GLAECONOMICS

London's Economic Outlook: Autumn 2005

The GLA's medium-term planning projections

October 2005

Transport for London

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GLA Economics provides expert advice and analysis on London's economy and the economic issues facing the capital. Data and analysis from GLA Economics form a basis for the policy and investment decisions facing the Mayor of London and the GLA group. The unit is funded by the Greater London Authority, Transport for London and the London Development Agency.

Contents

1. Executive summary

The Greater London Authority's (GLA) seventh London forecast[i], predicts that:

- London's Gross Value Added (GVA) will grow at two per cent in 2005 and 2.3 per cent in 2006, rising to 2.6 per cent in 2007.
- London will see continued, steady employment growth from 2005 through to 2007, slightly below the trend growth rate of 0.9 per cent for all three years of the forecast.
- London household spending will continue to grow slower than GVA in 2005 and 2006 and slower than household income between 2005 and 2007.

Table 1.1 summarises this report's forecasts and provides an average of independent forecasts.

Table 1.1: Summary of forecasts

Annual growth rates (per cent)	**2004**	**2005**	**2006**	**2007**
London GVA (constant 2002 £ billion)	3.3	2.0	2.3	2.6
Consensus (average of independent forecasts)		2.4	2.5	3.0
London civilian workforce jobs	0.1	0.6	0.4	0.8
Consensus (average of independent forecasts)		0.7	0.1	0.9
London household spending (constant 2002 £ billion)	3.1	1.3	1.8	2.9
Consensus (average of independent forecasts)		1.6	2.4	2.8
London household income (constant 2002 £ billion)	0.5	2.1	3.5	3.4
Memo: Projected UK RPIX[ii] (Inflation rate)	2.2	2.3	2.5	2.2
Projected UK CPI[iii] (Inflation rate)	1.3	2.1	2.4	2.1

Source: Experian Business Strategies

2. Introduction

The autumn 2005 edition of *London's Economic Outlook* (LEO) is GLA Economics' seventh London forecast. The forecasts are issued every six months to assist those preparing planning projections for London in the medium term. The report contains the following:

- An overview of recent economic conditions in London, the UK and the world economies with analysis of important events, trends and risks to short and medium-term growth (Section 3).
- The 'consensus forecast' – a review of independent forecasts indicating the range of views about London's economy and the possible upside and downside risk (Section 4). In this document, 'consensus forecast' refers to the average of the four independent forecasters listed under Section 2.1.
- The GLA Economics forecast for output, employment, household expenditure and household income in London (Section 5).
- An in-depth assessment of a topic of particular importance to London's medium-term future (Section 6). This issue features a report on the economic impact of the terrorist attacks in London in July 2005.

2.1 Note on the forecast

Any economic forecast is what the forecaster views as the economy's most likely future path and as such is inherently uncertain. GLA Economics' forecast is produced by Experian Business Strategies (EBS) on the basis of assumptions provided by GLA Economics. GLA Economics' review of independent forecasts provides an overview of the range of alternative opinions. Independent forecasts are supplied to the GLA for the main macroeconomic variables by the following organisations:

- Cambridge Econometrics (CE)
- The Centre for Economic and Business Research (CEBR)
- Experian Business Strategies (EBS)
- Oxford Economic Forecasting (OEF).

Only the most likely outcomes, which the different forecasting organisations provide, are recorded. Each forecaster may also prepare scenarios they consider less likely but these are not shown here. The low and high forecasts combine the lowest and highest forecasts respectively taken from each year separately and which, may therefore, come from different forecasters. High and low estimates therefore may not represent the view of any one forecaster over the whole of the forecast period.

Economic forecasting is not a precise science. These projections provide an indication of what is most *likely* to happen, not what will *definitely* happen.

3. Economic background: UK growth slows as pressures on world economy mount

This section provides an overview of recent developments in the London, UK and world economies.

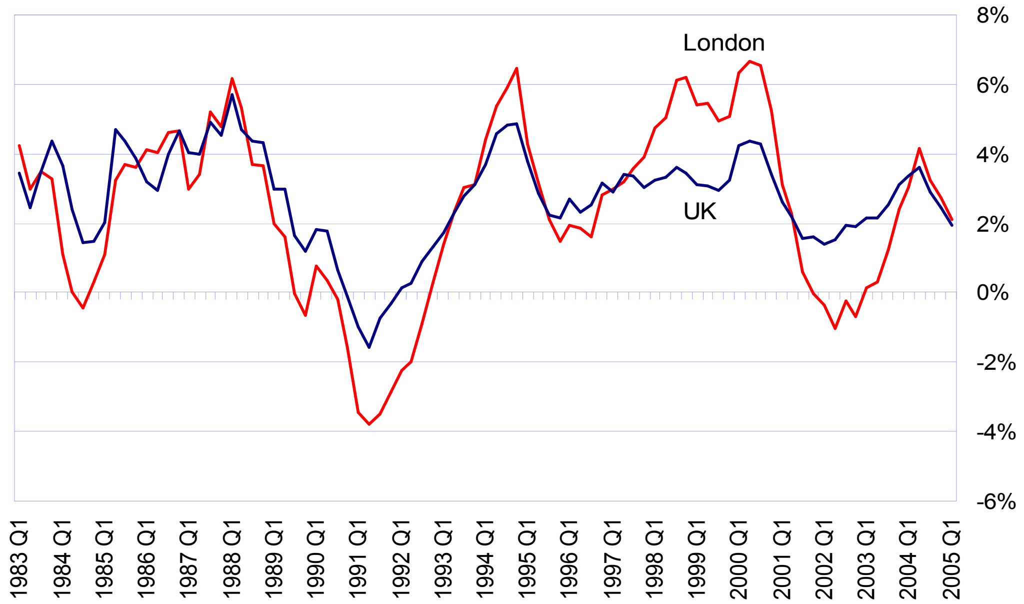
3.1 The London economy

London's economy and workforce showed great resilience in overcoming the shock of the terrorist attacks in July. Section 6 looks at the economic impacts in more detail, but the overall picture seems to be one of limited effects concentrated in central London and primarily affecting the tourism and retail sectors. Current data suggests that the impacts are more likely to resemble a limited damage 'Madrid' scenario (see Section 6 for details) rather than a more serious New York 9/11 scenario.

High oil prices, which in most analysts' reckoning are here to stay, are a worry for all oil importing economies though less for London with its service, rather than manufacturing, dominated industrial structure. Box 3.1 looks at the world oil market, while Box 3.2 considers the German economy.

Strong growth performance from large economies like the US and China continues to buoy world economic growth, though risks remain in the form of sluggish Eurozone growth, high oil prices and the US balance of payments deficit. In the UK the main risk is of an even greater slowdown in consumer spending. Annual output growth in London's economy slowed somewhat in the first quarter of 2005, but remained above UK GVA growth. GLA Economics' London forecast is for output growth to remain around two per cent in 2005 and a little higher in 2006, returning up to trend levels in 2007.

Figure 3.1: Output growth – London and UK
Real GVA, annual % change

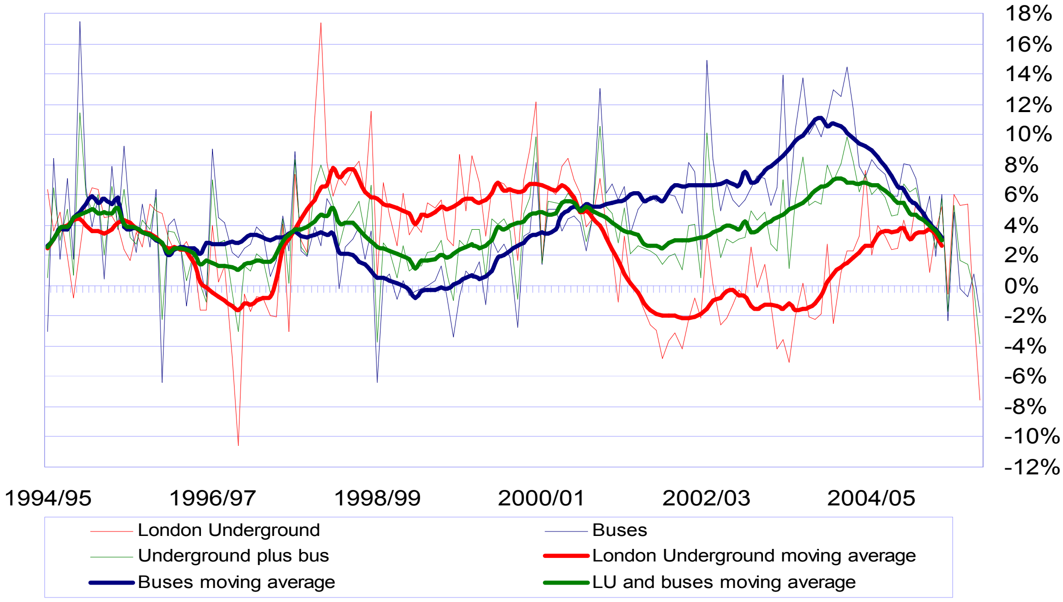


Source: Experian Business Strategies

Output data for London is only available up to March 2005, but the picture of slowing growth during more recent parts of 2005 is supported by Transport for London (TfL) data on the use of the Underground and buses. Figure 3.2 shows that annual growth in the use of the Underground and the bus systems is trending down. The most recent data covers the middle of August (in the most recent two periods the Underground data was particularly depressed because of the terrorist attacks).

Figure 3.2: Use of public transport system

Last data point is the 28-day period ending 20/08/05

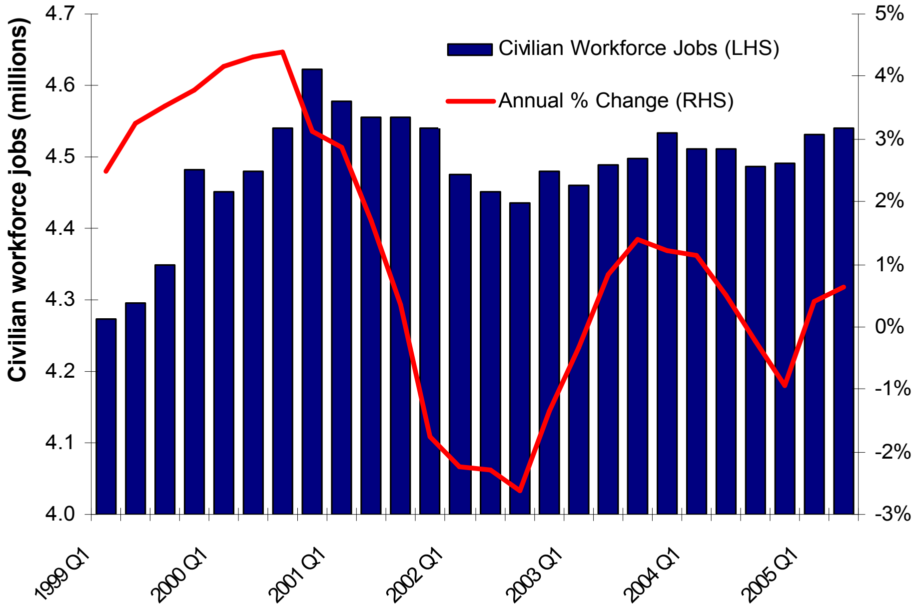


Source: TfL

London's labour market is fairly steady. Annual workforce jobs growth in the second quarter of 2005 was 0.6 per cent. The number of workforce jobs in London has not quite reached the heights seen at the end of 2000, but has nonetheless risen from the 4.4 million jobs in the third quarter of 2002 (see Figure 3.3).

The unemployment rate in London remains higher than in the UK as a whole, but did not change significantly in the first half of 2005.

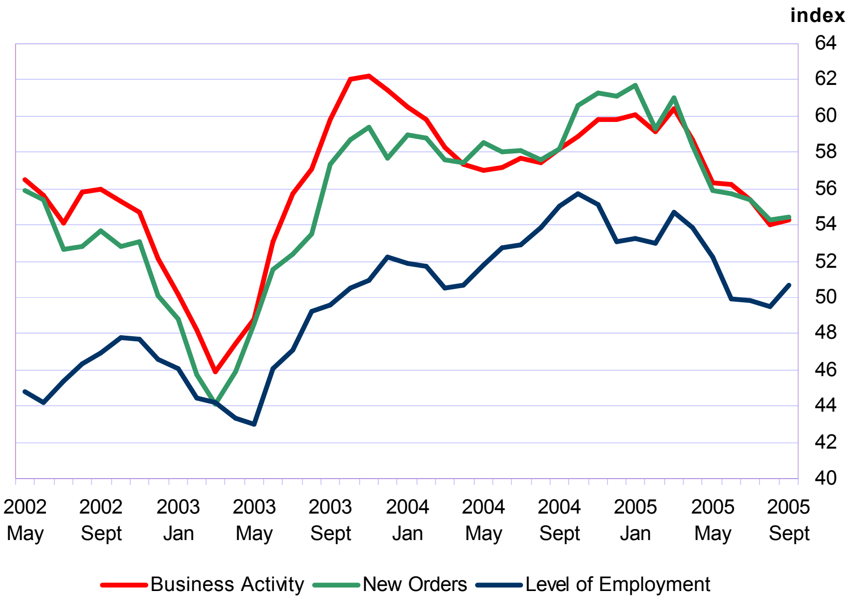
Figure 3.3: London civilian workforce jobs
Level and annual % change, last data point Q2 2005



Notes: LHS=Left Hand Scale, RHS=Right Hand Scale
Source: Office for National Statistics

Evidence from business confidence surveys show a picture of reasonably strong economic activity in London, though not a boom. Figure 3.4 shows the PMI survey on issues such as business activity, new orders and employment in London. The indices are all above 50 indicating expansion. However, the index for employment only just rose above 50 in September after three months of slight contraction.

Figure 3.4: Recent survey evidence on London's economic climate
Purchasing Manager's Index (PMI) survey, last data point September 2005
Seasonally adjusted index (above 50 indicates increase, below indicates decrease)



Source: PMI/RBS

3.2 The UK economy

The preliminary estimate of quarterly UK Gross Domestic Product (GDP) growth in the third quarter of 2005 was 0.4 per cent, down from 0.5 per cent quarterly growth in the second quarter. The annual growth rate in the third quarter of 2005 was 1.6 per cent. This compares with 1.5 per cent in the second quarter – the lowest rate for 12 years. This rate is expected to be weak for the whole of 2005. Her Majesty's (HM) Treasury's reported average of independent forecasts in September put UK growth in 2005 at around two per cent. A growth rate of around two per cent would mean a slowdown compared with 2004, when the UK economy grew at 3.2 per cent. It would seem difficult with present economic data for the Chancellor to achieve his growth forecasts for 2005. Many commentators believe he will need to raise taxes or reduce public spending in order to avoid breaking his self-imposed 'Golden Rule' of not borrowing except to invest over the economic cycle.

Table 3.1: HM Treasury and consensus forecasts for the UK economy (September 2005)

Annual % change, unless otherwise indicated

	Average of Independent Forecasters		Budget March 2005	
	2005	**2006**	**2005**	**2006**
GDP growth (per cent)	2.1	2.3	3-3 1/2	2 1/2 - 3
Inflation rate (Q4: per cent)				
CPI	2	1.9	1 3/4	2
RPI	2.4	2.5	-	-
Claimant unemployment (Q4: mn)	0.88	0.91	-	-
Current account (£bn)	-25.4	-26.2	-34 1/2	-35 3/4
PSNB (2005-06, 2006-07: £bn)	39	38.3	32	29

Note: CPI = Consumer Price Index, RPI = Retail Price Index, mn = million, bn = billion

Source: HM Treasury Comparison of Independent Forecasts, September 2005

The main factors behind the deceleration of the growth rate between 2004 and 2005 are likely to be the slowing in domestic demand (primarily in consumer spending), the slowdown in the global economy as monetary policy in the US continues to tighten and high oil prices.

The production sectors have performed relatively poorly, while the service sectors of the economy are still growing at a healthy pace as shown in Table 3.2.

Table 3.2: Recent growth in broad industrial sectors of UK economy
Annual % change

	2004				2005	
Industrial sectors	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**
Agriculture, forestry, and fishing	2.0%	1.8%	1.1%	1.3%	-2.2%	-0.4%
Mining & quarrying inc oil & gas extraction	-9.8%	-4.7%	-8.4%	-8.6%	-7.7%	-7.6%
Manufacturing	2.1%	2.8%	1.5%	1.2%	-0.2%	-1.2%
Electricity gas and water supply	4.4%	2.6%	2.1%	-0.2%	-1.7%	0.6%
Construction	5.9%	4.0%	1.9%	2.2%	2.6%	2.8%
Distribution hotels and catering; repairs	5.6%	5.4%	4.9%	3.7%	1.6%	0.9%
Transport, storage and communication	2.5%	2.6%	2.3%	3.3%	3.8%	2.8%
Business services and finance	4.4%	4.8%	5.1%	3.8%	3.4%	3.8%
Government and other services	3.0%	3.3%	2.5%	2.2%	2.5%	2.0%

Source: ONS

Household spending growth in the UK slowed considerably in early 2005, falling to 1.5 per cent year-on-year in the second quarter (see Table 3.3). Investment and government spending have not done much in recent quarters to boost growth. These smaller sectors are unlikely to be able to take up all of the slack from a consumer slowdown.

