49	2401
2022	3.82		2.78	2.23	1.90	11.13	13.89	11.16	9.51	0.00	1.00	11	49	2401
2023	3.82		2.77	2.23	1.90	11.13	13.85	11.16	9.50	0.00	1.00	11	49	2401
2024	3.82		2.76	2.23	1.90	11.13	13.82	11.17	9.49	0.00	1.00	11	49	2401
2025	3.82		2.76	2.24	1.90	11.13	13.79	11.18	9.48	0.00	1.00	11	49	2401
2026	3.82		2.83	2.24	1.89	11.13	14.15	11.18	9.46	0.00	1.00	11	49	2401
2027	3.82		2.90	2.24	1.89	11.13	14.50	11.19	9.45	0.00	1.00	11	49	2401
2028	3.82		2.97	2.24	1.89	11.13	14.85	11.19	9.44	0.00	1.00	11	49	2401
2029	3.82		3.04	2.24	2.04	11.13	15.20	11.20	10.20	0.00	1.00	11	49	2401
2030	3.82		3.11	2.24	2.04	11.13	15.55	11.20	10.18	0.00	1.00	11	49	2401

FINLAND

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	5344	8.40	8.40	77.45	77.45	77.45	77.45	0.755046667	58.48	58.48	58.48	58.48	57.72	57.72	57.72	57.72
2011	5348	7.00	7.00	104.09	104.09	104.09	104.09	0.70	72.90	72.90	72.90	72.90	67.39	67.39	67.39	67.39
2012	5352	6.75	7.00		100	105	80	0.70		70.17	73.51	56.14		65.56	67.80	56.15
2013	5355	6.50	7.00		100	105	50	0.70		70.00	73.79	35.00		65.45	67.99	41.97
2014	5358	6.25	7.00		100	106	50	0.70		69.54	73.77	34.77		65.14	67.98	41.82
2015	5360	6.00	7.00		120	107	50	0.69		82.68	73.55	34.45		73.96	67.83	41.60
2016	5362	6.00	7.00		120	107	50	0.68		81.98	73.38	34.16		73.49	67.72	41.40
2017	5362	6.00	7.00		120	108	50	0.68		81.34	73.26	33.89		73.06	67.63	41.23
2018	5363	6.00	7.00		120	109	70	0.67		80.71	73.13	47.08		72.63	67.55	50.07
2019	5362	6.00	7.00		120	109	70	0.67		80.09	73.01	46.72		72.22	67.47	49.83
2020	5361	6.00	7.00		150	110	70	0.67		99.79	73.22	46.57		85.43	67.61	49.73
2021	5359	6.00	7.00		180	111	70	0.66		119.36	73.42	46.42		98.56	67.74	49.63
2022	5356	6.00	7.00		180	111	70	0.66		118.98	73.63	46.27		98.31	67.88	49.53
2023	5352	6.00	7.00		180	112	70	0.66		118.60	73.82	46.12		98.05	68.01	49.43
2024	5347	6.00	7.00		180	113	70	0.66		118.20	74.01	45.97		97.78	68.14	49.33
2025	5340	6.00	7.00		180	113	70	0.65		117.80	74.20	45.81		97.52	68.26	49.22
2026	5333	6.00	7.00		190	114	70	0.65		123.92	74.38	45.65		101.62	68.38	49.12
2027	5324	6.00	7.00		200	115	70	0.65		129.99	74.55	45.50		105.69	68.50	49.01
2028	5314	6.00	7.00		210	115	70	0.65		136.02	74.72	45.34		109.74	68.62	48.91
2029	5302	6.00	7.00		220	116	90	0.65		142.00	74.89	58.09		113.75	68.73	57.46
2030	5289	6.00	7.00		230	117	90	0.64		147.99	75.08	57.91		117.77	68.86	57.34

FINLAND													
	Excise tax	Real 2010 sales tax 23%				Real 2010 total petrol price				GFC effect		Other variables	
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Time	Time sq'd
2010	57.20	26.43	26.43	26.43	26.43	141.35	141.35	141.35	141.35			48	2304
2011	57.20	28.66	28.66	28.66	28.66	153.25	153.25	153.25	153.25			49	2401
2012	57.20		28.24	28.75	26.07	153.25	151.00	153.75	139.42			50	2500
2013	57.20		28.21	28.79	22.81	153.25	150.85	153.98	121.98			51	2601
2014	57.20		28.14	28.79	22.77	153.25	150.48	153.97	121.79			52	2704
2015	57.20		30.17	28.76	22.72	153.25	161.32	153.79	121.52			53	2809
2016	57.20		30.06	28.73	22.68	153.25	160.74	153.65	121.28			54	2916
2017	57.20		29.96	28.71	22.64	153.25	160.22	153.55	121.07			55	3025
2018	57.20		29.86	28.69	24.67	153.25	159.69	153.44	131.95			56	3136
2019	57.20		29.77	28.67	24.62	153.25	159.18	153.34	131.65			57	3249
2020	57.20		32.81	28.71	24.59	153.25	175.44	153.51	131.52			58	3364
2021	57.20		35.82	28.74	24.57	153.25	191.58	153.68	131.40			59	3481
2022	57.20		35.77	28.77	24.55	153.25	191.27	153.85	131.28			60	3600
2023	57.20		35.71	28.80	24.52	153.25	190.96	154.01	131.15			61	3721
2024	57.20		35.65	28.83	24.50	153.25	190.63	154.17	131.03			62	3844
2025	57.20		35.58	28.86	24.48	153.25	190.30	154.32	130.90			63	3969
2026	57.20		36.53	28.88	24.45	153.25	195.35	154.47	130.77			64	4096
2027	57.20		37.47	28.91	24.43	153.25	200.36	154.61	130.64			65	4225
2028	57.20		38.40	28.94	24.40	153.25	205.34	154.75	130.51			66	4356
2029	57.20		39.32	28.96	26.37	153.25	210.27	154.89	141.03			67	4489
2030	57.20		40.24	28.99	26.34	153.25	215.21	155.05	140.88			68	4624

FRANCE

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	64768	9.81	9.81	77.45	77.45	77.45	77.45	0.755046667	58.48	58.48	58.48	58.48	0.54	0.54	0.54	0.54
2011	65103	8.70	8.70	104.09	104.09	104.09	104.09	0.70	72.90	72.90	72.90	72.90	0.64	0.64	0.64	0.64
2012	65423	8.03	8.70		100	105	80	0.70		70.17	73.51	56.14		0.62	0.65	0.52
2013	65729	7.35	8.70		100	105	50	0.70		70.00	73.79	35.00		0.62	0.65	0.36
2014	66022	6.68	8.70		100	106	50	0.70		69.54	73.77	34.77		0.62	0.65	0.36
2015	66301	6.00	8.70		120	107	50	0.69		82.68	73.55	34.45		0.71	0.65	0.36
2016	66568	6.00	8.70		120	107	50	0.68		81.98	73.38	34.16		0.71	0.65	0.36
2017	66822	6.00	8.70		120	108	50	0.68		81.34	73.26	33.89		0.70	0.64	0.35
2018	67065	6.00	8.70		120	109	70	0.67		80.71	73.13	47.08		0.70	0.64	0.45
2019	67297	6.00	8.70		120	109	70	0.67		80.09	73.01	46.72		0.69	0.64	0.45
2020	67518	6.00	8.70		150	110	70	0.67		99.79	73.22	46.57		0.84	0.64	0.45
2021	67728	6.00	8.70		180	111	70	0.66		119.36	73.42	46.42		0.98	0.65	0.45
2022	67930	6.00	8.70		180	111	70	0.66		118.98	73.63	46.27		0.98	0.65	0.45
2023	68122	6.00	8.70		180	112	70	0.66		118.60	73.82	46.12		0.98	0.65	0.44
2024	68306	6.00	8.70		180	113	70	0.66		118.20	74.01	45.97		0.98	0.65	0.44
2025	68482	6.00	8.70		180	113	70	0.65		117.80	74.20	45.81		0.97	0.65	0.44
2026	68650	6.00	8.70		190	114	70	0.65		123.92	74.38	45.65		1.02	0.65	0.44
2027	68812	6.00	8.70		200	115	70	0.65		129.99	74.55	45.50		1.06	0.65	0.44
2028	68965	6.00	8.70		210	115	70	0.65		136.02	74.72	45.34		1.11	0.66	0.44
2029	69111	6.00	8.70		220	116	90	0.65		142.00	74.89	58.09		1.15	0.66	0.53
2030	69249	6.00	8.70		230	117	90	0.64		147.99	75.08	57.91		1.20	0.66	0.53

FRANCE														
	Excise tax	Real 2010 sales tax 19.6%				Real 2010 total petrol price				GFC effect		Other variables		
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Time73	Time	Time sq'd
2010	0.61	0.22	0.22	0.22	0.22	1.36	1.36	1.36	1.36	1.00	1.00	8	48	2304
2011	0.61	0.24	0.24	0.24	0.24	1.49	1.49	1.49	1.49	1.00	1.00	8	49	2401
2012	0.61		0.24	0.25	0.22	1.49	1.47	1.50	1.34	0.90	1.00	8	50	2500
2013	0.61		0.24	0.25	0.19	1.49	1.47	1.50	1.16	0.80	1.00	8	51	2601
2014	0.61		0.24	0.25	0.19	1.49	1.46	1.50	1.16	0.70	1.00	8	52	2704
2015	0.61		0.26	0.25	0.19	1.49	1.58	1.50	1.15	0.60	1.00	8	53	2809
2016	0.61		0.26	0.25	0.19	1.49	1.57	1.50	1.15	0.50	1.00	8	54	2916
2017	0.61		0.26	0.25	0.19	1.49	1.57	1.50	1.15	0.40	1.00	8	55	3025
2018	0.61		0.26	0.24	0.21	1.49	1.56	1.49	1.26	0.30	1.00	8	56	3136
2019	0.61		0.25	0.24	0.21	1.49	1.56	1.49	1.26	0.20	1.00	8	57	3249
2020	0.61		0.28	0.24	0.21	1.49	1.73	1.49	1.26	0.10	1.00	8	57	3249
2021	0.61		0.31	0.25	0.21	1.49	1.90	1.50	1.26	0.00	1.00	8	57	3249
2022	0.61		0.31	0.25	0.21	1.49	1.90	1.50	1.26	0.00	1.00	8	57	3249
2023	0.61		0.31	0.25	0.21	1.49	1.90	1.50	1.26	0.00	1.00	8	57	3249
2024	0.61		0.31	0.25	0.21	1.49	1.89	1.50	1.25	0.00	1.00	8	57	3249
2025	0.61		0.31	0.25	0.21	1.49	1.89	1.50	1.25	0.00	1.00	8	57	3249
2026	0.61		0.32	0.25	0.21	1.49	1.94	1.51	1.25	0.00	1.00	8	57	3249
2027	0.61		0.33	0.25	0.20	1.49	2.00	1.51	1.25	0.00	1.00	8	57	3249
2028	0.61		0.34	0.25	0.20	1.49	2.05	1.51	1.25	0.00	1.00	8	57	3249
2029	0.61		0.34	0.25	0.22	1.49	2.10	1.51	1.36	0.00	1.00	8	57	3249
2030	0.61		0.35	0.25	0.22	1.49	2.15	1.51	1.36	0.00	1.00	8	57	3249

