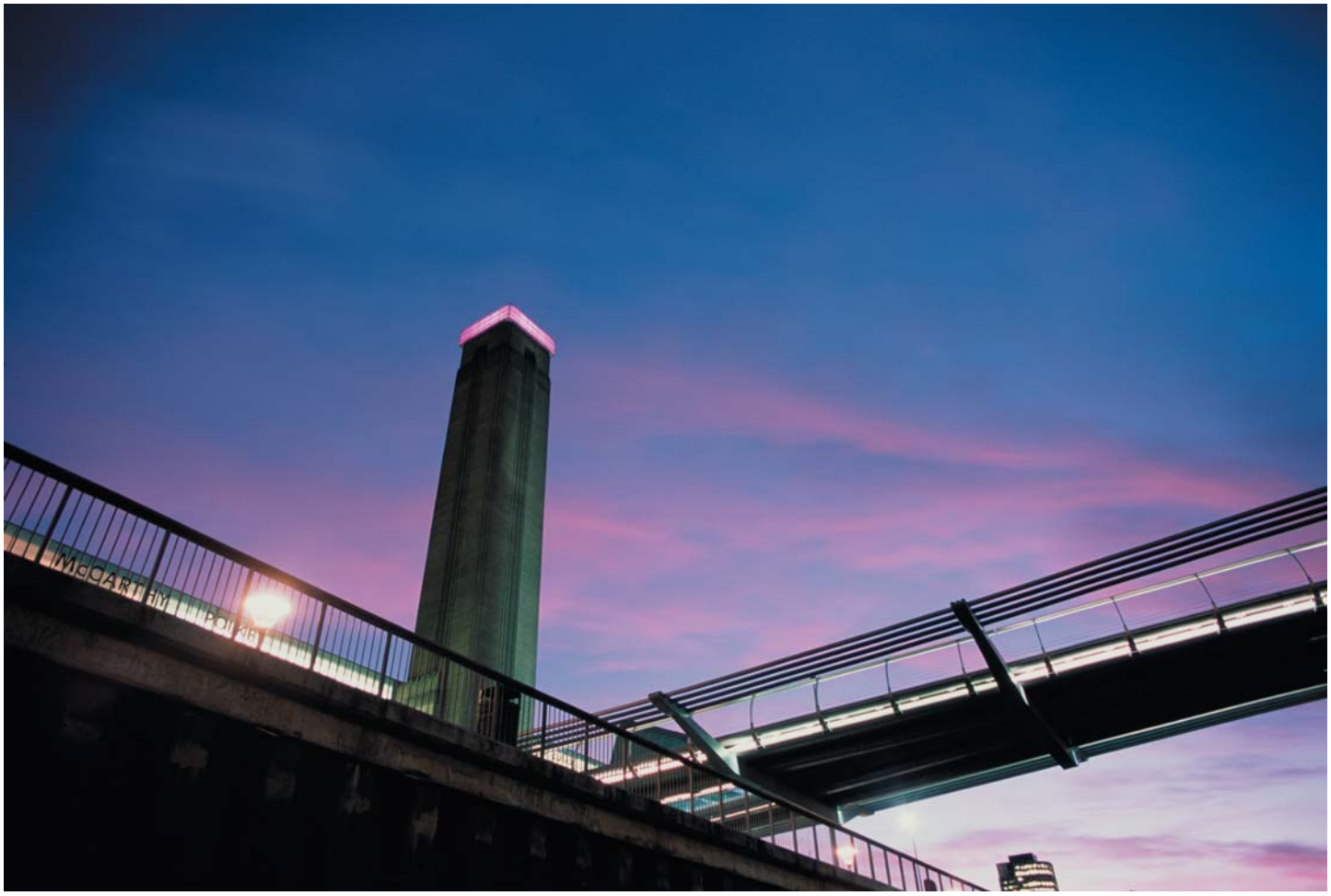
GLAECONOMICS

London's Economic Outlook: Spring 2005

The GLA's medium-term planning projections

April 2005



Transport for London

MAYOR OF LONDON

LONDON DEVELOPMENT AGENCY

copyright

Greater London Authority
April 2005

Published by
Greater London Authority
City Hall
The Queen's Walk
London SE1 2AA
www.london.gov.uk
enquiries **020 7983 4000**
minicom **020 7983 4458**

ISBN: **1 85261 731 4**

Cover photograph

This publication is printed on recycled paper.

For more information about this publication, please contact:
GLA Economics
telephone 020 7983 4922
email glaeconomics@london.gov.uk

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.

GLA Economics uses a wide range of information and data sourced from third party suppliers within its analysis and reports. GLA Economics cannot be held responsible for the accuracy or timeliness of this information and data.

GLA Economics, the GLA, LDA and TfL will not be liable for any losses suffered or liabilities incurred by a party as a result of that party relying in any way on the information contained in this report.

Contents

1. Executive Summary 3
2. Introduction 4
3. Economic background: UK growth steady but uninspired – A public sector boom? 5
4. Review of independent forecasts 21
5. The GLA Economics forecast 27
6. London's tax export since the late 1980s 37

Appendix A: Explanation of terms and some sources 48
Appendix B: Glossary of acronyms 50
Appendix C: Bibliography 52

1. Executive Summary

The Greater London Authority's (GLA) sixth London forecast[i], containing for the first time a forecast for 2007, predicts that:

- London's Gross Value Added (GVA) will grow at around trend. Growth in 2005 will be around 2.6 per cent, slowing slightly in 2006 to 2.5 per cent before increasing somewhat to 2.7 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 2005 and 2006, but rising to 1.1 per cent, somewhat above the trend rate, in 2007.

- London household spending is expected to continue to grow slower than GVA during 2005 and 2006 but to grow somewhat faster than GVA in 2007. Household spending is forecast to grow slower than household income from 2005 to 2007, after three years (2002-04) of growing faster than income.

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 2001 £ billion)	3.5	2.6	2.5	2.7
Consensus (average of independent forecasts)		*3.1*	*2.7*	*2.9*
London civilian workforce jobs	0.5	0.3	0.7	1.1
Consensus (average of independent forecasts)		*0.8*	*0.9*	*0.9*
London household spending (constant 2001 £ billion)	2.9	1.8	2.3	2.8
Consensus (average of independent forecasts)		*2.3*	*2.1*	*2.4*
London household income (constant 2001 £ billion)	1.7	4.0	3.7	3.4
Memo: Projected UK RPIX[ii] (Inflation rate)	*2.2*	*2.7*	*2.3*	*1.9*
Projected UK CPI[iii] (Inflation rate)	*1.3*	*2.0*	*1.8*	*1.5*

Source: Experian Business Strategies

2. Introduction

The spring 2005 edition of *London's Economic Outlook* (LEO) is GLA Economics' sixth London forecast, containing for the first time forecasts for 2007. 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 an analysis of the magnitude of London's tax export to the rest of the UK.

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. The 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.

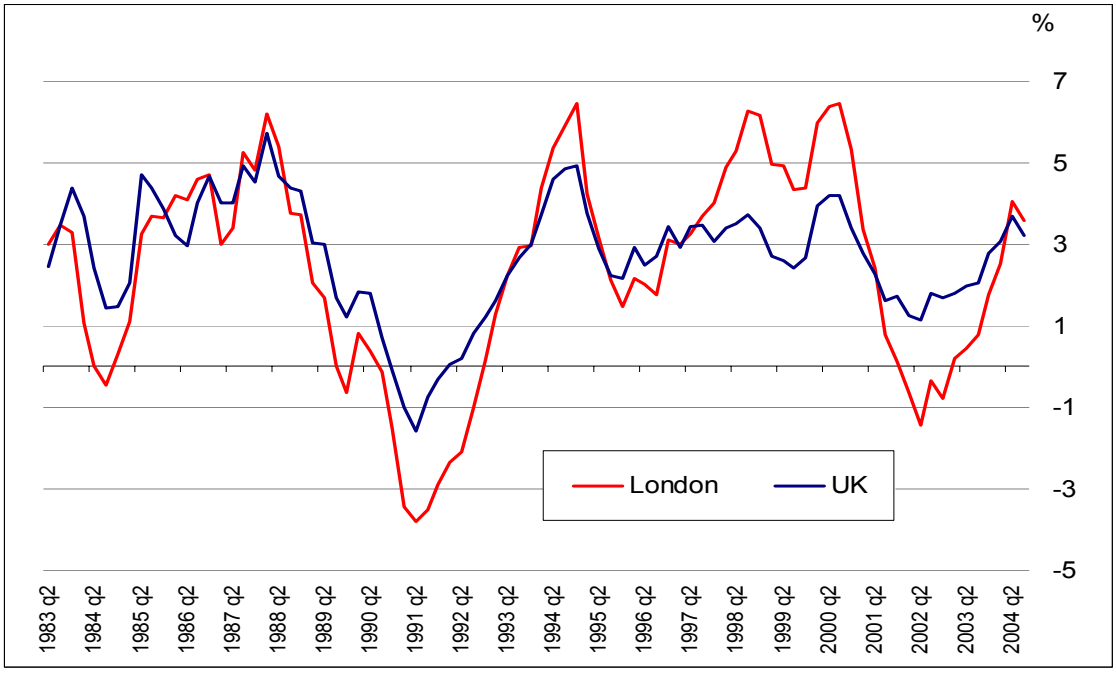
3. Economic background: UK growth steady but uninspired – A public sector boom?

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

3.1 The London economy

By most accounts 2004 seems to have been a pretty good year. The London economy continued its strong upward trajectory, with annual growth recovering and surpassing UK growth by the second quarter of 2004, after the downturn in London growth in 2002/03. After a strong recovery at the end of 2003 and the beginning of 2004, growth in the third quarter of 2004 slowed somewhat, but continued to outperform the UK.

Figure 3.1: Growth in London and the UK – Real Gross Value Added
Annual growth in Real GVA compared with the same quarter in the previous year

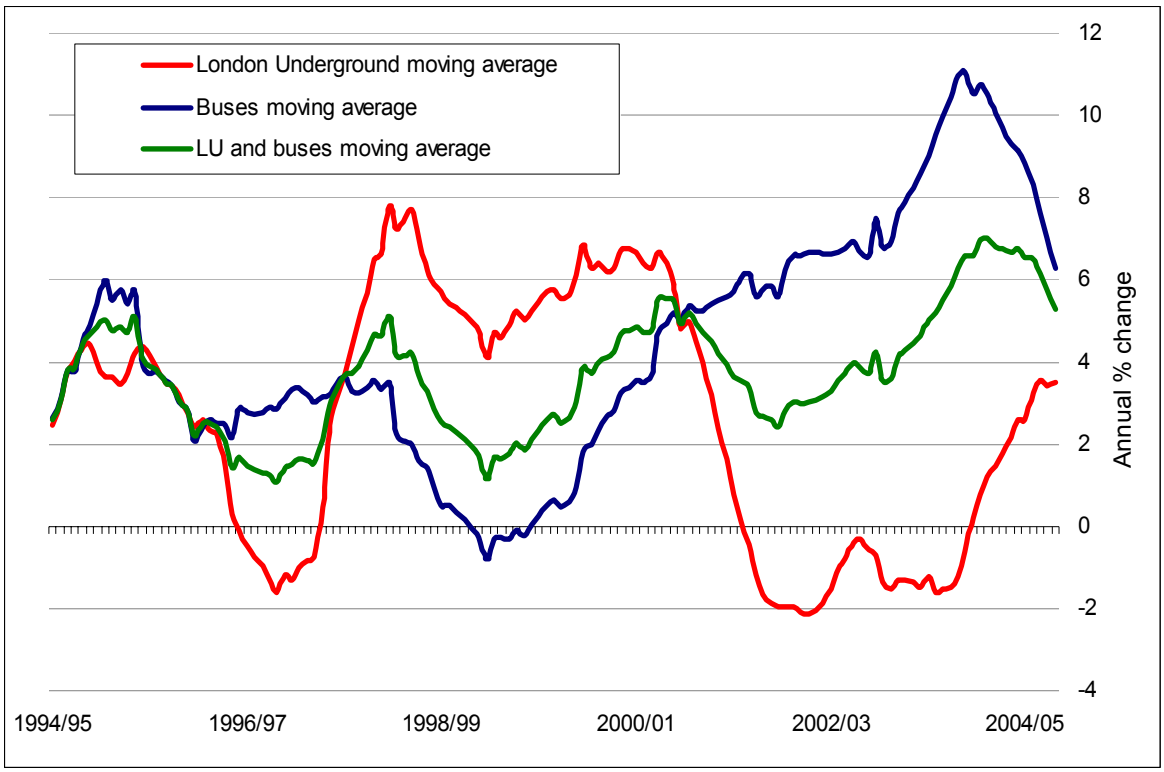


Source: Experian Business Strategies

The data suggests that high levels of growth were reached in London in 2004, though it was not generally perceived as a boom year. This may partly be because a larger part of UK Gross Domestic Product (GDP) growth than in previous years was accounted for by the public sector. This is discussed in more detail in Section 3.2, *The UK economy*.

The transport data may be showing the beginnings of a levelling off in growth in London. The recovery in Underground passengers continued apace, but the growth in bus passengers began to decline towards the end of 2004 as shown in Figure 3.2.

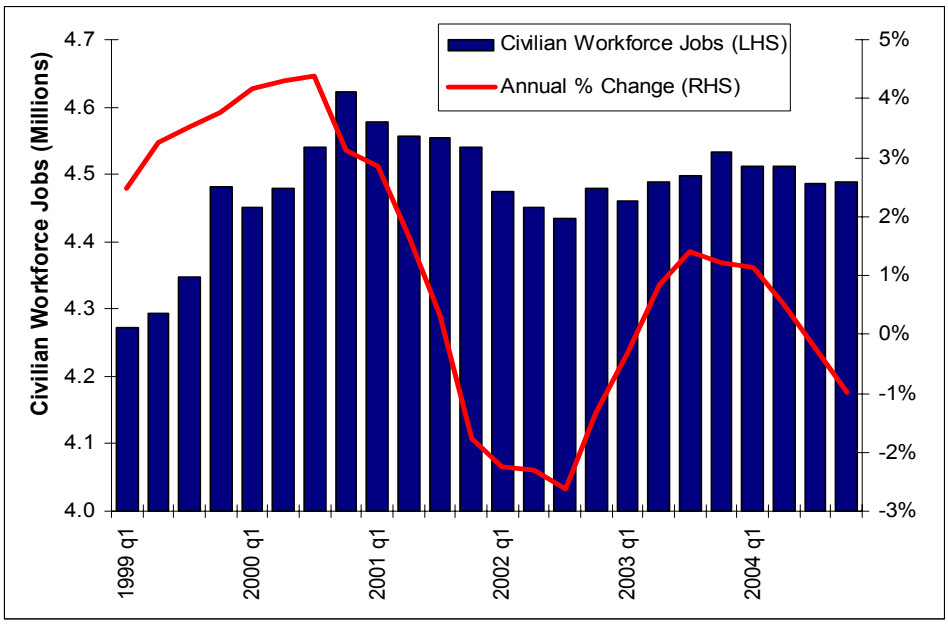
Figure 3.2: London transport usage
Annual percentage change in passengers using London Underground and buses



Source: Transport for London

In London and the UK, unemployment remains low compared to the last 30 years. Claimant count unemployment in London continued to decline throughout 2004, but ticked up slightly in the first three months of 2005. London's unemployment rate remains higher than the UK's. The Labour Force Survey (LFS) shows that the ILO (International Labour Organisation) unemployment rate[iv] rose slightly in London during 2004, and on the latest figures stands at 7.1 per cent for the three months from December 2004 to February 2005. However, this is broadly similar to the same period in 2003/04 (taking account of the sampling variability of the LFS). The proportion of people of working age in employment in London also declined slightly during 2004. This happened despite a strong recovery in output but it is not necessarily evidence of jobless growth, as employment is a residential measure and new jobs could be filled by in-commuters. However, the most recent figures for civilian workforce jobs in London show a decline in the last two quarters of 2004 compared with the same period in 2003, see Figure 3.3. This is mainly a result of declines in the number of self-employed.

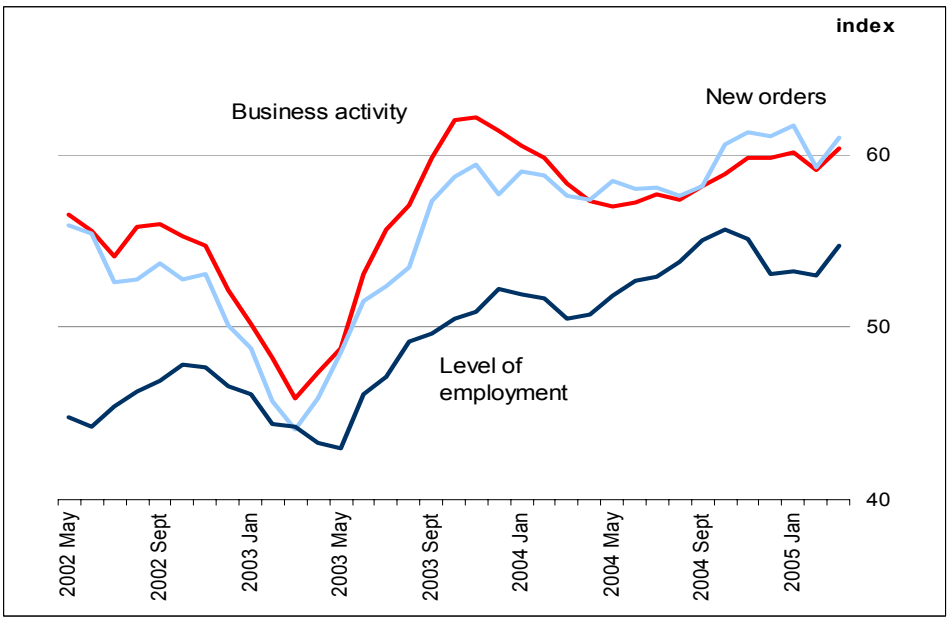
Figure 3.3: London civilian workforce jobs
level and annual % change



Notes: LHS = Left hand side; RHS = Right hand side
Source: ONS

Business survey results support the general picture of steady but perhaps unexciting economic growth throughout 2004 and early 2005. Figure 3.4 shows the PMI/Royal Bank of Scotland index which continues to show positive month-on-month growth (an index value above 50 indicates expanded activity since the previous month).