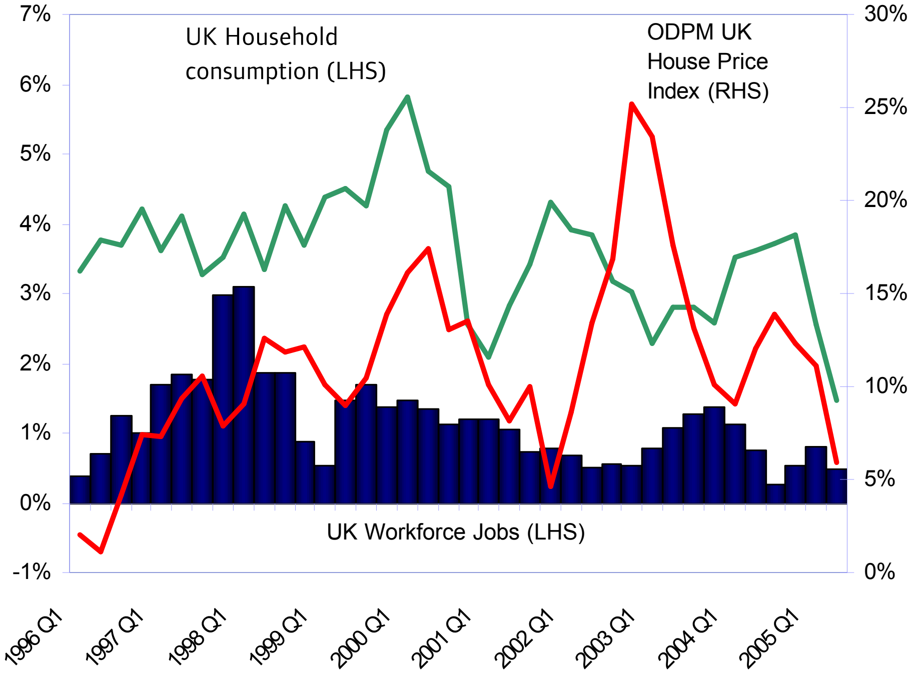
Table 3.3: UK domestic expenditure growth
Annual % change

	2004				2005	
Expenditure	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**
Households	3.5%	3.6%	3.7%	3.8%	2.6%	1.5%
Non-Profit Institutions	1.6%	1.6%	1.9%	2.7%	2.1%	2.6%
General Government	4.9%	3.9%	2.5%	1.1%	1.5%	1.6%
Gross Fixed Capital Formation	2.8%	5.3%	7.8%	3.8%	3.1%	3.1%

Source: ONS

A slowing housing market has helped to erode the 'feel-good factor' among consumers and has been a factor in reining in their spending[iv]. In addition slower employment growth and a rising tax burden have been important factors in weakening consumption growth. In London house price inflation slowed earlier than in the rest of the UK and so London consumers may be less vulnerable to any further slowing. The August Royal Institution of Chartered Surveyors (RICS) housing market survey actually reported more surveyors predicting rising house prices in London than predicting falling house prices over the coming three months[v]. However, a recovery in the housing market will not necessarily make consumer spending recover in the current weak economic climate. Going forward, jobs growth and the tax burden may have a bigger impact on consumer spending.

Figure 3.5: UK consumer spending, workforce jobs and house prices
Annual % change

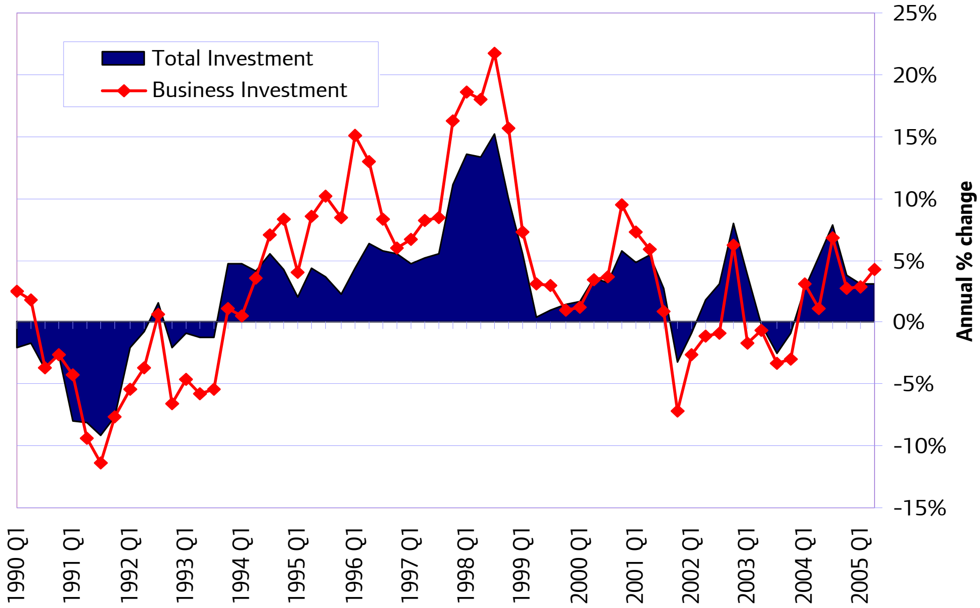


Notes: LHS=Left Hand Scale, RHS=Right Hand Scale, OPDM = Office of the Deputy Prime Minister
Source: ONS, ODPM

Investment has been rising during 2005, but not at a rate that would compensate fully for slowing growth in consumer spending. Figure 3.6 shows that total annual investment growth in the UK has been positive since the beginning of 2004. Investment grew at an annual rate of just over three per cent in the first and second quarters of 2005. A sizable proportion of recent investment growth has been from the public sector. Annual growth in business investment has been positive since the beginning of 2004, but is not high compared to growth in the late 1990s. In Q2 2005 annual growth in business investment was slightly faster than in total investment. Nonetheless, survey data suggests that investment intentions over the rest of 2005 are modest[vi].

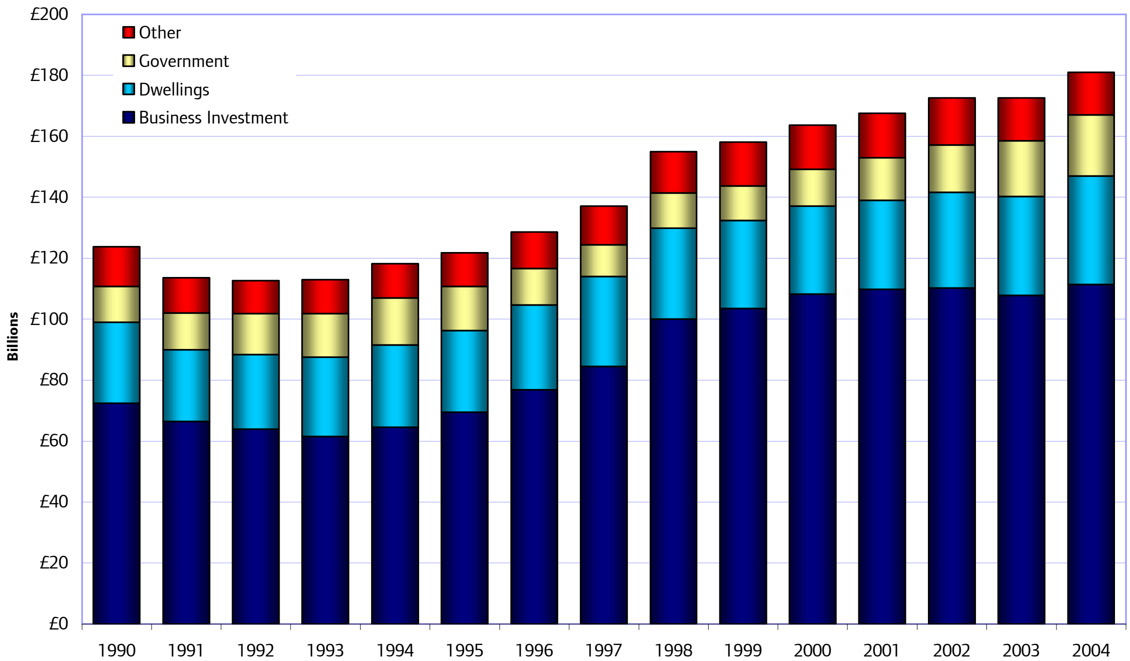
Examining the components of investment also shows that between 2000 and 2004 business investment was relatively flat, with growth mainly coming from government, dwellings and other investment (see Figure 3.7).

Figure 3.6: UK investment and business investment
Gross fixed capital formation, last data point – Q2 2005



Source: ONS

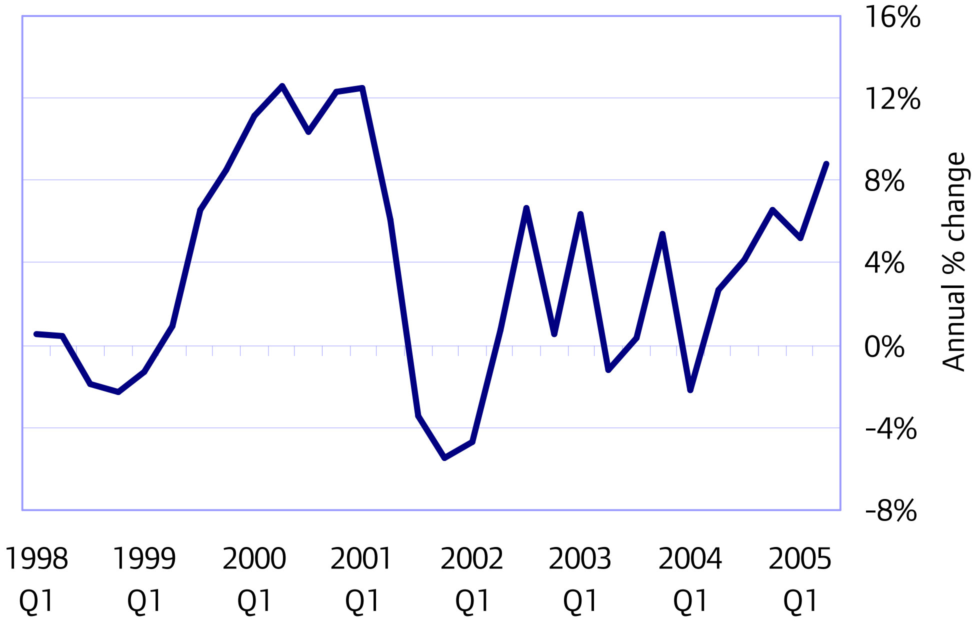
Figure 3.7: UK Investment by type
Gross Fixed Capital Formation, Annual



Source: ONS

World trade growth is expected to ease somewhat in 2005 according to the International Monetary Fund (IMF), but will still grow at a fairly strong six per cent. UK exports continued to grow at robust levels in the second quarter of 2005 (see Figure 3.8) due to continued healthy global demand and against the background of a weakening trade-weighted sterling exchange rate. Nonetheless, the impacts of higher oil prices on global demand are not yet clear and there are continued significant risks to growth in the Eurozone, the UK's main export market.

Figure 3.8: Growth in UK total exports
Quarterly data, annual % change, last data point – Q2 2005



Source: ONS

CPI inflation rose to 2.5 per cent in September, the third consecutive month above its 2.0 per cent target rate. The Bank of England's Monetary Policy Committee (MPC) lowered interest rates by 0.25 per cent in August to 4.5 per cent[vii] and kept them there in September and October. For the time being it seems that the Bank of England considers the impacts from high oil prices to be relatively short term and that inflationary pressures will ease over the next two years (the horizon for monetary policy impact). This assessment could change if energy prices continue to climb and lead to higher wage settlements.

3.3 The world economy

The world economy has continued to grow at a healthy pace. Compared to growth in 2004 most commentators expect to see slower growth in 2005. The IMF forecasts growth in the global economy of 4.3 per cent in 2005. This is slightly slower than the rapid 5.1 per cent growth achieved in 2004, but it is still a strong rate of growth and above the trend of the last three decades. The IMF also forecasts a similar rate of growth of around 4.2-4.3 per cent a year until 2010. The prospects for the world economy remain good despite the rapid increase in oil prices over the last couple of years (see Box 3.1).

Box 3.1: The oil market

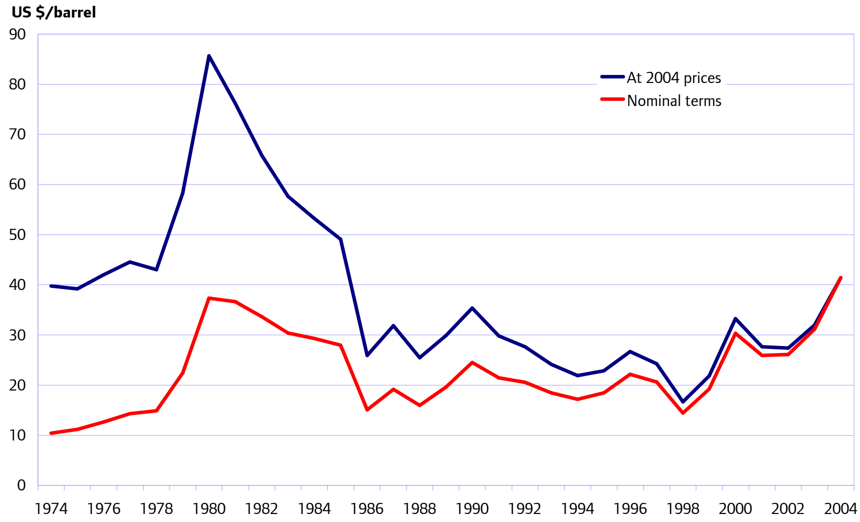
Brent Crude oil prices started 2005 at US$40 before rising sharply. The price is currently high, though slightly below its peak in August (see Figure 3.9).

Figure 3.9: Nominal oil price – Brent Crude

Source: EcoWin

In real terms, using a consumer price deflator, current oil prices are still below the peak of the early 1980s when prices reached almost $90 per barrel (in 2004 dollars). Oil price shocks can slow down the world economy by raising production costs and consumer prices, leading both production and consumption to contract, while at the same time contributing to higher inflation. Previous oil price booms have led to recessions in the global economy.

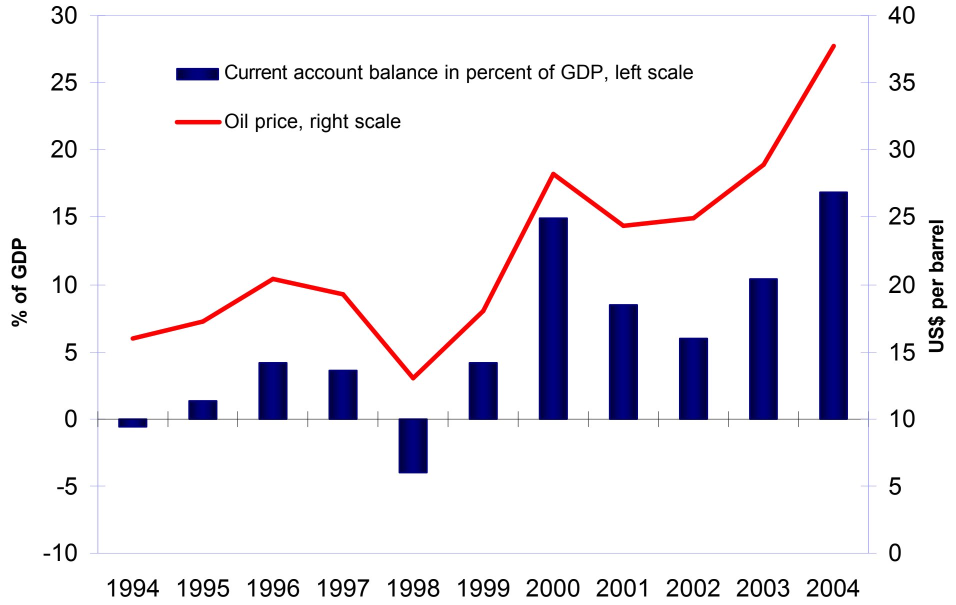
Figure 3.10: Yearly average oil price ($ per barrel), nominal and real prices



Source: Ecomagic.com based on West Texas Intermediate

High oil prices affect different countries and sectors in different ways. Generally, net oil exporters gain through higher export earnings. In the first place, major OPEC (Organisation of Petroleum Exporting Countries) countries, Russia and other net oil exporting countries such as Norway and Mexico will initially benefit. Recent high oil prices have strengthened the external position of Middle Eastern countries, increasing the current account surplus in this region, particularly in 2004 (Figure 3.11).

Figure 3.11: Current account balance and oil price in the Middle East



Source: IMF, September 2005, World Economic Outlook

By contrast, net oil importers will in general lose out when oil prices rise. Higher oil prices reduce output through higher costs of production. US, Japan and China are major net oil importing countries. China depends heavily on oil for use in manufacturing activities. Currently, the US and China are growing quite robustly and Japan's economic position is improving, so they are still able to absorb current high oil prices. However, their economic growth is being somewhat dampened by high oil prices.

Economic studies emphasise that the impact of an oil shock in the global economy depends on the size and duration of the shock and the dependency of the economy on oil and energy[viii]. As a rule of thumb the IMF estimates that a persistent increase of ten per cent in oil prices will reduce global output by only around 0.1-0.15 per cent per year[ix]. For the UK, an IMF staff working paper from 2001 estimated that a sustained ten per cent increase in oil prices might reduce GDP by only 0.1-0.2 per cent over four to five years. For the US this effect is higher[x].

Oil prices are considered likely to remain at their current high levels for some time according to reports by the IMF and investment banks like Goldman Sachs and Merrill Lynch. Many factors interact to determine oil prices: supply, demand, inventories and speculation. The current surge in crude oil prices has been due to a combination of factors such as high demand for oil from China, India and the US; the threat of geopolitical instability in the Middle East; the fact that there is limited excess capacity in oil supply; and the impact of hurricanes in the US jeopardising oil refining capacity there.

Oil futures markets also indicate that high oil prices are likely to persist in the short term. The West Texas Intermediate crude oil future prices are quoted above $60 per barrel over the next six months[xi]. However, future oil prices are difficult to predict. Volterra Consulting have done stress tests on probabilities of future oil price movements and found that the historical data predicts low probabilities of major price movements. In 2004 the probability of an increase of US$20 in the real price of oil was just six per cent. Nonetheless, the real price of oil did rise by this amount between 2004 and 2005.

Advanced economies continue to be major oil consumers. However, China and India have been expanding their oil demand at a fast pace in the past few years. China has doubled its share of total world oil demand, from four per cent in 1994 to eight per cent in 2004[xii]. In 2004 world oil supply averaged 83 million barrels per day (mbpd) – see Table 3.4. OPEC are the largest producers, accounting for around 40 per cent of world oil supply in 2004 and they also have the largest oil reserves[xiii].