GERMANY

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	81707	7.05	7.05	77.45	77.45	77.45	77.45	0.755046667	58.48	58.48	58.48	58.48	0.52	0.52	0.52	0.52
2011	81535	5.90	5.90	104.09	104.09	104.09	104.09	0.70	72.90	72.90	72.90	72.90	0.63	0.63	0.63	0.63
2012	81369	5.58	5.90		100	105	80	0.70		70.17	73.51	56.14		0.61	0.63	0.50
2013	81209	5.25	5.90		100	105	50	0.70		70.00	73.79	35.00		0.60	0.63	0.35
2014	81059	4.93	5.90		100	106	50	0.70		69.54	73.77	34.77		0.60	0.63	0.35
2015	80916	4.60	5.90		120	107	50	0.69		82.68	73.55	34.45		0.70	0.63	0.35
2016	80785	4.60	5.90		120	107	50	0.68		81.98	73.38	34.16		0.69	0.63	0.35
2017	80656	4.60	5.90		120	108	50	0.68		81.34	73.26	33.89		0.69	0.63	0.34
2018	80520	4.60	5.90		120	109	70	0.67		80.71	73.13	47.08		0.68	0.63	0.44
2019	80375	4.60	5.90		120	109	70	0.67		80.09	73.01	46.72		0.68	0.63	0.44
2020	80222	4.60	5.90		150	110	70	0.67		99.79	73.22	46.57		0.82	0.63	0.44
2021	80058	4.60	5.90		180	111	70	0.66		119.36	73.42	46.42		0.96	0.63	0.43
2022	79881	4.60	5.90		180	111	70	0.66		118.98	73.63	46.27		0.96	0.63	0.43
2023	79694	4.60	5.90		180	112	70	0.66		118.60	73.82	46.12		0.95	0.63	0.43
2024	79496	4.60	5.90		180	113	70	0.66		118.20	74.01	45.97		0.95	0.63	0.43
2025	79287	4.60	5.90		180	113	70	0.65		117.80	74.20	45.81		0.95	0.63	0.43
2026	79067	4.60	5.90		190	114	70	0.65		123.92	74.38	45.65		0.99	0.64	0.43
2027	78836	4.60	5.90		200	115	70	0.65		129.99	74.55	45.50		1.04	0.64	0.43
2028	78594	4.60	5.90		210	115	70	0.65		136.02	74.72	45.34		1.08	0.64	0.43
2029	78342	4.60	5.90		220	116	90	0.65		142.00	74.89	58.09		1.12	0.64	0.52
2030	78082	4.60	5.90		230	117	90	0.64		147.99	75.08	57.91		1.17	0.64	0.52

GERMANY														
	Excise tax	Real 2010 sales tax 19%				Real 2010 total petrol price				GFC effect		Other variables		
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Time73	Time	Time sq'd
2010	0.66	0.22	0.22	0.22	0.22	1.40	1.40	1.40	1.40	1.00	1.00	11	48	2304
2011	0.66	0.24	0.24	0.24	0.24	1.52	1.52	1.52	1.52	1.00	1.00	11	49	2401
2012	0.66		0.24	0.24	0.22	1.52	1.50	1.53	1.38	0.90	1.00	11	50	2500
2013	0.66		0.24	0.24	0.19	1.52	1.50	1.53	1.20	0.80	1.00	11	51	2601
2014	0.66		0.24	0.24	0.19	1.52	1.49	1.53	1.20	0.70	1.00	11	52	2704
2015	0.66		0.26	0.24	0.19	1.52	1.61	1.53	1.19	0.60	1.00	11	53	2809
2016	0.66		0.26	0.24	0.19	1.52	1.60	1.53	1.19	0.50	1.00	11	54	2916
2017	0.66		0.25	0.24	0.19	1.52	1.60	1.53	1.19	0.40	1.00	11	55	3025
2018	0.66		0.25	0.24	0.21	1.52	1.59	1.53	1.30	0.30	1.00	11	56	3136
2019	0.66		0.25	0.24	0.21	1.52	1.59	1.52	1.30	0.20	1.00	11	57	3249
2020	0.66		0.28	0.24	0.21	1.52	1.75	1.53	1.30	0.10	1.00	11	58	3364
2021	0.66		0.31	0.24	0.21	1.52	1.92	1.53	1.30	0.00	1.00	11	59	3481
2022	0.66		0.31	0.24	0.21	1.52	1.92	1.53	1.30	0.00	1.00	11	60	3600
2023	0.66		0.31	0.24	0.21	1.52	1.92	1.53	1.29	0.00	1.00	11	61	3721
2024	0.66		0.31	0.24	0.21	1.52	1.91	1.53	1.29	0.00	1.00	11	62	3844
2025	0.66		0.30	0.25	0.21	1.52	1.91	1.53	1.29	0.00	1.00	11	63	3969
2026	0.66		0.31	0.25	0.21	1.52	1.96	1.54	1.29	0.00	1.00	11	64	4096
2027	0.66		0.32	0.25	0.21	1.52	2.01	1.54	1.29	0.00	1.00	11	65	4225
2028	0.66		0.33	0.25	0.21	1.52	2.07	1.54	1.29	0.00	1.00	11	66	4356
2029	0.66		0.34	0.25	0.22	1.52	2.12	1.54	1.40	0.00	1.00	11	67	4489
2030	0.66		0.35	0.25	0.22	1.52	2.17	1.54	1.40	0.00	1.00	11	68	4624

GREECE

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	10750	12.60	12.60	77.45	77.45	77	77.45	0.755046667	58.48	58.48	58.48	58.48	0.54	0.54	0.54	0.54
2011	10760	16.40	16.40	104.09	104.09	104	104.09	0.70	72.90	72.90	72.90	72.90	0.61	0.61	0.61	0.61
2012	10768	16.30	16.40		100	105	80	0.70		70.17	73.51	56.14		0.59	0.61	0.53
2013	10773	16.20	16.40		100	105	50	0.70		70.00	73.79	35.00		0.59	0.61	0.42
2014	10776	16.10	16.40		100	106	50	0.70		69.54	73.77	34.77		0.59	0.61	0.42
2015	10776	16.00	16.40		120	107	50	0.69		82.68	73.55	34.45		0.65	0.61	0.42
2016	10773	15.00	16.40		120	107	50	0.68		81.98	73.38	34.16		0.65	0.61	0.42
2017	10768	14.00	16.40		120	108	50	0.68		81.34	73.26	33.89		0.65	0.61	0.42
2018	10762	13.00	16.40		120	109	70	0.67		80.71	73.13	47.08		0.64	0.61	0.48
2019	10753	12.00	16.40		120	109	70	0.67		80.09	73.01	46.72		0.64	0.61	0.48
2020	10742	11.00	16.40		150	110	70	0.67		99.79	73.22	46.57		0.73	0.61	0.48
2021	10730	10.00	16.40		180	111	70	0.66		119.36	73.42	46.42		0.83	0.61	0.48
2022	10717	9.00	16.40		180	111	70	0.66		118.98	73.63	46.27		0.83	0.61	0.48
2023	10702	8.00	16.40		180	112	70	0.66		118.60	73.82	46.12		0.82	0.61	0.48
2024	10687	7.00	16.40		180	113	70	0.66		118.20	74.01	45.97		0.82	0.61	0.48
2025	10671	6.00	16.40		180	113	70	0.65		117.80	74.20	45.81		0.82	0.61	0.48
2026	10654	6.00	16.40		190	114	70	0.65		123.92	74.38	45.65		0.85	0.61	0.48
2027	10637	6.00	16.40		200	115	70	0.65		129.99	74.55	45.50		0.88	0.61	0.48
2028	10619	6.00	16.40		210	115	70	0.65		136.02	74.72	45.34		0.91	0.61	0.47
2029	10601	6.00	16.40		220	116	90	0.65		142.00	74.89	58.09		0.94	0.62	0.54
2030	10583	6.00	16.40		230	117	90	0.64		147.99	75.08	57.91		0.97	0.62	0.53

GREECE													
	Excise tax	Real 2010 sales tax 22%				Real 2010 total petrol price				GFC effect		Other variables	
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Pre73time	Time
2010	0.62	0.25	0.25	0.25	0.25	1.41	1.41	1.41	1.41			11	48
2011	0.62	0.27	0.27	0.27	0.27	1.50	1.50	1.50	1.50			11	49
2012	0.62		0.27	0.27	0.25	1.50	1.48	1.50	1.40			11	50
2013	0.62		0.27	0.27	0.23	1.50	1.48	1.50	1.28			11	51
2014	0.62		0.27	0.27	0.23	1.50	1.48	1.50	1.27			11	52
2015	0.62		0.28	0.27	0.23	1.50	1.55	1.50	1.27			11	53
2016	0.62		0.28	0.27	0.23	1.50	1.55	1.50	1.27			11	54
2017	0.62		0.28	0.27	0.23	1.50	1.55	1.50	1.27			11	55
2018	0.62		0.28	0.27	0.24	1.50	1.54	1.50	1.35			11	56
2019	0.62		0.28	0.27	0.24	1.50	1.54	1.50	1.34			11	57
2020	0.62		0.30	0.27	0.24	1.50	1.65	1.50	1.34			11	58
2021	0.62		0.32	0.27	0.24	1.50	1.77	1.50	1.34			11	59
2022	0.62		0.32	0.27	0.24	1.50	1.77	1.50	1.34			11	60
2023	0.62		0.32	0.27	0.24	1.50	1.76	1.50	1.34			11	61
2024	0.62		0.32	0.27	0.24	1.50	1.76	1.50	1.34			11	62
2025	0.62		0.32	0.27	0.24	1.50	1.76	1.50	1.34			11	63
2026	0.62		0.32	0.27	0.24	1.50	1.80	1.51	1.34			11	64
2027	0.62		0.33	0.27	0.24	1.50	1.83	1.51	1.34			11	65
2028	0.62		0.34	0.27	0.24	1.50	1.87	1.51	1.34			11	66
2029	0.62		0.34	0.27	0.25	1.50	1.90	1.51	1.41			11	67
2030	0.62		0.35	0.27	0.25	1.50	1.94	1.51	1.41			11	68

HUNGARY

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	10000	11.20	11.20	77.45	77.45	77.45	77.45	207.94	16105	16105	16105	16105	161.79	161.79	161.79	161.79
2011	9984	10.00	10.00	104.09	104.09	104	104.09	157.63	16408	16408	16408	16408	163.85	163.85	163.85	163.85
2012	9966	9.00	10.00		100	105	80	183.48		18348	19221	14678		177.03	182.96	152.09
2013	9947	8.00	10.00		100	105	50	180.41		18041	19019	9020		174.94	181.58	113.64
2014	9927	7.00	10.00		100	106	50	176.28		17628	18700	8814		172.13	179.42	112.24
2015	9906	6.00	10.00		120	107	50	172.51		20701	18414	8625		193.01	177.48	110.96
2016	9883	5.00	10.00		120	107	50	168.87		20265	18138	8444		190.05	175.60	109.73
2017	9859	5.00	10.00		120	108	50	165.83		19899	17921	8291		187.57	174.12	108.69
2018	9834	5.00	10.00		120	109	70	163.09		19571	17734	11416		185.34	172.85	129.93
2019	9807	5.00	10.00		120	109	70	160.65		19278	17574	11245		183.34	171.77	128.76
2020	9780	5.00	10.00		150	110	70	158.37		23755	17430	11086		213.77	170.79	127.68
2021	9751	5.00	10.00		180	111	70	156.90		28243	17373	10983		244.26	170.40	126.98
2022	9721	5.00	10.00		180	111	70	155.49		27989	17319	10884		242.54	170.04	126.31
2023	9690	5.00	10.00		180	112	70	154.13		27744	17270	10789		240.87	169.70	125.66
2024	9657	5.00	10.00		180	113	70	152.82		27507	17224	10697		239.26	169.39	125.04
2025	9623	5.00	10.00		180	113	70	151.55		27279	17182	10609		237.72	169.10	124.44
2026	9588	5.00	10.00		190	114	70	150.33		28563	17143	10523		246.44	168.84	123.86
2027	9551	5.00	10.00		200	115	70	149.16		29831	17108	10441		255.06	168.60	123.30
2028	9513	5.00	10.00		210	115	70	148.02		31085	17076	10362		263.57	168.38	122.76
2029	9474	5.00	10.00		220	116	90	146.93		32325	17048	13224		272.00	168.19	142.21
2030	9434	5.00	10.00		230	117	90	145.88		33553	17022	13129		280.34	168.02	141.57