Figure 3.4: Business surveys – London PMI (Purchasing Managers Index)
Index values above 50 indicate an increase on the previous month



Source: PMI/The Royal Bank of Scotland

There are also further indications that the financial and business services sector has recovered. In a report by KPMG, 2004 was hailed as the year of the long-awaited recovery in mergers and acquisitions[v]. The value of closed deals in the UK increased by 45 per cent, more or less the same as the increase in the value of closed deals globally which rose by 47 per cent. Asia was the best performing region. The US also did well, but in Europe mergers and acquisitions activity was flat.

Overall the impression is that the recovery in London has been firmly established. However, its prospects over the next few years will depend to a large extent on the economic climate in the UK and in the world in general.

Box 3.1: Official data revisions affecting this forecast

There have been revisions to both the London GVA and employment forecasts since the autumn 2004 forecast. These are due to revisions in:

Regional Accounts – The constant price GVA estimates are based primarily on the Office of National Statistics' (ONS) current price Regional Accounts with additional information being used to infer industry detail and recent changes. The ONS current price estimates are converted to constant prices by using UK level industry deflators. New Regional Accounts estimates were released in December 2004, giving full industry detail for 2002 for the first time, revisions to earlier years and a GVA total for 2003.

The **Annual Business Inquiry (ABI)** – The ABI is used by ONS to benchmark their regional estimates of employees in employment. The first estimates for December 2003 and revisions to 2002 were released in December 2004. The employees in employment estimates are used directly in the London labour market estimates and are also used as an input to estimating income from employment by industry (which is used to breakdown the ONS GVA total for 2003 in estimates by industry).

The **Annual Survey of Hours and Earnings**, released at the regional level in January 2005, is also used as an input to estimating income from employment by industry.

Despite some large revisions in the Regional Accounts current price GVA estimates for London, particularly in 2002, there have been only small revisions to the constant price GVA estimates.

The Regional Accounts estimates contained a big upward revision to London's GVA in 2002. This was almost entirely due to an upward revision to financial services GVA at the UK level. As the constant price UK estimate of financial services has remained unaltered, the revisions have only had a limited impact on estimated constant price GVA in London and the very marked picture of a steep slowdown in GVA growth in 2001 followed by negative growth in 2002, a modest recovery in 2003 and rather faster growth in 2004 remains.

The revisions to the 2002 ABI and the new 2003 ABI have pushed down estimated employment growth in London in 2003 and 2004 compared with the autumn 2004 forecast.

3.2 The UK economy

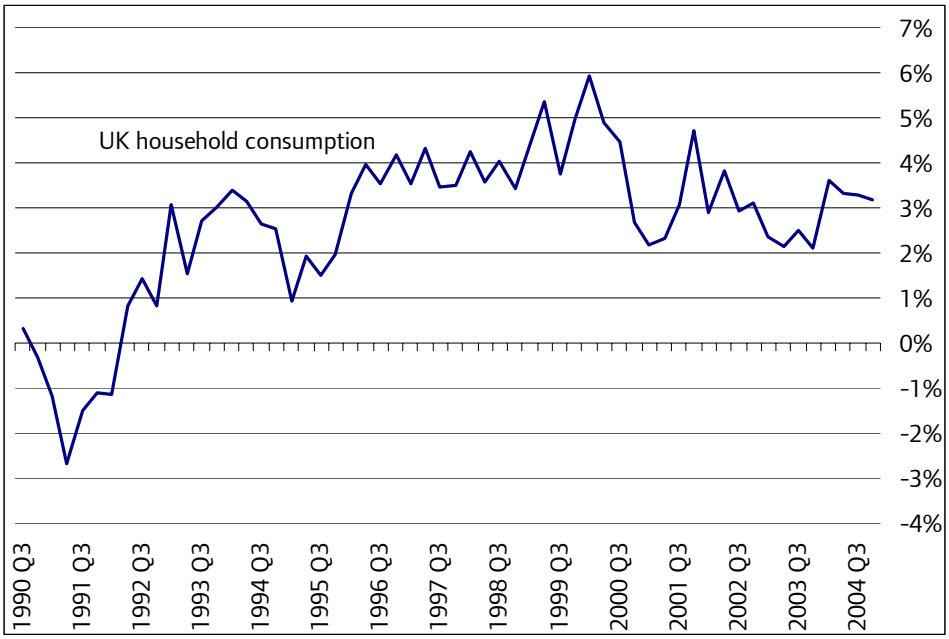
UK GDP growth was strong in 2004 at 3.1 per cent. In the fourth quarter of 2004 the UK economy grew at a quarterly rate of 0.7 per cent which made it the 50th consecutive quarter of positive growth. As stated in the Chancellor's Budget in March, the UK is enjoying a long period of economic stability. However opinion is divided as to whether this above trend growth is sustainable or whether it is already giving rise to inflationary pressures. HM Treasury has one view on this and the Bank of England seems to have another.

HM Treasury believes that there is still plenty of spare capacity in the economy and forecasts continued high growth of 3 to 3 ½ per cent in 2005 and 2 ½ to 3 per cent in 2006. The 2005 Budget was relatively bullish on the prospects for the UK economy to continue growing at above trend rates without generating inflation due to 'sound domestic fundamentals' and a 'buoyant outlook for world trade'[vi]. The Bank of England, however, have in successive Inflation Reports warned of signs of spare capacity being eroded and especially of tightening labour markets. In the February Inflation Report the Bank stated that 'the absence of significant upward pressure on wages, despite the apparently tight labour market, has been surprising'[vii]. The Bank advances several hypotheses for why this might be the case including the greater use of migrant labour and outsourcing, the impact of past labour market reforms and the stabilisation of inflation expectations, but warns that it is unlikely to continue indefinitely.

Consumer spending, which represents around two-thirds of GDP, is beginning to show signs of moderating in reaction to the five interest rate rises by the Bank of England since November 2003. Figure 3.5 shows the annual percentage change in household consumption. It is still growing at a healthy pace and as signalled by the minutes of recent Monetary Policy Committee (MPC) meetings, there may be future interest rate rises if economic data comes in stronger than expected. Retail indicators for the last quarter of 2004 were consistent with a moderating but still robust growth in consumption, and the initial signs suggest that the Christmas and New Year periods as well as the first months of 2005 were disappointing for retailers.

Chart 3.5: UK consumption growth

Annual % change UK household spending, chain volume measure, reference year 2001

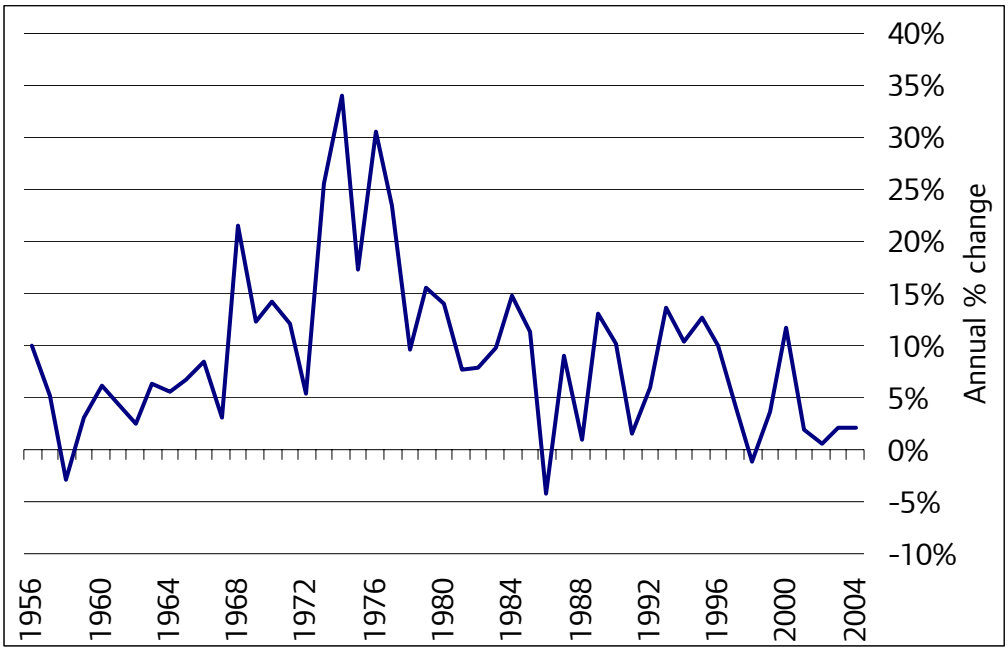


Source: ONS

The Chancellor's forecasts of continued strong growth in the short term depend to a large extent on high growth in business investment and exports. The 2005 Budget forecasts growth in exports of above six per cent a year in 2005, 2006 and 2007. This may be difficult to achieve in the context of a continued strong pound and a weakening dollar. Export growth above six per cent is not too unusual, as Figure 3.6 shows, but was last seen in 2000. Of course, growth in UK exports depends to a large extent on the economic conditions in the rest of the world. The prospects for growth in the eurozone, the UK's biggest export market, remain uninspiring.

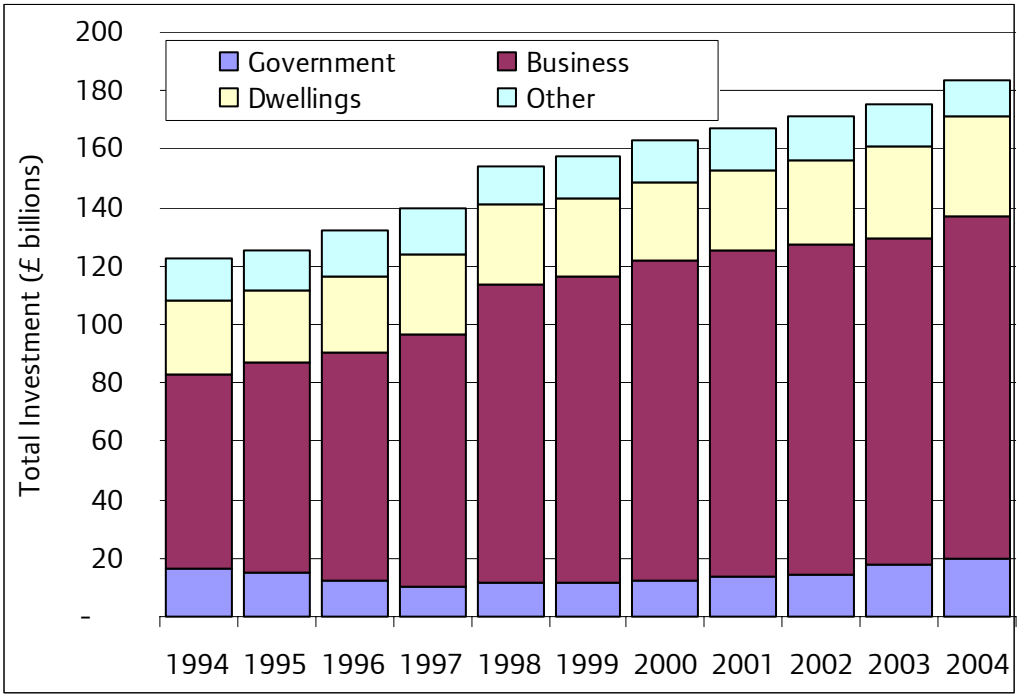
In terms of investment, the 2005 Budget forecasts fixed investment growth in 2005 of six to 6¼ per cent, falling to four per cent in 2006 and around three per cent in 2007. This will be difficult to achieve without a sustained recovery in business investment. While the share of UK investment due to the government has increased since 1997 (from seven to 11 per cent), Figure 3.7 shows that the majority of investment spending is still accounted for by business investment (around 64 per cent).

Figure 3.6: Growth in UK total exports
Total exports, current prices, seasonally adjusted, annual % change



Source: ONS

Figure 3.7: Investment by type
Investment (Total Gross Fixed Capital Formation) by type

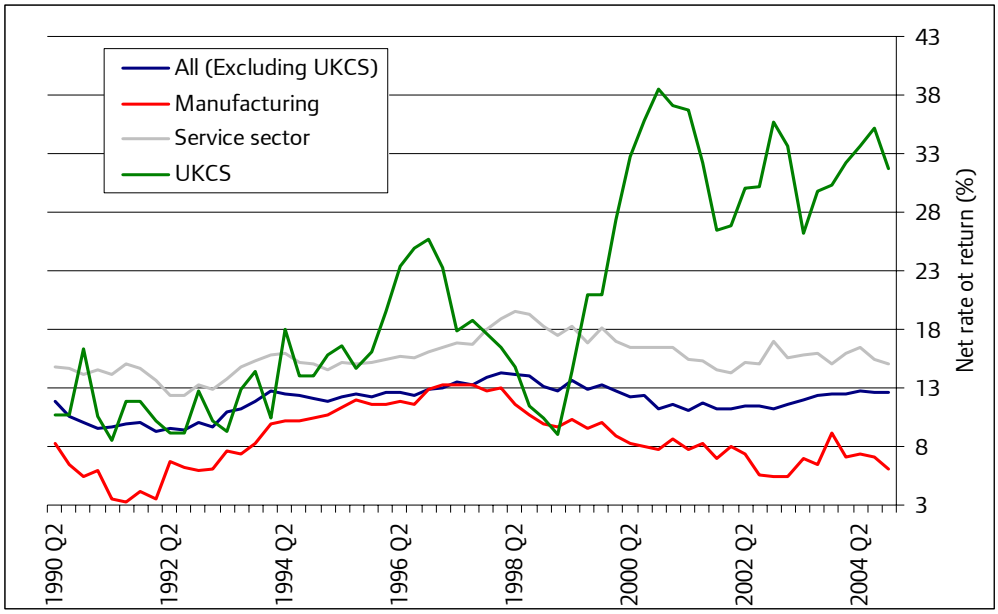


Source: ONS

Most of public sector investment is in sectors such as health and education which are unlikely to significantly boost growth in the short to medium term, though they are very important to longer term growth prospects. So whether higher government investment leads to more or less growth in the short term depends on whether it crowds out or crowds in private sector investment[viii]. As can be seen in Figure 3.7, public sector investment ensured that overall investment growth stayed positive in 2003 when business investment stagnated during the slowdown. In 2004 however, business investment seems to have recovered and saw significant positive growth of around 5.6 per cent.

One of the main drivers of business investment is profitability and the expectation of future profitability[ix]. Profitability is often taken as a leading indicator of investment intentions. Figure 3.8 shows how profitability of companies other than UK Continental Shelf (UKCS) companies recovered slowly in late 2003 after a relatively shallow dip in late 2002. The profitability of UKCS (mainly oil companies) has been very high in recent years due to high oil prices. Profitability in the service sector has remained broadly steady at a slightly lower level than in the late 1990s, but manufacturing companies have seen their profitability decline gradually with a dip in the final quarter of 2004. The higher profitability of UK companies in 2004 compared to 2002 gives some further indication that domestic business investment might continue to grow robustly in the near term.

Figure 3.8: Profitability of UK companies
Net rate of return for private non-financial companies



Source: ONS

Box 3.2: Foreign Direct Investment

Foreign Direct Investment (FDI) across the global economy is estimated to have increased by six per cent in 2004, reaching around $600 billion, after having fallen each year since 2001. Preliminary estimates by the United Nations Conference on Trade and Development (UNCTAD) puts the UK in third place for FDI inflows in 2004, after the US and China[x]. The standard definition of FDI is 'an investment involving a long-term relationship and reflecting a lasting interest and control' by an enterprise entity resident in one economy in an enterprise resident in another economy[xi]. FDI can be measured as the stock of investment that is directly foreign-owned or as the annual inflow of foreign investment (as in the figures quoted earlier in this paragraph).

FDI is considered to be highly desirable by most politicians and economists alike. Politicians consider it to be a stamp of approval by internationally footloose global capital, while economists point out that FDI often entails valuable technology transfers, broadens the management competencies available within a country and that foreign-owned companies often have higher productivity and also provide intangible benefits in terms of expanded contacts and networks.

FDI flows into the UK were around $55 billion in 2004, accounting for around one-third of inward FDI flows into the European Union (EU). There is no official data on FDI into London as opposed to the UK. However, a recent study for Think London, London's Inward Investment Agency, estimates that the stock of FDI in London's economy was around £38 billion in 2002[xii]. Table 3.1 summarises the report's estimate of the impact of FDI on London's economy. According to these estimates FDI businesses in London contributed over 500,000 employee jobs and accounted for around £38 billion of London's GVA – approximately 23 per cent – in 2002. FDI also contributed a substantial

proportion of London's taxes even excluding financial services.

Productivity (measured by GVA per worker) is higher in FDI companies than in domestically-owned companies. However, this is likely to be partly the effect of FDI companies being concentrated in very high productivity sectors such as financial services and oil extraction. Part of the extra revenue for FDI companies may be repatriated in the form of profits, but wages in FDI companies are also higher than in domestic companies.