Table 3.4: World demand and supply of oil, mbpd

	Demand						Supply					
	2000	2004	2010	2015	2020	2025	2000	2004	2010	2015	2020	2025
US	19.7	20.7	22.5	24.2	25.8	27.3	9.1	8.7	9.9	9.7	9.5	9.3
China	4.6	6.5	9.2	10.7	12.3	14.2	3.2	3.6	3.7	3.6	3.6	3.5
FSU	3.6	4.2	4.7	4.9	5.2	5.5	8.1	11.3	13.6	15.3	16.4	17.5
OPEC *	4.4	5.6	7.3	8.0	8.6	9.2	30.9	32.9	39.9	43.7	49.7	56.0
The rest of the world	43.0	45.5	50.9	55.4	59.1	63.0	25.5	26.5	29.4	33.1	34.4	35.9
Total world	75.3	82.5	94.6	103.2	111.0	119.2	76.8	83.0	96.5	105.4	113.6	122.2

Notes: Supply refers to production. FSU includes former Soviet Union republics. OPEC oil demand is not officially provided. In this table OPEC oil demand equals Middle East oil demand.
Source: International Energy Agency (IEA) August 2005, Energy Information Administration (EIA) 2005, International Energy Outlook 2005, Energy Information Administration/short-term energy outlook-November 2001 and International Energy Agency - Monthly Oil Market Report 12 September 2001

Spare capacity can smooth oil prices. The more spare capacity is available to meet current world oil demand, the lower the impact on prices will be of any type of shock. However, the IMF has noted that OPEC countries currently appear to have limited spare capacity[xiv]. Recent figures from the Energy Information Administration (EIA) show that from all OPEC countries only Saudi Arabia has surplus capacity of between 0.9-1.4 mbpd (in August 2005). The world oil market is therefore likely to remain tight in the medium term and vulnerable to shocks given that spare capacity is at historically low levels.

Table 3.5: OPEC oil surplus capacity, mbpd, August 2005

	Production (1)	Capacity (2)	Surplus capacity (2)-(1)
Saudi Arabia	9.6	10.5-11.0	0.9-1.4
Iraq	1.9	1.9	0.0
The rest of OPEC	18.6	18.6	0.0

Source: EIA, Short/Term Energy Outlook, September, 2005.

Notes: Capacity refers to maximum sustainable production capacity, defined as the maximum amount of production that 1) could be brought online within a period of 30 days and 2) sustained for at least 90 days.

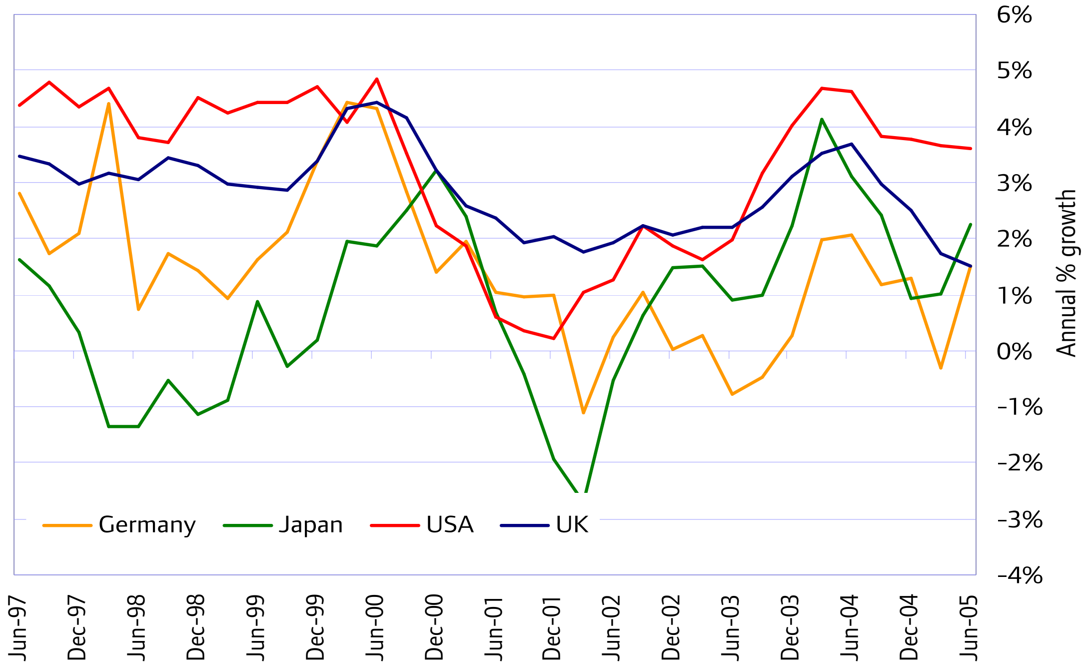
In contrast to the 1970s oil prices are high not because of sudden supply shocks, but because of strong demand. In the longer term, high oil prices will increase investment in the industry which will increase supply. However, oil prices are unlikely to fall dramatically in the short run. In the meantime, high oil prices are expected to be less damaging to global growth compared to the 1970s as developed economies now depend less on oil. Although high oil prices will slow down global growth, they are unlikely to lead to a recession.

London's economy should be slightly less vulnerable to high oil prices than the rest of the UK, since it is more oriented to services than to oil intensive manufacturing (around 85 per cent of London's output comes from services). However, transport services are important to the capital, (transport, storage and communication contributes ten per cent of London's GVA) and may be adversely affected.

World growth continues to be driven in particular by the US and China. The US economy continues to show strong growth even with the Federal Reserve gradually tightening monetary policy. On 11 September the Federal Open Market Committee raised interest rates for the 11th successive time, to 3.75 per cent. In the second quarter of 2005 the US economy grew by 3.6 per cent year-on-year. Despite the enormous human suffering caused by hurricanes Katrina and Rita, the main medium-term risks relating to the US economy remain that the widening current account deficit leads to the US dollar collapsing or that the booming housing market crashes.

The US current account deficit is projected by the IMF to exceed six per cent of GDP in 2005. If the foreign funders of this deficit (mainly China, Japan and OPEC countries) were to cease financing the US current account deficit, this could easily lead to a collapse in the US$ and cause great disruption in the US economy. However, so far there has been little sign that foreign investors, particularly the Asian central banks which are the main financers of the US current account deficit, are becoming unwilling to purchase US debt. A recent report by the International Centre for Monetary and Banking Studies and the Centre for Economic Policy Research, argues that the only sustainable solution to the US current account deficit is for Americans to save more[xv]. However, less US consumption will have a negative impact on global demand.

Figure 3.12: GDP growth in selected industrialised countries
Real GDP, annual % change



Source: Ecowin

The US housing market is one of the factors underpinning the continued growth in household consumption. The housing boom in the US has partly been possible because of historically low long-term interest rate levels, which is key to the fixed rate mortgage market of the US. The policy by the Federal Reserve of 'measured' monetary tightening of short-term interest rates has so far had little impact on long-term rates and therefore on the housing market. In historical terms the real cost of credit is still relatively low.

There has been some recent good news from the Japanese economy (the second largest in the world). Japan appears to be showing strong and sustained growth for the first time in recent years. The current recovery is already a year longer than the previous one and there are indications that it might be sustained this time. GDP grew by 2.2 per cent in the second quarter of 2005 year-on-year and most forecasts expect growth at around two per cent in 2005 as a whole. The euro area on the other hand continues to wait for a recovery to take off. Annual GDP growth averaged around 1.25 per cent in the first half of 2005, though this contained strong differences in performance between different countries. Countries like Spain, Ireland and several of the accession countries in the EU have been growing at rates of over three per cent a year. However, the traditional centres of the EU economy, countries like Germany and France, have grown at relatively slow rates in recent years.

Box 3.2: The German economy

Germany's economy produces just over one-fifth of Eurozone output. Persistent unemployment and sluggish growth, at only 1.6 per cent in 2004, has made it the centre of concerns for Europe's economic health. Many commentators were disappointed by the political deadlock which resulted from the election in September 2005. However a look at Germany's economy suggests that even with clear political leadership, underlying problems exist to which there may be no rapid solution. As several commentators have noted[xvi], the German economy presents a puzzling combination of great underlying strengths and persistently disappointing performance.

Table 3.6: Performance of Eurozone and selected countries within it

Region/Country	GDP share of total EU (%)	Growth in GDP 2004 (%)	Unemployment rate 2004 (%)
Germany	*21.8*	*1.6*	*9.5*
France	16.0	2.3	9.7
Eurozone total	**74.5**	**2.0**	**8.8**
UK	16.3	3.2	4.0
EU 15 total	**95.5**	**2.2**	**8.0**

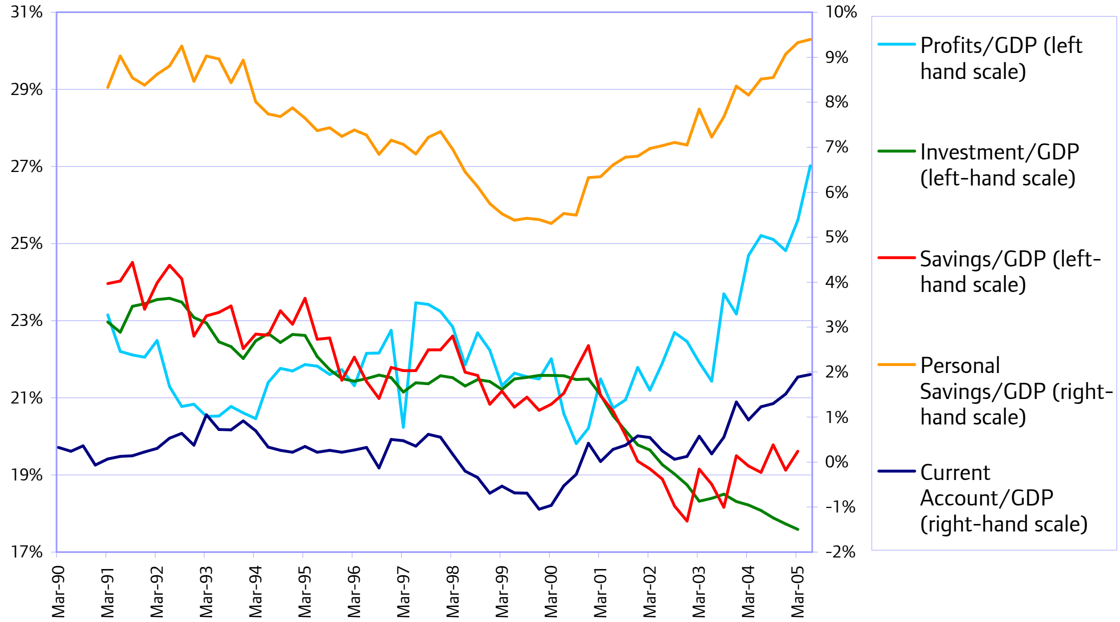
Source: Eurostat, IFO institute[xvii]

As Figure 3.13 shows, Germany's profits as a share of GDP have been on an upward trend since September 2000, reaching 27 per cent in the second quarter of 2005. Germany is the world's largest exporter of goods ($912 billion worth of goods in 2004[xviii]). Its trade balance reached two per cent of GDP in the second quarter of 2005. Personal savings are also remarkably strong at 7.4 per cent of GDP in the second quarter of 2005, having risen in every quarter since June 1999. The flip side to this is an extremely weak consumer sector. In addition, investment as a proportion of GDP, which was in any case on a slow declining trend since unification, turned sharply downwards in September 2000, reaching a low of 17.6 per cent of GDP in the first quarter of 2005.

Germany's rigid labour market is an area of weakness and needs further reform. *The Economist*[xix], citing the European Commission and OECD, reports hourly wage costs in West Germany of €27.60 compared to €18.80 in the UK. However, *The Economist* also points out that German unit labour costs are falling relative to other European economies. Taking 1999 as the base year (1999=100), it suggests that Germany's unit labour costs, relative to the Eurozone average, have fallen to 88 compared with France (99), Spain (108), and Italy (107).

East German hourly labour costs, at €17.20[xx], are substantially lower than in West Germany. However, the long-awaited investment boom in the East has not materialised. Certainly, Germany has paid an economic price for the 'one-to-one' exchange rate set by Chancellor Kohl on unification, which provided relatively high living standards in the East but left large parts of its industry unable to compete.

Figure 3.13: Germany's profits, savings and investment since unification

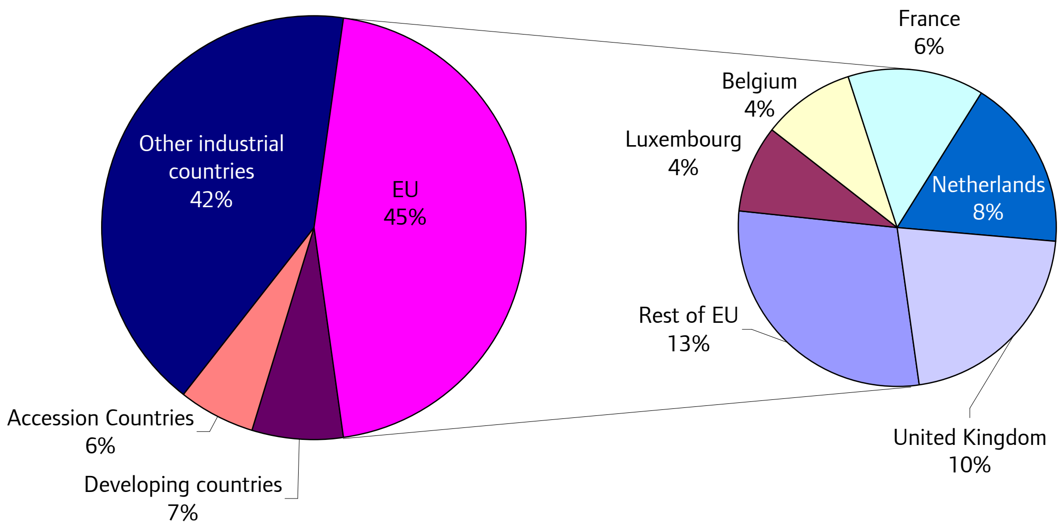


Note: Savings = sum of gross fixed investment, inventory adjustment and current account balance

Source: Ecowin and GLA Economics

Since domestic savings do not appear to be going into domestic investment, there is a puzzle about where the money goes. German capital exports have certainly risen: net holdings of direct investment and equity abroad rose from €98 billion to €371 billion between 1992 and 2002 and gross holdings rose from €243 billion to €1096 billion. Figure 3.14 shows where German foreign direct investment was located in 2003.

Figure 3.14: Location of German foreign direct investments (share of total stock in 2003)



Source: Kiel Institute for World Economics, world trade database

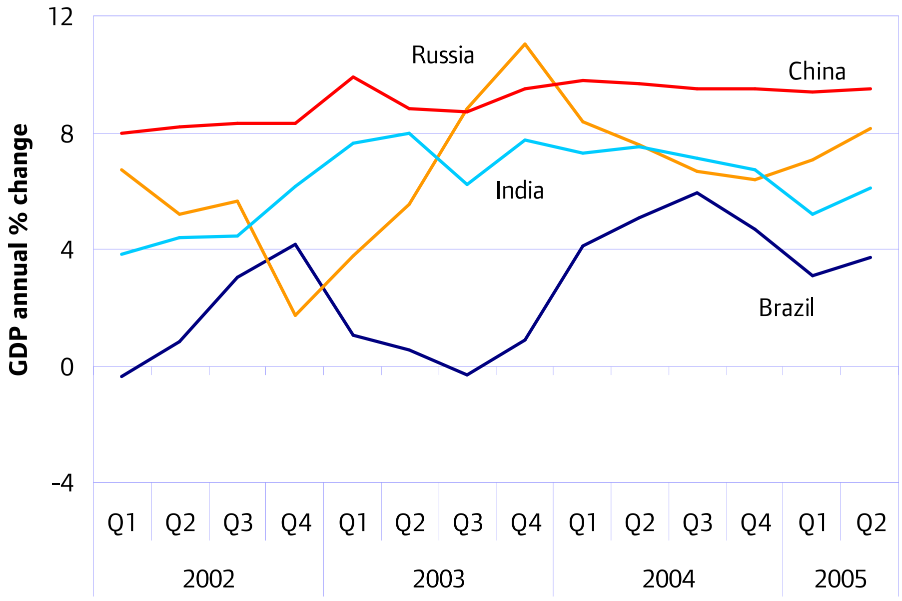
Most striking is the high percentage of German investment in its neighbours – France, the Netherlands, Belgium and Luxemburg. The outward flows of German capital seem as much to do with investment opportunities afforded by European integration as with the competitive situation of German labour markets. If this is true the consequences will be felt for some time to come.

3.4 Emerging market economies

China continues to be one of the powerhouses of global growth with annual expansion of over nine per cent a year. For the first time, the OECD has produced a report on China's economy. The report expects that China will be able to sustain an annual growth rate of around nine per cent for some time to come[xxi]. Another report, by Goldman Sachs, has projected that if current growth levels continue, China might become the second biggest economy after the US by 2020 and might overtake the US by around 2045[xxii]. The OECD report points out that the private sector in China has grown significantly, being responsible for almost 60 per cent of GDP in 2003. Continued strong growth may depend on continuing economic reform. One recent example of economic reform was the revaluation and shift to a managed float regime for the Chinese Yuan. Though the resulting revaluation was modest in size, only around two per cent, the symbolic importance of moving from a peg against the dollar to a basket of currencies is greater. The regime was further liberalised in September by allowing the Yuan to float within a slightly wider band against the dollar.

India also grew strongly in the first half of 2005. However, the IMF believes that it cannot be counted as an engine of global growth yet because it is still a relatively closed economy in terms of international trade linkages. India accounts for only 2.5 per cent of global trade in goods and services, compared to 10.5 per cent for China[xxiii].

Figure 3.15: GDP growth in selected emerging market economies



Source: Ecowin

High oil prices have helped to boost Russia's growth rate while having a negative effect on oil importers like Brazil. Brazil's growth moderated slightly in early 2005 compared to 2004 mainly due to consumer spending slowing in reaction to tightening monetary policy.

3.5 Summary

Growth in the UK is moderating as a result of slowing consumer spending on the back of a cooling housing market, slower employment growth and a rising tax burden. London's economy is also set to grow at a slower rate in 2005 than in 2004, though the adjustment in the housing market may be further advanced in London compared with the rest of the UK. Inflation, despite having picked up in recent months in response to rising oil prices, appears still to be under control. Credible independent central banks in most developed countries have anchored inflationary expectations at a low level, and less manufacturing-intensive economies have shown themselves to be less vulnerable to oil price rises than in the 1970s.

The world economy is expected to keep growing at a reasonable rate over the near term. Substantial risks remain in the form of a potential sharp adjustment of the US's current account deficit, and even higher oil prices.