HUNGARY												
	Excise tax	Real 2010 sales tax 0%				Real 2010 total petrol price				GFC effect		Other variables
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Time
2010	208.77	0.00	0.00	0.00	0.00	370.56	370.56	370.56	370.56	1.00	1.00	20
2011	208.77	0.00	0.00	0.00	0.00	372.61	372.61	372.61	372.61	1.00	1.00	21
2012	208.77		0.00	0.00	0.00	372.61	385.79	391.73	360.86	0.90	1.00	22
2013	208.77		0.00	0.00	0.00	372.61	383.71	390.35	322.41	0.80	1.00	23
2014	208.77		0.00	0.00	0.00	372.61	380.90	388.19	321.01	0.70	1.00	24
2015	208.77		0.00	0.00	0.00	372.61	401.78	386.25	319.73	0.60	1.00	25
2016	208.77		0.00	0.00	0.00	372.61	398.82	384.37	318.49	0.50	1.00	26
2017	208.77		0.00	0.00	0.00	372.61	396.33	382.89	317.46	0.40	1.00	27
2018	208.77		0.00	0.00	0.00	372.61	394.11	381.62	338.70	0.30	1.00	28
2019	208.77		0.00	0.00	0.00	372.61	392.11	380.54	337.53	0.20	1.00	29
2020	208.77		0.00	0.00	0.00	372.61	422.54	379.55	336.45	0.10	1.00	30
2021	208.77		0.00	0.00	0.00	372.61	453.03	379.17	335.75	0.00	1.00	31
2022	208.77		0.00	0.00	0.00	372.61	451.30	378.81	335.08	0.00	1.00	32
2023	208.77		0.00	0.00	0.00	372.61	449.64	378.47	334.43	0.00	1.00	33
2024	208.77		0.00	0.00	0.00	372.61	448.03	378.16	333.81	0.00	1.00	34
2025	208.77		0.00	0.00	0.00	372.61	446.49	377.87	333.21	0.00	1.00	35
2026	208.77		0.00	0.00	0.00	372.61	455.21	377.61	332.63	0.00	1.00	36
2027	208.77		0.00	0.00	0.00	372.61	463.82	377.37	332.07	0.00	1.00	37
2028	208.77		0.00	0.00	0.00	372.61	472.34	377.15	331.53	0.00	1.00	38
2029	208.77		0.00	0.00	0.00	372.61	480.77	376.96	350.98	0.00	1.00	39
2030	208.77		0.00	0.00	0.00	372.61	489.11	376.79	350.33	0.00	1.00	40

IRELAND

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	4501	12.75	12.75	4501	12.75	12.75	77.45	77.45	58.5	58.5	58.5	58.5	0.54	0.54	0.54	0.54
2011	4548	13.95	13.95	4548	13.95	13.95	104.09	104.09	72.9	72.9	72.9	72.9	0.65	0.65	0.65	0.65
2012	4597	13.40	13.95	4597	13.40	13.95		100		70.2	73.5	56.1		0.63	0.66	0.52
2013	4650	12.85	13.95	4650	12.85	13.95		100		70.0	73.8	35.0		0.63	0.66	0.35
2014	4705	12.30	13.95	4705	12.30	13.95		100		69.5	73.8	34.8		0.63	0.66	0.35
2015	4763	10.00	13.95	4763	10.00	13.95		120		82.7	73.5	34.5		0.73	0.66	0.34
2016	4821	9.00	13.95	4821	9.00	13.95		120		82.0	73.4	34.2		0.73	0.66	0.34
2017	4879	8.00	13.95	4879	8.00	13.95		120		81.3	73.3	33.9		0.72	0.66	0.34
2018	4934	7.00	13.95	4934	7.00	13.95		120		80.7	73.1	47.1		0.72	0.66	0.45
2019	4988	6.00	13.95	4988	6.00	13.95		120		80.1	73.0	46.7		0.71	0.65	0.44
2020	5040	6.00	13.95	5040	6.00	13.95		150		99.8	73.2	46.6		0.87	0.66	0.44
2021	5090	6.00	13.95	5090	6.00	13.95		180		119.4	73.4	46.4		1.03	0.66	0.44
2022	5139	6.00	13.95	5139	6.00	13.95		180		119.0	73.6	46.3		1.03	0.66	0.44
2023	5185	6.00	13.95	5185	6.00	13.95		180		118.6	73.8	46.1		1.02	0.66	0.44
2024	5231	6.00	13.95	5231	6.00	13.95		180		118.2	74.0	46.0		1.02	0.66	0.44
2025	5275	6.00	13.95	5275	6.00	13.95		180		117.8	74.2	45.8		1.02	0.66	0.44
2026	5318	6.00	13.95	5318	6.00	13.95		190		123.9	74.4	45.7		1.06	0.67	0.43
2027	5361	6.00	13.95	5361	6.00	13.95		200		130.0	74.5	45.5		1.11	0.67	0.43
2028	5401	6.00	13.95	5401	6.00	13.95		210		136.0	74.7	45.3		1.16	0.67	0.43
2029	5442	6.00	13.95	5442	6.00	13.95		220		142.0	74.9	58.1		1.21	0.67	0.53
2030	5482	6.00	13.95	5482	6.00	13.95		230		148.0	75.1	57.9		1.26	0.67	0.53

IRELAND														
	Excise tax	Real 2010 sales tax 21%				Real 2010 total petrol price				GFC effect		Other variables		
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Pre73time	Time	Time sq'd
2010	0.54	0.23	0.23	0.23	0.23	1.31	1.31	1.31	1.31	1.00	1.00	11	48	2304
2011	0.54	0.25	0.25	0.25	0.25	1.45	1.45	1.45	1.45	1.00	1.00	11	49	2401
2012	0.54		0.25	0.25	0.22	1.45	1.42	1.45	1.28	0.90	1.00	11	50	2500
2013	0.54		0.25	0.25	0.19	1.45	1.42	1.46	1.08	0.80	1.00	11	51	2601
2014	0.54		0.24	0.25	0.19	1.45	1.41	1.46	1.08	0.70	1.00	11	52	2704
2015	0.54		0.27	0.25	0.19	1.45	1.54	1.45	1.07	0.60	1.00	11	53	2809
2016	0.54		0.27	0.25	0.19	1.45	1.54	1.45	1.07	0.50	1.00	11	54	2916
2017	0.54		0.26	0.25	0.18	1.45	1.53	1.45	1.07	0.40	1.00	11	55	3025
2018	0.54		0.26	0.25	0.21	1.45	1.52	1.45	1.20	0.30	1.00	11	56	3136
2019	0.54		0.26	0.25	0.21	1.45	1.52	1.45	1.19	0.20	1.00	11	57	3249
2020	0.54		0.30	0.25	0.21	1.45	1.71	1.45	1.19	0.10	1.00	11	58	3364
2021	0.54		0.33	0.25	0.21	1.45	1.90	1.45	1.19	0.00	1.00	11	59	3481
2022	0.54		0.33	0.25	0.21	1.45	1.90	1.45	1.19	0.00	1.00	11	60	3600
2023	0.54		0.33	0.25	0.21	1.45	1.89	1.46	1.19	0.00	1.00	11	61	3721
2024	0.54		0.33	0.25	0.20	1.45	1.89	1.46	1.19	0.00	1.00	11	62	3844
2025	0.54		0.33	0.25	0.20	1.45	1.88	1.46	1.18	0.00	1.00	11	63	3969
2026	0.54		0.34	0.25	0.20	1.45	1.94	1.46	1.18	0.00	1.00	11	64	4096
2027	0.54		0.35	0.25	0.20	1.45	2.00	1.46	1.18	0.00	1.00	11	65	4225
2028	0.54		0.36	0.25	0.20	1.45	2.06	1.47	1.18	0.00	1.00	11	66	4356
2029	0.54		0.37	0.25	0.23	1.45	2.12	1.47	1.30	0.00	1.00	11	67	4489
2030	0.54		0.38	0.25	0.22	1.45	2.18	1.47	1.30	0.00	1.00	11	68	4624

ISRAEL

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	7354	7.40	7.40	77.45	77.45	77.45	77.45	3.738975	289.58	289.58	289.58	289.58	2.95	2.95	2.95	2.95
2011	7473	5.20	5.20	104.09	104.09	104.09	104.09	3.41	354.85	354.85	354.85	354.85	3.35	3.35	3.35	3.35
2012	7591	4.90	5.20		100	105	80	3.33		332.57	348.39	266.05		3.22	3.31	2.81
2013	7707	4.60	5.20		100	105	50	3.29		328.72	346.54	164.36		3.19	3.30	2.19
2014	7822	4.30	5.20		100	106	50	3.26		325.89	345.72	162.95		3.18	3.30	2.18
2015	7935	4.00	5.20		120	107	50	3.23		387.70	344.88	161.54		3.55	3.29	2.17
2016	8047	4.00	5.20		120	107	50	3.20		383.96	343.67	159.98		3.53	3.28	2.16
2017	8157	4.00	5.20		120	108	50	3.17		380.00	342.23	158.33		3.51	3.28	2.15
2018	8266	4.00	5.20		120	109	70	3.13		376.03	340.73	219.35		3.48	3.27	2.53
2019	8373	4.00	5.20		120	109	70	3.10		372.01	339.14	217.01		3.46	3.26	2.51
2020	8479	4.00	5.20		150	110	70	3.07		459.95	337.48	214.64		3.99	3.25	2.50
2021	8583	4.00	5.20		180	111	70	3.03		545.81	335.74	212.26		4.52	3.24	2.48
2022	8685	4.00	5.20		180	111	70	3.00		539.64	333.93	209.86		4.48	3.22	2.47
2023	8786	4.00	5.20		180	112	70	2.96		533.39	332.03	207.43		4.44	3.21	2.45
2024	8886	4.00	5.20		180	113	70	2.93		527.25	330.15	205.04		4.40	3.20	2.44
2025	8984	4.00	5.20		180	113	70	2.89		521.06	328.19	202.63		4.36	3.19	2.42
2026	9081	4.00	5.20		190	114	70	2.86		543.48	326.19	200.23		4.50	3.18	2.41
2027	9177	4.00	5.20		200	115	70	2.83		565.44	324.28	197.91		4.64	3.17	2.40
2028	9272	4.00	5.20		210	115	70	2.80		587.06	322.50	195.69		4.77	3.15	2.38
2029	9366	4.00	5.20		220	116	90	2.77		608.41	320.86	248.90		4.90	3.14	2.71
2030	9459	4.00	5.20		230	117	90	2.74		629.14	319.18	246.19		5.02	3.13	2.69

ISRAEL														
	Excise tax	Real 2010 sales tax 16%				Real 2010 total petrol price				GFC effect		Other variables		
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Pre68time	Time	Time sq'd
2010	2.82	0.92	0.92	0.92	0.92	6.70	6.70	6.70	6.70	1.00	1.00	6	48	2304
2011	2.82	0.99	0.99	0.99	0.99	7.16	7.16	7.16	7.16	1.00	1.00	6	49	2401
2012	2.82		0.97	0.98	0.90	7.16	7.00	7.11	6.53	0.90	1.00	6	50	2500
2013	2.82		0.96	0.98	0.80	7.16	6.97	7.10	5.81	0.80	1.00	6	51	2601
2014	2.82		0.96	0.98	0.80	7.16	6.95	7.10	5.80	0.70	1.00	6	52	2704
2015	2.82		1.02	0.98	0.80	7.16	7.39	7.09	5.79	0.60	1.00	6	53	2809
2016	2.82		1.02	0.98	0.80	7.16	7.37	7.08	5.78	0.50	1.00	6	54	2916
2017	2.82		1.01	0.98	0.80	7.16	7.34	7.07	5.77	0.40	1.00	6	55	3025
2018	2.82		1.01	0.97	0.86	7.16	7.31	7.06	6.20	0.30	1.00	6	56	3136
2019	2.82		1.00	0.97	0.85	7.16	7.28	7.05	6.19	0.20	1.00	6	57	3249
2020	2.82		1.09	0.97	0.85	7.16	7.90	7.04	6.17	0.10	1.00	6	58	3364
2021	2.82		1.17	0.97	0.85	7.16	8.51	7.02	6.15	0.00	1.00	6	59	3481
2022	2.82		1.17	0.97	0.85	7.16	8.47	7.01	6.13	0.00	1.00	6	60	3600
2023	2.82		1.16	0.97	0.84	7.16	8.42	7.00	6.12	0.00	1.00	6	61	3721
2024	2.82		1.16	0.96	0.84	7.16	8.38	6.98	6.10	0.00	1.00	6	62	3844
2025	2.82		1.15	0.96	0.84	7.16	8.33	6.97	6.08	0.00	1.00	6	63	3969
2026	2.82		1.17	0.96	0.84	7.16	8.49	6.96	6.07	0.00	1.00	6	64	4096
2027	2.82		1.19	0.96	0.83	7.16	8.65	6.94	6.05	0.00	1.00	6	65	4225
2028	2.82		1.21	0.96	0.83	7.16	8.80	6.93	6.03	0.00	1.00	6	65	4225
2029	2.82		1.23	0.95	0.88	7.16	8.95	6.92	6.41	0.00	1.00	6	65	4225
2030	2.82		1.25	0.95	0.88	7.16	9.10	6.91	6.39	0.00	1.00	6	65	4225