The primary sources of FDI (stock) in London are the US (which accounted for around 46 per cent of FDI employment and GVA) followed by France (with 12 per cent of employment), the Netherlands, Germany and Japan. This ranking probably reflects the fact that these countries have been investing in the London economy for a long time. As part of the study for Think London, a survey revealed[xiii] that the main factors attracting FDI to London were London's status as a global city, access to markets (UK and Europe), proximity to clients and good international travel connections.

Table 3.1: Contribution of FDI to London's economy, 2002

Indicator		London Economy	Non FDI	FDI
Employee jobs*		3,528,000	3,012,000	516,000
GVA	Gross	£161.1 bn	£123.5 bn	£37.6 bn
	Per worker	£45,670	£41,004	£72,915
Taxes	All taxes, duties & levies paid**	£8.5 bn	£5.4 bn	£3.1 bn
	Business rates**	£3.2 bn	£2.8 bn	£0.4 bn
Wages	Gross**	£69.5 bn	£58.6 bn	£10.9 bn
	Per worker**	£23,217	£22,474	£28,236

*Notes: * Excluding confidential data; ** Excluding public administration and finance*
Source: Think London report by DTZ

UNCTAD believes the prospects for FDI flows over the next few years is good, adding to the evidence for a solid medium-term outlook for the world economy. Mergers and acquisitions activity – a key driver of FDI since the late 1980s – rebounded strongly in 2004. The broad-based economic recovery in the world economy will also contribute to further FDI over 2005-2007.

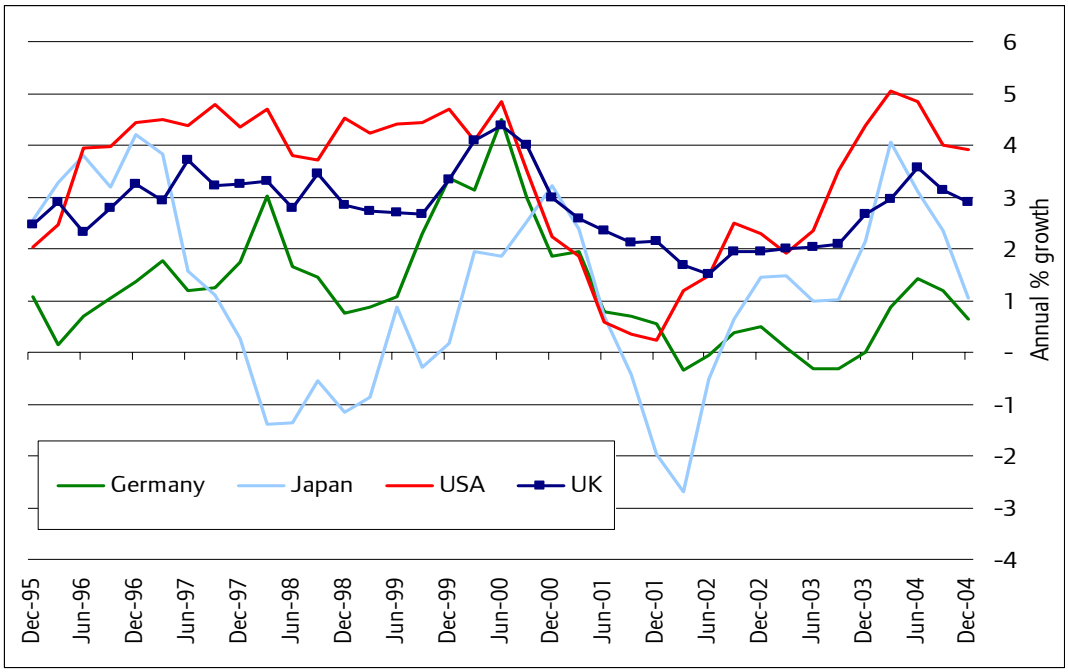
3.3 World situation

Growth on the world stage has also been robust. In fact, growth in world GDP in 2004 reached rates not seen since the 1970's. The IMF (International Monetary Fund) 2005 *World Economic Outlook* reported that world output grew by 5.1 per cent in 2004. The IMF expects growth to slow slightly in 2005 and 2006[xiv]. There are two main risks to the central scenario of continued strong growth gradually returning to trend. The first is the geopolitical uncertainty of the situation in Iraq and the global threat of terrorism and what this means for oil prices as well as global economic confidence. The second is the

impact of the adjustment process taking place with regards to the dollar and the US budget and current account deficits. If this adjustment were to take a less benign course than is generally expected this might plunge the US into a recession with serious consequences for the world economy. Box 3.3 deals with the recent developments on the dollar and the implications this might have.

Growth in most of the OECD (Organisation for Economic Co-operation and Development) countries has been fairly steady, though the eurozone has continued to show relatively weak growth. Germany's jobless rate rose to post-war highs in early 2005 when the unemployment rate reached around 12 per cent. Growth in Germany has been sluggish and contracted in the last quarter of 2004 compared with the previous quarter. Japan's economy, while emerging from its recession in 2002 and exhibiting fairly strong growth in early 2004, was stagnant for most of 2004.

Figure 3.9: Growth in selected industrialised countries
Annual growth in real GDP



Source: Ecowin

The impact of higher oil prices on the world economy have so far appeared to be relatively benign. This is partly due to the fact that oil prices, despite being high in nominal terms, have not yet reached the sort of levels in real, inflation-adjusted terms that were seen in the 1970s. Although oil prices have been reaching ever new price-highs in nominal terms, and have been at or above $50 a barrel for much of the last few months, there is not yet an oil crisis. In real, inflation-adjusted terms, current oil prices are around 40 per cent lower than the peaks they reached during the late 1970s oil crisis[xv].

Another important reason why high oil prices appear to be less damaging to world growth is that most of the OECD countries use less oil per unit of output than they did

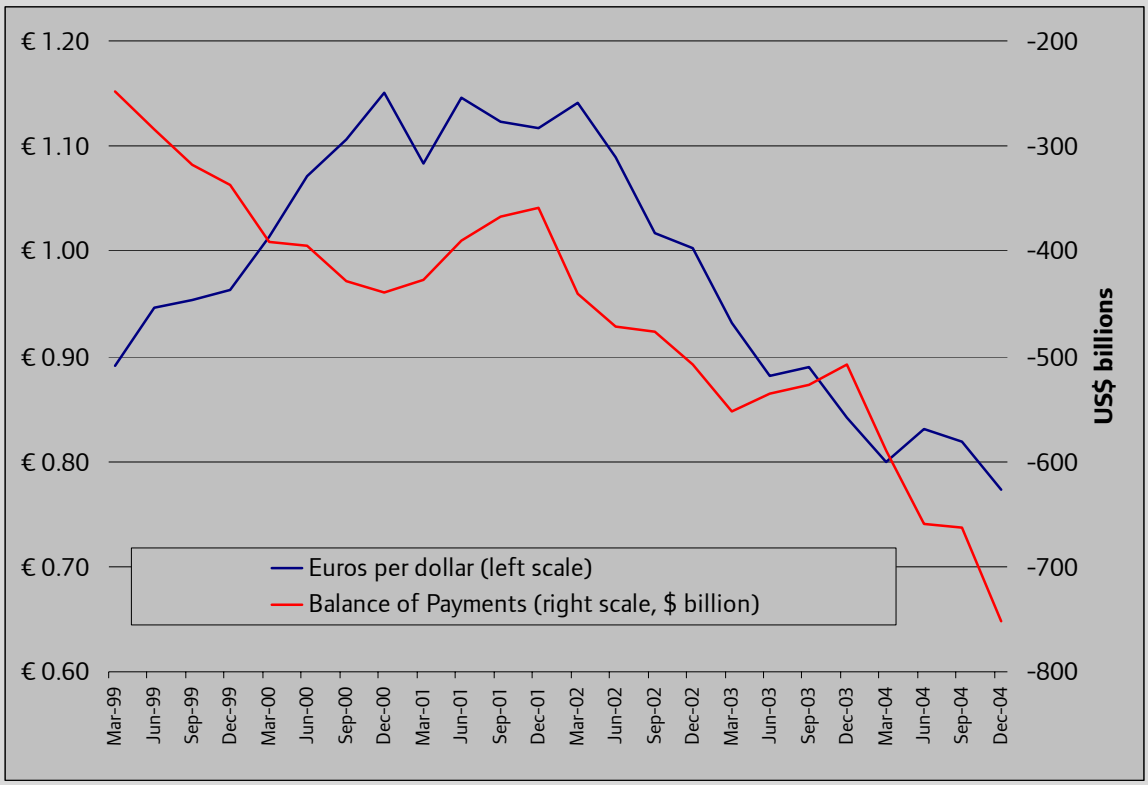
in the 1970s. Nonetheless, permanently higher oil prices will eventually have impacts on inflation. Most commentators seem to think that oil could remain expensive in the near to medium term as there is very little excess capacity among oil producers including OPEC and demand continues to rise. Analysis by Goldman Sachs[xvi] suggests that oil prices may need to go higher in order to make consumers reduce their demand and bring supply and demand back into equilibrium. A long period of high oil prices may affect large oil importers such as Japan and the US particularly. Europe is somewhat insulated against the effects of expensive oil due to its high taxes on petrol and the depreciating dollar (oil prices are denominated in dollars).

With continued weak growth expected in the eurozone and Japan in the short term, the main risk to world economic growth is if the United States' economy should falter. The US Federal Reserve's decision to raise interest rates to 2.75 per cent in March was expected and caused no stir in financial markets. This was the seventh consecutive rise, and Alan Greenspan, the Federal Reserve's chairman, has long signalled his intention to pursue a tightening of the current 'policy accommodation' at a 'measured' pace. Most economists expect that there will be a few more interest rate rises to come before the US interest rate reaches its 'neutral' level[xvii]. Some commentators also fear that the necessary adjustment of the dollar could become more precipitate than currently expected as holders of dollar assets rush to divest themselves of dollar portfolios which are declining in value. If this were to occur, it might lead to a rapid slowdown in the US which would have serious consequences for the whole of the world economy. Box 3.3 treats the issue of the dollar and the US balance of payments deficit in more detail.

Box 3.3: The dollar and the balance of payments deficit

In 2004, the USA's trade deficit totalled $617 billion dollars, and by the fourth quarter was running at annual rate of $694 billion, six per cent of its GDP. The balance of payments deficit, which includes transfers, ran at an annual rate of $750 billion. How is such a large deficit possible, can it be sustained, and what are the consequences?

Figure 3.10: US balance of payments and exchange rate



Source: Ecowin

The balance of payments deficit arises for a simple reason: the USA spends more abroad than it receives from abroad. However this does not explain why the USA is able to do this. Any country with a balance of payments deficit is borrowing money from abroad. The counterpart of the deficit is growing US net debt which, by the end of 2003, reached $2.7 trillion dollars, seven times that of the developing world.

The deficit is possible because people are willing to buy and hold US debt. Who are these people? The answer seems to be central banks, which, according to the 24 January *Financial Times* (FT)[xviii], financed 83 per cent of US debt by 2004. Figures from London-based GFC Economics show that Chinese holdings alone reached $408 billion in 2003. Robert J. Samuelson, writing more recently in Newsweek for 21 March[xix], estimates Chinese central bank holdings at $578 billion, South Korea's at $199 billion and Japan's at $834 billion.

Why should central banks seek assets that are likely to decline in value? The answer lies in the effect of debt purchases on the exchange rate of the dollar. The normal way that balance of payments deficits get eliminated is an exchange rate adjustment. If the dollar

falls, US goods abroad will become cheaper, raising its exports, and foreign goods in the US will become more expensive, reducing its imports. The pressure for this to happen is already evident. Against the Euro, the dollar fell from a peak of €1.16 in 2000 to a low of €0.74 at the end of January 2005. However the fall has been significantly less against Asian currencies, particularly the Chinese Yuan.

The reason is straightforward: the Asian economies, above all China, want to keep the dollar high because that makes their goods cheap in America and allows them to export more. Economists Dooley, Folkerts-Landau and Garber have coined the phrase 'Revised Bretton Woods', to describe this situation[xx]. A lower dollar might correct the US balance of payments deficit but, they argue, it would eat into the growth of China, Japan and Germany whose growth depends on exporting to the USA. The policy of these countries, particularly China, is therefore to hold US debt in order to keep the dollar up. However the USA is becoming increasingly concerned to lower the dollar relative to the Chinese Yuan. The USA insists that the Yuan is undervalued and has called on the Chinese authorities to revalue it.

Is the US balance of payments deficit in fact more sustainable than it appears? The problem, as Barry Eichengreeen points out[xxi], is that when the dollar eventually does fall, everyone holding dollar-denominated debt will suffer a loss in their wealth as their assets depreciate. The countries that are keeping up the dollar therefore form an oligopolistic club. As long as they all agree to keep buying dollar assets, the situation will continue. But if any one of them exits from the dollar before the others, this country by getting out while the going is good will minimise its own loss relative to the others. It may provoke a rapid fall in the dollar as everyone rushes to sell – but whoever gets out early will suffer less.

The FT reports[xxii] that 70 per cent of central bank reserve managers increased exposure to the Euro in the last two years, whilst OPEC members cut dollars from 75 to 61.5 per cent of their deposits. There are increasing signs that Asian countries such as South Korea and even Japan are discretely buying fewer dollar assets. Already the Yen has appreciated 23 per cent against the US dollar from its mid-2002 high.

The problem is not purely a US one. As Robert J. Samuelson notes in his Newsweek article[xxiii], 'for 15 years the American economy has been the engine for the world economy… Americans' consumption binge is propping up global trade and employment'. Eurozone growth remains low. Japan's recovery is uncertain. China and other developing economies are recording significantly high growth rates but their purchasing power on world markets is still relatively small, and in most cases the growth is export-led.

A gentle dollar re-adjustment would be beneficial to the US economy in the medium term but it will increase US inflation putting pressure on the Federal Reserve to continue to increase interest rates. Furthermore, as foreign borrowers make increasing attempts to diversify their portfolios away from dollar assets, the US needs to attract short-term capital to finance its borrowing – which again points to further rises in interest rates. If, as a consequence, the US expansion starts to falter then a major source of demand in the world economy will be reduced.

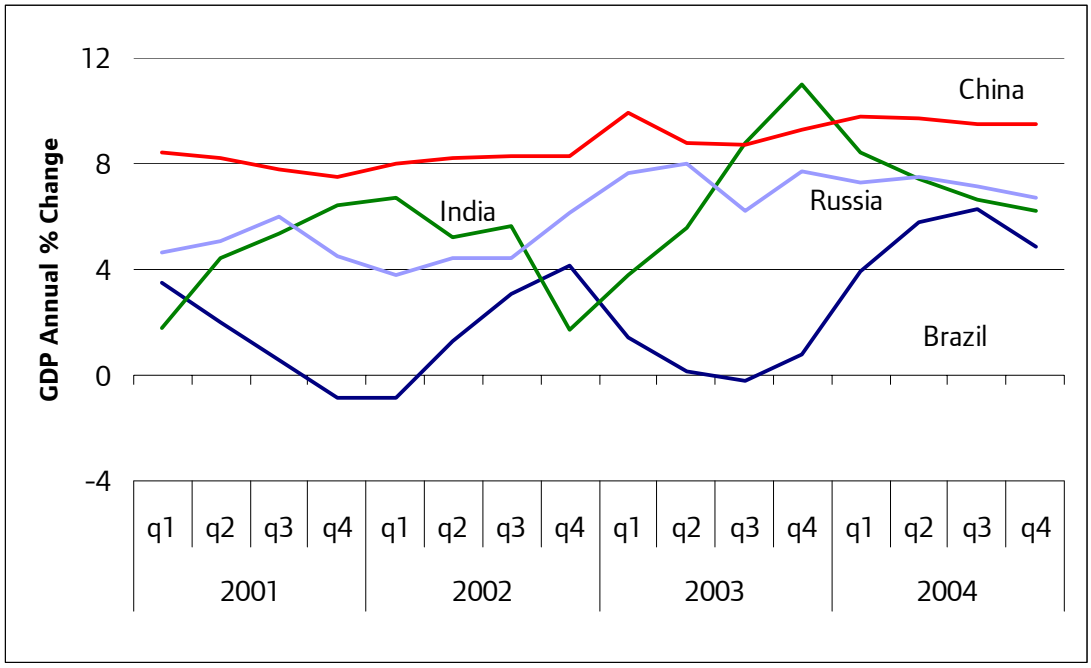
3.4 Emerging market economies

The main emerging market economies exhibited strong growth throughout 2004. The IMF reported output growth in emerging economies of 7.2 per cent in 2004. This is expected to slow somewhat in 2005 and 2006. Continued strong demand from booming manufacturing industries in China and emerging Asia have boosted the price of commodities such as steel and oil. Continued high prices in these markets are likely to affect manufacturing-based economies such as China more than Europe or the US.

As shown in Figure 3.11, growth in China continued at a high rate of 9.5 per cent in 2004 despite measures to slow the economy. Latin America also saw strong growth of 5.7 per cent in 2004 buoyed by rising commodity prices and strong demand from Asia and the US. Brazil emerged from a year of near stagnant growth in 2003 to grow at 5.2 per cent in 2004. Russia and the central European economies also expanded strongly in 2004. Russia's real output grew by 7.1 per cent while central and eastern Europe grew at around 6.1 per cent. India also had a good year in 2004 though growth slowed slightly from 7.5 per cent in 2003 to 7.3 per cent in 2004. Indian output growth has benefited from strong world demand for exports but is also fairly vulnerable to increases in oil prices as it imports around 70 per cent of its oil[xxiv].