4. Review of independent forecasts

What the forecasts provide

The main forecast reports on four indicators: workforce employment, real output, private consumption (household expenditure) and household income in London. The consensus reports on the first three of these, since most forecasters do not yet provide forecasts of household income. Both annual growth rates and 'standardised' absolute levels (see following) are reported.

Both the consensus and GLA Economics' own forecasts also provide predictions of growth rates for employment and output in six broad sectors:

- manufacturing
- construction
- transport and communications
- distribution, hotels and catering
- finance and business services
- other (mainly public) services.

Output

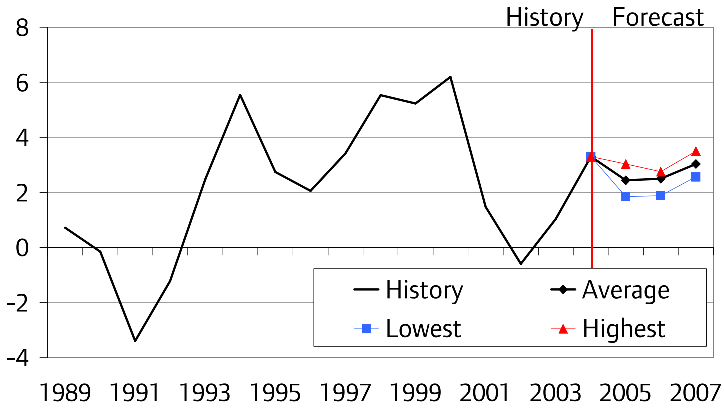
(London GVA, constant year 2002, £ billion)

Growth is expected to continue although not quite as strongly as the 3.3 per cent rate achieved in 2004.

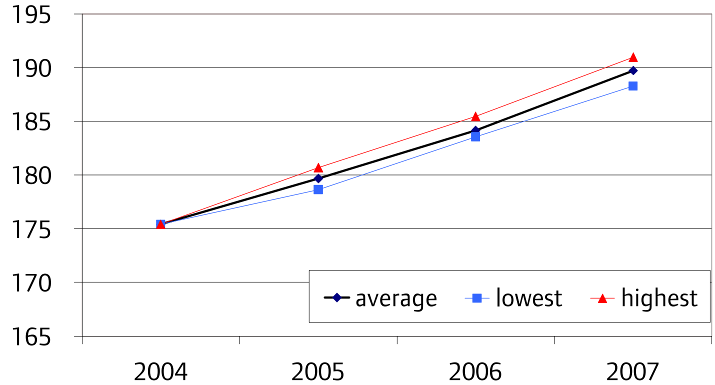
The consensus (average of independent forecasters) is for growth at 2.4 per cent in 2005, increasing to 2.5 per cent in 2006 and 3.0 per cent in 2007.

The spread of predicted GVA levels for 2007 is small, indicating broad agreement by the forecasters.

Annual growth (per cent)



Level (constant year 2002, £ billion)



Annual growth (per cent)			
	2005	2006	2007
Average	2.4	2.5	3.0
Lowest	1.8	1.9	2.6
Highest	3.0	2.8	3.5

Level (constant year 2002, £ billion)			
	2005	2006	2007
Average	180	184	190
Lowest	179	184	188
Highest	181	185	191

History: Annual growth (per cent)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
0.7	-0.2	-3.4	-1.2	2.5	5.5	2.7	2.1	3.4	5.5	5.2	6.2	1.5	-0.6	1.0	3.3

History: Level (constant year 2002, £ billion)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
126.5	126.3	122.0	120.5	123.5	130.3	133.9	136.6	141.3	149.1	156.9	166.6	169.1	168.1	169.8	175.4

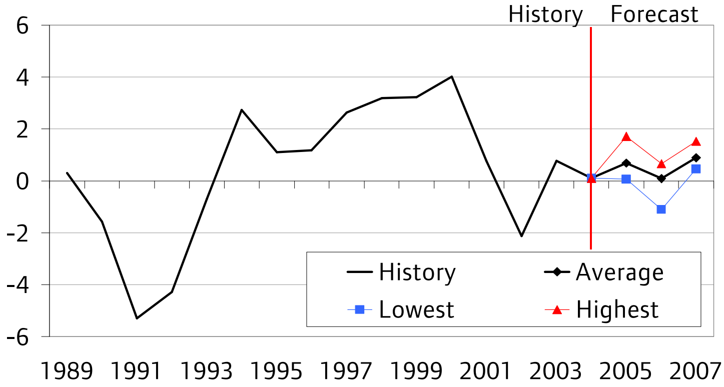
Employment
(London workforce jobs)

There was employment growth of 0.1 per cent in 2004.

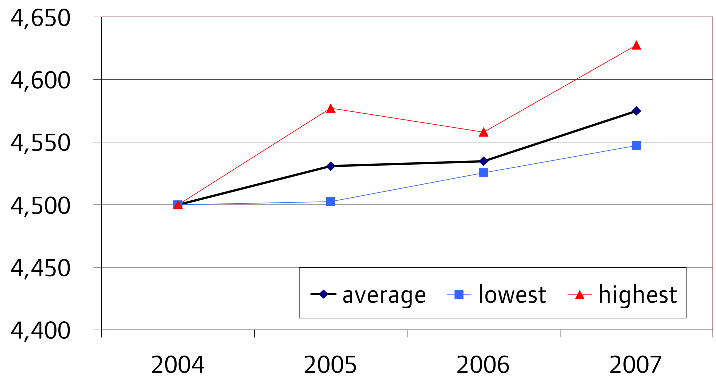
The lowest forecast is for growth to remain the same level in 2005 as it was in 2004. However, the consensus is that it will grow at 0.7 per cent in 2005, fall down to 0.1 per cent in 2006, before rising to 0.9 per cent in 2007.

The spread of forecasts for total London jobs by 2007 range from 4.55 million to 4.63 million.

Annual growth (per cent)



Level (thousands)



Annual growth (per cent)			
	2005	2006	2007
Average	0.7	0.1	0.9
Lowest	0.1	-1.1	0.5
Highest	1.7	0.7	1.5

Level (thousands)			
	2005	2006	2007
Average	4,530	4,530	4,570
Lowest	4,500	4,530	4,550
Highest	4,580	4,560	4,630

History: Annual growth (per cent)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
0.3	-1.6	-5.3	-4.3	-0.7	2.7	1.1	1.2	2.6	3.2	3.2	4.0	0.8	-2.1	0.8	0.1

History: Level (thousands)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
4,270	4,210	3,980	3,810	3,790	3,890	3,930	3,980	4,080	4,210	4,350	4,520	4,560	4,460	4,500	4,500

Household expenditure

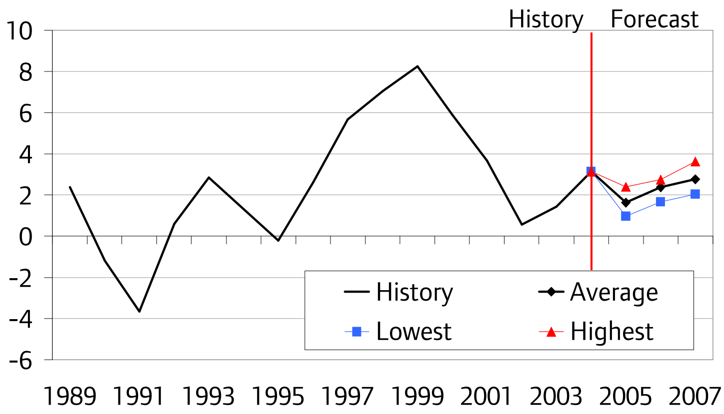
(London household spending, constant year 2002, £ billion)

Growth in household expenditure was 3.1 per cent in 2004.

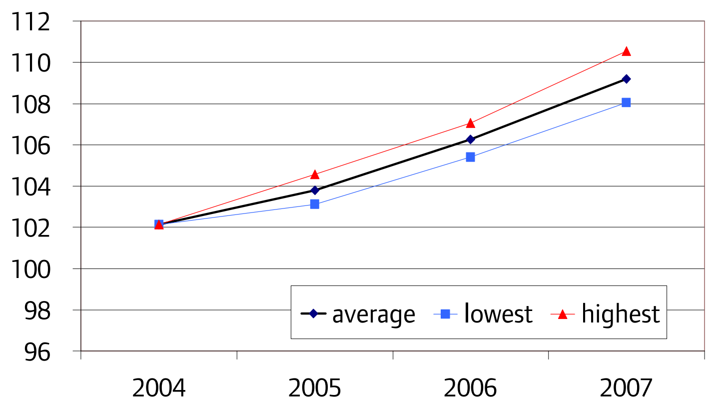
The average of independent forecasters is for a slowdown in 2005, with growth falling to 1.6 per cent, before rising again to 2.4 per cent in 2006 and 2.8 per cent in 2007.

The most optimistic forecasts expect 2.4 per cent growth in 2005 rising to 3.6 per cent in 2007.

Annual growth (per cent)



Level (constant year 2002 £ billion)



Annual growth (per cent)			
	2005	2006	2007
Average	1.6	2.4	2.8
Lowest	1.0	1.7	2.0
Highest	2.4	2.7	3.6

Level (constant year 2002, £ billion)			
	2005	2006	2007
Average	104	106	109
Lowest	103	105	108
Highest	105	107	111

History: Annual growth (per cent)

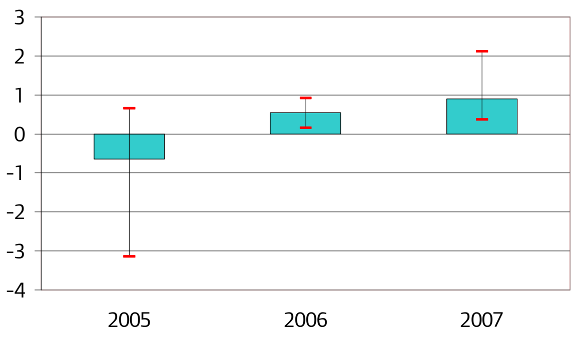
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
2.4	-1.2	-3.7	0.6	2.8	1.3	-0.2	2.6	5.7	7.1	8.2	5.9	3.7	0.6	1.4	3.1

History: Level (constant year 2002, £ billion)

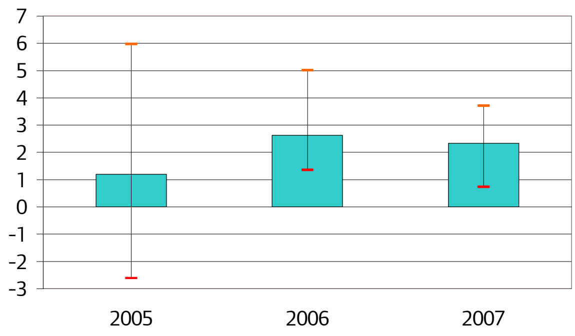
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
70.7	69.9	67.3	67.7	69.6	70.5	70.4	72.2	76.3	81.7	88.4	93.7	97.1	97.6	99.0	102.1

Output growth by sector (per cent annual change)
Growth is expected in all sectors over 2005 - 2007, although there is a slight decline forecast for manufacturing in 2005. Transport and communications, and finance and business services are forecasted to have the fastest growth.

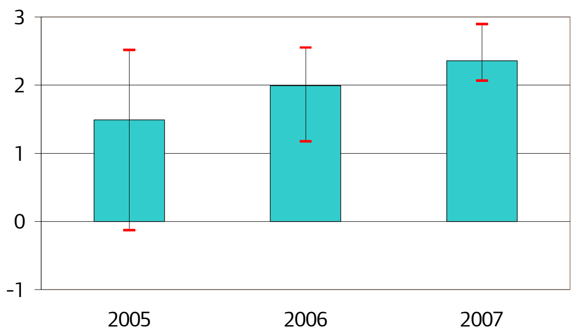
Manufacturing



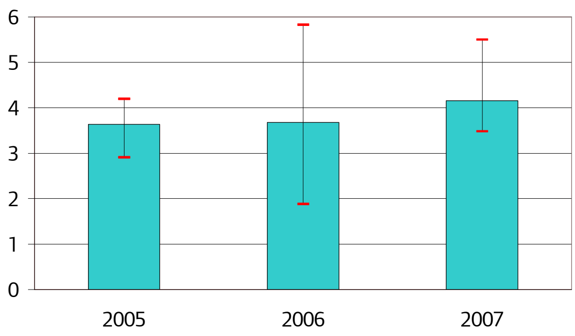
Construction



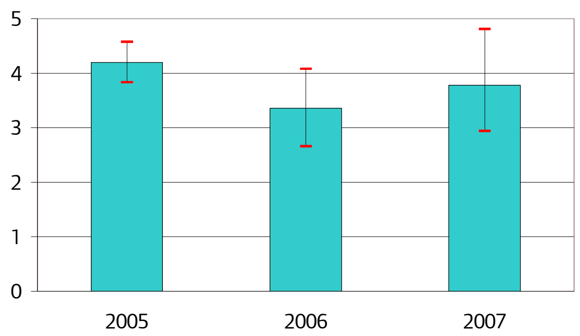
Distribution, hotels and catering



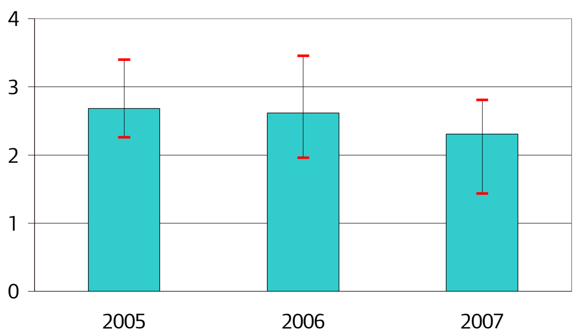
Transport and communications



Finance and business



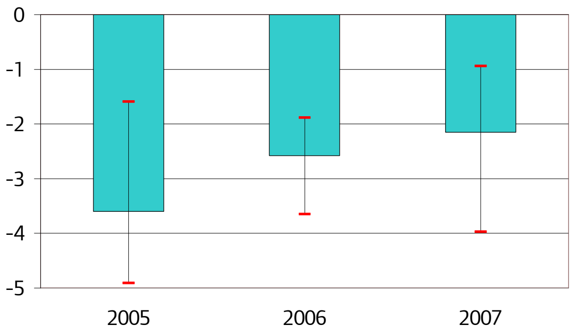
Other (mainly public) services



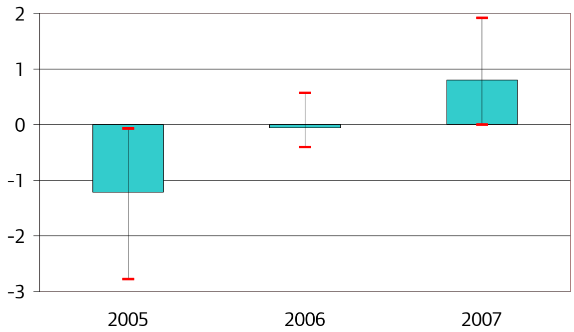
		2005	**2006**	**2007**			**2005**	**2006**	**2007**
Manufacturing	*Average*	-0.6	0.5	0.9	**Construction**	*Average*	1.2	2.6	2.3
	Lowest	-3.1	0.2	0.4		*Lowest*	-2.6	1.4	0.7
	Highest	0.7	0.9	2.1		*Highest*	6.0	5.0	3.7
Distribution	*Average*	1.5	2.0	2.4	**Transport and communications**	*Average*	3.6	3.7	4.2
	Lowest	-0.1	1.2	2.1		*Lowest*	2.9	1.9	3.5
	Highest	2.5	2.5	2.9		*Highest*	4.2	5.8	5.5
Finance and business	*Average*	4.2	3.4	3.8	**Other (mainly public) services**	*Average*	2.7	2.6	2.3
	Lowest	3.8	2.7	2.9		*Lowest*	2.3	2.0	1.4
	Highest	4.6	4.1	4.8		*Highest*	3.4	3.5	2.8

Employment growth by sector (per cent annual change)
Forecasted employment growth shows a mixed picture across the sectors. Financial and business services is forecasted to see the strongest employment growth.

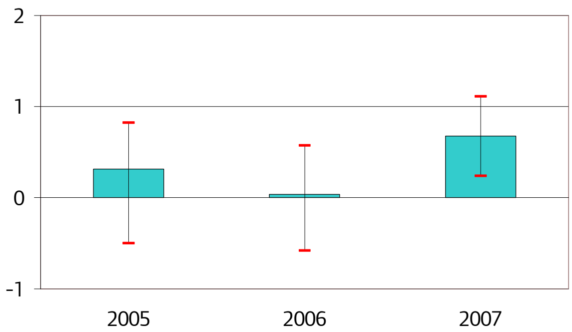
Manufacturing



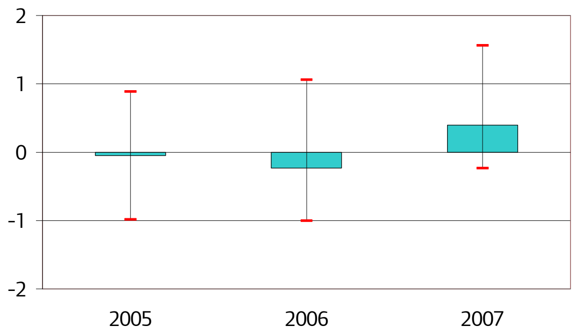
Construction



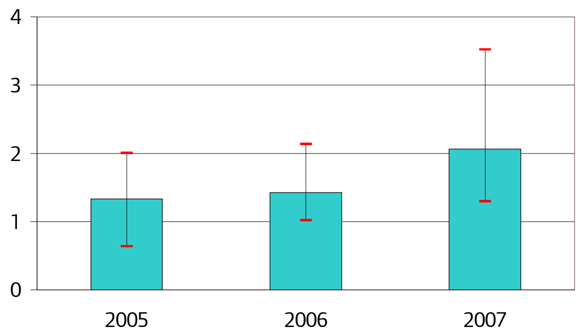
Distribution, hotels and catering



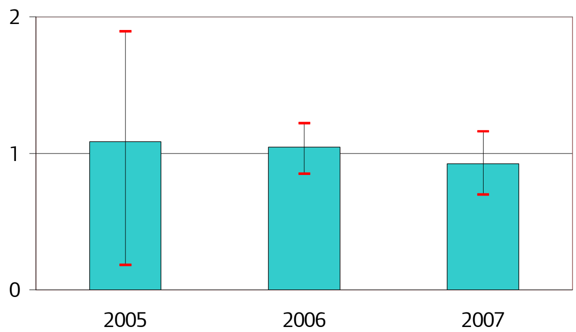
Transport and communication



Finance and business



Other (mainly public) services



		2005	2006	2007			2005	2006	2007
Manufacturing	*Average*	-3.6	-2.6	-2.2	**Construction**	*Average*	-1.2	-0.1	0.8
	Lowest	-4.9	-3.7	-4.0		*Lowest*	-2.8	-0.4	0.0
	Highest	-1.6	-1.9	-0.9		*Highest*	-0.1	0.6	1.9
Distribution	*Average*	0.3	0.0	0.7	**Transport and communications**	*Average*	-0.1	-0.2	0.4
	Lowest	-0.5	-0.6	0.2		*Lowest*	-1.0	-1.0	-0.2
	Highest	0.8	0.6	1.1		*Highest*	0.9	1.1	1.6
Finance and business	*Average*	1.3	1.4	2.1	**Other (mainly public) services**	*Average*	1.1	1.0	0.9
	Lowest	0.6	1.0	1.3		*Lowest*	0.2	0.9	0.7
	Highest	2.0	2.1	3.5		*Highest*	1.9	1.2	1.2

5. The GLA Economics forecast

5.1 Assumptions and methods

This forecast combines GLA's long-term trend projections for employment and population with medium-term assumptions about the growth of the UK economy derived from HM Treasury's comparison of independent forecasts of the UK economy. The latest edition of HM Treasury's comparison of independent forecasts, which was available in time for this forecast, was published in August 2005[xxiv].