ITALY

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	60749	8.40	8.40	77.45	77.45	77.45	77.45	0.755046667	58.48	58.48	58.48	58.48	0.58	0.58	0.58	0.58
2011	61017	7.80	7.80	104.09	104.09	104.09	104.09	0.70	72.90	72.90	72.90	72.90	0.67	0.67	0.67	0.67
2012	61261	7.48	7.80		100	105	80	0.70		70.17	73.51	56.14		0.65	0.67	0.56
2013	61482	7.15	7.80		100	105	50	0.70		70.00	73.79	35.00		0.65	0.67	0.43
2014	61680	6.83	7.80		100	106	50	0.70		69.54	73.77	34.77		0.65	0.67	0.43
2015	61855	6.50	7.80		120	107	50	0.69		82.68	73.55	34.45		0.73	0.67	0.43
2016	62008	6.00	7.80		120	107	50	0.68		81.98	73.38	34.16		0.73	0.67	0.42
2017	62138	6.00	7.80		120	108	50	0.68		81.34	73.26	33.89		0.72	0.67	0.42
2018	62247	6.00	7.80		120	109	70	0.67		80.71	73.13	47.08		0.72	0.67	0.51
2019	62335	6.00	7.80		120	109	70	0.67		80.09	73.01	46.72		0.71	0.67	0.50
2020	62403	6.00	7.80		150	110	70	0.67		99.79	73.22	46.57		0.84	0.67	0.50
2021	62456	6.00	7.80		180	111	70	0.66		119.36	73.42	46.42		0.96	0.67	0.50
2022	62500	6.00	7.80		180	111	70	0.66		118.98	73.63	46.27		0.96	0.67	0.50
2023	62537	6.00	7.80		180	112	70	0.66		118.60	73.82	46.12		0.96	0.68	0.50
2024	62567	6.00	7.80		180	113	70	0.66		118.20	74.01	45.97		0.96	0.68	0.50
2025	62591	6.00	7.80		180	113	70	0.65		117.80	74.20	45.81		0.95	0.68	0.50
2026	62609	6.00	7.80		190	114	70	0.65		123.92	74.38	45.65		0.99	0.68	0.50
2027	62620	6.00	7.80		200	115	70	0.65		129.99	74.55	45.50		1.03	0.68	0.50
2028	62626	6.00	7.80		210	115	70	0.65		136.02	74.72	45.34		1.07	0.68	0.50
2029	62627	6.00	7.80		220	116	90	0.65		142.00	74.89	58.09		1.11	0.68	0.58
2030	62623	6.00	7.80		230	117	90	0.64		147.99	75.08	57.91		1.14	0.68	0.57

ITALY														
	Excise tax	Real 2010 sales tax 20%				Real 2010 total petrol price				GFC effect		Other variables		
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Pre68time	Time	Time sq'd
2010	0.56	0.23	0.23	0.23	0.23	1.37	1.37	1.37	1.37	1.00	1.00	6	48	2304
2011	0.56	0.25	0.25	0.25	0.25	1.48	1.48	1.48	1.48	1.00	1.00	6	49	2401
2012	0.56		0.24	0.25	0.23	1.48	1.46	1.48	1.35	0.90	1.00	6	50	2500
2013	0.56		0.24	0.25	0.20	1.48	1.46	1.49	1.19	0.80	1.00	6	51	2601
2014	0.56		0.24	0.25	0.20	1.48	1.45	1.49	1.19	0.70	1.00	6	52	2704
2015	0.56		0.26	0.25	0.20	1.48	1.55	1.48	1.19	0.60	1.00	6	53	2809
2016	0.56		0.26	0.25	0.20	1.48	1.55	1.48	1.19	0.50	1.00	6	54	2916
2017	0.56		0.26	0.25	0.20	1.48	1.54	1.48	1.18	0.40	1.00	6	54	2916
2018	0.56		0.26	0.25	0.21	1.48	1.54	1.48	1.28	0.30	1.00	6	54	2916
2019	0.56		0.26	0.25	0.21	1.48	1.53	1.48	1.28	0.20	1.00	6	54	2916
2020	0.56		0.28	0.25	0.21	1.48	1.68	1.48	1.28	0.10	1.00	6	54	2916
2021	0.56		0.31	0.25	0.21	1.48	1.83	1.48	1.28	0.00	1.00	6	54	2916
2022	0.56		0.30	0.25	0.21	1.48	1.83	1.49	1.28	0.00	1.00	6	54	2916
2023	0.56		0.30	0.25	0.21	1.48	1.83	1.49	1.28	0.00	1.00	6	54	2916
2024	0.56		0.30	0.25	0.21	1.48	1.82	1.49	1.28	0.00	1.00	6	54	2916
2025	0.56		0.30	0.25	0.21	1.48	1.82	1.49	1.27	0.00	1.00	6	54	2916
2026	0.56		0.31	0.25	0.21	1.48	1.87	1.49	1.27	0.00	1.00	6	54	2916
2027	0.56		0.32	0.25	0.21	1.48	1.91	1.49	1.27	0.00	1.00	6	54	2916
2028	0.56		0.33	0.25	0.21	1.48	1.96	1.49	1.27	0.00	1.00	6	54	2916
2029	0.56		0.33	0.25	0.23	1.48	2.00	1.50	1.37	0.00	1.00	6	54	2916
2030	0.56		0.34	0.25	0.23	1.48	2.05	1.50	1.37	0.00	1.00	6	54	2916

JAPAN

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	127234	5.15		77.45	77.45	77.45	77.45	87.7799	6799	6799	6799	6799	73.37	73.37	73.37	73.37
2011	126905	4.70		104.09	104.09	104.09	104.09	82.27	8564	8564	8564	8564	86.71	86.71	86.71	86.71
2012	126530	4.61			100	105	80	82.18	8564	8218	8609	6575		84.10	87.05	71.67
2013	126111	4.52			100	105	50	82.39	8564	8239	8685	4119		84.25	87.63	53.12
2014	125648	4.42			100	106	50	82.10	8564	8210	8709	4105		84.03	87.81	53.01
2015	125142	4.33			120	107	50	81.41	8564	9769	8690	4071		95.82	87.67	52.75
2016	124595	4.00			120	107	50	80.73	8564	9687	8671	4036		95.20	87.52	52.49
2017	124010	4.00			120	108	50	80.05	8564	9606	8651	4003		94.59	87.37	52.23
2018	123389	4.00			120	109	70	79.38	8564	9526	8631	5557		93.98	87.22	63.98
2019	122734	4.00			120	109	70	78.72	8564	9446	8611	5510		93.38	87.07	63.63
2020	122046	4.00			150	110	70	78.06	8564	11709	8591	5464		110.48	86.91	63.28
2021	121329	4.00			180	111	70	77.40	8564	13933	8570	5418		127.29	86.76	62.93
2022	120585	4.00			180	111	70	76.75	8564	13816	8549	5373		126.41	86.60	62.59
2023	119817	4.00			180	112	70	76.11	8564	13700	8528	5328		125.53	86.44	62.25
2024	119026	4.00			180	113	70	75.47	8564	13585	8507	5283		124.66	86.28	61.91
2025	118216	4.00			180	113	70	74.84	8564	13471	8485	5239		123.80	86.11	61.58
2026	117387	4.00			190	114	70	74.21	8564	14101	8463	5195		128.56	85.95	61.25
2027	116540	4.00			200	115	70	73.59	8564	14718	8441	5151		133.23	85.78	60.92
2028	115677	4.00			210	115	70	72.98	8564	15325	8419	5108		137.81	85.61	60.59
2029	114799	4.00			220	116	90	72.36	8564	15920	8396	6513		142.31	85.44	71.21
2030	113905	4.00			230	117	90	71.76	8564	16504	8373	6458		146.73	85.27	70.79

JAPAN

	Excise tax	Real 2010 sales tax 5%				Real 2010 total petrol price				GFC effect		Other variables			5-yr aver real 2010 landed oil price (-1)			
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Pre68time	Time	Time sq'd	Base	High	Medium	Low
2010	55.80	6.46	6.46	6.46	6.46	135.63	135.63	135.63	135.63			8	48	2304	7434	7434	7434	7434
2011	55.80	7.13	7.13	7.13	7.13	149.63	149.63	149.63	149.63			8	49	2401	7735	7735	7735	7735
2012	55.80		6.99	7.14	6.37	149.63	146.89	149.99	133.85			8	50	2500	7832	7763	7842	7435
2013	55.80		7.00	7.17	5.45	149.63	147.06	150.60	114.36			8	51	2601	7633	7499	7666	6346
2014	55.80		6.99	7.18	5.44	149.63	146.83	150.79	114.25			8	52	2704	8211	8006	8273	6032
2015	55.80		7.58	7.17	5.43	149.63	159.20	150.64	113.98			8	53	2809	8564	8600	8652	5487
2016	55.80		7.55	7.17	5.41	149.63	158.55	150.49	113.70			8	53	2809	8564	8825	8673	4581
2017	55.80		7.52	7.16	5.40	149.63	157.91	150.33	113.44			8	53	2809	8564	9102	8681	4067
2018	55.80		7.49	7.15	5.99	149.63	157.27	150.17	125.77			8	53	2809	8564	9360	8671	4354
2019	55.80		7.46	7.14	5.97	149.63	156.64	150.01	125.40			8	53	2809	8564	9607	8651	4635
2020	55.80		8.31	7.14	5.95	149.63	174.59	149.85	125.03			8	53	2809	8564	9995	8631	4914
2021	55.80		9.15	7.13	5.94	149.63	192.24	149.69	124.67			8	53	2809	8564	10844	8611	5190
2022	55.80		9.11	7.12	5.92	149.63	191.32	149.52	124.31			8	53	2809	8564	11686	8591	5464
2023	55.80		9.07	7.11	5.90	149.63	190.40	149.35	123.95			8	53	2809	8564	12521	8570	5419
2024	55.80		9.02	7.10	5.89	149.63	189.49	149.18	123.60			8	53	2809	8564	13348	8549	5373
2025	55.80		8.98	7.10	5.87	149.63	188.58	149.01	123.25			8	53	2809	8564	13701	8528	5328
2026	55.80		9.22	7.09	5.85	149.63	193.58	148.83	122.90			8	53	2809	8564	13735	8506	5284
2027	55.80		9.45	7.08	5.84	149.63	198.48	148.66	122.55			8	53	2809	8564	13915	8485	5239
2028	55.80		9.68	7.07	5.82	149.63	203.29	148.48	122.21			8	53	2809	8564	14240	8463	5195
2029	55.80		9.91	7.06	6.35	149.63	208.02	148.30	133.36			8	53	2809	8564	14707	8441	5441
2030	55.80		10.13	7.05	6.33	149.63	212.65	148.12	132.92			8	53	2809	8564	15314	8418	5685

KOREA

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	48636	3.43	3.43	77.45	77.45	77.45	77.45	1156	89537	89537	89537	89537	804	804	804	804
2011	48755	3.48	3.48	104.09	104.09	104.09	104.09	1055	109864	109864	109864	109864	911	911	911	911
2012	48861	3.47	3.48		100	105	80	1028		102827	107719	82262		874	900	766
2013	48955	3.31	3.48		100	105	50	1008		100792	106255	50396		863	892	599
2014	49040	3.06	3.48		100	106	50	995		99493	105545	49746		856	888	596
2015	49115	2.84	3.48		120	107	50	983		117970	104940	49154		953	885	593
2016	49181	2.67	3.48		120	107	50	971		116563	104332	48568		946	882	590
2017	49237	2.56	3.48		120	108	50	961		115285	103825	48035		939	879	587
2018	49286	2.50	3.48		120	109	70	951		114110	103397	66564		933	877	684
2019	49328	2.50	3.48		120	109	70	942		113005	103020	65920		927	875	681
2020	49362	2.50	3.48		150	110	70	932		139871	102628	65273		1068	873	677
2021	49388	2.50	3.48		180	111	70	923		166200	102233	64633		1206	871	674
2022	49403	2.50	3.48		180	111	70	914		164571	101837	64000		1197	869	671
2023	49406	2.50	3.48		180	112	70	905		162957	101439	63372		1189	867	667
2024	49396	2.50	3.48		180	113	70	896		161360	101038	62751		1180	865	664
2025	49372	2.50	3.48		180	113	70	888		159778	100636	62136		1172	862	661
2026	49334	2.50	3.48		190	114	70	879		167001	100232	61527		1210	860	658
2027	49279	2.50	3.48		200	115	70	870		174067	99826	60923		1247	858	654
2028	49205	2.50	3.48		210	115	70	862		180978	99418	60326		1283	856	651
2029	49113	2.50	3.48		220	116	90	853		187737	99009	76802		1319	854	738
2030	49003	2.50	3.48		230	117	90	845		194347	98598	76049		1353	852	734