Figure 3.11: Growth in emerging market economies

Annual % growth of real GDP



Source: Ecowin

3.5 Summary

In summary, the London, UK and world economies grew at a robust pace during 2004. The imbalances that developed in the UK housing market during recent years are likely to unwind at a gradual pace. Inflation is under control in most industrialised countries and commodity prices, though rising, are not likely to cause major pain in Europe or the US. Growth remains sluggish in the eurozone. The main risk to the world economy is of a significant slowdown in the US economy which remains the prime engine of global growth as long as the eurozone and Japan remain in the doldrums.

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

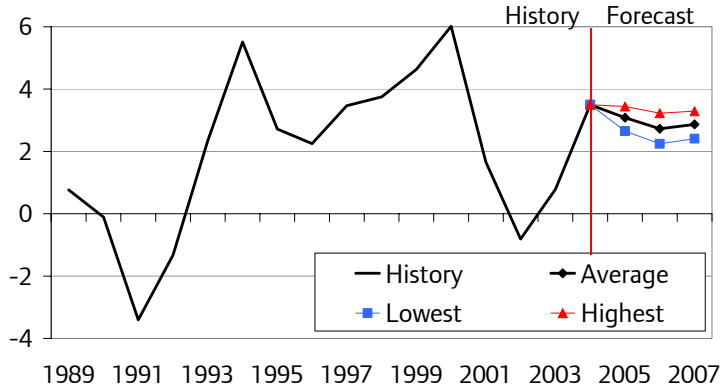
(London GVA, constant year 2001 £ billion)

As noted in *London's Economic Outlook* for autumn 2004, revised data now shows that London's GVA growth rate was negative in 2002. The recovery in 2003 has continued with strong growth of 3.5 per cent for 2004.

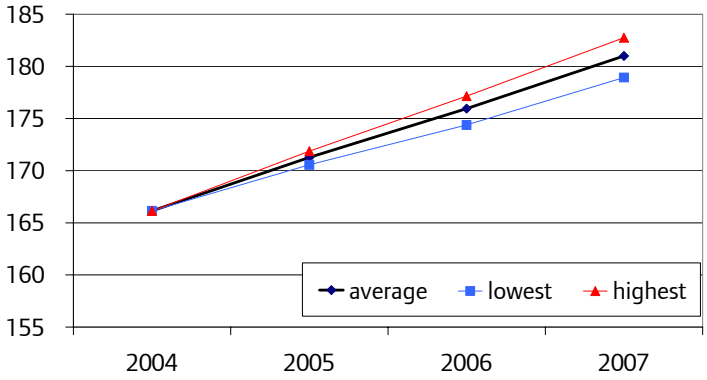
The consensus is that growth rates will remain steady and above trend but will fall from this 2004 peak, down to 3.1 per cent in 2005 and 2.7 per cent in 2006, before rising slightly to 2.9 per cent in 2007.

Forecasters are in broad agreement on this prediction and the spread of forecast GVA levels for 2007 is small, ranging from £179 billion to £183 billion in constant 2001 prices.

Annual growth (per cent)



Level (constant year 2001 £ billion)



Annual growth (per cent)			
	2005	2006	2007
Average	3.1	2.7	2.9
Lowest	2.7	2.2	2.4
Highest	3.4	3.2	3.3

Level (constant year 2001, £ billion)			
	2005	2006	2007
Average	171	176	181
Lowest	171	174	179
Highest	172	177	183

History: Annual growth (per cent)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
0.8	-0.1	-3.4	-1.3	2.3	5.5	2.7	2.3	3.5	3.8	4.6	6.0	1.7	-0.8	0.8	3.5

History: Level (constant year 2001, £ billion)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
122.8	122.7	118.5	116.9	119.7	126.3	129.7	132.6	137.2	142.4	149.0	157.9	160.6	159.3	160.5	166.1

Employment

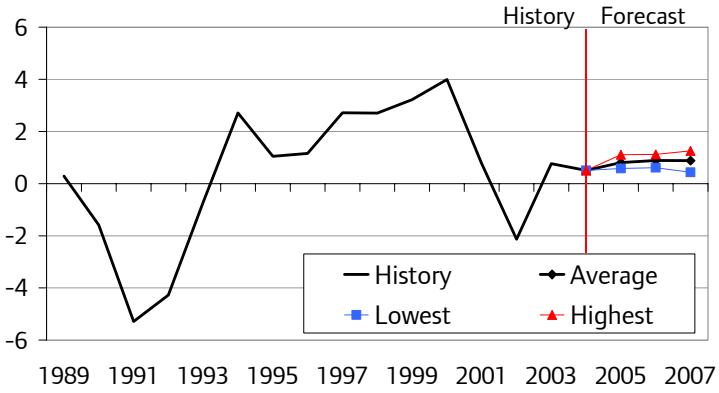
(London workforce jobs)

Forecasters predict steady growth at, or slightly below, the trend growth rate of 0.9 per cent, leading to total employment of 4.64 million by the end of 2007.

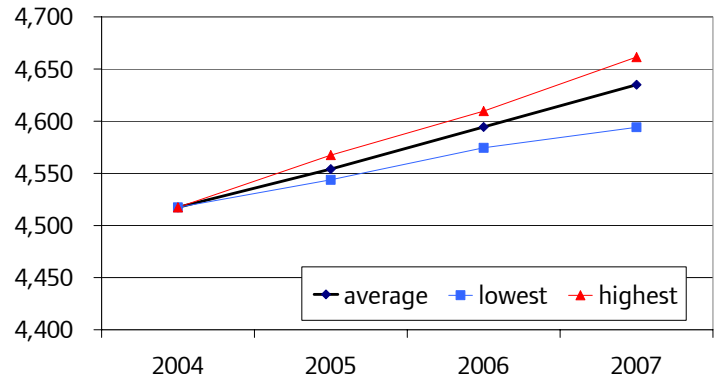
The lowest forecast is for growth of 0.6 per cent during 2005 and 2006, falling to 0.4 per cent in 2007, whilst the highest forecasts (not necessarily from the same forecaster) are 1.1 per cent for 2005 and 2006, rising to 1.3 per cent during 2007.

This leads to a spread of forecasts for total London jobs by 2007 ranging from 4.59 million to 4.66 million.

Annual growth (per cent)



Level (thousands)



Annual growth (per cent)			
	2005	2006	2007
Average	0.8	0.9	0.9
Lowest	0.6	0.6	0.4
Highest	1.1	1.1	1.3

Level (thousands)			
	2005	2006	2007
Average	4,550	4,590	4,640
Lowest	4,540	4,570	4,590
Highest	4,570	4,610	4,660

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	1.0	1.2	2.7	2.7	3.2	4.0	0.8	-2.1	0.8	0.5

History: Level (thousands)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
4,290	4,230	4,000	3,830	3,800	3,910	3,950	3,990	4,100	4,210	4,350	4,520	4,560	4,460	4,490	4,520

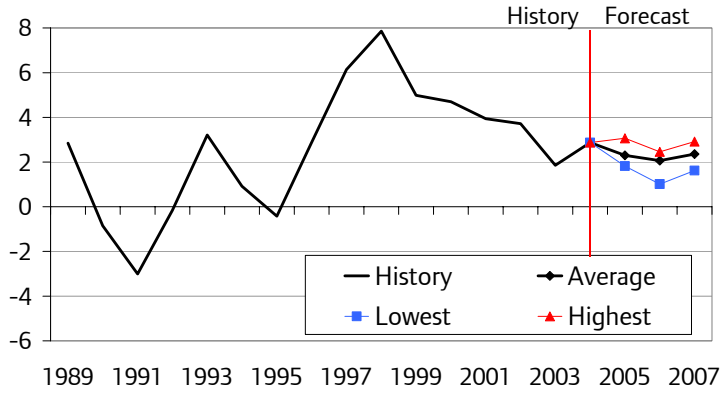
Household expenditure

(London household spending, constant year 2001, £ billion)

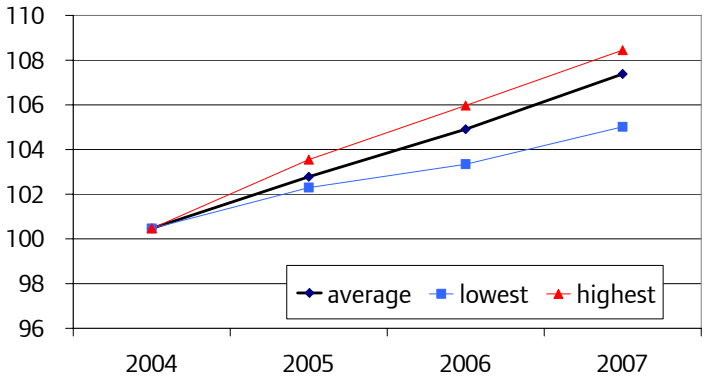
Growth in consumer spending (household expenditure) rose from 1.9 per cent in 2003 to 2.9 per cent in 2004. However, this was below growth in GVA which was 3.5 per cent in 2004. It was the first time since 2000 that household spending grew more slowly than GVA.

Forecasters expect a small slowdown, with growth rates falling to 2.3 per cent in 2005 and 2.1 per cent in 2006 before rising slightly to 2.4 per cent in 2007.

Annual growth (per cent)



Level (constant year 2001 £ billion)



Annual growth (per cent)			
	2005	2006	2007
Average	2.3	2.1	2.4
Lowest	1.8	1.0	1.6
Highest	3.1	2.5	2.9

Level (constant year 2001, £ billion)			
	2005	2006	2007
Average	102	104	107
Lowest	102	103	105
Highest	103	106	108

History: Annual growth (per cent)

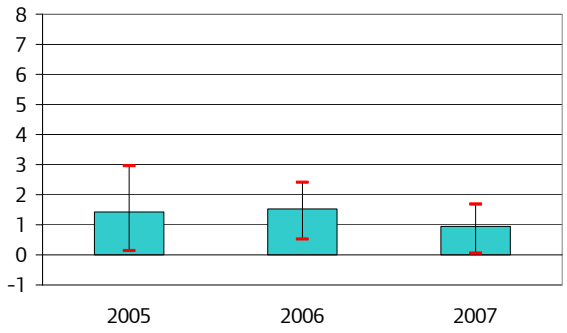
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
2.8	-0.8	-3.0	-0.2	3.2	0.9	-0.4	2.9	6.1	7.9	5.0	4.7	3.9	3.7	1.9	2.9

History: Level (constant year 2001, £ billion)

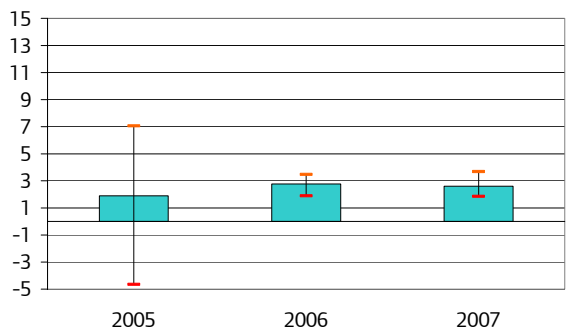
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
69.0	68.4	66.3	66.2	68.4	69.0	68.7	70.7	75.0	80.9	84.9	88.9	92.4	95.9	97.7	100.5

Output growth by sector (per cent annual change)
Transport and communications, and finance and business services are forecast to grow faster than the average for the whole economy. Manufacturing is forecast to continue to grow somewhat slower than the average for the whole economy.

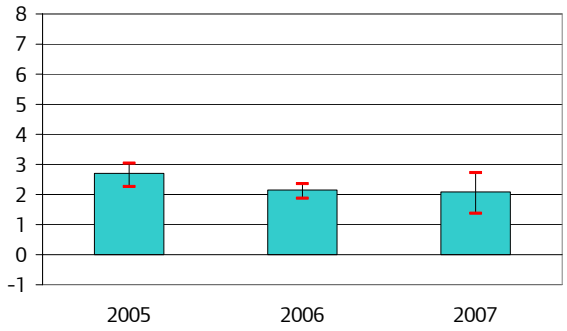
Manufacturing



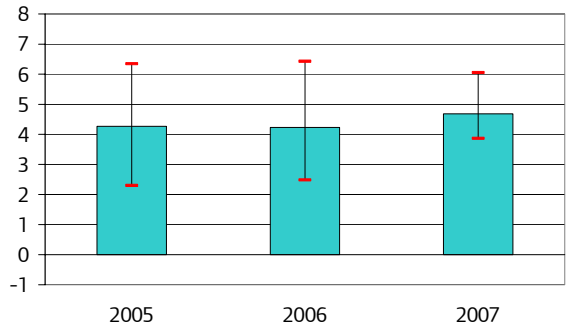
Construction



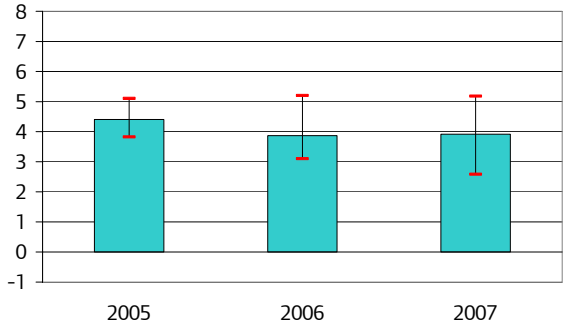
Distribution, hotels and catering



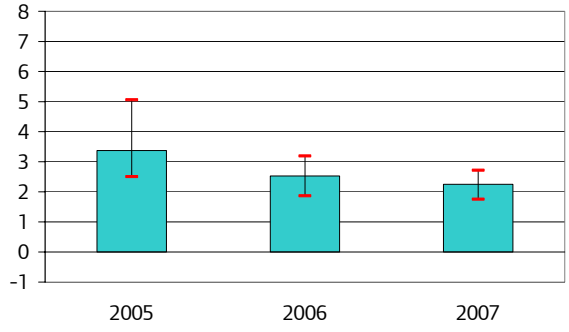
Transport and communications



Finance and business



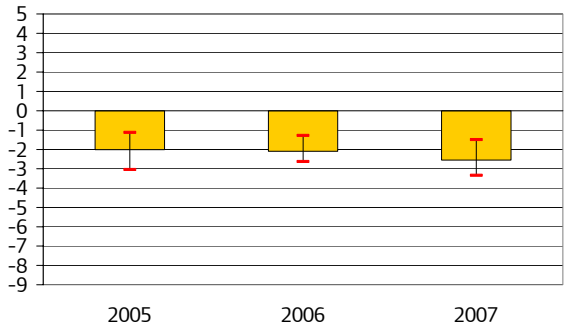
Other (mainly public) services



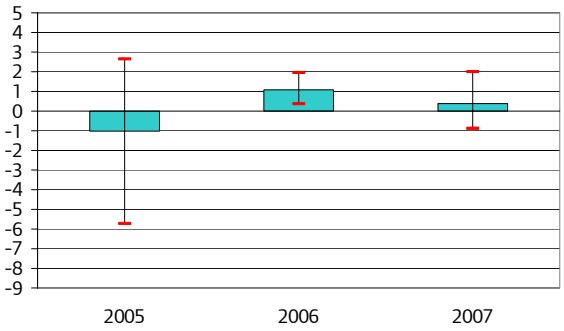
		2005	2006	2007			2005	2006	2007
Manufacturing	*Average*	1.4	1.5	1.0	**Construction**	*Average*	1.9	2.8	2.6
	Lowest	0.1	0.5	0.1		*Lowest*	-4.6	1.9	1.9
	Highest	3.0	2.4	1.7		*Highest*	7.1	3.5	3.7
Distribution	*Average*	2.7	2.1	2.1	**Transport and communications**	*Average*	4.3	4.2	4.7
	Lowest	2.3	1.9	1.4		*Lowest*	2.3	2.5	3.9
	Highest	3.0	2.4	2.7		*Highest*	6.3	6.4	6.1
Finance and business	*Average*	4.4	3.9	3.9	**Other (mainly public) services**	*Average*	3.4	2.5	2.2
	Lowest	3.8	3.1	2.6		*Lowest*	2.5	1.9	1.8
	Highest	5.1	5.2	5.2		*Highest*	5.1	3.2	2.7

Employment growth by sector (per cent annual change)
Employment is forecast to grow faster than the average for the whole economy in financial and business services.