The model is constrained for the year 2016 to London-based employment projections derived from the long-term growth rate of London's workforce. The UK assumptions comprise the medium-term growth rates of UK total output. The GLA's long-term employment projections for London have been updated from those underlying the *London Plan* and the updated projections were published in November 2004[xxv].

5.2 Detailed assumptions for the UK

Table 5.1 shows the assumptions adopted by the GLA for its forecast and compares them to HM Treasury's Budget 2005 forecast. Note that the GLA forecast is based on assumptions up to 2016, though the forecast itself only goes up to 2007.

Table 5.1: UK economic assumptions

		2005	2006	2007
GLA forecast[xxvi]	GVA	2.1	2.3	2.6
	Consumption	2.0	1.8	2.7
Budget 2005	GVA	3-3½	2½-3	2¼-2¾
	Consumption	2¼-2¾	2-2 ½	2-2 ½

GLA Economics has adopted consensus growth estimates throughout, taken from HM Treasury's August 2005 review of independent forecasts. These estimates, when applied to EBS's UK model, generate UK growth rates for manufacturing and non-manufacturing which impact on the London forecast, since London has a higher share of non-manufacturing production than the UK average. These growth rates are shown below in Table 5.2.

Table 5.2: Implicit UK growth rates

	2005	2006	2007
Manufacturing output	-0.5	1.2	1.7
Non-manufacturing output	3.0	2.8	3.1

Source: EBS's UK forecast using GLA Economics assumptions on UK GDP growth

5.3 Projections and forecasts

It is necessary to distinguish carefully between the GLA's long-term employment projections and this forecast which contains GLA's medium-term planning projections.

Trend projections, by definition, do not incorporate cyclical variations and constitute estimates of jobs and output at comparable points in the cycle. The actual course of output and employment will vary around this trend. Trend projections are essential for planning to provide capacity (such as office space, housing and transport) to accommodate the needs of the economy throughout and at the peak of the cycle, not just at its low points. For business planning (for example, in deciding the timing of investments and the likely course of revenue) estimates of actual numbers of jobs and actual output at any point in time are required. The medium-term planning projections provide these estimates.

As time progresses and more data become available, it becomes possible to identify whether underlying trends are continuing or whether new trends are being established. While the forecast is calibrated to the GLA's employment projections for 2016, it provides early warnings of significant deviations from these projections because it accounts for the most recent data and incorporates the latest estimates of UK growth rates.

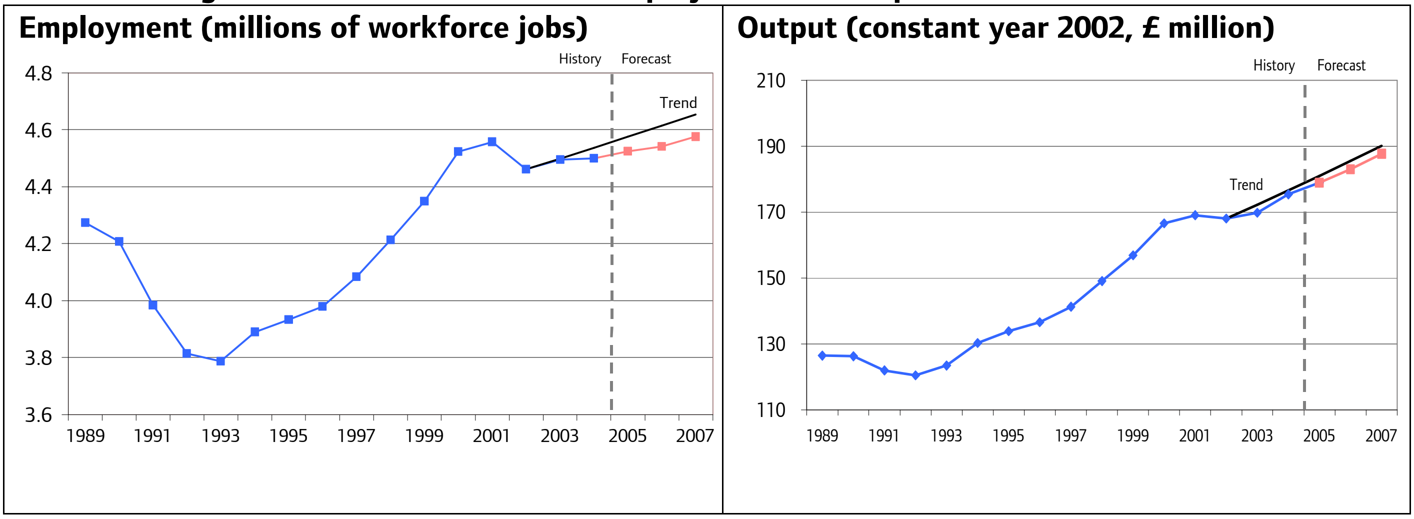
In 2002 the GLA commissioned new employment projections from Volterra Consulting which now form the trend projection on which the medium-term forecast is based. For this reason 2002 is taken as the start point for all trend (long-term) projections, as a basis for comparisons. For comparison purposes, absolute (level) trend projections are derived by applying the trend growth rates to the historical data for 2002 currently available and may therefore differ from the absolute levels for GVA, employment and household expenditure published elsewhere as a result of revisions to historical data as better information becomes available.

5.4 Results

Output is forecast to grow slightly below the trend rate of 2.5 per cent per year in 2005 and 2006, before picking up to 2.6 per cent in 2007. Employment is forecast to continue growing steadily, but below the trend growth rate of 0.9 per cent per year.

In 2004, despite a series of interest rate rises from the Bank of England, household spending rose by 3.1 per cent. However, this was below the GVA growth rate for the first time since 2000. Household spending growth is forecast to slow, to 1.3 per cent in 2005 before recovering to 1.8 per cent in 2006 and 2.9 per cent in 2007.

Figure 5.1: Trend and forecast employment and output



Source: EBS

Table 5.3: Forecast and historical growth rates

Annual % change

	2000	2001	2002	2003	2004	2005	2006	2007
GVA	6.2	1.5	-0.6	1.0	3.3	2.0	2.3	2.6
Workforce jobs	4.0	0.8	-2.1	0.8	0.1	0.6	0.4	0.8
Household spending	5.9	3.7	0.6	1.4	3.1	1.3	1.8	2.9
Household income	8.5	3.7	0.2	3.7	0.5	2.1	3.5	3.4

Table 5.4: Forecast and historical levels

(constant year 2002, £ billion except jobs)

	2000	2001	2002	2003	2004	2005	2006	2007
GVA	166.6	169.1	168.1	169.8	175.4	179	183	188
Workforce jobs (millions)	4.52	4.56	4.46	4.50	4.50	4.5	4.5	4.6
Household spending	93.7	97.1	97.6	99.0	102.1	104	105	108
Household income	102.8	106.7	106.9	110.9	111.4	114	118	122

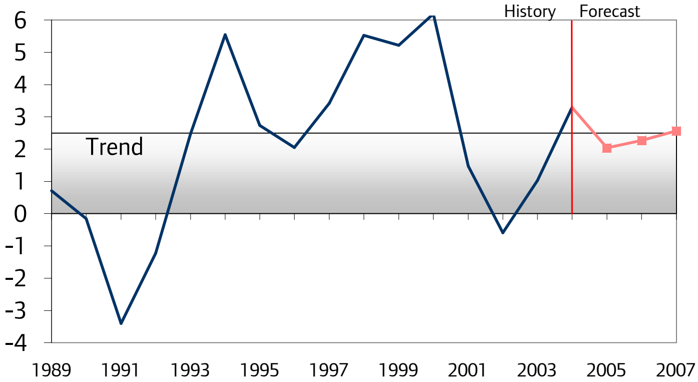
Output

(London GVA, constant year 2002, £ billion)

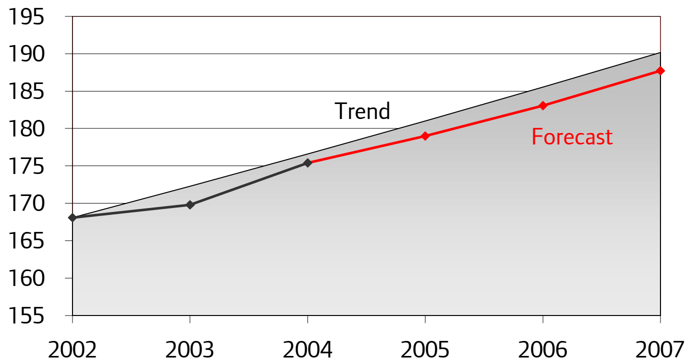
London GVA growth is forecast to be just below trend in 2005 and 2006. Growth in 2004 was above trend at 3.3 per cent. Growth is forecast to recover from two per cent in 2005 rising to 2.3 per cent in 2006 and 2.6 per cent in 2007.

This places the GLA forecast slightly below the average of independent forecasts for 2005, 2006 and 2007.

Annual growth (per cent)



Level (constant year 2002, £ billion)



Growth (annual per cent)	2004	2005	2006	2007
GLA	3.3	2.0	2.3	2.6
Consensus		2.4	2.5	3.0

Level (constant year 2002, £ billion)	2004	2005	2006	2007
GLA	175	179	183	188
Consensus		180	184	190

History: Annual growth (per cent)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
0.7	-0.2	-3.4	-1.2	2.5	5.5	2.7	2.1	3.4	5.5	5.2	6.2	1.5	-0.6	1.0	3.3

History: Level (constant year 2002, £ billion)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
126.5	126.3	122.0	120.5	123.5	130.3	133.9	136.6	141.3	149.1	156.9	166.6	169.1	168.1	169.8	175.4

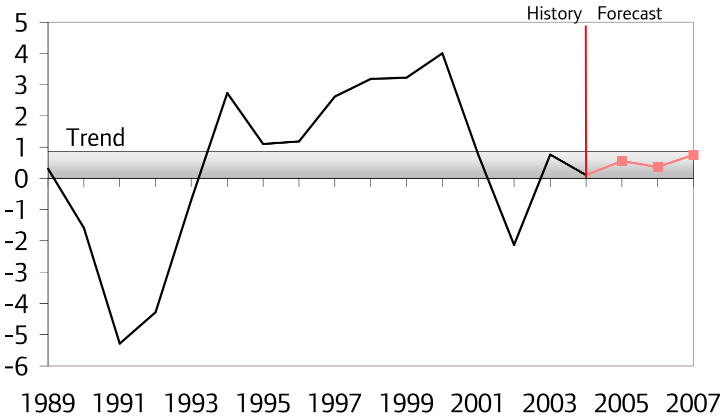
Employment
(London workforce jobs)

GLA Economics expects that London will see continued, steady employment growth from 2005 through to 2007, slightly below the trend growth rate of 0.9 per cent.

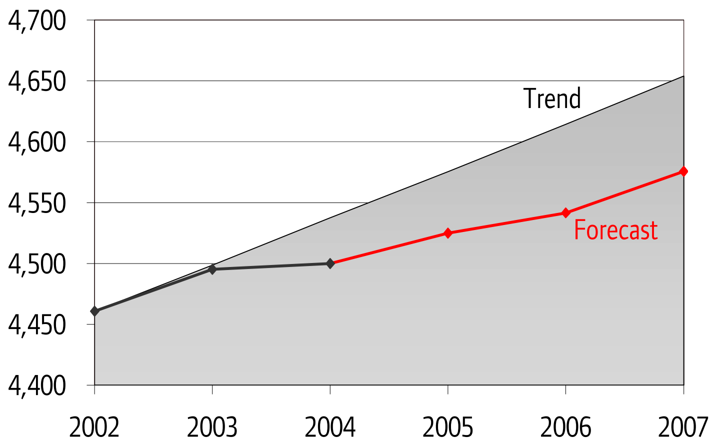
For 2005 and 2007 the GLA forecast for employment growth is slightly below the average of independent forecasters, but it is higher in 2006.

By 2007, London is expected to have 4.58 million workforce jobs.

Annual growth (per cent)



Level (thousands of workforce jobs)



Growth (annual per cent)				
	2004	2005	2006	2007
GLA	0.1	0.6	0.4	0.8
Consensus		0.7	0.1	0.9

Level (thousands of workforce jobs)				
	2004	2005	2006	2007
GLA	4,500	4,520	4,540	4,580
Consensus		4,530	4,530	4,570

History: Annual growth (per cent)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
0.3	-1.6	-5.3	-4.3	-0.7	2.7	1.1	1.2	2.6	3.2	3.2	4.0	0.8	-2.1	0.8	0.1

History: Level (thousands of workforce jobs)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
4,270	4,210	3,980	3,810	3,790	3,890	3,930	3,980	4,080	4,210	4,350	4,520	4,560	4,460	4,500	4,500

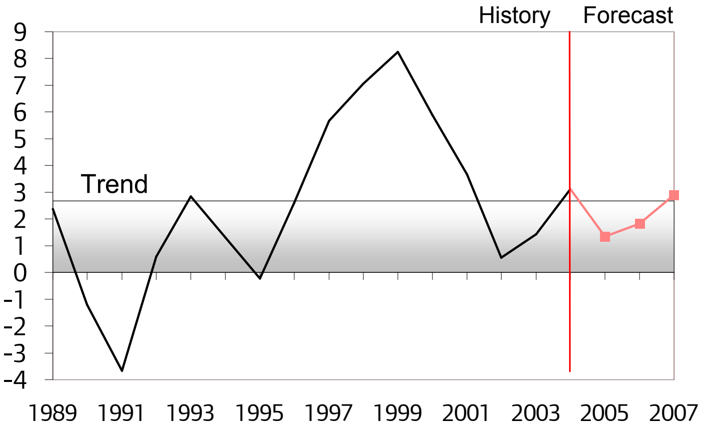
Household expenditure

(London household spending, constant year 2002, £ billion)

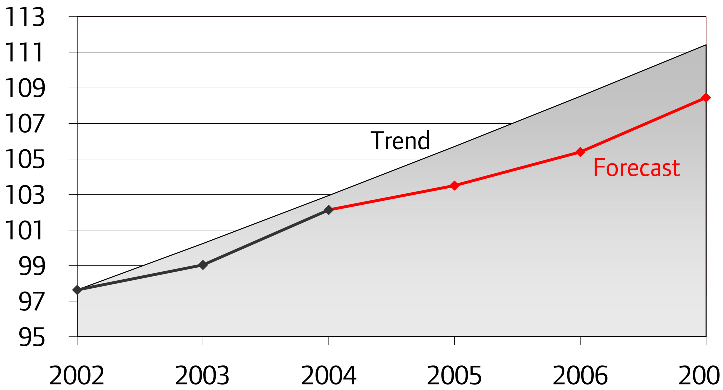
London household spending growth is expected to remain below GVA growth during 2005 and 2006, but is forecast to grow slightly faster than GVA in 2007 at 2.9 per cent.

For 2005, the GLA forecast for London household spending growth is 1.3 per cent, in 2006 it is 1.8 per cent and in 2007 it is 2.9 per cent. The GLA forecast is for growth in household spending at below trend in 2005 and 2006, but just above trend in 2007.