KOREA															
	Excise tax	Real 2010 sales tax 10%				Real 2010 total petrol price				GFC effect		Other variables			
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Pre88time	Time	4yr unemp	Unchanged
2010	746	155	155	155	155	1705	1705	1705	1705	1.00	1.00	18	40	3.43	3.43
2011	746	166	166	166	166	1822	1822	1822	1822	1.00	1.00	18	41	3.48	3.48
2012	746		162	165	151	1822	1782	1810	1663	0.90	1.00	18	42	3.47	3.53
2013	746		161	164	135	1822	1770	1802	1480	0.80	1.00	18	43	3.31	3.48
2014	746		160	163	134	1822	1763	1798	1476	0.70	1.00	18	44	3.06	3.40
2015	746		170	163	134	1822	1869	1794	1473	0.60	1.00	18	45	2.84	3.40
2016	746		169	163	134	1822	1861	1791	1469	0.50	1.00	18	46	2.67	3.40
2017	746		169	163	133	1822	1854	1788	1466	0.40	1.00	18	47	2.56	3.40
2018	746		168	162	143	1822	1847	1785	1573	0.30	1.00	18	48	2.50	3.40
2019	746		167	162	143	1822	1841	1783	1569	0.20	1.00	18	49	2.50	3.40
2020	746		181	162	142	1822	1995	1781	1566	0.10	1.00	18	50	2.50	3.40
2021	746		195	162	142	1822	2147	1779	1562	0.00	1.00	18	51	2.50	3.40
2022	746		194	161	142	1822	2138	1776	1558	0.00	1.00	18	52	2.50	3.40
2023	746		193	161	141	1822	2128	1774	1555	0.00	1.00	18	53	2.50	3.40
2024	746		193	161	141	1822	2119	1772	1551	0.00	1.00	18	54	2.50	3.40
2025	746		192	161	141	1822	2110	1769	1548	0.00	1.00	18	55	2.50	3.40
2026	746		196	161	140	1822	2152	1767	1544	0.00	1.00	18	56	2.50	3.40
2027	746		199	160	140	1822	2192	1765	1541	0.00	1.00	18	57	2.50	3.40
2028	746		203	160	140	1822	2232	1762	1537	0.00	1.00	18	58	2.50	3.40
2029	746		206	160	148	1822	2271	1760	1632	0.00	1.00	18	59	2.50	3.40
2030	746		210	160	148	1822	2309	1758	1628	0.00	1.00	18	60	2.50	3.40

NETHERLANDS

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	16783	4.50	4.50	77.45	77.45	77.45	77.45	0.76	58.5	58.5	58.5	58.5	0.54	0.54	0.54	0.54
2011	16847	4.20	4.20	104.09	104.09	104.09	104.09	0.70	72.9	72.9	72.9	72.9	0.65	0.65	0.65	0.65
2012	16908	4.10	4.20		100	105	80	0.70		70.2	73.5	56.1		0.63	0.65	0.53
2013	16967	4.00	4.20		100	105	50	0.70		70.0	73.8	35.0		0.63	0.65	0.38
2014	17024	3.90	4.20		100	106	50	0.70		69.5	73.8	34.8		0.62	0.65	0.38
2015	17079	3.80	4.20		120	107	50	0.69		82.7	73.5	34.5		0.71	0.65	0.38
2016	17132	3.60	4.20		120	107	50	0.68		82.0	73.4	34.2		0.71	0.65	0.37
2017	17184	3.40	4.20		120	108	50	0.68		81.3	73.3	33.9		0.71	0.65	0.37
2018	17235	3.40	4.20		120	109	70	0.67		80.7	73.1	47.1		0.70	0.65	0.46
2019	17284	3.40	4.20		120	109	70	0.67		80.1	73.0	46.7		0.70	0.65	0.46
2020	17332	3.40	4.20		150	110	70	0.67		99.8	73.2	46.6		0.84	0.65	0.46
2021	17378	3.40	4.20		180	111	70	0.66		119.4	73.4	46.4		0.97	0.65	0.46
2022	17422	3.40	4.20		180	111	70	0.66		119.0	73.6	46.3		0.97	0.65	0.46
2023	17464	3.40	4.20		180	112	70	0.66		118.6	73.8	46.1		0.97	0.65	0.46
2024	17503	3.40	4.20		180	113	70	0.66		118.2	74.0	46.0		0.96	0.65	0.46
2025	17540	3.40	4.20		180	113	70	0.65		117.8	74.2	45.8		0.96	0.65	0.46
2026	17573	3.40	4.20		190	114	70	0.65		123.9	74.4	45.7		1.00	0.66	0.45
2027	17603	3.40	4.20		200	115	70	0.65		130.0	74.5	45.5		1.05	0.66	0.45
2028	17630	3.40	4.20		210	115	70	0.65		136.0	74.7	45.3		1.09	0.66	0.45
2029	17653	3.40	4.20		220	116	90	0.65		142.0	74.9	58.1		1.13	0.66	0.54
2030	17673	3.40	4.20		230	117	90	0.64		148.0	75.1	57.9		1.17	0.66	0.54

NETHERLANDS												
	Excise tax	Real 2010 sales tax 0.19				Real 2010 total petrol price				GFC effect		Logistic trend
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	
2010	0.723	0.24	0.24	0.24	0.24	1.51	1.51	1.51	1.51	1.00	1.00	8.93
2011	0.723	0.26	0.26	0.26	0.26	1.63	1.63	1.63	1.63	1.00	1.00	9.00
2012	0.723		0.26	0.26	0.24	1.63	1.61	1.63	1.49	0.90	1.00	9.06
2013	0.723		0.26	0.26	0.21	1.63	1.60	1.64	1.31	0.80	1.00	9.11
2014	0.723		0.26	0.26	0.21	1.63	1.60	1.64	1.31	0.70	1.00	9.17
2015	0.723		0.27	0.26	0.21	1.63	1.71	1.63	1.31	0.60	1.00	9.22
2016	0.723		0.27	0.26	0.21	1.63	1.70	1.63	1.30	0.50	1.00	9.27
2017	0.723		0.27	0.26	0.21	1.63	1.70	1.63	1.30	0.40	1.00	9.32
2018	0.723		0.27	0.26	0.23	1.63	1.69	1.63	1.41	0.30	1.00	9.37
2019	0.723		0.27	0.26	0.23	1.63	1.69	1.63	1.41	0.20	1.00	9.41
2020	0.723		0.30	0.26	0.22	1.63	1.85	1.63	1.41	0.10	1.00	9.45
2021	0.723		0.32	0.26	0.22	1.63	2.02	1.63	1.41	0.00	1.00	9.49
2022	0.723		0.32	0.26	0.22	1.63	2.01	1.63	1.41	0.00	1.00	9.53
2023	0.723		0.32	0.26	0.22	1.63	2.01	1.64	1.40	0.00	1.00	9.56
2024	0.723		0.32	0.26	0.22	1.63	2.01	1.64	1.40	0.00	1.00	9.60
2025	0.723		0.32	0.26	0.22	1.63	2.01	1.64	1.40	0.00	1.00	9.63
2026	0.723		0.33	0.26	0.22	1.63	2.06	1.64	1.40	0.00	1.00	9.66
2027	0.723		0.34	0.26	0.22	1.63	2.11	1.64	1.40	0.00	1.00	9.69
2028	0.723		0.34	0.26	0.22	1.63	2.16	1.64	1.40	0.00	1.00	9.72
2029	0.723		0.35	0.26	0.24	1.63	2.21	1.65	1.50	0.00	1.00	9.74
2030	0.723		0.36	0.26	0.24	1.63	2.26	1.65	1.50	0.00	1.00	9.77

NEW ZEALAND

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	4368	6.50	6.50	77.45	77.45	77.45	77.45	1.38745	107.46	107.46	107.46	107.46	0.98	0.98	0.98	0.98
2011	4407	6.40	6.40	104.09	104.09	104.09	104.09	1.20	125.23	125.23	125.23	125.23	1.10	1.10	1.10	1.10
2012	4446	6.05	6.40		100	105	80	1.19		118.95	124.61	95.16		1.06	1.09	0.90
2013	4484	5.70	6.40		100	105	50	1.18		117.85	124.24	58.92		1.05	1.09	0.65
2014	4522	5.35	6.40		100	106	50	1.17		116.87	123.98	58.43		1.04	1.09	0.65
2015	4559	5.00	6.40		120	107	50	1.16		139.20	123.83	58.00		1.19	1.09	0.65
2016	4597	5.00	6.40		120	107	50	1.15		138.15	123.66	57.56		1.18	1.09	0.64
2017	4633	5.00	6.40		120	108	50	1.14		137.13	123.50	57.14		1.18	1.09	0.64
2018	4670	5.00	6.40		120	109	70	1.13		136.13	123.35	79.41		1.17	1.08	0.79
2019	4705	5.00	6.40		120	109	70	1.13		135.18	123.24	78.86		1.16	1.08	0.79
2020	4741	5.00	6.40		150	110	70	1.12		167.88	123.17	78.34		1.38	1.08	0.78
2021	4775	5.00	6.40		180	111	70	1.11		200.18	123.13	77.85		1.60	1.08	0.78
2022	4808	5.00	6.40		180	111	70	1.11		198.98	123.13	77.38		1.59	1.08	0.78
2023	4842	5.00	6.40		180	112	70	1.10		197.84	123.15	76.94		1.58	1.08	0.77
2024	4874	5.00	6.40		180	113	70	1.09		196.70	123.17	76.49		1.58	1.08	0.77
2025	4906	5.00	6.40		180	113	70	1.09		195.56	123.18	76.05		1.57	1.08	0.77
2026	4937	5.00	6.40		190	114	70	1.08		205.24	123.18	75.61		1.63	1.08	0.76
2027	4966	5.00	6.40		200	115	70	1.07		214.79	123.18	75.18		1.70	1.08	0.76
2028	4994	5.00	6.40		210	115	70	1.07		224.22	123.17	74.74		1.76	1.08	0.76
2029	5021	5.00	6.40		220	116	90	1.06		233.51	123.15	95.53		1.82	1.08	0.90
2030	5047	5.00	6.40		230	117	90	1.06		242.68	123.12	94.96		1.88	1.08	0.89

NEW ZEALAND

	Excise tax	Real 2010 sales tax 20%				Real 2010 total petrol price				GFC effect		Other variables	
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Time	Time sq'd
2010	0.57	0.203	0.203	0.203	0.203	1.75	1.75	1.75	1.75	1.00	1.00	48	2304
2011	0.57	0.25	0.25	0.25	0.25	1.92	1.92	1.92	1.92	1.00	1.00	49	2401
2012	0.57		0.24	0.25	0.22	1.92	1.87	1.91	1.68	0.90	1.00	50	2500
2013	0.57		0.24	0.25	0.18	1.92	1.86	1.91	1.41	0.80	1.00	51	2601
2014	0.57		0.24	0.25	0.18	1.92	1.85	1.91	1.40	0.70	1.00	51	2601
2015	0.57		0.26	0.25	0.18	1.92	2.02	1.91	1.40	0.60	1.00	51	2601
2016	0.57		0.26	0.25	0.18	1.92	2.02	1.90	1.39	0.50	1.00	51	2601
2017	0.57		0.26	0.25	0.18	1.92	2.01	1.90	1.39	0.40	1.00	51	2601
2018	0.57		0.26	0.25	0.20	1.92	2.00	1.90	1.56	0.30	1.00	51	2601
2019	0.57		0.26	0.25	0.20	1.92	1.99	1.90	1.56	0.20	1.00	51	2601
2020	0.57		0.29	0.25	0.20	1.92	2.24	1.90	1.55	0.10	1.00	51	2601
2021	0.57		0.33	0.25	0.20	1.92	2.49	1.90	1.55	0.00	1.00	51	2601
2022	0.57		0.32	0.25	0.20	1.92	2.48	1.90	1.55	0.00	1.00	51	2601
2023	0.57		0.32	0.25	0.20	1.92	2.48	1.90	1.54	0.00	1.00	51	2601
2024	0.57		0.32	0.25	0.20	1.92	2.47	1.90	1.54	0.00	1.00	51	2601
2025	0.57		0.32	0.25	0.20	1.92	2.46	1.90	1.54	0.00	1.00	51	2601
2026	0.57		0.33	0.25	0.20	1.92	2.53	1.90	1.53	0.00	1.00	51	2601
2027	0.57		0.34	0.25	0.20	1.92	2.61	1.90	1.53	0.00	1.00	51	2601
2028	0.57		0.35	0.25	0.20	1.92	2.68	1.90	1.53	0.00	1.00	51	2601
2029	0.57		0.36	0.25	0.22	1.92	2.75	1.90	1.69	0.00	1.00	51	2601
2030	0.57		0.37	0.25	0.22	1.92	2.82	1.90	1.68	0.00	1.00	51	2601