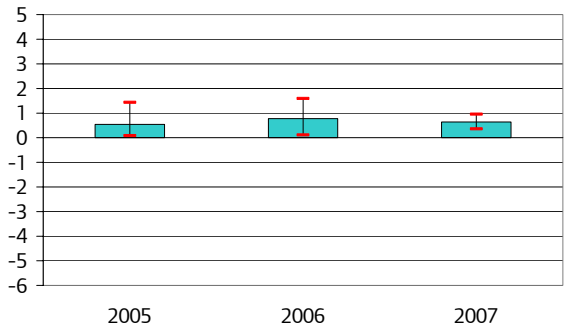
Manufacturing



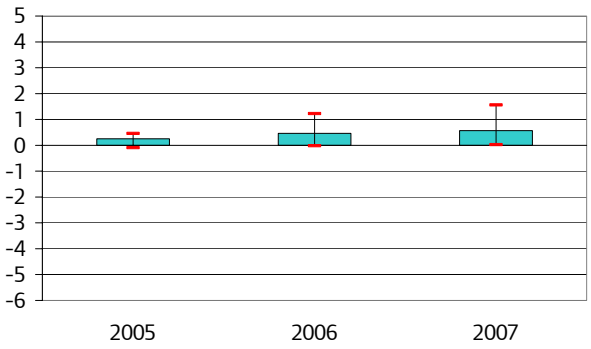
Construction



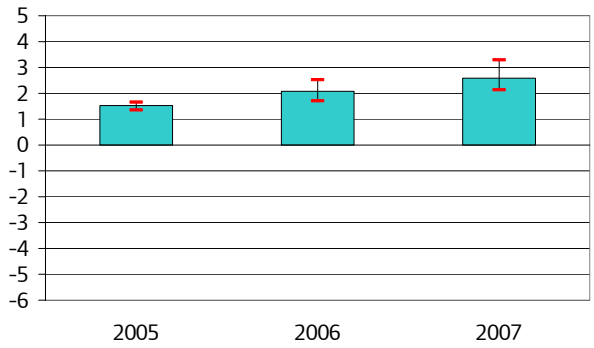
Distribution, hotels and catering



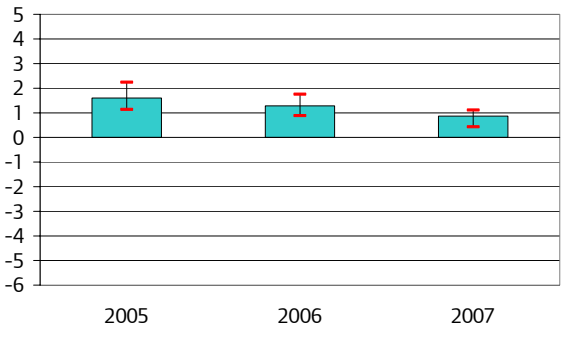
Transport and communication



Finance and business



Other (mainly public) services



		2005	2006	2007			2005	2006	2007
Manufacturing	*Average*	-2.0	-2.1	-2.6	**Construction**	*Average*	-1.0	1.1	0.4
	Lowest	-3.0	-2.6	-3.3		*Lowest*	-5.7	0.4	-0.9
	Highest	-1.1	-1.3	-1.5		*Highest*	2.6	2.0	2.0
Distribution	*Average*	0.5	0.8	0.6	**Transport and communications**	*Average*	0.2	0.5	0.6
	Lowest	0.1	0.1	0.4		*Lowest*	-0.1	-0.0	0.0
	Highest	1.4	1.6	1.0		*Highest*	0.5	1.2	1.6
Finance and business	*Average*	1.5	2.1	2.6	**Other (mainly public) services**	*Average*	1.6	1.3	0.9
	Lowest	1.4	1.7	2.1		*Lowest*	1.1	0.9	0.4
	Highest	1.7	2.5	3.3		*Highest*	2.2	1.8	1.1

5. The GLA Economics forecast

Assumptions and methods

This forecast combines the GLA's long-term trend projections for employment and population with medium-term assumptions about the growth of the UK economy derived from the Treasury's November review of independent forecasts of the UK economy[xxv].

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[xxvi].

Detailed assumptions for the UK

Table 5.1 shows the assumptions adopted by the GLA for its forecast and compares them to the Treasury's latest Budget 2005 forecast and the November 2004 consensus estimates. 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	GVA	2.6	2.5	2.6
	Consumption	2.0	2.3	2.6
Budget 2005	GVA	3-3½	2½-3	2¼-2¾
	Consumption	2¼-2¾	2-2 ½	2-2 ½
Consensus[xxvii]	GVA	2.6	2.5	2.6
	Consumption	2.3	-	-

GLA Economics has adopted consensus growth estimates throughout, taken from the Treasury's November 2004 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	1.7	2.0	1.6
Non-manufacturing output	3.2	2.9	3.1

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

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.

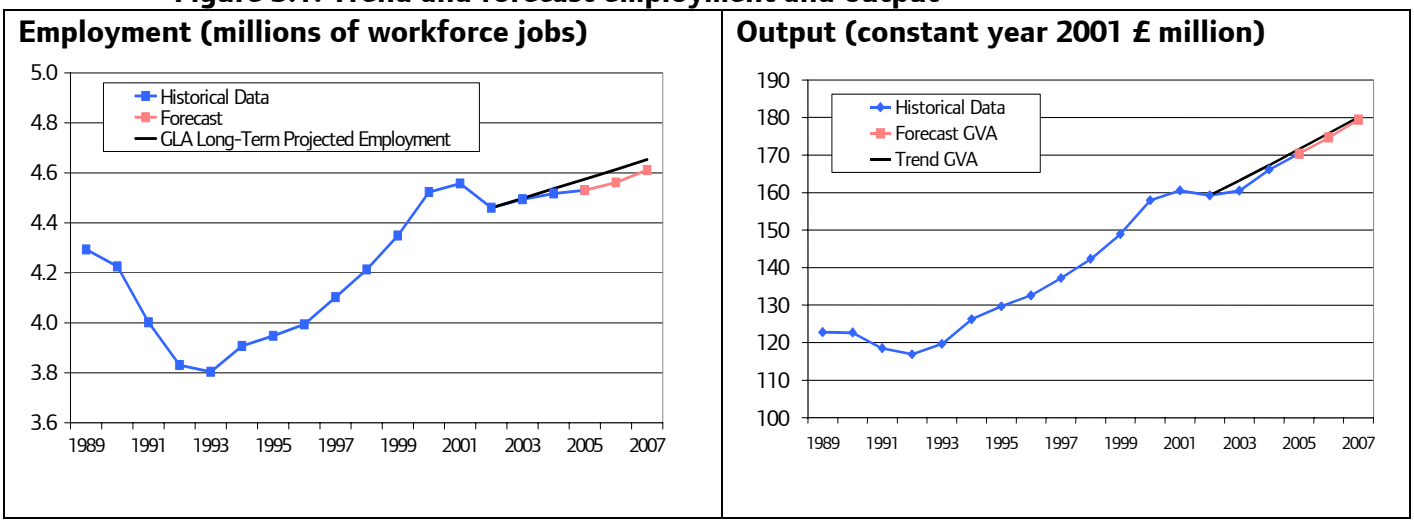
In 2002 the GLA commissioned new employment projections from Volterra Consulting which now form the trend projection on which the medium-term forecast is based. For this reason 2002 is taken as the start point for all trend (long-term) projections, as a basis for comparisons. For comparison purposes, 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.

Results

Output is expected to grow steadily at or above the trend rate of 2.5 per cent per year throughout 2005 – 2007, but below the 2004 level of 3.5 per cent. Employment is expected to continue growing steadily, but below the trend growth rate of 0.9 per cent per year until 2007 when it is expected to reach 1.1 per cent.

In 2004, despite a series of interest rate rises from the Bank of England, consumer spending (household expenditure) rose to 2.9 per cent. However, this was below the GVA's growth rate for the first time since 2000. Household expenditure growth is forecast to slow, to 1.8 per cent in 2005 before recovering to 2.3 per cent in 2006 and 2.8 per cent in 2007.

Figure 5.1: Trend and forecast employment and output



Source: EBS

Table 5.3: Forecast and historical growth rates (per cent)

	2000	2001	2002	2003	2004	2005	2006	2007
GVA	6.0	1.7	-0.8	0.8	3.5	2.6	2.5	2.7
Workforce jobs	4.0	0.8	-2.1	0.8	0.5	0.3	0.7	1.1
Household spending	4.7	3.9	3.7	1.9	2.9	1.8	2.3	2.8
Household income	7.0	6.9	1.8	1.0	1.7	4.0	3.7	3.4

Table 5.4: Forecast and historical levels
(constant year 2001, £ billion except jobs)

	2000	2001	2002	2003	2004	2005	2006	2007
GVA	157.9	160.6	159.3	160.5	166.1	170	175	179
Workforce jobs (millions)	4.52	4.56	4.46	4.49	4.52	4.53	4.56	4.61
Household spending	88.9	92.4	95.9	97.7	100.5	102	105	108
Household income	99.2	106.1	108.0	109.0	111.0	115	120	124

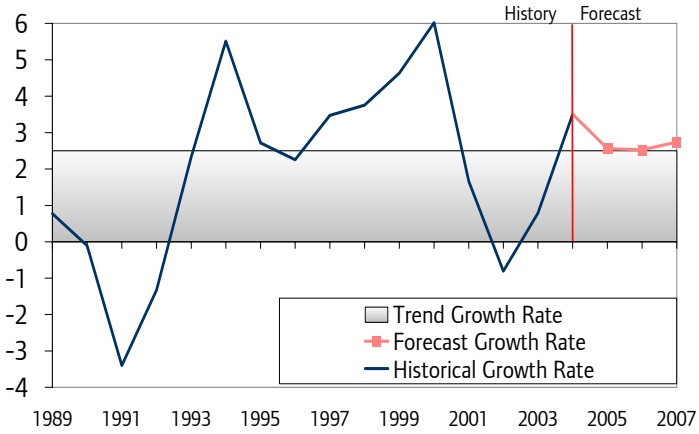
Output

(London GVA, constant year 2001, £ billion)

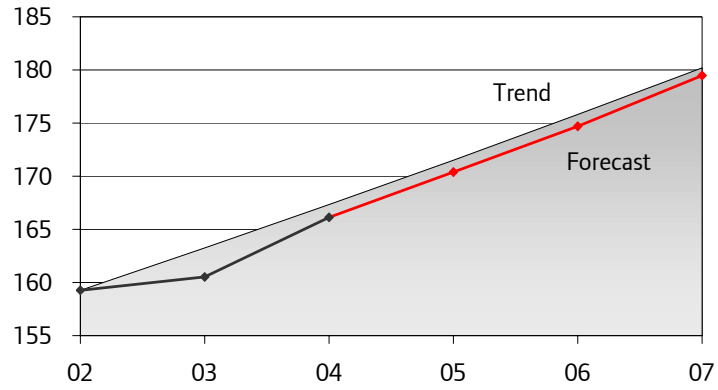
London GVA growth is expected to remain around trend levels. Growth in 2004 was above trend at 3.5 per cent. From 2005, growth is expected to remain steady at between 2.5 and 2.7 per cent through to 2007.

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

Annual growth (per cent)



Level (constant year 2001, £ billion)



Growth (annual per cent)				
	2004	2005	2006	2007
GLA	3.5	2.6	2.5	2.7
Consensus		3.1	2.7	2.9

Level (constant year 2001 £ billion)				
	2004	2005	2006	2007
GLA	166	170	175	179
Consensus		171	176	181

History: Annual growth (per cent)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
0.8	-0.1	-3.4	-1.3	2.3	5.5	2.7	2.3	3.5	3.8	4.6	6.0	1.7	-0.8	0.8	3.5

History: Level (constant year 2001, £ billion)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
122.8	122.7	118.5	116.9	119.7	126.3	129.7	132.6	137.2	142.4	149.0	157.9	160.6	159.3	160.5	166.1

Employment

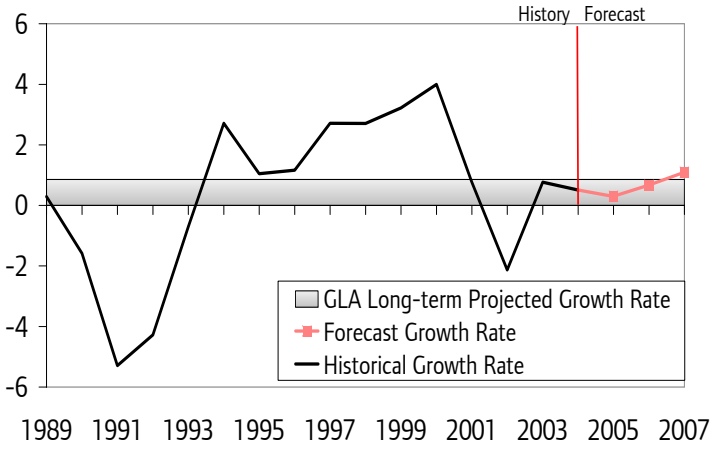
(London workforce jobs)

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 2006, but rising to 1.1 per cent, above trend rate, for 2007.

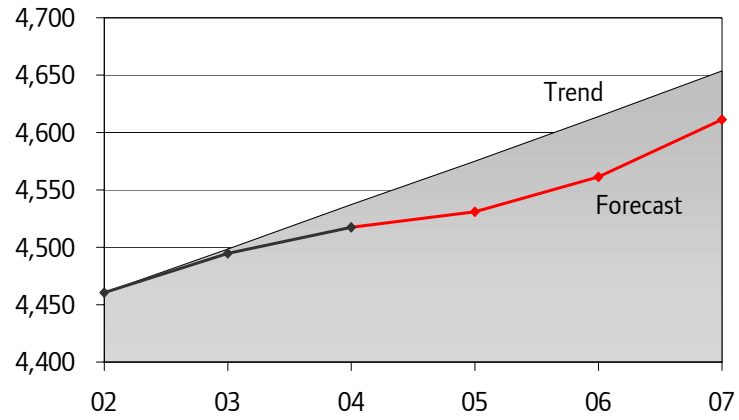
For the period 2005 to 2006 the GLA forecast for employment growth is slightly below the average of independent forecasters, but it is slightly higher in 2007.

By the end of 2007, London is expected to have 4.61 million workforce jobs.

Annual growth (per cent)



Level (thousands of workforce jobs)



Growth (annual per cent)				
	2004	2005	2006	2007
GLA	0.5	0.3	0.7	1.1
Consensus		0.8	0.9	0.9

Level (thousands of workforce jobs)				
	2004	2005	2006	2007
GLA	4,520	4,530	4,560	4,610
Consensus		4,550	4,590	4,640

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	1.0	1.2	2.7	2.7	3.2	4.0	0.8	-2.1	0.8	0.5

History: Level (thousands of workforce jobs)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
4,290	4,230	4,000	3,830	3,800	3,910	3,950	3,990	4,100	4,210	4,350	4,520	4,560	4,460	4,490	4,520

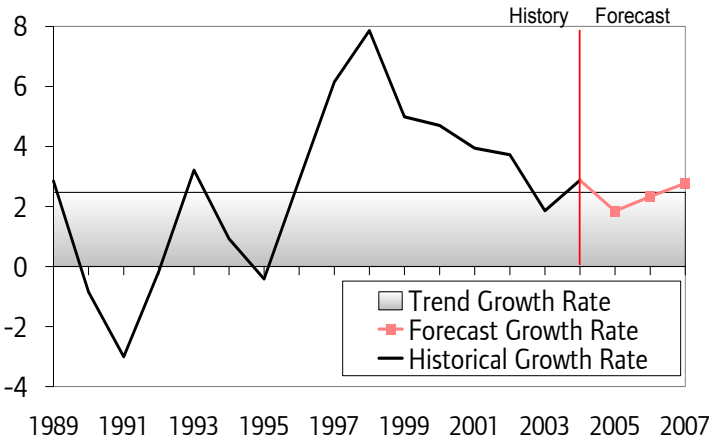
Household expenditure

(London household spending, constant year 2001, £ billion)

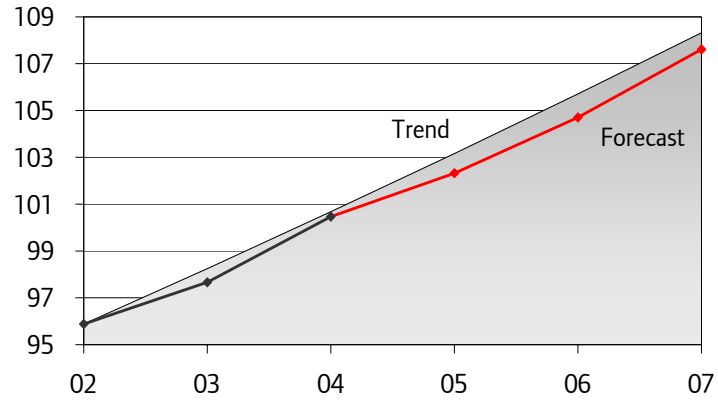
London consumer spending (household expenditure) growth is expected to remain below GVA growth during 2005 and 2006, but is forecast to grow slightly faster than GVA in 2007 at 2.8 per cent.

For 2005, the GLA forecast for London consumer expenditure growth is 1.8 per cent, in 2006 it is 2.3 per cent and in 2007 it is 2.8 per cent. The GLA forecast is for growth in household spending at below trend in 2005 and 2006, but somewhat above trend in 2008.