Annual growth (per cent)



Level (constant year 2002, £ billion)



Growth (annual per cent)				
	2004	2005	2006	2007
GLA	3.1	1.3	1.8	2.9
Consensus		1.6	2.4	2.8

Level (constant year 2002, £ billion)				
	2004	2005	2006	2007
GLA	102	104	105	108
Consensus		104	106	109

History: Annual growth (per cent)

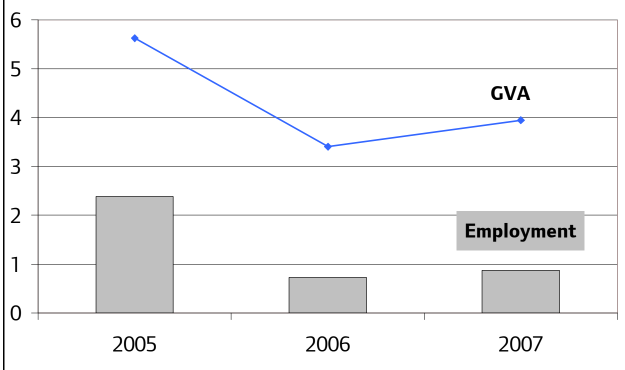
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
2.4	-1.2	-3.7	0.6	2.8	1.3	-0.2	2.6	5.7	7.1	8.2	5.9	3.7	0.6	1.4	3.1

History: Level (constant year 2002, £ billion)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
70.7	69.9	67.3	67.7	69.6	70.5	70.4	72.2	76.3	81.7	88.4	93.7	97.1	97.6	99.0	102.1

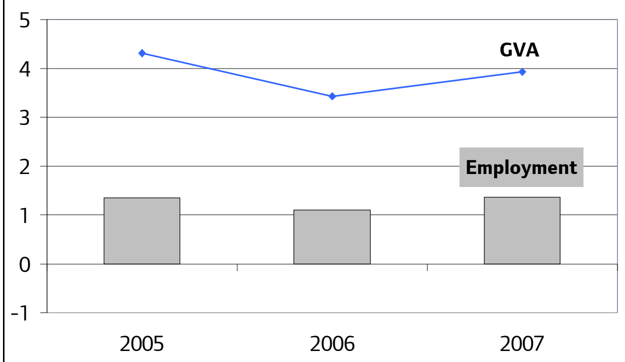
Output and employment growth by sector (per cent annual change)

Financial services

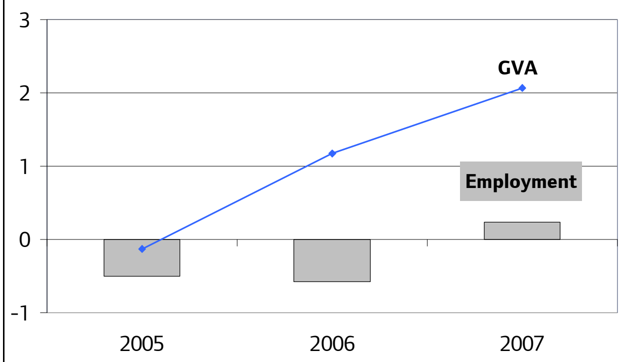


Business services

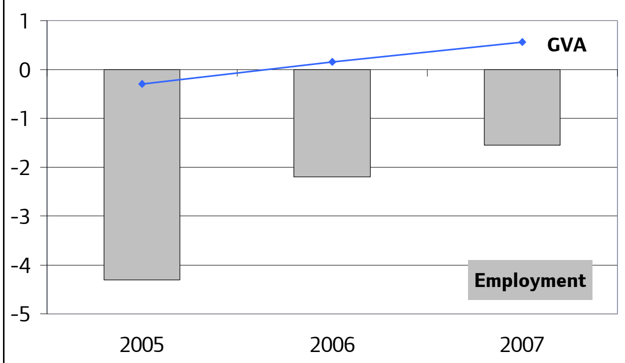
Finance and business (combined)



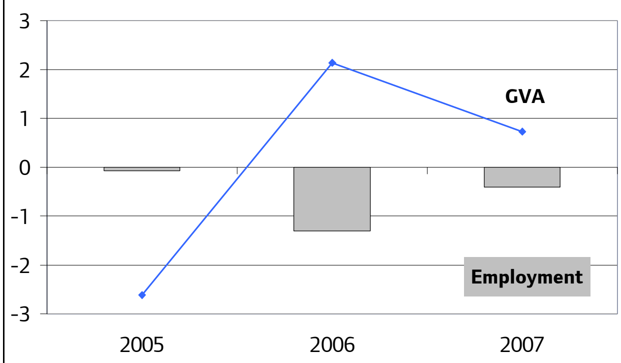
Distribution, hotels and catering



Manufacturing



Construction



Transport and communication

Other (mainly public) services

Output and employment growth by sector (per cent annual change)

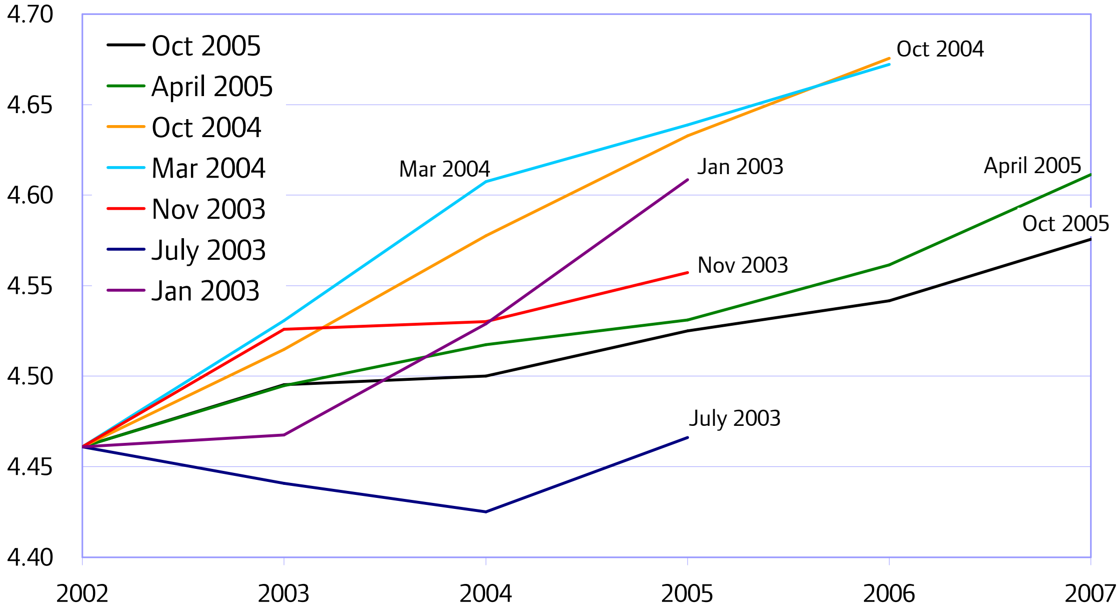
	2005	2006	2007
Financial services			
Output	5.6	3.4	3.9
Employment	2.4	0.7	0.9
Business services			
Output	3.7	3.3	3.9
Employment	1.0	1.2	1.5
Financial and business services combined			
Output	4.3	3.4	3.9
Employment	1.3	1.1	1.4
Distribution, hotels and catering			
Output	-0.1	1.2	2.1
Employment	-0.5	-0.6	0.2
Transport and communications			
Output	3.8	5.8	5.5
Employment	-0.1	1.1	1.6
Other (mainly public) services			
Output	2.3	2.0	1.4
Employment	1.9	0.9	0.9
Manufacturing			
Output	-0.3	0.2	0.6
Employment	-4.3	-2.2	-1.6
Construction			
Output	-2.6	2.1	0.7
Employment	-0.1	-1.3	-0.4
(Memo: non-manufacturing)			
Output	*2.8*	*2.9*	*3.1*
Employment	*0.9*	*0.5*	*0.9*

5.5 Comparison with previous forecasts

This section compares the current forecast with previous forecasts in this series. Since the base years for the forecasts change and the base data is continuously revised, the forecasts have been rebased into a common base year for the comparison in Figures 5.2 and 5.3.

The most significant change in this forecast (October 2005) from the last forecast (April 2005) is that GVA growth for 2005 is now expected to be two per cent rather than the 2.6 per cent in the previous forecast. The forecast for GVA growth in 2006 has also fallen to a below trend 2.3 per cent in the October 2005 forecast.

Figure 5.2: Employment – latest forecast compared with previous forecasts
(millions of workforce jobs)

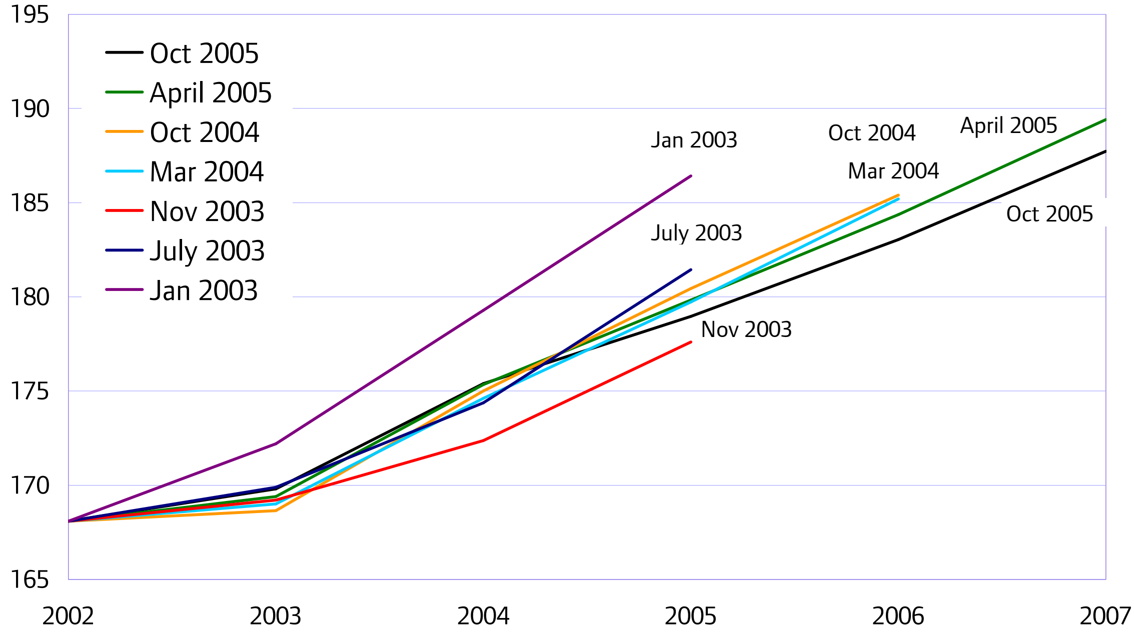


Source: Various London's Economic Outlooks

Table 5.5 Comparisons with previous published forecasts
(London workforce jobs, per cent annual growth)[xxvii]

Forecast	2003	2004	2005	2006	2007
Oct 2005			0.6%	0.4%	0.8%
April 2005			0.3%	0.7%	1.1%
Oct 2004		1.4%	1.2%	0.9%	
Mar 2004		1.7%	0.7%	0.7%	
Nov 2003	1.5%	0.1%	0.6%		
July 2003	-0.5%	-0.4%	0.9%		
Jan 2003	0.2%	1.4%	1.8%		

Figure 5.3: Output – latest forecast compared with previous forecasts
(constant year 2002, £ billion)



Source: Various London's Economic Outlooks

Table 5.6 Comparisons with previous published forecasts
(London GVA, per cent annual growth)

Forecast	2003	2004	2005	2006	2007
Oct 2005			2.0%	2.3%	2.6%
April 2005			2.6%	2.5%	2.7%
Oct 2004		3.8%	3.1%	2.7%	
Mar 2004		3.3%	2.9%	3.0%	
Nov 2003	0.7%	1.9%	3.0%		
July 2003	1.1%	2.6%	4.1%		
Jan 2003	2.4%	4.1%	4.0%		

6. The economic impacts of terrorism – London 2005

This supplement takes a detailed look at the expected impacts on London's economy of the July 2005 terrorism attacks and draws on the economic literature regarding estimating the impacts of terrorism.

On July 7, towards the end of the morning rush hour, bombs exploded on three Underground trains just outside Liverpool Street, Edgware Road and King's Cross stations. Another explosion occurred on a number 30 double-decker bus in Tavistock Square. The four bombs killed 56 people, making it the worst attack on London since the Second World War.

Two weeks later on July 21, there were attempted bombings on trains at Oval, Warren Street and Shepherd's Bush Underground stations and on a number 26 bus in Bethnal Green. However, the bombs failed to detonate and there were no fatalities on this occasion.

Terrorist attacks in London, and indeed worldwide, are not a new phenomenon. Indeed, there were a higher number of international terrorist incidents occurring worldwide in the 1970s and 1980s than are occurring at present[xxviii]. However, there has been a trend over recent years towards terrorist attacks with higher numbers of fatalities than was previously the case.

6.1 Economic context

Other terrorist attacks worldwide over the past five years have included the attacks on the World Trade Towers in New York on September 11, 2001 (9/11), which led to the deaths of 3,000 people, the bombing of a disco in Bali in 2002 which killed almost 200 people, and the bombings of three railway stations in Madrid on March 11, 2004 which killed 191. There have also been a series of high profile terrorist attacks in Russia and Chechnya over this period together with ongoing terrorist attacks in Iraq and elsewhere in the Middle East.

A great deal of analysis of terrorist attacks and their economic impacts has been produced since 9/11 (see Bibliography). A useful conceptual framework for considering the economic costs of terrorism has been proposed by Krugman[xxix] (borrowing from the literature on the economic costs of crime). Krugman distinguishes between:

- Direct costs – the costs of the attacks in terms of the lives lost and damaged, as well as damage to property and disruption associated with the actual attack and the response to it.

- Additional budgetary costs of the government response – additional spending on defence or homeland security, anti-terrorism measures.

- Costs imposed by people's responses to the fear of terrorist attacks – people altering their shopping or holiday destinations, or businesses changing their investment decisions.

The direct costs to property and disruption are generally speaking small in relation to the size of the economies considered[xxx] whilst the loss of life is difficult to evaluate in economic terms. In the case of the July attacks, the direct costs to property were almost entirely borne by Transport for London, operators of the London Underground.

Additional spending by the government as a policy response will include the costs of the additional policing in London in the months following the attacks. It will also include the cost of any longer term increase in policing, or in security of public buildings/events etc, that results from the bombings. In this paper, however, we have not attempted to estimate the additional cost to government.

Instead, the primary cost that will be examined here is the costs associated with people changing their behaviour in response to the increased risk. This has largely arisen in the form of individuals reducing the number of trips to central London and on the tube network, with the tourism and retail sectors the most affected by the cumulative effect of such changes in behaviour.

The likelihood and extent of behavioural change (for firms and individuals) will depend on the perception of the threat. The responses of businesses and individuals are likely to be affected by parameters such as:

- Targets – If tubes and buses are the targets, people will adjust their use of these travel modes. After the Madrid bombings, train trips in Spain decreased by around nine per cent in April 2004 (year-on-year), having risen by four per cent in February 2004.

- Weapons – The use of planes as weapons in the 9/11 attacks meant that these attacks had a particularly damaging effect on airlines and the tourism industry.

- Casualties/damage – The deadlier the attack the greater the fear factor.

- Government response – The extent to which the public authorities appear to have the situation under control, and are able to prevent further attacks – the quick response in Madrid (e.g. the arrest of suspects) was a key factor in keeping the economic impacts relatively low in that case.

In the case of the London bombings, the targets were public transport modes. As would be anticipated, this has resulted in decreased usage of the London Underground system in the aftermath of the bombings. London bus usage, however, has been relatively unaffected.

In terms of casualties and damage, the number of casualties in London was lower than was the case in Madrid where almost 200 people died. However, the economic impacts appear to have been worse in London and seem set to be maintained over a longer period than was the case in Madrid.

As described above, the extent to which the public authorities appear to have the situation under control and are able to prevent further attacks is a key factor in determining individual responses. The fact there was a second attempt to bomb London's public transport network on July 21, the shooting of an innocent passenger at Stockwell Underground station on July 22 and statements by police and politicians that further attacks were likely, will all have given the impression to some individuals that the situation was not fully in control and that further attacks were still possible.

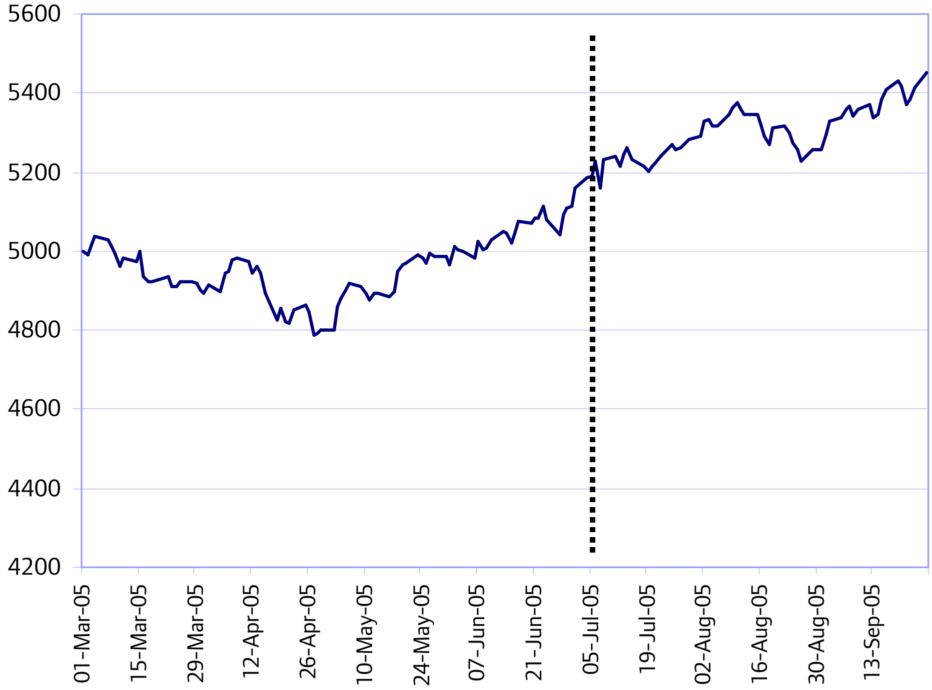
This has been a key factor in the extent of the impacts to date. Before July 21, there were signs that after an initial downturn following July 7, tube usage and shopper numbers were recovering. However, this recovery was ended by the events of July 21, and the recovery since has been slow. Additionally, the fact that it has been domestic visitors (who will have seen far more media coverage of the bombings and response), rather than international visitors, who have been responsible for most of the decline in visits supports the view that public confidence was sharply eroded at this time.