NORWAY

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	4889	3.50	3.50	77.45	77.45	77.45	77.45	6.04417	468.12	468.12	468.12	468.12	4.89	4.89	4.89	4.89
2011	4950	3.30	3.30	104.09	104.09	104.09	104.09	5.52	575.09	575.09	575.09	575.09	5.61	5.61	5.61	5.61
2012	4966	3.18	3.30		100	105	80	5.49		548.55	574.65	438.84		5.43	5.61	4.70
2013	4983	3.05	3.30		100	105	50	5.43		542.81	572.23	271.41		5.39	5.59	3.58
2014	4999	2.93	3.30		100	106	50	5.37		536.74	569.39	268.37		5.35	5.57	3.56
2015	5015	2.80	3.30		120	107	50	5.31		637.33	566.94	265.56		6.02	5.55	3.54
2016	5032	2.80	3.30		120	107	50	5.26		631.51	565.24	263.13		5.98	5.54	3.53
2017	5049	2.80	3.30		120	108	50	5.23		627.23	564.88	261.35		5.96	5.54	3.51
2018	5067	2.80	3.30		120	109	70	5.18		621.90	563.51	362.77		5.92	5.53	4.19
2019	5085	2.80	3.30		120	109	70	5.14		617.34	562.79	360.11		5.89	5.53	4.17
2020	5102	2.80	3.30		150	110	70	5.11		766.18	562.17	357.55		6.88	5.52	4.16
2021	5120	2.80	3.30		180	111	70	5.07		912.88	561.53	355.01		7.86	5.52	4.14
2022	5138	2.80	3.30		180	111	70	5.04		906.39	560.88	352.48		7.82	5.51	4.12
2023	5155	2.80	3.30		180	112	70	5.00		899.94	560.20	349.98		7.78	5.51	4.11
2024	5172	2.80	3.30		180	113	70	4.96		893.54	559.51	347.49		7.73	5.50	4.09
2025	5187	2.80	3.30		180	113	70	4.93		887.19	558.80	345.02		7.69	5.50	4.07
2026	5202	2.80	3.30		190	114	70	4.89		929.82	558.06	342.56		7.98	5.49	4.06
2027	5216	2.80	3.30		200	115	70	4.86		971.80	557.32	340.13		8.26	5.49	4.04
2028	5230	2.80	3.30		210	115	70	4.82		1013.13	556.55	337.71		8.53	5.48	4.02
2029	5241	2.80	3.30		220	116	90	4.79		1053.83	555.77	431.11		8.80	5.48	4.65
2030	5252	2.80	3.30		230	117	90	4.76		1093.89	554.97	428.04		9.07	5.47	4.63

NORWAY																				
	Excise tax	Real 2010 sales tax 25%				Real 2010 total petrol price				GFC effect		Other variables			Lag3yrUnemploy		3yrcentred average petrol			
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Pre73time	Time	Time sq'd	Base	Unchanged	Base	High	Medium	Low
2010	5.32	2.55	2.55	2.55	2.55	12.77	12.77	12.77	12.77	1.00	1.00	11	48	2304	2.767	2.767	12.864	12.864	12.864	12.864
2011	5.32	2.73	2.73	2.73	2.73	13.66	13.66	13.66	13.66	1.00	1.00	11	49	2401	3.067	3.067	13.363	13.289	13.361	12.984
2012	5.32		2.69	2.73	2.50	13.66	13.44	13.66	12.52	0.90	1.00	11	50	2500	3.333	3.333	13.660	13.497	13.651	12.436
2013	5.32		2.68	2.73	2.23	13.66	13.39	13.64	11.13	0.80	1.00	11	51	2601	3.325	3.367	13.660	13.390	13.635	11.583
2014	5.32		2.67	2.72	2.22	13.66	13.34	13.61	11.10	0.70	1.00	11	52	2704	3.175	3.300	13.660	13.637	13.614	11.101
2015	5.32		2.84	2.72	2.22	13.66	14.18	13.59	11.08	0.60	1.00	11	52	2704	3.050	3.300	13.660	13.884	13.594	11.078
2016	5.32		2.83	2.72	2.21	13.66	14.13	13.58	11.06	0.50	1.00	11	52	2704	2.925	3.300	13.660	14.135	13.582	11.059
2017	5.32		2.82	2.72	2.21	13.66	14.10	13.58	11.04	0.40	1.00	11	52	2704	2.842	3.300	13.660	14.092	13.572	11.329
2018	5.32		2.81	2.71	2.38	13.66	14.05	13.56	11.89	0.30	1.00	11	52	2704	2.800	3.300	13.660	14.053	13.565	11.599
2019	5.32		2.80	2.71	2.37	13.66	14.01	13.56	11.87	0.20	1.00	11	52	2704	2.800	3.300	13.660	14.440	13.558	11.867
2020	5.32		3.05	2.71	2.37	13.66	15.25	13.55	11.84	0.10	1.00	11	52	2704	2.800	3.300	13.660	15.249	13.552	11.845
2021	5.32		3.30	2.71	2.36	13.66	16.48	13.55	11.82	0.00	1.00	11	52	2704	2.800	3.300	13.660	16.053	13.547	11.824
2022	5.32		3.29	2.71	2.36	13.66	16.43	13.54	11.80	0.00	1.00	11	52	2704	2.800	3.300	13.660	16.425	13.542	11.803
2023	5.32		3.27	2.71	2.36	13.66	16.37	13.54	11.78	0.00	1.00	11	52	2704	2.800	3.300	13.660	16.371	13.536	11.782
2024	5.32		3.26	2.71	2.35	13.66	16.32	13.53	11.76	0.00	1.00	11	52	2704	2.800	3.300	13.660	16.318	13.530	11.761
2025	5.32		3.25	2.70	2.35	13.66	16.26	13.52	11.74	0.00	1.00	11	52	2704	2.800	3.300	13.660	16.401	13.524	11.740
2026	5.32		3.32	2.70	2.34	13.66	16.62	13.52	11.72	0.00	1.00	11	52	2704	2.800	3.300	13.660	16.619	13.518	11.720
2027	5.32		3.39	2.70	2.34	13.66	16.97	13.51	11.70	0.00	1.00	11	52	2704	2.800	3.300	13.660	16.969	13.512	11.700
2028	5.32		3.46	2.70	2.34	13.66	17.32	13.51	11.68	0.00	1.00	11	52	2704	2.800	3.300	13.660	17.314	13.505	11.946
2029	5.32		3.53	2.70	2.49	13.66	17.66	13.50	12.46	0.00	1.00	11	52	2704	2.800	3.300	13.660	17.654	13.499	12.190
2030	5.32		3.60	2.70	2.49	13.66	17.99	13.49	12.43	0.00	1.00	11	52	2704	2.800	3.300	13.660	18.048	13.495	12.442

SPAIN

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	46506	20.10	20.10	77.45	77.45	77.45	77.45	0.755046667	58.48	58.48	58.48	58.48	0.53	0.53	0.53	0.53
2011	46755	20.90	20.90	104.09	104.09	104.09	104.09	0.70	72.90	72.90	72.90	72.90	0.61	0.61	0.61	0.61
2012	47043	19.68	20.90		100	105	80	0.70		70.17	73.51	56.14		0.59	0.61	0.51
2013	47371	18.45	20.90		100	105	50	0.70		70.00	73.79	35.00		0.59	0.61	0.39
2014	47738	17.23	20.90		100	106	50	0.70		69.54	73.77	34.77		0.59	0.61	0.39
2015	48146	16.00	20.90		120	107	50	0.69		82.68	73.55	34.45		0.66	0.61	0.39
2016	48563	14.00	20.90		120	107	50	0.68		81.98	73.38	34.16		0.66	0.61	0.39
2017	48958	12.00	20.90		120	108	50	0.68		81.34	73.26	33.89		0.66	0.61	0.39
2018	49331	10.00	20.90		120	109	70	0.67		80.71	73.13	47.08		0.65	0.61	0.46
2019	49683	8.00	20.90		120	109	70	0.67		80.09	73.01	46.72		0.65	0.61	0.46
2020	50016	8.00	20.90		150	110	70	0.67		99.79	73.22	46.57		0.76	0.61	0.46
2021	50330	8.00	20.90		180	111	70	0.66		119.36	73.42	46.42		0.87	0.61	0.46
2022	50625	8.00	20.90		180	111	70	0.66		118.98	73.63	46.27		0.87	0.61	0.46
2023	50904	8.00	20.90		180	112	70	0.66		118.60	73.82	46.12		0.87	0.61	0.46
2024	51167	8.00	20.90		180	113	70	0.66		118.20	74.01	45.97		0.86	0.61	0.46
2025	51415	8.00	20.90		180	113	70	0.65		117.80	74.20	45.81		0.86	0.61	0.45
2026	51649	8.00	20.90		190	114	70	0.65		123.92	74.38	45.65		0.90	0.62	0.45
2027	51868	8.00	20.90		200	115	70	0.65		129.99	74.55	45.50		0.93	0.62	0.45
2028	52074	8.00	20.90		210	115	70	0.65		136.02	74.72	45.34		0.96	0.62	0.45
2029	52266	8.00	20.90		220	116	90	0.65		142.00	74.89	58.09		1.00	0.62	0.52
2030	52445	8.00	20.90		230	117	90	0.64		147.99	75.08	57.91		1.03	0.62	0.52

SPAIN														
	Excise tax	Real 2010 sales tax 18%				Real 2010 total petrol price				GFC effect		Logistic trend	5yr unemploy	
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged		Base	Unchanged
2010	0.44	0.17	0.17	0.17	0.17	1.14	1.14	1.14	1.14	1.00	1.00	9.87	13.3	13.3
2011	0.44	0.19	0.19	0.19	0.19	1.23	1.23	1.23	1.23	1.00	1.00	9.95	15.7	15.7
2012	0.44		0.19	0.19	0.17	1.23	1.22	1.24	1.12	0.90	1.00	10.03	18.0	18.3
2013	0.44		0.19	0.19	0.15	1.23	1.22	1.24	0.98	0.80	1.00	10.10	19.4	20.2
2014	0.44		0.18	0.19	0.15	1.23	1.21	1.24	0.98	0.70	1.00	10.17	19.3	20.7
2015	0.44		0.20	0.19	0.15	1.23	1.30	1.24	0.98	0.60	1.00	10.23	18.5	20.9
2016	0.44		0.20	0.19	0.15	1.23	1.30	1.24	0.98	0.50	1.00	10.29	17.1	20.9
2017	0.44		0.20	0.19	0.15	1.23	1.29	1.24	0.98	0.40	1.00	10.34	15.5	20.9
2018	0.44		0.20	0.19	0.16	1.23	1.29	1.24	1.06	0.30	1.00	10.39	13.8	20.9
2019	0.44		0.20	0.19	0.16	1.23	1.28	1.24	1.06	0.20	1.00	10.44	12.0	20.9
2020	0.44		0.22	0.19	0.16	1.23	1.41	1.24	1.06	0.10	1.00	10.48	10.4	20.9
2021	0.44		0.24	0.19	0.16	1.23	1.54	1.24	1.06	0.00	1.00	10.52	9.2	20.9
2022	0.44		0.24	0.19	0.16	1.23	1.54	1.24	1.06	0.00	1.00	10.56	8.4	20.9
2023	0.44		0.23	0.19	0.16	1.23	1.54	1.24	1.06	0.00	1.00	10.60	8.0	20.9
2024	0.44		0.23	0.19	0.16	1.23	1.54	1.24	1.06	0.00	1.00	10.63	8.0	20.9
2025	0.44		0.23	0.19	0.16	1.23	1.53	1.24	1.05	0.00	1.00	10.66	8.0	20.9
2026	0.44		0.24	0.19	0.16	1.23	1.57	1.24	1.05	0.00	1.00	10.68	8.0	20.9
2027	0.44		0.25	0.19	0.16	1.23	1.62	1.25	1.05	0.00	1.00	10.71	8.0	20.9
2028	0.44		0.25	0.19	0.16	1.23	1.66	1.25	1.05	0.00	1.00	10.73	8.0	20.9
2029	0.44		0.26	0.19	0.17	1.23	1.70	1.25	1.14	0.00	1.00	10.75	8.0	20.9
2030	0.44		0.26	0.19	0.17	1.23	1.73	1.25	1.14	0.00	1.00	10.77	8.0	20.9