Annual growth (per cent)



Level (constant year 2001 £ billion)



Growth (annual per cent)				
	2004	2005	2006	2007
GLA	2.9	1.8	2.3	2.8
Consensus		2.3	2.1	2.4

Level (constant year 2001 £ billion)				
	2004	2005	2006	2007
GLA	100	102	105	108
Consensus		102	104	107

History: Annual growth (per cent)

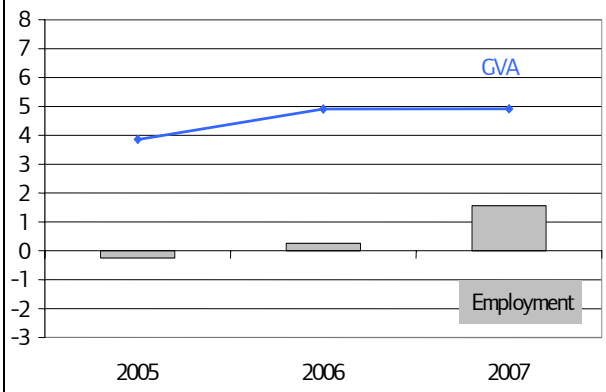
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
2.8	-0.8	-3.0	-0.2	3.2	0.9	-0.4	2.9	6.1	7.9	5.0	4.7	3.9	3.7	1.9	2.9

History: Level (constant year 2001, £ billion)

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
69.0	68.4	66.3	66.2	68.4	69.0	68.7	70.7	75.0	80.9	84.9	88.9	92.4	95.9	97.7	100.5

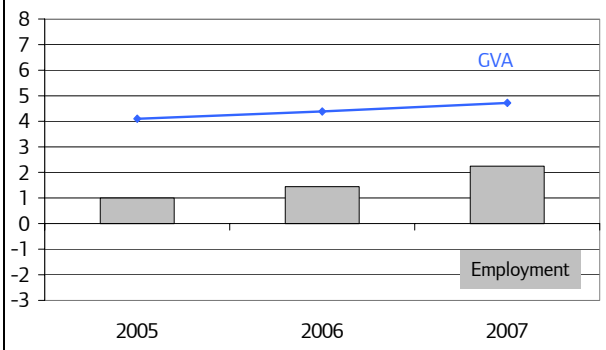
Output and employment growth by sector (per cent annual change)

Financial services

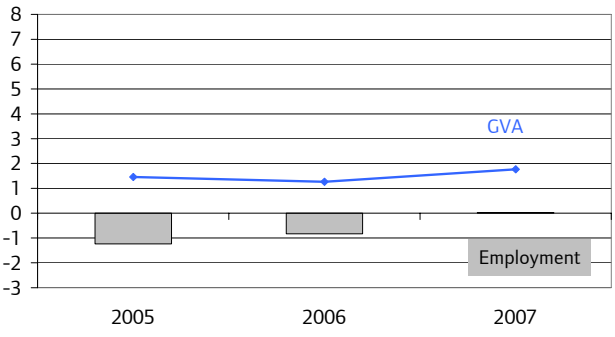


Business services

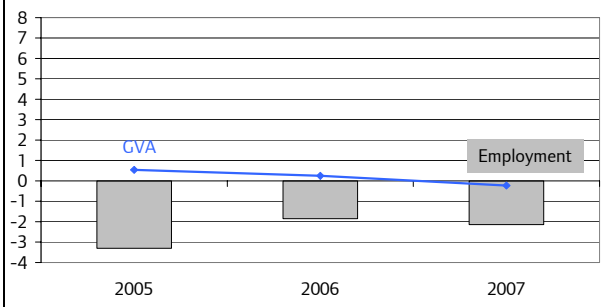
Finance and business (combined)



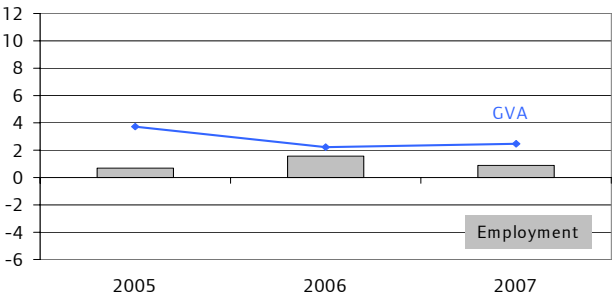
Distribution, hotels and catering



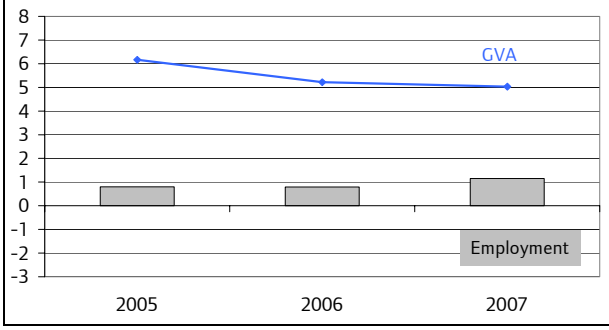
Manufacturing



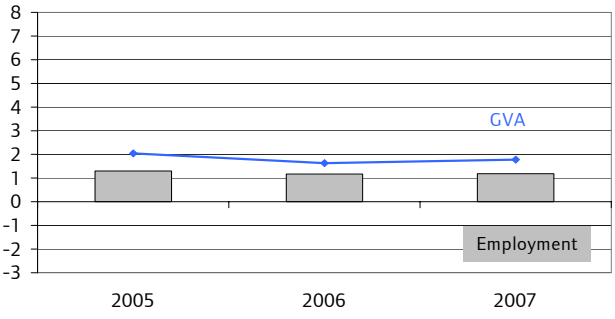
Construction



Transport and communication



Other (mainly public) services



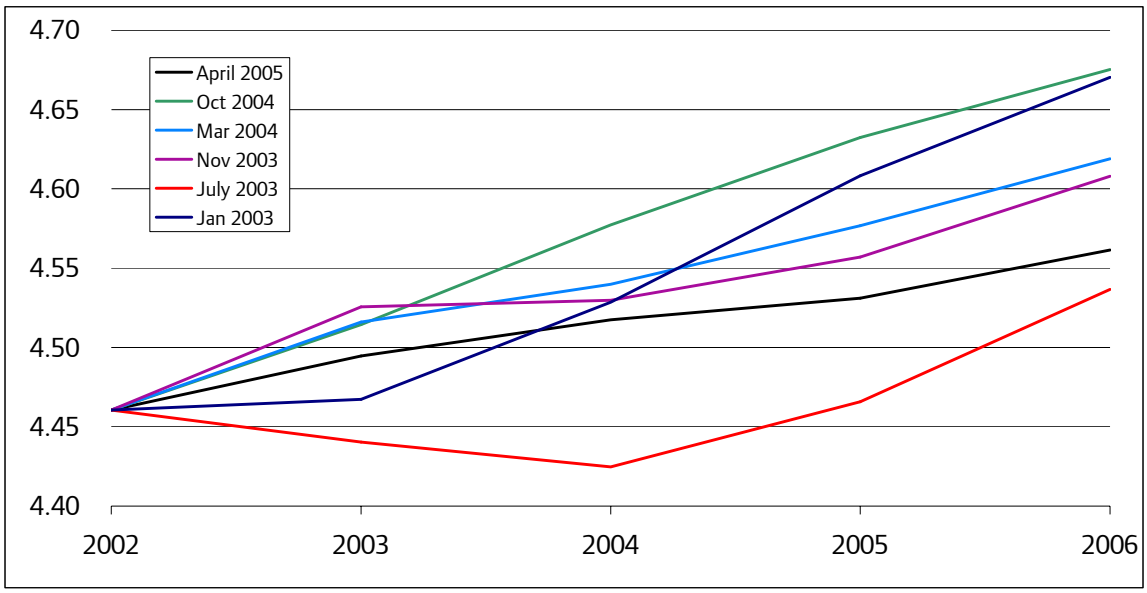
Output and employment growth by sector (per cent annual change)

	2005	2006	2007
Financial services			
Output	3.9	4.9	4.9
Employment	-0.2	0.3	1.6
Business services			
Output	4.2	4.2	4.7
Employment	1.4	1.8	2.5
Financial and business services combined			
Output	4.1	4.4	4.7
Employment	1.0	1.4	2.3
Distribution, hotels and catering			
Output	1.5	1.3	1.8
Employment	-1.2	-0.8	0.0
Transport and communications			
Output	6.2	5.2	5.0
Employment	0.8	0.8	1.2
Other (mainly public) services			
Output	2.0	1.6	1.8
Employment	1.3	1.2	1.2
Manufacturing			
Output	0.5	0.2	-0.2
Employment	-3.3	-1.9	-2.1
Construction			
Output	3.7	2.2	2.5
Employment	0.7	1.6	0.9
(Memo: non-manufacturing)			
Output	*3.4*	*3.2*	*3.5*
Employment	*0.5*	*0.8*	*1.3*

Comparison with previous forecasts

Predictions for both employment and GVA in 2005 and 2006 are broadly similar to the 2004 forecasts. The most significant revision is a fall in GLA Economics' prediction for employment growth in 2005, from 1.2 per cent in the October 2004 forecast to 0.3 per cent in this forecast. However, this is very similar to the March 2004 forecast. The difference between the October 2004 forecast for employment growth in 2004 (1.4 per cent) and the most recent estimate (0.5 per cent) is largely due to the recent revisions in official data (see Box 3.1).

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

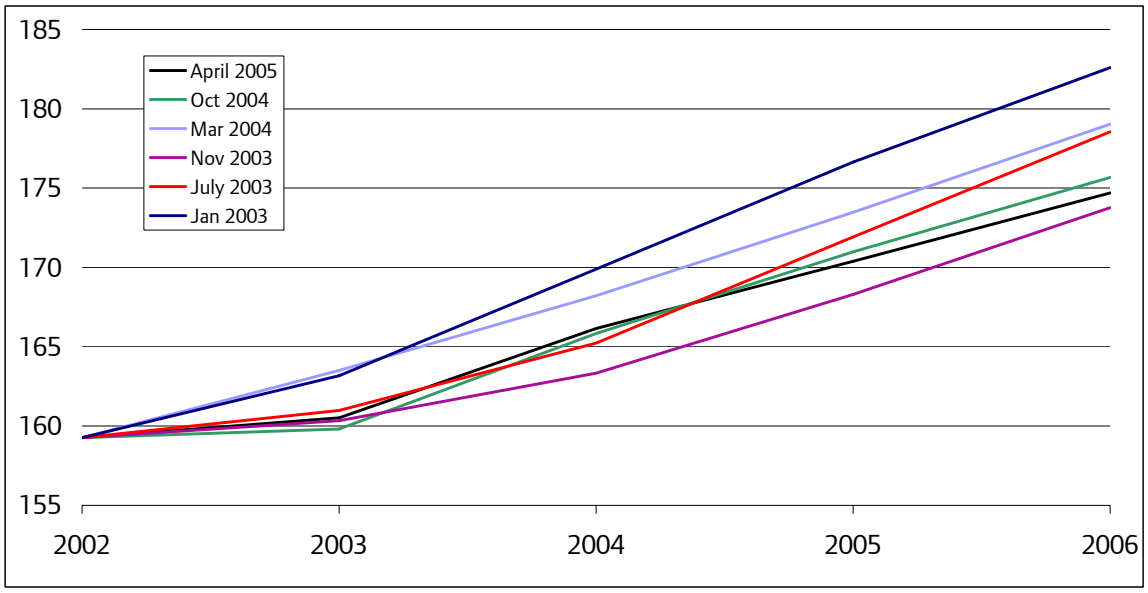


Source: Various London's Economic Outlooks

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

	2002	2003	2004	2005	2006	2007
April 2005	-2.1	0.8	0.5	0.3	0.7	1.1
Oct 2004	-2.1	1.2	1.4	1.2	0.9	
Mar 2004	-0.9	1.6	1.2	0.5	0.8	
Nov 2003	-0.9	1.5	0.1	0.6	1.1	
July 2003	-1.1	-0.5	-0.4	0.9	1.6	
Jan 2003	-0.3	0.2	1.4	1.8	1.3	

Figure 5.3: Output – latest forecast compared with previous forecasts
(constant year 2001, £ billion)



Source: Various London's Economic Outlooks

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

	2002	2003	2004	2005	2006	2007
April 2005	-0.8	0.8	3.5	2.6	2.5	2.7
Oct 2004	-0.9	0.3	3.8	3.1	2.7	
Mar 2004	0.6	0.6	2.7	2.9	3.1	
Nov 2003	0.7	0.7	1.9	3.0	3.2	
July 2003	0.9	1.1	2.6	4.1	3.9	
Jan 2003	1.0	2.4	4.1	4.0	3.4	

6. London's tax export since the late 1980s

6.1 Introduction

GLA Economics has previously calculated estimates of the level of public expenditure and taxation in London for *The Case for London*, the Mayor of London's submission to Spending Review 2004[xxix]. A GLA Economics' working paper explains the methodology used to calculate these estimates for 2000/01 and 2001/02[xxx]. One of the key findings was that London paid more in taxation than it received in public expenditure during both these two years. That is, London exported taxes to other regions. Since the publication of *The Case for London*, new data has been released. This supplement shows estimates for public expenditure and taxes in London for 2002/03, which because of data non-availability could not be produced at the time of *The Case for London* report, and updates GLA Economics' estimates for 2000/01 and 2001/02. More importantly, it provides estimates for the path of London's tax export over the 1989/90-2002/03 period.

GLA Economics' estimates of London's tax export over this 14-year period indicate that the tax export has been larger when London's output has been strong. Also, in the late 1990s and early 2000s London's tax export contributed a very large part of the UK's public sector financial surplus. London's tax export to the rest of the UK was estimated to be between £2 billion and £9 billion in 2002/03. At the time of writing, HM Treasury had not published figures for public expenditure at the regional level for 2003/04 or 2004/05.

6.2 Data

To update GLA Economics' estimates of London's tax export, various sources of information were used. Public Expenditure Statistical Analysis (PESA), produced by the Treasury, provides data on identifiable expenditure. This is spending which is recognised as being incurred on behalf of a particular population and allocated to regions/countries in the UK. PESA 2004 has figures on identifiable expenditure for 2002/03 by region and for the UK, published in April 2004. PESA 2004 also includes revised figures for identifiable public expenditure back to 1998/99. This publication also provides data on pay costs associated with non-identifiable spending[xxxi] in the UK regions/countries for 2002/03.

The Treasury published figures for UK tax receipts for the 2002/03 financial year in Budget 2004. Figures for business rates and council tax in London from the Office of the Deputy Prime Minister (ODPM) are now available for 2001/02.

In April 2004, the ONS published output or GVA figures at the regional level for 2002 and revised figures back to 1990. New figures indicate revisions in GVA and compensation of employees[xxxii] in the UK from 1996. At the regional level there were minor revisions to GVA in London on residence and workplace bases and to compensation of employees from 1990. The figures for GVA and compensation of

employees in the UK and London for 2001 were revised upwards. For 2000, the figures were also revised upwards except for London's GVA.

Data revisions potentially affect GLA Economics' estimates of public expenditure and taxes in London in 2000/01 and 2001/02. In practice, estimates in this supplement differ only slightly from those reported in GLA Economics' *Working Paper 6* for these financial years.

To derive historical figures for public expenditure in London, data from PESA was used, which in 2003 published historical identifiable public expenditure data by region for the years 1987/88 to 2000/01 but only for the following six English regions[xxxiii]:

1) North and North West
2) Yorkshire
3) East Midlands
4) West Midlands
5) South West
6) South East and East Anglia (including London) – the Greater South East

From 1998/99 onwards public identifiable expenditure data is available for the nine Government Office Regions from PESA 2004.

As historical data on public expenditure is only available for the Greater South East as a whole, in order to compare public expenditure for 1989/90-1997/98 with figures for 1998/99 to 2002/03, GLA Economics have had to calculate identifiable public expenditure on services in London in each financial year over 1989/90-1997/98 from the PESA figures for total expenditure in the Greater South East. GLA Economics have calculated identifiable public expenditure in London for the 1989/90-1997/98 period using London's proportion of total Greater South East expenditure from 1998/99-2002/03. This proportion is equal to 42 per cent. GLA Economics have assumed that this proportion is constant in each year over the period 1989/90 - 1997/98.

Data on taxes at the regional or local level is limited. It is only available for council tax and business rates from ODPM. Therefore, taxes at the national level were used to estimate taxes in London (this is explained in more detail later). The majority of the data on UK taxes used here are taken from the ONS publication series *Financial Statistics*[xxxiv] since 1989/90. During the 1990s, Governments have introduced different taxes such as the climate change and aggregates levies, and air passenger and insurance premium duties. Figures on business rates and council tax for some financial years are not available. Therefore, some assumptions have been made to derive these figures. Figures on business rates for the 1990/91–2001/02 period, except for 1991/92, were used. In this financial year GLA Economics has estimated the revenues using the same figure as in 1990/91. Figures for 2002/03 were not published when writing this paper, so the same figures as in 2001/02 were used.

The allocation of UK taxes to London is done using London's share of various factors including household consumption, output and population. For instance, to allocate corporation taxes it needs to be considered where profits have been generated. The

most obvious mechanism is to allocate them using output (or gross value added) on a residence or workplace basis. For value added tax and customs and excise duties, the most appropriate mechanism is to allocate them in line with household consumption.

GLA Economics has data on London consumption from 1994 to 1999. So to allocate VAT receipts to London during the period 1989/90-1993/94, London's share of total UK consumption for 1994 was used. From 2000/01 onwards the same share of UK consumption as in 1999 was used.

6.3 Estimating London's tax export since the late 1980s

GLA Economics and the Corporation of London[xxxv] have estimated London's tax export in the past few years. The most recent estimates on London's tax export are provided in Section 6.6. In this section, however, a historical analysis of London's tax export from 1989/90 to 2002/03 is presented.

Since the late 1980s, the UK and London economies have experienced a recession in the early 1990s, a downturn in the early 2000s (followed by an economic recovery) and strong economic growth between these two periods. This section explores how this cyclical pattern has impacted on London's tax export. To generate historical estimates for public expenditure and taxes in London for the 1989/90-2002/03 period, the same methodology was used as in GLA Economics' *Working Paper 6*.