6.2 Economic impacts

Financial markets

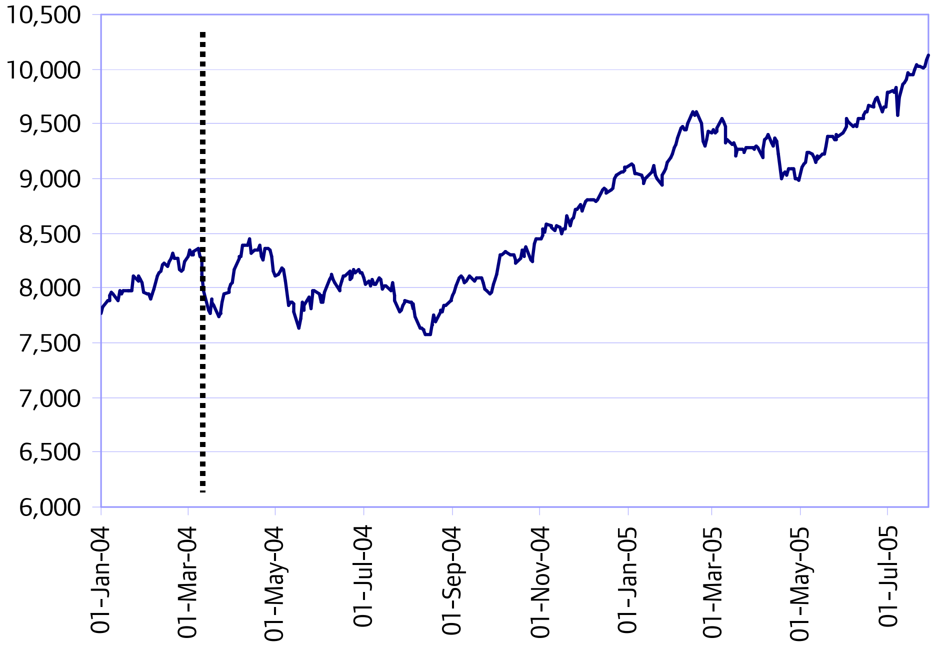
On Thursday 7 July the main UK stock market (FTSE 100) declined by 3.5 per cent in the aftermath of the attacks. However, it recovered these losses very quickly and hit a three-year high on Monday 11 July. There seems to have been no visible impact on the FTSE 100 from the 21/7 attacks (see Figure 6.1). The relative lack of effect on the stock market suggests that the effects on the economy are not expected to be significant. It also reflects the experience of stock markets after 9/11 and after the Madrid bombings (see Figure 6.2). The view in the economic literature is that isolated terrorist attacks have very small impacts on financial markets as long as those markets are well functioning and regulated[xxxi]. This appears to have been borne out by the markets reaction to the London bombings.

Figure 6.1: FTSE 100
Latest data point Thursday 26/09/05, Dotted line shows 7/7/05



Source: WSJ

Figure 6.2: Ibex 35 – Spain's share index
Dotted line shows 11/3/04



Source: Ecowin

Tourism
London's tourism economy has suffered from a decline in visitors in the months since the July 7 bombings. Initially, the decline was largely from a reduction in visits, both overnight and day trips, to London by UK residents. However, it is probable that the impact on international tourism will be increasingly felt through the remainder of the year in response to reduced bookings in the aftermath of the bombs.

Hotels - According to The Hotel Bench survey by Deloitte, occupancy rates for three- to five-star hotels dropped by 15.7 percentage points to 65.9 per cent in August 2005 compared with the same month in 2004. This compared to a 4.8 per cent decline year-on-year during July and a 1.1 per cent year-on-year increase in June. This survey covers the upper end of the hotel market.

The data for July is supported by other surveys of hotel occupancy in London conducted by PFK and TRI Hospitality Consulting. These surveys showed occupancy rates in London down year-on-year by around four per cent in July.

Data for the budget end of the hotel market, meanwhile, is not available. However, it is believed this has been more severely hit during July and August given the larger decline in domestic tourism compared to international tourism.

Attractions – Visits to London's attractions have been sharply hit since July 7 with most major museums and attractions reporting declines in visitor levels. Visit London's 'London Attraction Monitor' which samples 50 of London's attractions, reports that visits declined by 18 per cent year-on-year in July and by around 25 per cent in August. Free and large attractions witnessed the steepest decline in visitor levels with attractions in central London witnessing the sharpest falls. Early indications for September are that overall attendance levels have fallen by around 10-15 per cent year-on-year.

Enquiries to the Britain & London Visitor Centre - This 'one stop shop' for visitors to London witnessed a one per cent increase year-on-year in walk-in-enquiries in the week prior to the July 7 London attack, but following the attack, enquiries were down significantly. In the last week of July for example, walk-in enquiries were down 14.6 per cent year-on-year but this fall was exceeded in the week ending August 7 when walk-in-enquiries were down by 18.8 per cent year-on-year and again in the week ending August 14 when they declined 26 per cent year-on-year providing further evidence that the downturn in central London worsened through much of August.

Visitor Arrivals - Official data on international visitor numbers to London derives from the International Passenger Survey (IPS) published by ONS. However, there is a several month lag before London data is published and as such the most recent data available for London at the present time is for Q2 2005, i.e. prior to the bombings in July.

First release data for the UK however, is available from the IPS. This shows that overseas visits to the UK in July were up seven per cent year-on-year and August visits were up three per cent year-on-year. These rates of annual growth, while remaining positive, still represent significant slowdowns compared to earlier in 2005 when overseas visits to the UK were growing at 15-20 per cent year on year. In addition, spending by overseas visitors in the UK dropped by 0.4 per cent year-on-year in August. The fact that the annual change in visits is positive while the annual change in spending is negative might indicate that overseas tourists are staying for shorter periods, or that long-haul visitors from North America and other markets have been replaced by short-haul visitors from Europe.

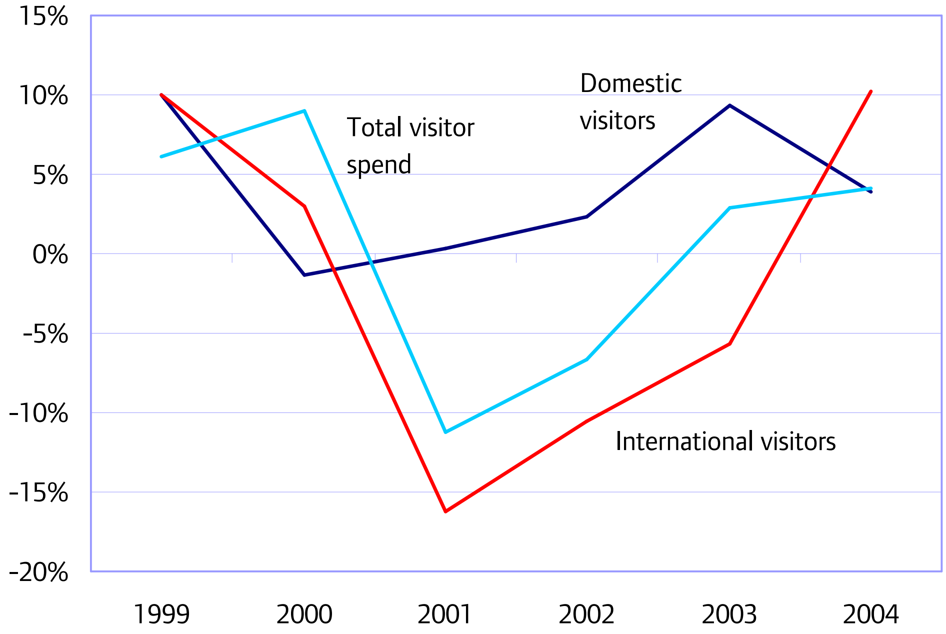
Thus, data from the IPS (one of the best sources of data on overseas tourism) shows a mixed picture. Growth in visits remains positive though slower than earlier in the year, and the annual change in overseas visitor spending turned slightly negative in August. This data relates to the UK as a whole and does not contradict the evidence that the visitor economy in central London has been severely affected.

An alternative source of data on UK inbound visitor numbers comes from UK Inbound, the official trade body representing the inbound tourism industry in the UK. This Association, which represents over 290 major companies and organisations in all sectors of the tourism industry, produces a Business Barometer each month, based on a confidential online survey of its members, comparing visitor numbers and booking forecasts with a similar and corresponding period in the previous year. For July 2005 visitor arrivals to the UK as measured by UK Inbound where down 7.4 per cent year-on-year and forward bookings were down 9.3 per cent year-on-year.

Evidence on tourism from Madrid and New York

The effect of 9/11 on New York City tourism was severe. Figure 6.3 shows annual tourism statistics for New York City indicating that international visitors and total visitor spending fell quite sharply in 2001 and did not recover until 2003/2004. However, domestic visitors to New York were not affected (this may have been the result of policies aimed at encouraging domestic tourism and industry discounts).

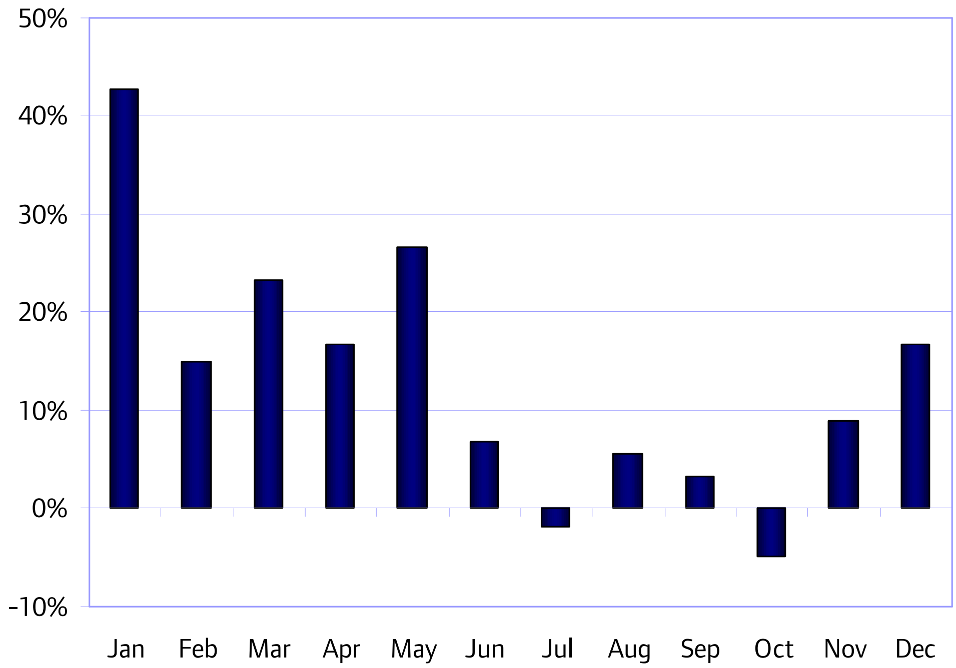
Figure 6.3: Impact of 9/11 on New York City tourism – annual % change



Source: www.nycvisit.com

However in Madrid after the 11 March bombings, tourism did not appear to be significantly affected. Figure 6.4 shows arrivals in Madrid airport and does not suggest any significant impact in March or April 2004. Nonetheless, the average annual growth in the second half of 2004 was around four per cent lower than the same period in 2003.

Figure 6.4: Madrid tourism – Arrivals at Madrid airport - annual % change 2004



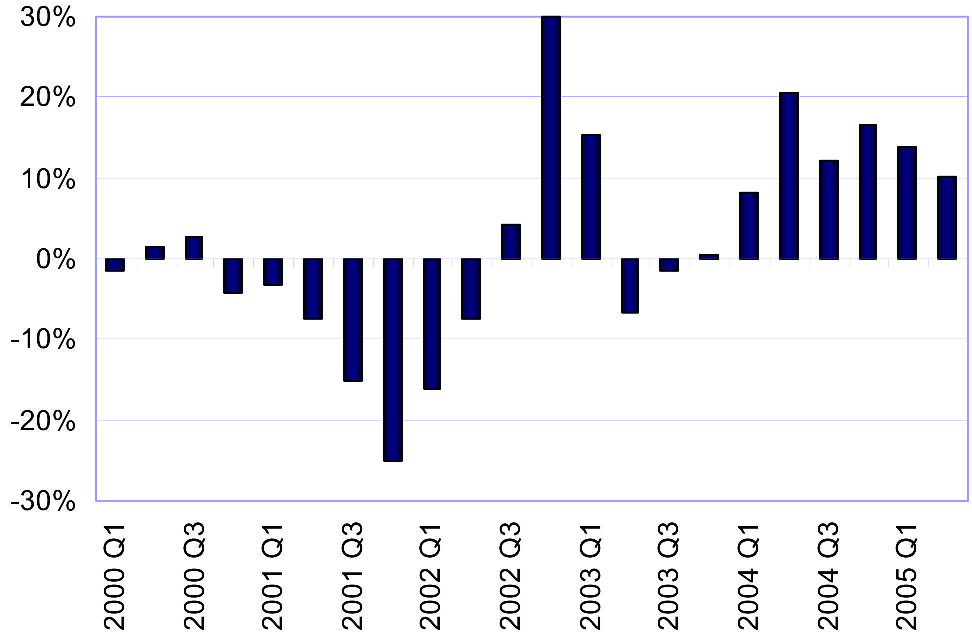
Source: www.iet.tourspain.es

6.3 London forecast

Based on the data available to date, GLA Economics has put together a preliminary forecast of likely losses to the tourism industry in London as a result of the July terrorist attacks. GLA Economics forecast a reduction in tourism expenditure in London during the second-half of 2005 of £536 million, of which £231 million is due to a reduction in international visitor numbers and £305 million is due to a reduction in domestic visitor numbers. This is consistent with the view that the economic impacts have been more severe than was the case for Madrid, but will not be as severe as was the case for New York. The derivation of this figure is explained below.

Figure 6.5 illustrates the very strong growth in international visitors' trips to London that occurred in 2004 and early 2005.

Figure 6.5: Overseas visits to London, Annual % change



Source: ONS

However, the July terrorist bombings have dented this strong growth, with tourism visits and spending expected to be down year-on-year through the second half of 2005.
In the case of international tourism, before the July bombings GLA Economics expected visitor numbers to London in 2005 to increase by 7.5 per cent year-on-year. Following the attacks, this forecast has been cut back to 3.8 per cent growth year-on-year. In terms of actual visitor numbers, the difference between the pre terrorist attacks and the post terrorist attacks scenarios is a reduction in international visitor numbers to London of 483,000. This equates to a reduction in expenditure of £231 million.

In terms of domestic tourism, since July there has been a clear reduction in the number of domestic tourists visiting London for both overnight stays and for day visits. Data from visitor attractions, data on one-day travelcards and data on hotel occupancy rates all point to this alongside the market research undertaken by Visit London and the feedback received from participants in the industry.

Visits by families with children have been particularly hard hit, contributing to the 20-30 per cent year-on-year decline in attendances to many visitor attractions in London such as the Tower of London and the Aquarium over the six weeks following the attacks.

For Q3 2005, it is therefore forecast that overnight domestic visitor trips to London will show a decline of ten per cent year-on-year whilst day visits to London will show a decline of 15 per cent year-on-year. For Q4 2005, these declines are expected to moderate but the number of trips are still expected to be down five per cent year-on-year in each case.

The financial effect from these reductions would be a £185 million decrease in expenditure from reduced day trips and a £120 million decrease in expenditure from overnight stays. Thus the forecast loss to the London economy from a reduction in the number of domestic visitors in Q3 and Q4 2005 following the July terrorist attacks is £305 million. Adding together the forecast loss from international visitors and domestic visitors, a total loss to the London economy of £536 million is reached.

Table 6.1: Summary of London visitor forecasts 2005

	Year-on-year change in visitor numbers	Expenditure (£'000s)
2005 Forecast - Pre terrorist attacks		
International	7.5%	6,877
Domestic Overnight	0.0%	3,210
Domestic Day	0.0%	3,690
Total expenditure		£13,777
2005 Forecast - Post terrorist attacks		
International	3.8%	6,646
Domestic Overnight	-3.8%	3,090
Domestic Day	-5.0%	3,506
Total expenditure		£13,241

Source: GLA Economics

Similar research has been conducted by OEF. In response to the terrorist attacks, the Tourism Industry Emergency Response (TIER) group, consisting of the leading tourism bodies across the UK, contracted OEF to undertake research tracking the impacts upon the UK and London tourism industries of the terrorist attacks. The report was finalised in early September.

The research indicated that a significant impact from the bombings had been felt and that any recovery was still only in its early stages as of end-August. Although there was some indication of recovery immediately after the July 7 attacks, the second wave of incidents on July 21 produced a clear setback, with sharp year-on-year declines resuming in most indicators, a position maintained through August.

In terms of quantification, the OEF report forecast a total loss to the UK tourism industry of £750 million of which £500 million is forecast to be lost in London.

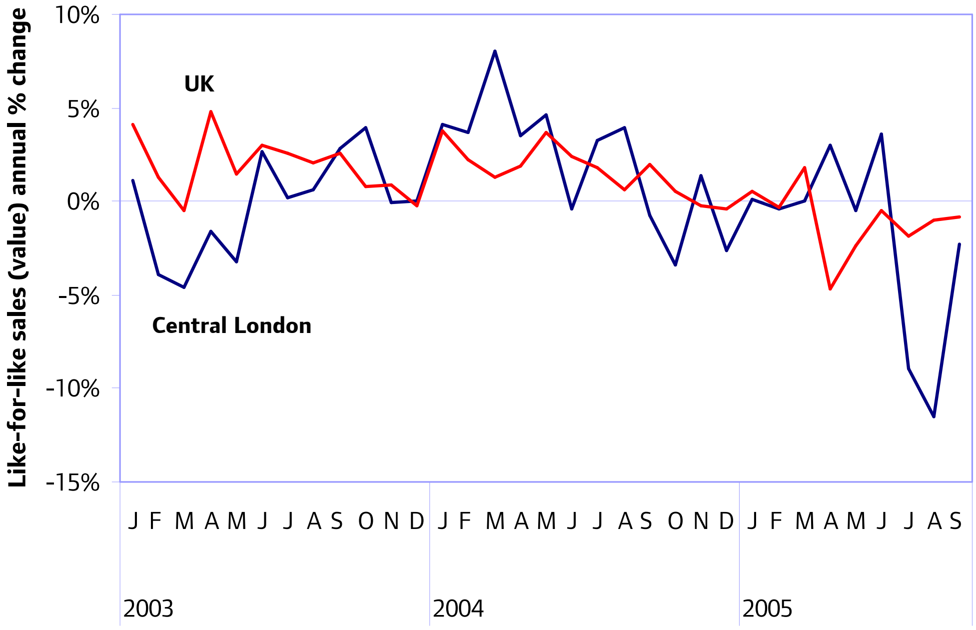
The report noted that some guide to the likely recovery path for the tourism economy can be gained from past events. In particular, by making comparisons to the periods around 9/11 and the build-up to the 2003 Iraq war for a wide variety of indicators, analysis suggests that, although a large part of the initial impact can reverse quite quickly, it can take up to two years for the visitor economy to recover fully to the level of activity that would have been achieved in the absence of any attack.