SWEDEN

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	9379	8.40	8.40	77.45	77.45	77.45	77.45	7.20752	558.22	558.22	558.22	558.22	4.84	4.84	4.84	4.84
2011	9395	7.92	7.92	104.09	104.09	104.09	104.09	6.37	662.60	662.60	662.60	662.60	5.63	5.63	5.63	5.63
2012	9410	7.44	7.92		100	105	80	6.37		637.35	667.67	509.88		5.44	5.67	4.48
2013	9426	6.96	7.92		100	105	50	6.35		635.41	669.85	317.70		5.42	5.68	3.03
2014	9443	6.48	7.92		100	106	50	6.31		630.64	669.00	315.32		5.39	5.68	3.01
2015	9461	6.00	7.92		120	107	50	6.25		749.76	666.94	312.40		6.29	5.66	2.99
2016	9479	6.00	7.92		120	107	50	6.19		743.09	665.12	309.62		6.24	5.65	2.97
2017	9498	6.00	7.92		120	108	50	6.14		737.19	663.91	307.16		6.19	5.64	2.95
2018	9518	6.00	7.92		120	109	70	6.09		730.96	662.34	426.40		6.14	5.63	3.85
2019	9537	6.00	7.92		120	109	70	6.04		724.62	660.59	422.70		6.10	5.61	3.82
2020	9556	6.00	7.92		150	110	70	6.01		901.35	661.35	420.63		7.43	5.62	3.80
2021	9573	6.00	7.92		180	111	70	5.98		1076.55	662.21	418.66		8.75	5.63	3.79
2022	9591	6.00	7.92		180	111	70	5.95		1071.61	663.12	416.74		8.71	5.63	3.78
2023	9605	6.00	7.92		180	112	70	5.93		1066.69	664.00	414.82		8.67	5.64	3.76
2024	9619	6.00	7.92		180	113	70	5.90		1061.79	664.86	412.92		8.64	5.65	3.75
2025	9629	6.00	7.92		180	113	70	5.87		1056.91	665.69	411.02		8.60	5.65	3.73
2026	9636	6.00	7.92		190	114	70	5.84		1110.50	666.51	409.13		9.00	5.66	3.72
2027	9641	6.00	7.92		200	115	70	5.82		1163.58	667.31	407.25		9.40	5.66	3.70
2028	9643	6.00	7.92		210	115	70	5.79		1216.15	668.08	405.38		9.80	5.67	3.69
2029	9642	6.00	7.92		220	116	90	5.76		1268.21	668.83	518.81		10.19	5.68	4.54
2030	9637	6.00	7.92		230	117	90	5.74		1319.77	669.56	516.43		10.58	5.68	4.53

SWEDEN

	Excise tax	Real 2010 sales tax 25%				Real 2010 total petrol price				GFC effect		Other variables		Unempl(c+l)		Petrol price (c+l)			
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Time	Time sq'd	Base	Unchanged	Base	High	Medium	Low
2010	5.50	2.59	2.59	2.59	2.59	12.93	12.93	12.93	12.93	1.00	1.00	48	2304	8.35	8.35	12.63	12.63	12.63	12.63
2011	5.50	2.78	2.78	2.78	2.78	13.91	13.91	13.91	13.91	1.00	1.00	49	2401	8.16	8.16	13.42	13.42	13.42	13.42
2012	5.50		2.73	2.79	2.49	13.91	13.67	13.96	12.47	0.90	1.00	50	2500	7.68	7.92	13.91	13.79	13.93	13.19
2013	5.50		2.73	2.80	2.13	13.91	13.65	13.98	10.66	0.80	1.00	51	2601	7.2	7.92	13.91	13.66	13.97	11.57
2014	5.50		2.72	2.79	2.13	13.91	13.61	13.97	10.64	0.70	1.00	52	2704	6.72	7.92	13.91	13.63	13.97	10.65
2015	5.50		2.95	2.79	2.12	13.91	14.73	13.95	10.61	0.60	1.00	53	2809	6.24	7.92	13.91	14.17	13.96	10.62
2016	5.50		2.93	2.79	2.12	13.91	14.67	13.93	10.58	0.50	1.00	54	2916	6	7.92	13.91	14.70	13.94	10.60
2017	5.50		2.92	2.78	2.11	13.91	14.61	13.92	10.56	0.40	1.00	55	3025	6	7.92	13.91	14.64	13.93	10.57
2018	5.50		2.91	2.78	2.34	13.91	14.55	13.91	11.69	0.30	1.00	56	3136	6	7.92	13.91	14.58	13.92	11.12
2019	5.50		2.90	2.78	2.33	13.91	14.49	13.89	11.65	0.20	1.00	57	3249	6	7.92	13.91	14.52	13.90	11.67
2020	5.50		3.23	2.78	2.33	13.91	16.16	13.90	11.63	0.10	1.00	58	3364	6	7.92	13.91	15.33	13.90	11.64
2021	5.50		3.56	2.78	2.32	13.91	17.81	13.91	11.61	0.00	1.00	59	3481	6	7.92	13.91	16.99	13.90	11.62
2022	5.50		3.55	2.78	2.32	13.91	17.76	13.92	11.59	0.00	1.00	60	3600	6	7.92	13.91	17.79	13.91	11.60
2023	5.50		3.54	2.78	2.32	13.91	17.72	13.92	11.58	0.00	1.00	61	3721	6	7.92	13.91	17.74	13.92	11.59
2024	5.50		3.53	2.79	2.31	13.91	17.67	13.93	11.56	0.00	1.00	62	3844	6	7.92	13.91	17.69	13.93	11.57
2025	5.50		3.53	2.79	2.31	13.91	17.63	13.94	11.54	0.00	1.00	63	3969	6	7.92	13.91	17.65	13.94	11.55
2026	5.50		3.63	2.79	2.30	13.91	18.13	13.95	11.52	0.00	1.00	64	4096	6	7.92	13.91	17.88	13.94	11.53
2027	5.50		3.73	2.79	2.30	13.91	18.63	13.95	11.50	0.00	1.00	65	4225	6	7.92	13.91	18.38	13.95	11.51
2028	5.50		3.83	2.79	2.30	13.91	19.13	13.96	11.49	0.00	1.00	66	4356	6	7.92	13.91	18.88	13.96	11.50
2029	5.50		3.92	2.79	2.51	13.91	19.62	13.97	12.56	0.00	1.00	67	4489	6	7.92	13.91	19.37	13.97	12.02
2030	5.50		4.02	2.80	2.51	13.91	20.10	13.98	12.53	0.00	1.00	68	4624	6	7.92	13.91	19.86	13.97	12.54

SWITZERLAND

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	7823	4.20	4.20	77.45	77.45	77.45	77.45	1.042916667	80.77	80.77	80.77	80.77	0.77	0.77	0.77	0.77
2011	7840	3.30	3.30	104.09	104.09	104.09	104.09	0.86	89.06	89.06	89.06	89.06	0.82	0.82	0.82	0.82
2012	7857	3.18	3.30		100	105	80	0.86		85.83	89.91	68.66		0.80	0.83	0.69
2013	7871	3.05	3.30		100	105	50	0.85		85.46	90.09	42.73		0.80	0.83	0.53
2014	7887	2.93	3.30		100	106	50	0.85		85.09	90.26	42.54		0.80	0.83	0.53
2015	7900	2.80	3.30		120	107	50	0.84		100.98	89.83	42.08		0.90	0.83	0.52
2016	7912	2.65	3.30		120	107	50	0.83		99.90	89.42	41.62		0.89	0.82	0.52
2017	7925	2.50	3.30		120	108	50	0.82		98.83	89.01	41.18		0.88	0.82	0.52
2018	7935	2.40	3.30		120	109	70	0.81		97.80	88.61	57.05		0.88	0.82	0.62
2019	7945	2.40	3.30		120	109	70	0.81		96.94	88.38	56.55		0.87	0.82	0.61
2020	7954	2.40	3.30		150	110	70	0.80		120.35	88.30	56.16		1.02	0.82	0.61
2021	7962	2.40	3.30		180	111	70	0.80		143.43	88.23	55.78		1.17	0.82	0.61
2022	7968	2.40	3.30		180	111	70	0.79		142.45	88.15	55.40		1.16	0.82	0.61
2023	7973	2.40	3.30		180	112	70	0.79		141.48	88.07	55.02		1.15	0.81	0.60
2024	7977	2.40	3.30		180	113	70	0.78		140.51	87.98	54.64		1.15	0.81	0.60
2025	7978	2.40	3.30		180	113	70	0.78		139.55	87.89	54.27		1.14	0.81	0.60
2026	7978	2.40	3.30		190	114	70	0.77		146.29	87.80	53.90		1.18	0.81	0.60
2027	7977	2.40	3.30		200	115	70	0.76		152.94	87.71	53.53		1.23	0.81	0.60
2028	7973	2.40	3.30		210	115	70	0.76		159.48	87.61	53.16		1.27	0.81	0.59
2029	7967	2.40	3.30		220	116	90	0.75		165.94	87.51	67.88		1.31	0.81	0.69
2030	7959	2.40	3.30		230	117	90	0.75		172.29	87.41	67.42		1.35	0.81	0.68

SWITZERLAND

	Excise tax	Real 2010 sales tax 8%				Real 2010 total petrol price				GFC effect		Other variables		Unempl(c+1)		Petrol price (lag)			
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Time	Time sq'd	Base	Unchanged	Base	High	Medium	Low
2010	0.74	0.11	0.11	0.11	0.11	1.62	1.62	1.62	1.62	1.00	1.00	48	2304	4.2	4.2	1.51	1.51	1.51	1.51
2011	0.74	0.12	0.12	0.12	0.12	1.68	1.68	1.68	1.68	1.00	1.00	49	2401	3.8	3.8	1.62	1.62	1.62	1.62
2012	0.74		0.12	0.12	0.11	1.68	1.66	1.69	1.54	0.90	1.00	50	2500	3.2	3.3	1.68	1.68	1.68	1.68
2013	0.74		0.12	0.13	0.10	1.68	1.66	1.69	1.36	0.80	1.00	51	2601	3.1	3.3	1.68	1.66	1.69	1.54
2014	0.74		0.12	0.13	0.10	1.68	1.65	1.69	1.36	0.70	1.00	52	2704	3.0	3.3	1.68	1.66	1.69	1.36
2015	0.74		0.13	0.12	0.10	1.68	1.76	1.69	1.36	0.60	1.00	52	2704	2.9	3.3	1.68	1.65	1.69	1.36
2016	0.74		0.13	0.12	0.10	1.68	1.75	1.68	1.35	0.50	1.00	52	2704	2.7	3.3	1.68	1.76	1.69	1.36
2017	0.74		0.13	0.12	0.10	1.68	1.75	1.68	1.35	0.40	1.00	52	2704	2.6	3.3	1.68	1.75	1.68	1.35
2018	0.74		0.13	0.12	0.11	1.68	1.74	1.68	1.46	0.30	1.00	52	2704	2.5	3.3	1.68	1.75	1.68	1.35
2019	0.74		0.13	0.12	0.11	1.68	1.73	1.68	1.46	0.20	1.00	52	2704	2.4	3.3	1.68	1.74	1.68	1.46
2020	0.74		0.14	0.12	0.11	1.68	1.90	1.68	1.45	0.10	1.00	52	2704	2.4	3.3	1.68	1.73	1.68	1.46
2021	0.74		0.15	0.12	0.11	1.68	2.05	1.67	1.45	0.00	1.00	52	2704	2.4	3.3	1.68	1.90	1.68	1.45
2022	0.74		0.15	0.12	0.11	1.68	2.05	1.67	1.45	0.00	1.00	52	2704	2.4	3.3	1.68	2.05	1.67	1.45
2023	0.74		0.15	0.12	0.11	1.68	2.04	1.67	1.45	0.00	1.00	52	2704	2.4	3.3	1.68	2.05	1.67	1.45
2024	0.74		0.15	0.12	0.11	1.68	2.03	1.67	1.44	0.00	1.00	52	2704	2.4	3.3	1.68	2.04	1.67	1.45
2025	0.74		0.15	0.12	0.11	1.68	2.03	1.67	1.44	0.00	1.00	52	2704	2.4	3.3	1.68	2.03	1.67	1.44
2026	0.74		0.15	0.12	0.11	1.68	2.07	1.67	1.44	0.00	1.00	52	2704	2.4	3.3	1.68	2.03	1.67	1.44
2027	0.74		0.16	0.12	0.11	1.68	2.12	1.67	1.44	0.00	1.00	52	2704	2.4	3.3	1.68	2.07	1.67	1.44
2028	0.74		0.16	0.12	0.11	1.68	2.16	1.67	1.43	0.00	1.00	52	2704	2.4	3.3	1.68	2.12	1.67	1.44
2029	0.74		0.16	0.12	0.11	1.68	2.21	1.67	1.54	0.00	1.00	52	2704	2.4	3.3	1.68	2.16	1.67	1.43
2030	0.74		0.17	0.12	0.11	1.68	2.25	1.67	1.53	0.00	1.00	52	2704	2.4	3.3	1.68	2.21	1.67	1.54