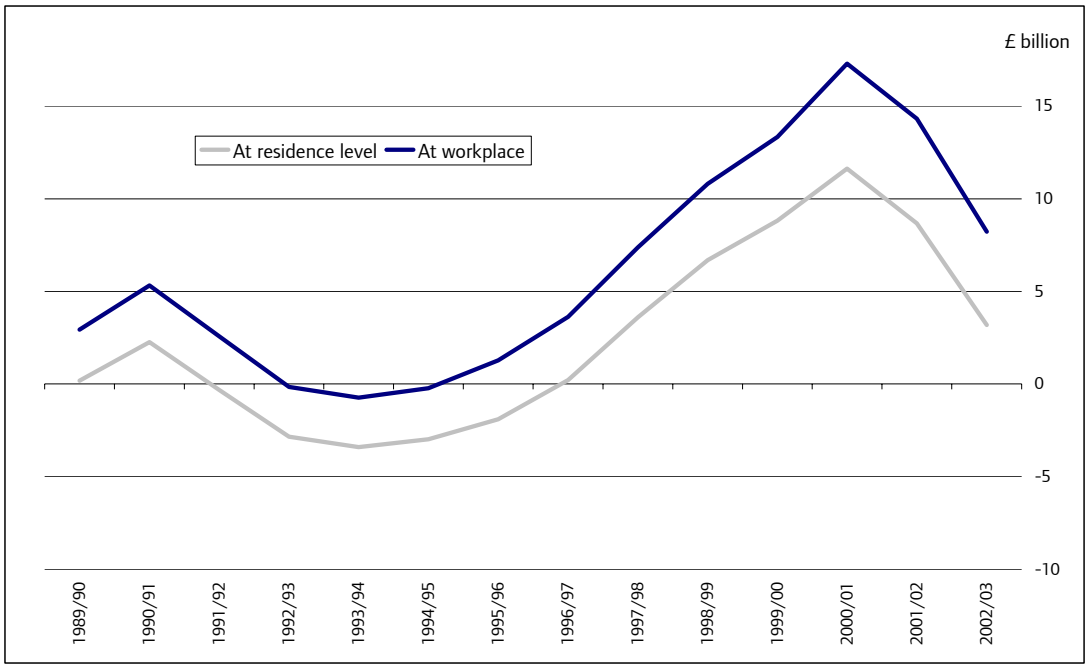
London's tax export – The difference between taxes and public expenditure

Having estimated public expenditure and taxes in London back to 1989/90, London's tax export is calculated as the difference between London taxes and public expenditure. Figures 6.1 and 6.2 depict this difference over the 1989/90-2002/03 period with taxes calculated on residence and workplace basis, and allocating non-identifiable public expenditure to London in accordance with London's share of identifiable public expenditure and population respectively. A positive difference means that tax receipts are higher than public expenditure. This implies that London is exporting taxes to other regions. A negative difference indicates that public expenditure is in excess of tax receipts or in other words there is a deficit in the budget.

Figures 6.1and 6.2 show that London's fiscal balance went into deficit in the early 1990s recession and then recovered into a substantial surplus as London experienced a period of sustained and substantial growth. This clearly demonstrates a positive relationship between London's economic growth and its fiscal balance. This is discussed in more detail in the next section.

Figure 6.1: Difference between London taxes and expenditure in nominal terms, 1989/90-2002/03

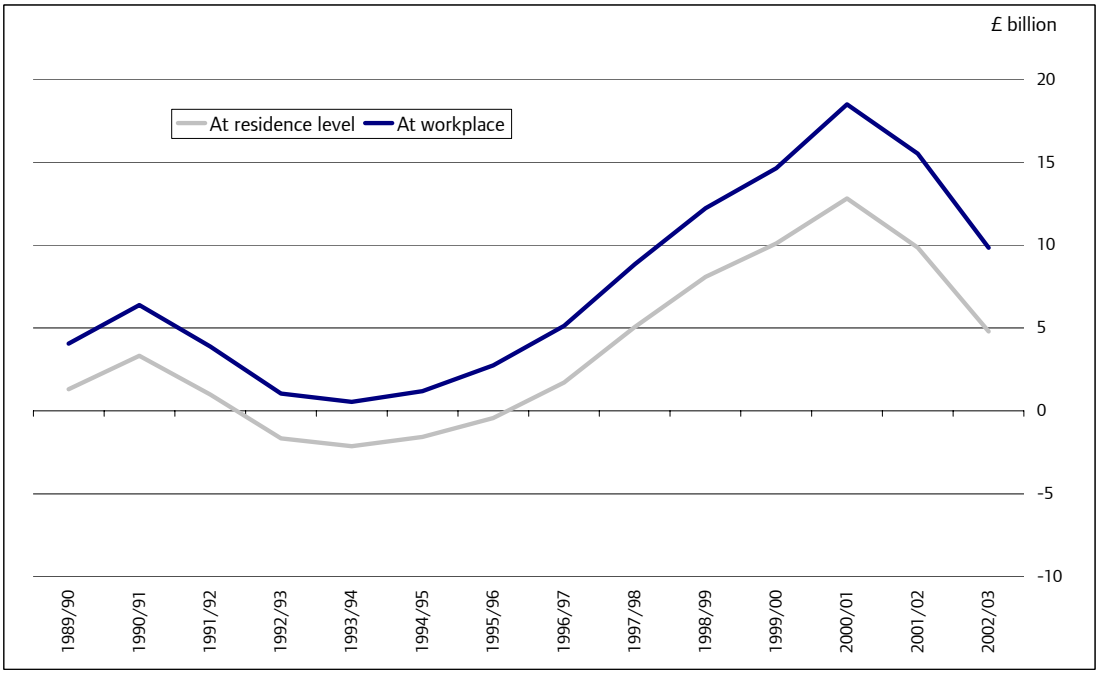
Non-identifiable public expenditure allocated using share of identifiable public expenditure



Source: GLA Economics' own calculations

Figure 6.2: Difference between taxes and expenditure in nominal terms, 1989/90-2002/03

Non-identifiable public expenditure allocated using London's share of UK population



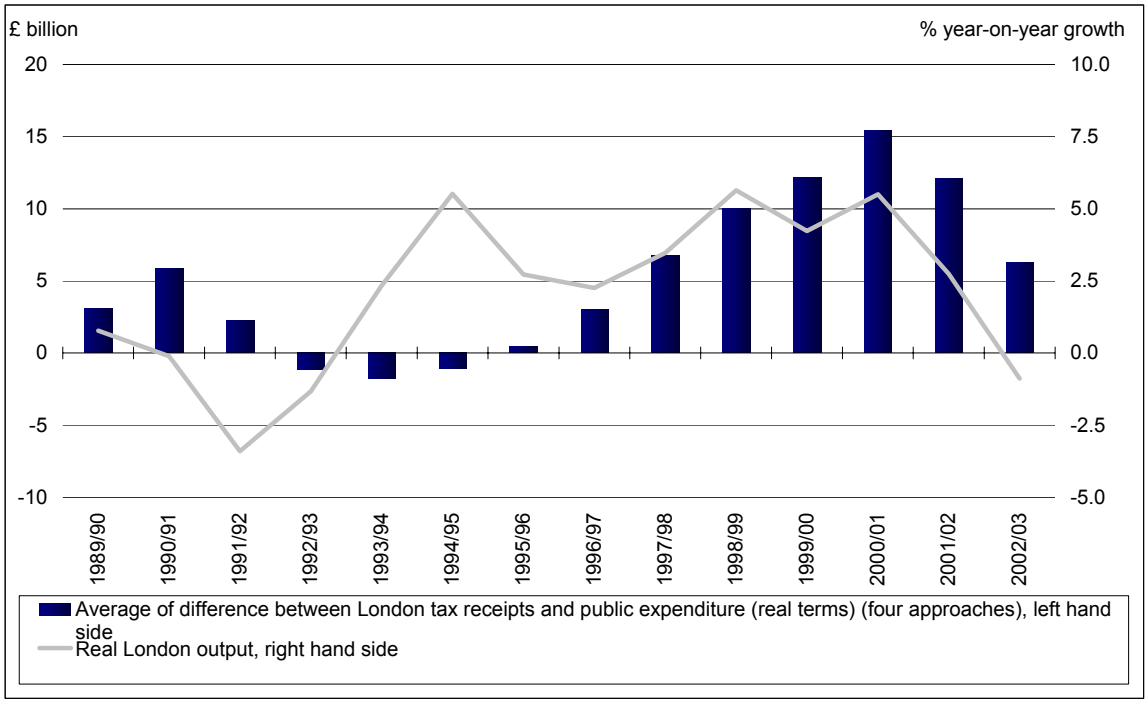
Source: GLA Economics' own calculations

6.4 Relationship between real annual output growth and budget balance

Figure 6.3 shows London's fiscal balance in real terms and real annual London output growth. London's fiscal balance in real terms is calculated by taking an average of the four possible differences between taxes and public expenditure that can be calculated from the two approaches to measuring London's taxes (residence and workplace) and the two approaches to measuring London's public expenditure (based on London's share of identifiable expenditure and population) and taking account of inflation by deflating this series using the GDP deflator. When the London economy went into recession in the early 1990s, its fiscal position deteriorated. Conversely, as the economy grew, London's tax export to other regions increased up to 2000/01.

Notably London's tax export has declined following the slowdown in the London economy in 2002. Nevertheless, London was contributing more to the UK public purse in 2001/02 and 2002/03 than it did in the early 1990s.

Figure 6.3: London's output growth and London budget balance in real terms 1989/90-2002/03

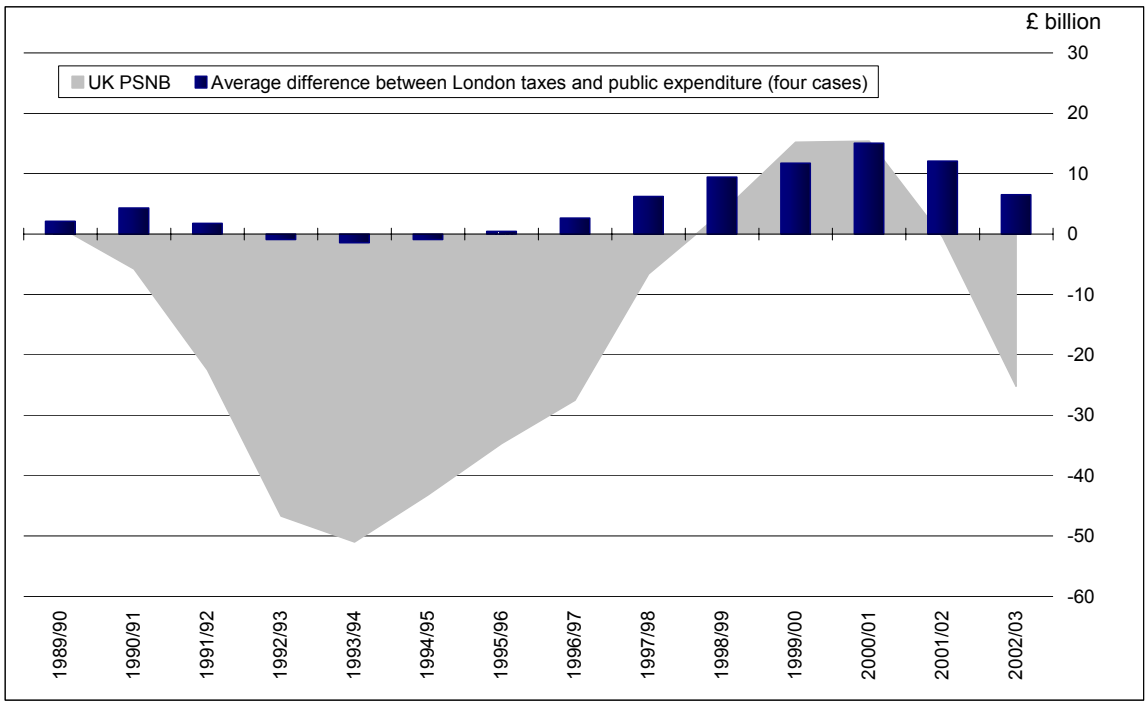


Source: EBS and ONS

6.5 UK and London public finances

The decline in London's tax export in 2002/03 should be put into perspective. Figure 6.4 displays the overall UK fiscal position (as measured by public sector net borrowing [PSNB]) and London's tax export. PSNB measures the difference between total public spending and current tax receipts. In Figure 6.4 an excess of public spending over tax receipts is shown as a negative figure to put the UK PSNB on the same basis as GLA Economics' calculations of London's tax export.

Figure 6.4: UK and London public finances, nominal terms in 1989/90-2002/03



Source: ONS and GLA Economics' own calculations

The general trend in the overall UK fiscal position and that for London follows a similar pattern. When the UK as a whole runs a fiscal deficit London tends to do so too or only runs small positive tax exports. Most strikingly, on GLA Economics' calculations a very large part of the UK public sector surpluses of the late 1990s and early 2000s came from London.

6.6 Most recent estimates for London's tax export

Public expenditure in London

Following the same methodology as in GLA Economics' *Working Paper 6*, Table 6.1 presents estimates of public expenditure in London for 2000/01, 2001/02 and 2002/03, using the following two different mechanisms for allocating non-identifiable expenditure to London:

a) in line with the share of spending on identifiable services in London
b) based on the share of the total UK population in London.

In both approaches, public expenditure in London has increased since 2000/01. Total public expenditure in London calculated using mechanism (a) above rose by eight per cent in 2001/02 and by almost 11 per cent in 2002/03. Using mechanism (b), public expenditure in London rose by almost nine per cent in 2001/02 and by ten percent in 2002/03. All these figures are in current prices and so do not control for the impact of inflation.

Table 6.1: Public expenditure in London, 2000/01-2002/03

	2000/01	2001/02	2002/03
a) Share of spending on identifiable services in London	**£ billion**	**£ billion**	**£ billion**
Identifiable spending on services in London	38.7	43.4	48.0
Plus estimated proportion of other spending classified to London	11.2	10.8	12.1
Total public expenditure in London	50.0	54.2	60.0
b) Share of population in London			
Identifiable spending on services in London	38.7	43.4	48.0
Plus estimated proportion of other spending classified to London	10.1	9.6	10.5
Total public expenditure in London	48.8	53.0	58.4

Source: GLA Economics' own calculations based on PESA 2004 and ONS

Tax receipts in London

Similarly, tax receipts in London were estimated using the methodology outlined in *Working Paper 6*, on a residence and workplace basis[xxxvi]. Table 6.2 shows that taxes in London (on residence basis) have increased slightly over these three years by two per cent in 2001/02 and by less than one per cent in 2002/03.

Table 6.2: Tax receipts in London, 2000/01-2002/03, £ billion

Residence basis	**2000/01**	**2001/02**	**2002/03**
Income tax plus tax credits	17.9	18.4	18.2
Council tax	2.0	2.2	2.4
Vehicle tax	0.8	0.7	0.7
Social contributions	9.4	9.9	9.9
Valued added tax	8.9	9.3	9.6
Corporation tax	5.1	5.1	4.7
Stamp duty	1.0	0.9	0.9
Total customs and excise duties excluding valued added tax	6.7	6.7	6.9
Petroleum tax and oil royalties	0.3	0.3	0.2
Capital gains tax and inheritance tax	0.8	0.8	0.5
Business rates	3.2	3.5	3.5
Other taxes and royalties	1.4	1.6	1.7
Interest and dividends	0.9	0.7	0.7
Other receipts	3.1	2.9	3.1
Total tax receipts	**61.6**	**62.9**	**63.2**

Source: GLA Economics' own calculations based on Financial Statistics, ONS various years

When commuters (taxes on a workplace basis) are included, tax receipts increased in 2001/02 from the previous financial year. However, unlike on a residence basis, tax receipts in London declined slightly in 2002/03, see Table 6.3.

In both cases, income tax and corporation and capital gains tax receipts declined between 2001/02 and 2002/03. Part of this reduction appears to have been due to the drop in equity prices in 2002 and part of 2003 and associated declines in corporate profitability.

Table 6.3: Tax receipts in London, 2000/01-2002/03, £ billion

Workplace basis	2000/01	2001/02	2002/03
Income tax plus tax credits	20.7	21.3	20.7
Council tax	2.0	2.2	2.4
Vehicle tax	0.9	0.9	0.8
Social contributions	10.3	10.8	10.7
Valued added tax	8.9	9.3	9.6
Corporation tax	5.9	5.9	5.3
Stamp duty	1.0	0.9	0.9
Total customs and excise duties excluding valued added tax	6.7	6.8	7.0
Petroleum tax and oil royalties	0.4	0.3	0.2
Capital gains tax and inheritance tax	0.9	0.8	0.6
Business rates	3.2	3.5	3.5
Other taxes and royalties	1.7	1.8	2.0
Interest and dividends	1.1	0.8	0.8
Other receipts	3.6	3.3	3.6
Total tax receipts	**67.3**	**68.6**	**68.3**

Source: GLA Economics' own calculations based on Financial Statistics, ONS various years

London's tax export – The difference between taxes and public expenditure

The estimated differences between taxation and public expenditure in London during the 2000/01-2002/03 period are displayed in Figures 6.5 and 6.6, using the two mechanisms for allocating non-identifiable public expenditure to London as discussed above:

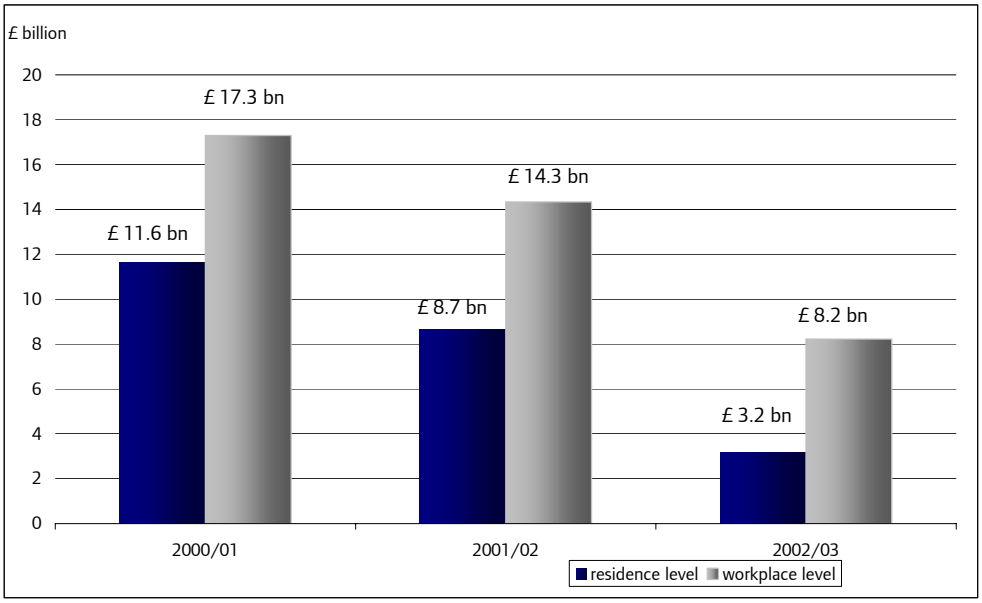
a) London's share of identifiable expenditure on services
b) London's share of the UK population.