6.4 Retail

Whilst tourism is the sector of the economy most affected by the terrorist attacks, another sector that has been affected is retail. In particular, retail spending in central London has declined sharply since the July 7 terrorist attacks.

Retail sales in central London in July were 8.9 per cent lower on a like-for-like basis than July 2004. They then declined by an even larger 11.5 per cent year-on-year during August. These are the largest declines since the London Retail Consortium began to collate central London retail data in 2002. The index recovered somewhat in September, but was still 2.3 per cent lower than in September 2004.

Figure 6.6: Central London Retail Sales Index - annual % change
Like-for-like basis, Latest data September 2005



Source: London Retail Consortium

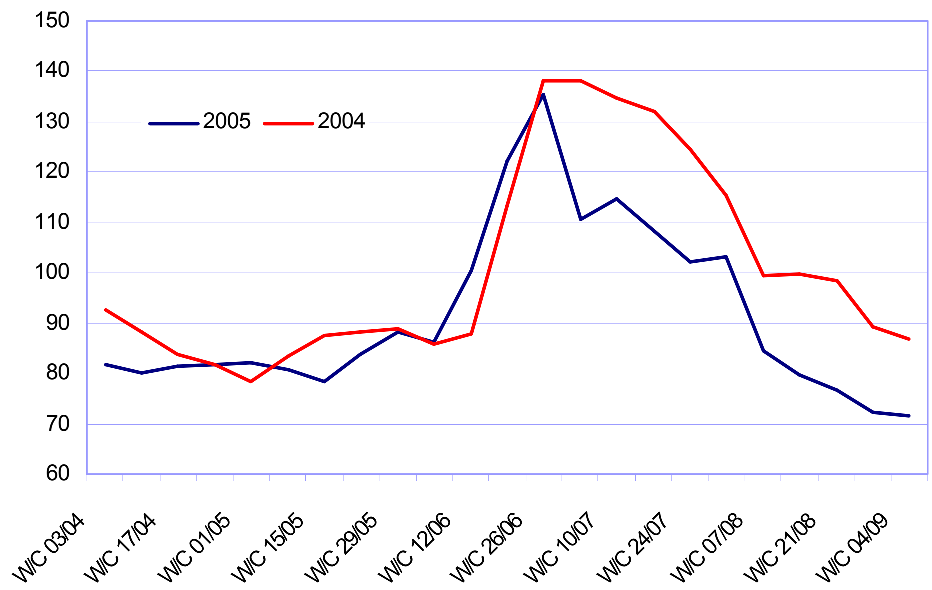
The London and UK retail sectors had already been experiencing a significant slowdown in sales prior to the London bombings. Figure 6.6 shows that apart from a good month in June in central London (due to bad weather and a tube strike in June 2004), annual retail sales growth has been slowing since the middle of 2004 in both central London and the UK in response to a cooling housing market and weak employment growth. Indeed, across the UK retail sales have averaged a reduction of over one per cent year-on-year through the past six-months.

As Figure 6.7 shows, however, the effect of the bombings was to turn this slowdown into a slump for central London retailers during July and August. The slump in sales in central London is supported by data available on shopper numbers from the SPSL Retail Traffic Index. This shows that shopper numbers in central London decreased by 12.6 per cent year on year during July and then declined by 16.7 per cent year-on-year during August. Furthermore, even by early September there had been no improvement. For the week of September 4-10, shopper numbers remained down 17.8 per cent year-on-year.

The SPSL data can be seen in Figure 6.7 comparing the data for 2005 with that of 2004. In addition to showing the large decline in shopper numbers since the July 7 bombings, the chart also illustrates the relative importance of the summer period to retailers with shopper numbers typically 40 per cent higher during July than is the case for most other months of the year (note there is also a peak in shopper numbers in December/January).

Figure 6.7: SPSL Retail Traffic Index (RTI) for central London congestion charging zone

Indexed, week commencing 17/09/00 = 100



Source: SPSL

It is interesting to note that data from SPSL's Retail Traffic Index showed that by the 20 July, shopper numbers had recovered to within ten per cent of the same day in 2004.

However, after the 21/7 attacks shopper numbers dipped again and actually the worst year-on-year declines were witnessed during mid to late-August.

Shopper numbers data is also published by Footfall Ltd. At present, there is no central London specific data available from them. However, data for the whole of London is available and after mixed signals during July, this data has been showing shopper numbers down by around one to three per cent year-on-year during August and early-September for London as a whole.

Overall, therefore, the data on retail shows that across the UK and London, there is a generally negative trend to retail sales at present on the back of economic factors such as a cooling housing market, slowing job growth and consumer spending. However, since July 7, central London retailers have clearly been suffering a much larger decline in sales and shopper numbers than is the case for the rest of London and the UK, a dynamic that would appear directly related to the terrorist attacks.

The declining retail sales and shopper numbers in central London are in line with declines seen in patronage of the London Underground since the July 7 attacks. Patronage has declined most at weekends suggesting that it is individuals making leisure trips who have been most liable to change their behaviour since the bombings.

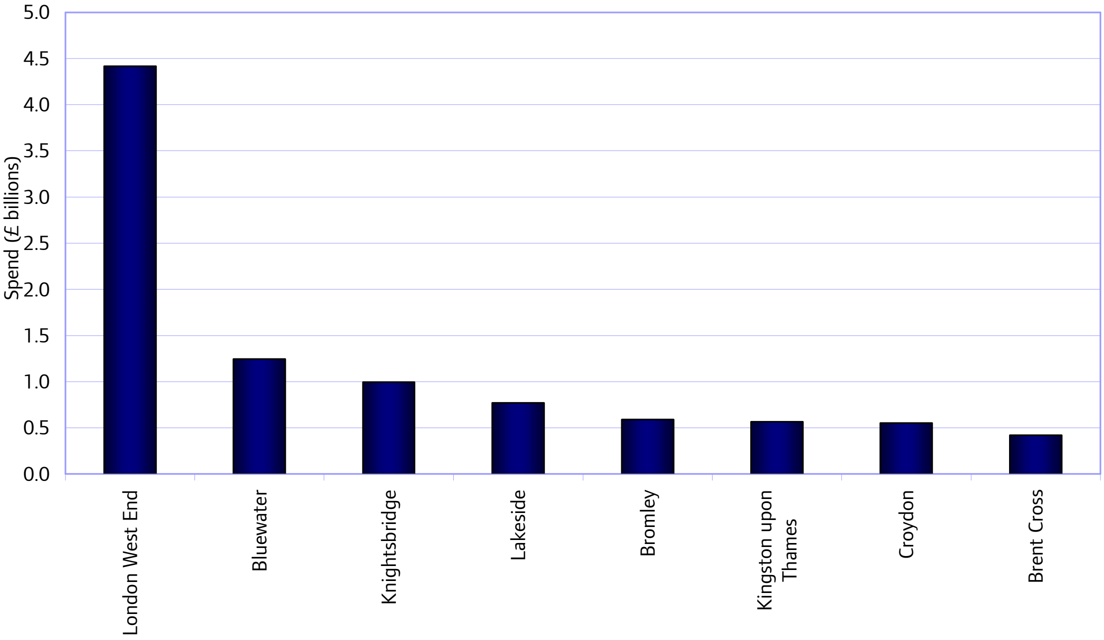
However, patronage on the London Underground has been gradually returning towards pre-bombings levels (after a significant fall just after the attacks) and as such the expectation is that shopper numbers in central London should also gradually recover the ground lost over the coming months. Widespread marketing efforts to increase visitor numbers into central London through September should have helped.

6.5 Effect on London and West End

Figure 6.8 shows that retail spend in the West End is equal to approximately £4.5 billion a year. Assuming that July and August are both responsible for around ten per cent of annual sales then based on the retail sales figures produced by the London Retail Consortium (LRC), the reduction in retail spending in the West End through July and August as a result of the terrorist attacks will have been around £80 million compared to a situation in which central London sales had been in line with those in the UK overall.

This £80 million will not all have been lost to the London economy. Indeed, much of it will have been displaced to other London retail centres. Nevertheless, there are three reasons why some of this £80 million in reduced West End spending will have been a net loss to London's GVA. Firstly, some of this lost spending will have been displaced out of London to other UK regions, particularly the South East and East of England regions. Secondly, the total may include a small overall reduction in total retail spending by Londoners since the bombings as greater uncertainty may lead to higher savings, and thirdly, some of the reduction in retail spending will have been due to reduced visits by tourists into London.

Figure 6.8: Retail spend in centres in or around London, 2001



Source: Experian

6.6 Business confidence

The undermining of the business environment is potentially the biggest risk from terrorist attacks. Through deterrence or diversion of investment and spending a region or country can miss out on potential economic growth. The increased risk of terrorist attacks can also increase business costs through higher transactions, security and insurance costs. In countries where significant damage has been done by terrorism, i.e. countries which have suffered from protracted terrorist campaigns such as Israel or Spain, the main impact is through deterring investment (including Foreign Direct Investment [FDI]) and consumption. There is research based on several different countries which suggest that the direct link between terrorism and lower FDI is quite strong[xxxii].

For London, provided the 7/7 and 21/7 attacks are not followed by further attacks, the impact on consumption and investment is likely to be small. Even the 9/11 attacks have not damaged New York's longer-term economic prospects according to economic research by the Federal Reserve Bank of New York[xxxiii]. However, the evidence above shows that there is clearly scope for a larger negative effect on things like FDI if terrorist acts in London reoccur. However, so far the reaction of the FTSE 100 suggests that business confidence in London has not been too negatively affected.

6.7 Conclusions

The main impacts on London's economy of the July terrorist attacks will be on tourism and central London retail sales. In terms of tourism, based on the evidence to date, GLA Economics forecast that tourism losses to London will be around £540 million. This is similar to a forecast made by OEF for the TIER group.

The retail sector is also suffering in the aftermath of the bombings. GLA Economics estimate the magnitude of the impact to the West End retail sector to have been approximately £80 million of lost spending through July and August. However, actual losses to the London retail sector will have been significantly less than this as some displacement of retail spending to other inner and outer London retail areas is likely to have occurred.

The transport sector has also been affected with reduced patronage on the London Underground observed. Other sectors might be affected such as restaurants and bars, but there is no data as yet on these sectors.

The other possible effect is upon the attractiveness of London as a location for business. In the short term there will be added transaction costs, such as the need to improve security provision and added delays arising from transport congestion and security scares. Should the terrorist attacks continue over the longer term, there exists evidence suggesting that FDI into London would be reduced.

Appendix A: Explanation of terms and some sources

Definitions, differences, and revisions

Forecasting organisations use varying definitions of the regional indicators they supply. It is not therefore always possible to assign a completely consistent meaning to the terms used.

Throughout this report, as far as is compatible with the individual definitions applied by the forecasters, 'employment' refers to 'workforce employment' as defined in the GLA Economics' article, *Labour Market Trends* in *London's Economic Outlook* 3 (November, 2003). The GLA's *Workforce Employment Series* provide a more detailed explanation of this term.

Forecasters' definitions are broadly compatible with this but in some cases differences arise from the treatment of small items such as participants in government training schemes or the armed forces. The GLA uses civilian workforce employment throughout.

Output refers to GVA, a term introduced by the 1995 revision of the European System of Accounts (ESA95). Some forecasters still estimate GDP which can differ slightly from GVA. Imputed rental income from the ownership of property is in some cases included, and in some not. GLA Economics' *London's Economic Outlook: December 2003*[xxxiv] provides a more detailed explanation of this term.

All forecasters now produce estimates of real output which are weighted to the year 2002, following the publication, by the ONS, of chain-linked and re-weighted estimates of UK output.

Estimates of nominal regional GVA are available up to 2003 from the ONS. No official estimates of real regional GVA are available because of the difficulties in producing authoritative regional price deflators, although the ONS has now produced regional price indexes for the year 2004[xxxv]. Most regional forecasters supply their own estimates of London's real GVA. The real London GVA figures used in the GLA Economics' forecast are supplied by EBS.

GVA estimates are less reliable than employment estimates because there is no independent source of information from which to judge the size of total sales by London-based agents. ONS estimates are calculated by the factor incomes method, beginning from wages paid to people with workforce jobs located in London. Profits are imputed on the basis of these earnings estimates from knowledge of national sectors of employment. Most regional forecasters adopt a variant of this technique.

Consumption refers to private consumption, otherwise known as household expenditure; in some cases the expenditure of non-profit organisations is included and in some it is not.

'Distribution' refers to Retail, Hotels and Catering. 'Other (mainly public) Services' refers to Defence, Health, Education and Other Services. All other sectors have their standard meaning.

Appendix B: Glossary of acronyms

ABI	Annual Business Inquiry
BBA	British Bankers' Association
BCC	British Chamber of Commerce
bn	Billion
BP	British Petroleum
CBI	Confederation of British Industry
CE	Cambridge Econometrics
CEBR	The Centre for Economic and Business Research
CIPS	The Chartered Institute of Purchasing and Supply
CPI	Consumer Price Index
DTI	Department of Trade and Industry
EBS	Experian Business Strategies
ECB	European Central Bank
EIA	Energy Information Administration
EU	European Union
FDI	Foreign Direct Investment
FSU	Former Soviet Union republics
FT	Financial Times
GDP	Gross Domestic Product
GLA	Greater London Authority
GVA	Gross Value Added
HBOS	Halifax Bank of Scotland
HM Treasury	Her Majesty's Treasury
IEA	International Energy Agency
ILO	International Labour Organisation
IMF	International Monetary Fund
IPS	International Passenger Survey
LEO	London's Economic Outlook
LFS	Labour Force Survey
LHS	Left Hand Scale
LRC	London Retail Consortium
mbpd	Million Barrels Per Day
mn	million
MPC	Monetary Policy Committee
NIESR	National Institute of Economic and Social Research
ODPM	Office of the Deputy Prime Minister
OECD	Organisation for Economic Co-operation and Development

OEF	Oxford Economic Forecasting
ONS	Office for National Statistics
OPEC	Organisation of Petroleum Exporting Countries
PESA	Public Expenditure Statistical Analysis
PMI	Purchasing Managers' Index
PPP	Purchasing Power Parity
PSNB	Public Sector Net Borrowing
PwC	PricewaterhouseCoopers
Q2	Second Quarter
RHS	Right Hand Scale
RICS	Royal Institution of Chartered Surveyors
RPIX	Retail Price Index (excluding mortgage interest payments)
RPI	Retail Price Index
RTI	Retail Traffic Index
TfL	Transport for London
TIER	Tourism Industry Emergency Response
UK	United Kingdom
UKCS	UK Continental Shelf
UNCTAD	United Nations Conference on Trade and Development
US	United States of America
w/c	Week commencing

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Footnotes

[i] The forecast was commissioned by GLA Economics and prepared by Experian Business Strategies.

[ii] RPIX = Retail price index excluding mortgage interest payments. Although not part of the GLA Economics forecast for London, for reader information the forecaster's view of the UK inflation rate is reported. Up to December 2003, the Bank of England's symmetrical inflation target was annual RPIX inflation at 2.5 per cent.

[iii] CPI = Consumer Price Index. Although not part of the GLA Economics forecast for London, for reader information the forecaster's view of the UK CPI inflation rate is reported. Since December 2003 the Bank of England's symmetrical inflation target has been annual CPI inflation at two per cent.

[iv] Price Waterhouse Coopers, July 2005, UK Economic Outlook

[v] RICS, 2005, Housing Market Survey August 2005

[vi] British Chamber of Commerce and Confederation of British Industry survey results as presented in Bank of England, August 2005, Inflation Report, p.16

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[x] Hunt, Isard and Laxton, 2001, The Macroeconomic Effects of Higher Oil Prices, IMF Working Paper

[xi] West Texas Intermediate crude oil future prices were $66.1 per barrel for February 2006 on 12 September 2005.

[xii] IMF, April 2005, World Economic Outlook, Chapter 4

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[xvi] See particularly Ready to Motor, The Economist, 20 August 2005

[xvii] Konjunkturprognose 2005/2006: Nur zögerliche Erholung; IFO http://www.cesifo-group.de/link/kprog20050623-Konjunkturanalyse-V05.pdf - Please note, website is in German.

[xviii] The next highest goods exporter was mainland China at $593 billion in 2004.

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[xxv] GLA Economics, 2004, Working Paper 11: Working London

[xxvi] For 2005: the median of new forecasts from HM Treasury, August 2005, Comparison of Independent Forecasts. For 2006 onwards: the average of medium-term forecasts from the same publication.

[xxvii] Growth rates for years prior to the forecast date vary because of revisions to historical data.

[xxviii] Frey, Luechinger & Stutzer, 2004, Calculating Tragedy: Assessing the costs of terrorism, Cesifo Working Paper No. 1341

[xxix] Paul Krugman, 2004, The costs of terrorism: what do we know?, Briefing Note for Princeton Project on National Security

[xxx] The property, compensation and disruption costs from the Madrid 11/3/04 bombings which killed almost 200 people have been calculated at around €200 million. This was around 0.16 per cent of Madrid's GDP. It would be around 0.08 per cent of London's GVA. Even 9/11 with its much greater damage to property and infrastructure only amounted to around seven to eight per cent of New York's Gross City Product (including prospective lifetime earnings of the victims).

[xxxi] see Johnston and Nedelescu (2005) and Chen and Siems (2004)

[xxxii] see Abadie and Gardeazabal (2005) and Frey, Luechinger and Stutzer (2004)

[xxxiii] see Bram (2003) and Bram, Haughwout and Orr (2002)

[xxxiv] GLA Economics, December 2003, London's Economic Outlook: The GLA's medium-term planning projections

[xxxv] Fenwick D and Wingfield D, 2005, Relative Regional Consumer Price Levels in 2004, Economic Trends No. 615, ONS, February 2005

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Vietnamese

Nếu bạn muốn có văn bản tài liệu này bằng ngôn ngữ của mình, hãy liên hệ theo số điện thoại hoặc địa chỉ dưới đây.

Bengali

আপনি যদি আপনার ভাষায় এই দলিলের প্রতিলিপি (কপি) চান, তা হলে নীচের ফোন্ নম্বরে বা ঠিকানায় অনুগ্রহ করে যোগাযোগ করুন।

Greek

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Urdu

اگر آپ اِس دستاویز کی نقل اپنی زبان میں چاهتے هیں، تو براہ کرم نیچے دئے گئے نمبر پر فون کریں یا دیئے گئے پتے پر رابطہ کریں

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