TURKEY

	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	77804	10.60	10.60	77.45	77.45	77.45	77.45	1.503	116.40	116.40	116.40	116.40	1.68	1.68	1.68	1.68
2011	78786	9.20	9.20	104.09	104.09	104.09	104.09	1.58	164.32	164.32	164.32	164.32	2.23	2.23	2.23	2.23
2012	79749	8.98	9.20		100	105	80	1.56		156.05	163.47	124.84		2.13	2.22	1.77
2013	80694	8.75	9.20		100	105	50	1.55		154.71	163.10	77.36		2.12	2.21	1.22
2014	81619	8.53	9.20		100	106	50	1.54		153.66	163.00	76.83		2.11	2.21	1.22
2015	82523	8.30	9.20		120	107	50	1.53		183.06	162.84	76.28		2.44	2.21	1.21
2016	83407	8.00	9.20		120	107	50	1.52		182.13	163.02	75.89		2.43	2.21	1.21
2017	84273	8.00	9.20		120	108	50	1.51		181.41	163.38	75.59		2.43	2.22	1.20
2018	85121	8.00	9.20		120	109	70	1.51		180.72	163.75	105.42		2.42	2.22	1.55
2019	85949	8.00	9.20		120	109	70	1.50		179.85	163.95	104.91		2.41	2.22	1.54
2020	86757	8.00	9.20		150	110	70	1.49		224.20	164.50	104.62		2.92	2.23	1.54
2021	87545	8.00	9.20		180	111	70	1.49		268.30	165.04	104.34		3.43	2.24	1.54
2022	88314	8.00	9.20		180	111	70	1.49		267.57	165.58	104.06		3.42	2.24	1.53
2023	89063	8.00	9.20		180	112	70	1.48		266.85	166.11	103.77		3.41	2.25	1.53
2024	89791	8.00	9.20		180	113	70	1.48		266.12	166.64	103.49		3.40	2.25	1.53
2025	90498	8.00	9.20		180	113	70	1.47		265.40	167.16	103.21		3.39	2.26	1.52
2026	91185	8.00	9.20		190	114	70	1.47		279.38	167.68	102.93		3.56	2.27	1.52
2027	91854	8.00	9.20		200	115	70	1.47		293.29	168.20	102.65		3.72	2.27	1.52
2028	92504	8.00	9.20		210	115	70	1.46		307.11	168.71	102.37		3.88	2.28	1.51
2029	93133	8.00	9.20		220	116	90	1.46		320.86	169.22	131.26		4.03	2.28	1.85
2030	93743	8.00	9.20		230	117	90	1.45		334.54	169.72	130.91		4.19	2.29	1.84

TURKEY														
	Excise tax	Real 2010 sales tax 18%				Real 2010 total petrol price				GFC effect		Other variables		
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged	Pre77time	Time	Time sq'd
2010	1.47	0.57	0.57	0.57	0.57	3.72	3.72	3.72	3.72	1.00	1.00	15	48	2304
2011	1.47	0.67	0.67	0.67	0.67	4.37	4.37	4.37	4.37	1.00	1.00	15	49	2401
2012	1.47		0.65	0.66	0.58	4.37	4.26	4.36	3.83	0.90	1.00	15	50	2500
2013	1.47		0.65	0.66	0.49	4.37	4.24	4.35	3.18	0.80	1.00	15	51	2601
2014	1.47		0.64	0.66	0.48	4.37	4.22	4.35	3.18	0.70	1.00	15	52	2704
2015	1.47		0.71	0.66	0.48	4.37	4.62	4.35	3.17	0.60	1.00	15	53	2809
2016	1.47		0.70	0.66	0.48	4.37	4.61	4.35	3.16	0.50	1.00	15	54	2916
2017	1.47		0.70	0.66	0.48	4.37	4.60	4.36	3.16	0.40	1.00	15	55	3025
2018	1.47		0.70	0.67	0.54	4.37	4.59	4.36	3.57	0.30	1.00	15	56	3136
2019	1.47		0.70	0.67	0.54	4.37	4.58	4.36	3.56	0.20	1.00	15	57	3249
2020	1.47		0.79	0.67	0.54	4.37	5.18	4.37	3.56	0.10	1.00	15	58	3364
2021	1.47		0.88	0.67	0.54	4.37	5.78	4.38	3.55	0.00	1.00	15	59	3481
2022	1.47		0.88	0.67	0.54	4.37	5.77	4.39	3.55	0.00	1.00	15	60	3600
2023	1.47		0.88	0.67	0.54	4.37	5.76	4.39	3.54	0.00	1.00	15	61	3721
2024	1.47		0.88	0.67	0.54	4.37	5.75	4.40	3.54	0.00	1.00	15	62	3844
2025	1.47		0.88	0.67	0.54	4.37	5.74	4.41	3.54	0.00	1.00	15	63	3969
2026	1.47		0.91	0.67	0.54	4.37	5.93	4.41	3.53	0.00	1.00	15	64	4096
2027	1.47		0.93	0.67	0.54	4.37	6.12	4.42	3.53	0.00	1.00	15	65	4225
2028	1.47		0.96	0.68	0.54	4.37	6.31	4.43	3.53	0.00	1.00	15	66	4356
2029	1.47		0.99	0.68	0.60	4.37	6.50	4.44	3.92	0.00	1.00	15	67	4489
2030	1.47		1.02	0.68	0.60	4.37	6.69	4.44	3.91	0.00	1.00	15	68	4624

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	Population base	Unemployment		Real 2010 world oil price				Exchange rate	Real 2010 landed oil price				Real 2010 energy cost of petrol			
		Base	Unchanged	Base	High	Medium	Low		Base	High	Medium	Low	Base	High	Medium	Low
2010	310233	9.60	9.60	77.45	77.45	77.45	77.45	1.000	77.45	77.45	77.45	77.45	60.28	60.28	60.28	60.28
2011	313232	9.00	9.00	104.09	104.09	104.09	104.09	1.000	104.09	104.09	104.09	104.09	80.33	80.33	80.33	80.33
2012	316266	8.83	9.00		100	105	80	1.000		100.00	104.76	80.00		77.24	80.82	62.20
2013	319330	8.65	9.00		100	105	50	1.000		100.00	105.42	50.00		77.24	81.32	39.62
2014	322423	8.48	9.00		100	106	50	1.000		100.00	106.08	50.00		77.24	81.82	39.62
2015	325540	8.30	9.00		120	107	50	1.000		120.00	106.75	50.00		92.29	82.32	39.62
2016	328678	7.30	9.00		120	107	50	1.000		120.00	107.41	50.00		92.29	82.82	39.62
2017	331833	6.30	9.00		120	108	50	1.000		120.00	108.07	50.00		92.29	83.32	39.62
2018	335005	6.30	9.00		120	109	70	1.000		120.00	108.73	70.00		92.29	83.82	54.67
2019	338190	6.30	9.00		120	109	70	1.000		120.00	109.40	70.00		92.29	84.32	54.67
2020	341387	6.30	9.00		150	110	70	1.000		150.00	110.06	70.00		114.87	84.81	54.67
2021	344592	6.30	9.00		180	111	70	1.000		180.00	110.72	70.00		137.44	85.31	54.67
2022	347803	6.30	9.00		180	111	70	1.000		180.00	111.38	70.00		137.44	85.81	54.67
2023	351018	6.30	9.00		180	112	70	1.000		180.00	112.05	70.00		137.44	86.31	54.67
2024	354235	6.30	9.00		180	113	70	1.000		180.00	112.71	70.00		137.44	86.81	54.67
2025	357452	6.30	9.00		180	113	70	1.000		180.00	113.37	70.00		137.44	87.31	54.67
2026	360667	6.30	9.00		190	114	70	1.000		190.00	114.04	70.00		144.97	87.81	54.67
2027	363880	6.30	9.00		200	115	70	1.000		200.00	114.70	70.00		152.49	88.30	54.67
2028	367090	6.30	9.00		210	115	70	1.000		210.00	115.36	70.00		160.02	88.80	54.67
2029	370298	6.30	9.00		220	116	90	1.000		220.00	116.02	90.00		167.54	89.30	69.72
2030	373504	6.30	9.00		230	117	90	1.000		230.00	116.69	90.00		175.07	89.80	69.72

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	Excise tax	Real 2010 sales tax 0%				Real 2010 total petrol price				GFC effect		Logistic trend	Unempl(c+I)	
		Base	High	Medium	Low	Base	High	Medium	Low	Base	Unchanged		Base	Unchanged
2010	13.40	0.00	0.00	0.00	0.00	73.68	73.68	73.68	73.68	1.00	1.00	16.97	9.3	9.3
2011	13.40	0.00	0.00	0.00	0.00	93.73	93.73	93.73	93.73	1.00	1.00	17.06	8.9	9.0
2012	13.40		0.00	0.00	0.00	93.73	90.64	94.22	75.60	0.90	1.00	17.14	8.7	9.0
2013	13.40		0.00	0.00	0.00	93.73	90.64	94.72	53.02	0.80	1.00	17.22	8.6	9.0
2014	13.40		0.00	0.00	0.00	93.73	90.64	95.22	53.02	0.70	1.00	17.29	8.4	9.0
2015	13.40		0.00	0.00	0.00	93.73	105.69	95.72	53.02	0.60	1.00	17.36	7.8	9.0
2016	13.40		0.00	0.00	0.00	93.73	105.69	96.22	53.02	0.50	1.00	17.42	6.8	9.0
2017	13.40		0.00	0.00	0.00	93.73	105.69	96.72	53.02	0.40	1.00	17.48	6.3	9.0
2018	13.40		0.00	0.00	0.00	93.73	105.69	97.22	68.07	0.30	1.00	17.54	6.3	9.0
2019	13.40		0.00	0.00	0.00	93.73	105.69	97.72	68.07	0.20	1.00	17.60	6.3	9.0
2020	13.40		0.00	0.00	0.00	93.73	128.27	98.21	68.07	0.10	1.00	17.65	6.3	9.0
2021	13.40		0.00	0.00	0.00	93.73	150.84	98.71	68.07	0.00	1.00	17.70	6.3	9.0
2022	13.40		0.00	0.00	0.00	93.73	150.84	99.21	68.07	0.00	1.00	17.75	6.3	9.0
2023	13.40		0.00	0.00	0.00	93.73	150.84	99.71	68.07	0.00	1.00	17.79	6.3	9.0
2024	13.40		0.00	0.00	0.00	93.73	150.84	100.21	68.07	0.00	1.00	17.84	6.3	9.0
2025	13.40		0.00	0.00	0.00	93.73	150.84	100.71	68.07	0.00	1.00	17.88	6.3	9.0
2026	13.40		0.00	0.00	0.00	93.73	158.37	101.21	68.07	0.00	1.00	17.91	6.3	9.0
2027	13.40		0.00	0.00	0.00	93.73	165.89	101.70	68.07	0.00	1.00	17.95	6.3	9.0
2028	13.40		0.00	0.00	0.00	93.73	173.42	102.20	68.07	0.00	1.00	17.98	6.3	9.0
2029	13.40		0.00	0.00	0.00	93.73	180.94	102.70	83.12	0.00	1.00	18.01	6.3	9.0
2030	13.40		0.00	0.00	0.00	93.73	188.47	103.20	83.12	0.00	1.00	18.04	6.3	9.0

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