GLA Economics' estimates indicate that London's net contribution to the UK was between £3 billion and £10 billion in 2002/03. London continued to export taxes, but London's tax export narrowed sharply in 2002/03, see Figures 6.5 and 6.6. This was due to a combination of factors: much higher public expenditure and broadly stable tax receipts in the capital (which as these figures do not control for inflation will have fallen in real terms). The much sharper slowdown experienced in the London economy relative to the UK as a whole in 2002 is likely to have been a significant factor behind this

decline in London's tax export. GLA Economics' analysis in the previous section of the path of London's tax export since the late 1980s supports this view. This should also be seen in the context that overall UK public sector finances have moved from £15 billion net lending in 2000/01 to £25 billion net borrowing in 2002/03.

Figure 6.5: Difference between taxes and public expenditure in London, 2000/01-2002/03

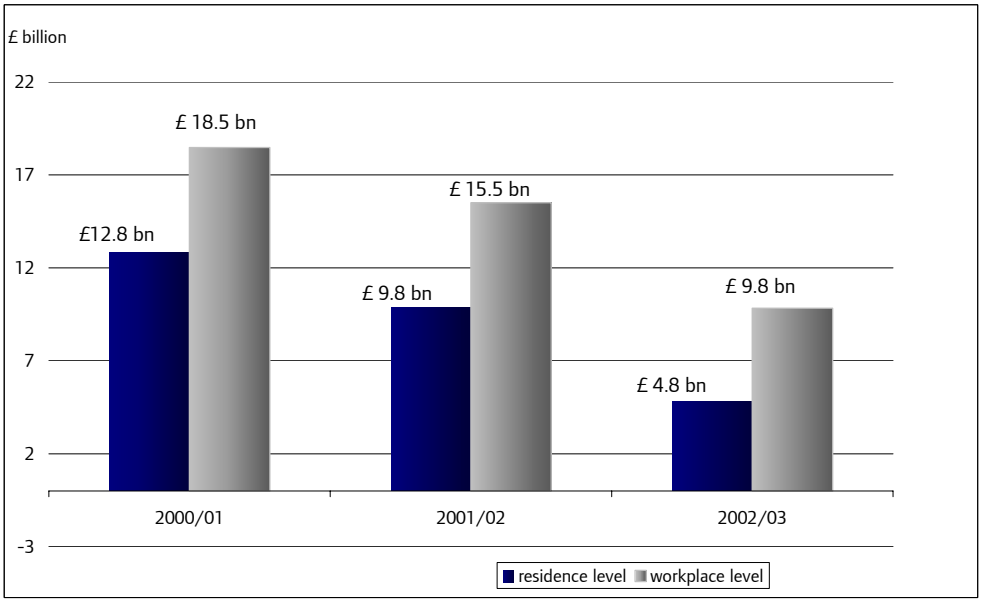
Allocating using London's public identifiable expenditure



Source: GLA Economics' own calculations

Figure 6.6: Difference between taxes and public expenditure in London, 2000/01-2002/03

Allocating using London's population share



Source: GLA Economics' own calculations

Estimates of London's fiscal position using new additional information on pay costs of non-identifiable spending in London

PESA 2004 published, for the first time, data on pay costs associated with non-identifiable spending in the UK regions/countries for 2002/03 only[xxxvii]. This means that now more data is available on public expenditure which has officially been classified to particular regions, including London. This additional information helps GLA Economics to refine estimates of total public expenditure in London by reducing the amount of non-identifiable expenditure that remains to be estimated (or allocated) to London. Using these new figures, total public expenditure in the capital rises by over £1 billion for both the approaches, see Table 6.4. As a result, London's tax export is estimated to be £2-9 billion in 2002/03 compared to the £3-10 billion, using the methodology that was used in GLA Economics' *Working Paper 6*. The Corporation of London has also just produced estimates of London's tax export for 2002/03[xxxviii]. Their estimate of –£1 billion to £15 billion is much wider than, but not inconsistent with, GLA Economics' estimates.

Table 6.4: Comparisons of estimates of London's tax export in 2002/03

	Method used in GLA Economics *Working Paper 6*		**Using information on pay costs associated with non-identifiable spending in London**	
	(A)	(B)	(A)	(B)
	£ billion	£ billion	£ billion	£ billion
Tax receipts (at residence level)	63.2	63.2	63.2	63.2
Public expenditure	60.0	58.4	61.1	59.7
Difference between taxes and public expenditure	3.2	4.8	2.1	3.6
Tax receipts (at workplace level)	68.3	68.3	68.3	68.3
Public expenditure	60.0	58.4	61.1	59.7
Difference between taxes and public expenditure	8.2	9.8	7.1	8.6
Estimated tax export (range)	3-10		2-9	

Source: GLA Economics' own calculations

6.7 Conclusions

Estimates of London's tax export over a 14-year period have been provided. During this period, London's economy has experienced two economic downturns (in the early 1990s and early 2000s) and strong growth between these two periods. Historical analysis since the late 1980s indicates that London's tax export evolves with this cyclical pattern. Moreover, London's tax export contributed a very large part of the UK's public sector financial surpluses in the late 1990s and early 2000s.

New data has allowed estimates of London's tax export for 2002/03. Using the approach used so far, GLA Economics estimated that tax receipts in London exceeded public spending in 2002/03 by £3-10 billion. This figure is considerably less than GLA Economics' revised estimates for 2000/01 and 2001/02 of £12-18 billion and £9-15 billion respectively (which are themselves very similar to the previous estimates set out in GLA Economics' *Working Paper 6*).

Data on pay costs across regions for 2002/03 has been published in PESA 2004. This is the first time such data has been produced. Incorporating this information into the methodology reduces the estimate of the tax export from London in 2002/03 by about £1 billion from £3-10 billion to £2-9 billion. This latter estimate is thus produced using a slightly different methodology from that used for previous years and so cannot be compared with figures for earlier years.

There appears to be a positive relationship between London's tax export and London's output growth. Therefore, it is not surprising that there was a reduction in London's tax export in 2002/03 given the sharp slowdown that the London economy experienced in 2002. This slowdown was more significant than that experienced by the UK as a whole, and this would therefore have impacted on the growth in tax revenues in London compared to the UK generally. The sharper slowdown in the London economy has been followed by a swifter recovery. As London's economy continues to recover, it is anticipated that this should lead to an increase in London's tax export from the relatively low levels of 2002/03.

London's continued economic success is required if London is to continue to provide a tax export to support public services elsewhere in the UK. This will require continued investment in infrastructure, such as the transport system and schools, that underpin London's economy.

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*[xxxix] provides a more detailed explanation of this term.

All forecasters now produce estimates of real output which are weighted to the year 2001, 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 2003[xl]. Most regional forecasters supply their own estimates of London's GVA. The London GVA figures used in the GLA Economics' forecast are supplied by EBS and coincide with those of the ONS for 2001.

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
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
EU	European Union
FDI	Foreign Direct Investment
FT	Financial Times
GDP	Gross Domestic Product
GLA	Greater London Authority
GVA	Gross Value Added
HBOS	Halifax Bank of Scotland
ILO	International Labour Organisation
IMF	International Monetary Fund
LEO	London's Economic Outlook
LFS	Labour Force Survey
MPC	Monetary Policy Committee
mbpd	Million Barrels Per Day
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
PESA	Public Expenditure Statistical Analysis
PMI	Purchasing Managers' Index
PPP	Purchasing Power Parity
PSNB	Public Sector Net Borrowing
PwC	PricewaterhouseCoopers
Q2	Second Quarter
RICS	Royal Institution of Chartered Surveyors
RPIX	Retail Price Index (excluding mortgage interest payments)

TfL	Transport for London
UK	United Kingdom
UKCS	UK Continental Shelf
UNCTAD	United Nations Conference on Trade and Development
US	United States of America

Appendix C: Bibliography

Bank of England, February 2005, Inflation report, London

BBC News, 8 April 2005, India exports hit record high. Please visit: www.bbc.co.uk

Cambridge Econometrics, September 2004, Regional Economic Prospects,

Centre for Economic and Business Research, November 2004, Quarterly Business Forecasts for London

Corporation of London, 2004, London's Place in the UK Economy 2004

Dooley M, Folkerts-Landau D and Garber P, 2003, The Revived Bretton Woods System, National Bureau of Economic Research. Please visit: www.nber.org/papers/w9971

The Economist, 8 April 2005, Survey of forecasters

The Economist, 6 April 2005, A titanic struggle between supply and demand

The Economist, 16 December 2004, Economics Focus: Aiming for a happy medium

Eichengreen B, 2004, The dollar and the new Bretton Woods System, University of California, Berkley. Please visit: http://emlab.berkeley.edu/users/eichengr/policy/cityuniversitylecture2jan3-05.pdf

Experian Business Strategies, November 2004, Regional forecast

Fenwick D and O'Donaghue J, 2003, Developing estimates of relative regional consumer price levels, Economic Trends No. 599, ONS, October 2003

Giles C, 2005, Dollar at mercy of central banks, in The Financial Times, 24 January 2005

GLA, 2001, Planning for London's Growth, London

GLA, 2002, Review of independent forecasts, London

GLA, January 2003, Medium-Term Economic Planning Projections, London

GLA, July 2003, A Review of independent forecasts, London

GLA, July 2003, Medium-Term Planning Projections, London

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

GLA, September 2003, The GLA's London Workforce Employment Series, London

GLA, April 2004, London's Economic Outlook: Spring 2004. The GLA's medium-term planning projections, London

GLA, October 2004, London's Economic Outlook: Autumn 2004. The GLA's medium-term planning projections, London

GLA, 2004, The Case for London: London's loss is no-one's gain

GLA, 2004, Working Paper 6: Calculating London's tax export

GLA, 2004, Working Paper 11: Working London

HM Treasury, 2003, Analysis of public expenditure by country and region, in Public Expenditure Statistical Analyses

HM Treasury, November 2004, Forecasts for the UK Economy: A comparison of independent forecasts, Edition No. 209, London

HM Treasury, 2004, PESA in 2002-03

HM Treasury, 2005, Budget 2005, London

IMF, September 2004, Global Financial Stability Report, Washington

IMF, April 2005, World Economic Outlook, Washington

KPMG Press Release, 15 December 2004, 2004: First hard evidence of M & A recovery, Corporate Finance

OEF, October 2004, Regional Economic Outlook, Oxford Economic Forecasting

ONS, various editions, Financial Statistics (series)

Samuelson R, 2005, The Incredible Shrinking Dollar, in Newsweek, 21 March 2005

Think London, November 2004, The Economic Impact of Inward Investment on the London Economy

UNCTAD Press Release, 11 January 2005, World FDI flows grew an estimated 6% in 2004 ending downturn

UNCTAD, 2004, World Investment Report

Veruete-McKay L, 2003, Recent developments in UK and London's business investment, in London's Economy Today, Issue 6, February 2003

[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 information the forecaster's view of the 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 information the forecaster's view of the CPI inflation rate is reported. Since December 2003 the Bank of England's symmetrical inflation target is annual CPI inflation at two per cent.

[iv] Unemployment based on the definition produced by the ILO and which is the internationally accepted standard.

[v] KPMG Press Release, 15 December 2004, 2004: First hard evidence of M & A recovery, Corporate Finance

[vi] HM Treasury, 2005, Budget Report: Appendix A – The Economy

[vii] Bank of England, February 2005, Inflation report, London

[viii] In addition, insofar as investment is driven by public sector investment this is likely to benefit London proportionately less than other regions – see Section 6 on London's tax export.

[ix] See for example Veruete-McKay L, 2003, Recent developments in UK and London's business investment, in London's Economy Today, Issue 6, February 2003

[x] UNCTAD Press Release, 11 January 2005, World FDI flows grew an estimated 6% in 2004 ending downturn

[xi] UNCTAD, 2004, World Investment Report

[xii] Think London, The Economic Impact of Inward Investment on the London Economy, November 2004

[xiii] Think London, The Economic Impact of Inward Investment on the London Economy, November 2004

[xiv] IMF, 2005, World Economic Outlook, Washington

[xv] The Economist, 6 April 2005, A titanic struggle between supply and demand

[xvi] The Economist, 6 April 2005, A titanic struggle between supply and demand

[xvii] The Economist, 16 December 2004, Economics Focus: Aiming for a happy medium

[xviii] Giles C, 2005, Dollar at mercy of central banks, in The Financial Times, 24 January 2005

[xix] Samuelson R, 2005, The Incredible Shrinking Dollar, in Newsweek, 21 March 2005

[xx] Dooley, Folkerts-Landau and Garber, 2003, The Revived Bretton Woods System, National Bureau of Economic Research. Please visit: www.nber.org/papers/w9971

[xxi] Eichengreen B, 2004, The dollar and the new Bretton Woods System, University of California, Berkley. Please visit: http://emlab.berkeley.edu/users/eichengr/policy/cityuniversitylecture2jan3-05.pdf

[xxii] Giles C, 2005, Dollar at mercy of central banks, in The Financial Times, 24 January 2005

[xxiii] Samuelson R, 2005, The Incredible Shrinking Dollar, in Newsweek, 21 March 2005

[xxiv] BBC News, 8 April 2005, India exports hit record high. Please visit: www.bbc.co.uk

[xxv] HM Treasury, November 2004, Forecasts for the UK Economy: A comparison of independent forecasts, Edition No. 209, London

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

[xxvii] For 2005: the median of new forecasts from the November *Review of Independent Forecasts*. For 2006 onwards: the average of medium-term forecasts from the same publication.

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

[xxix] GLA, 2004, The Case for London: London's loss is no-one's gain

[xxx] GLA, 2004, Working Paper 6: Calculating London's tax export

[xxxi] Only part of total UK public expenditure is classified as 'identifiable expenditure' and allocated to a particular UK region or country. Other non-identifiable expenditure has to be allocated to particular UK regions or countries using certain assumptions.

[xxxii] Compensation of employees is the amount of wages and salaries paid by employers to their workers.

[xxxiii] See Chapter 8 of HM Treasury, 2003, Analysis of public expenditure by country and region, in Public Expenditure Statistical Analyses

[xxxiv] ONS, various editions, Financial Statistics

[xxxv] Corporation of London, 2004, London's Place in the UK Economy 2004. Written by the London School of Economics and Political Science for the Corporation of London.

[xxxvi] On a residence basis taxes are allocated to where workers live. On a workplace basis, taxes are allocated to where workers work. As London has considerable net in-commuting this has significant implications for the magnitude of taxes allocated to London.

[xxxvii] Table 8.17 in *HM Treasury, 2004, PESA in 2002-03*. This table presents regional analysis of pay costs components of departments' non-identifiable spending

[xxxviii] Corporation of London, 2004, London's Place in the UK Economy 2004. Written by the London School of Economics and Political Science for the Corporation of London.

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

[xl] Fenwick D and O'Donaghue J, 2003, Developing estimates of relative regional consumer price levels, Economic Trends No. 599, ONS, October 2003

Other formats and languages

For a large print, Braille, disc, sign language video or audio-tape version of this document, please contact us at the address below:

Public Liaison Unit
Greater London Authority
City Hall
The Queen's Walk
London SE1 2AA

Telephone **020 7983 4100**
Minicom **020 7983 4458**
www.london.gov.uk

You will need to supply your name, your postal address and state the format and title of the publication you require.

If you would like a copy of this document in your language, please phone the number or contact us at the address above.

Chinese

如果需要您母語版本的此文件，
請致電以下號碼或與下列地址聯絡

Hindi

यदि आप इस दस्तावेज की प्रति अपनी भाषा में चाहते हैं, तो कृपया निम्नलिखित नंबर पर फोन करें अथवा नीचे दिये गये पते पर संपर्क करें

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

Αν θέλετε να αποκτήσετε αντίγραφο του παρόντος εγγράφου στη δική σας γλώσσα, παρακαλείστε να επικοινωνήσετε τηλεφωνικά στον αριθμό αυτό ή ταχυδρομικά στην παρακάτω διεύθυνση.

Urdu

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

Turkish

Bu belgenin kendi dilinizde hazırlanmış bir nüshasını edinmek için, lütfen aşağıdaki telefon numarasını arayınız

Arabic

إذا أردت نسخة من هذه الوثيقة بلغتك، يرجى الاتصال برقم الهاتف أو مراسلة العنوان أدناه

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਸ ਦਸਤਾਵੇਜ਼ ਦੀ ਕਾਪੀ ਤੁਹਾਡੀ ਆਪਣੀ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੀਦੀ ਹੈ, ਤਾਂ ਹੇਠ ਲਿਖੇ ਨੰਬਰ 'ਤੇ ਫ਼ੋਨ ਕਰੋ ਜਾਂ ਹੇਠ ਲਿਖੇ ਪਤੇ 'ਤੇ ਰਾਬਤਾ ਕਰੋ:

Gujarati

જો તમને આ દસ્તાવેજની નકલ તમારી ભાષામાં જોઈતી હોય તો, કૃપા કરી આપેલ નંબર ઉપર ફોન કરો અથવા નીચેના સરનામે સંપર્ક સાધો.

GREATERLONDONAUTHORITY

City Hall
The Queen's Walk
London SE1 2AA

www.london.gov.uk
Enquiries **020 7983 4100**
Minicom **020 7983 4458**