GLAECONOMICS

London's Economy Tomorrow

London and the GLA's medium-term projections

March 2003

Transport for London

MAYOR OF LONDON

LONDON DEVELOPMENT AGENCY

London's Economy Tomorrow

London and the GLA's short-term projections

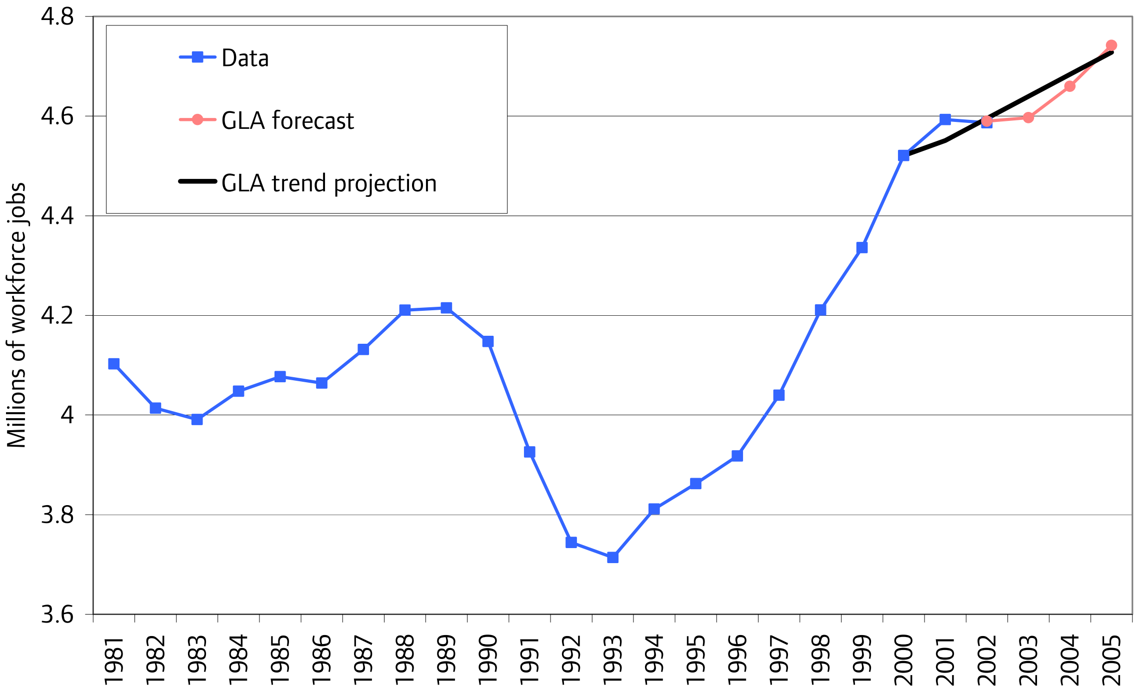
Introduction

This report examines London's prospects in the light of the short-term planning projections prepared by the Greater London Authority (GLA) in January 2003. These projections were produced in order to provide the functional bodies of the GLA with a planning basis (employment, output and household demand) for the delivery of services and business plans over 1-3 years. This report places these projections in the context of current knowledge on the state of London's economy and assesses the associated upside and downside risks.

London and the UK are facing a period of substantial uncertainty with the imminent likelihood of a Middle East war and with considerable turbulence on world stock markets; the possibility of further threat to stability has to be taken into account. GLA Economics has commissioned an initial impact study of the range of possible effects of a Middle East war and this report includes the results of these scenarios.

Projection, trend and data

Chart 1 Historic and projected workforce jobs[1]



Source: Experian Business Strategies (EBS) forecast and historical data, GLA Economics and Volterra (growth trend)

It is necessary to distinguish between the long-run or trend projections which underlie the London Plan, the short-term planning projections, and the actual course of the economy over the cycle. In 2000 the GLA adopted long-term projections for the trend in London's jobs, and output derived from an analysis of the principal trends in the contribution to output of jobs in these sectors. These were applied, taking into account local knowledge, to provide basic planning guidelines for transport, housing and office space. They hence underlie all of the main

[1] See appendix 1 for definition of 'workforce jobs'.

projects that translate this into practical plans, many with duration of ten years and more to completion.

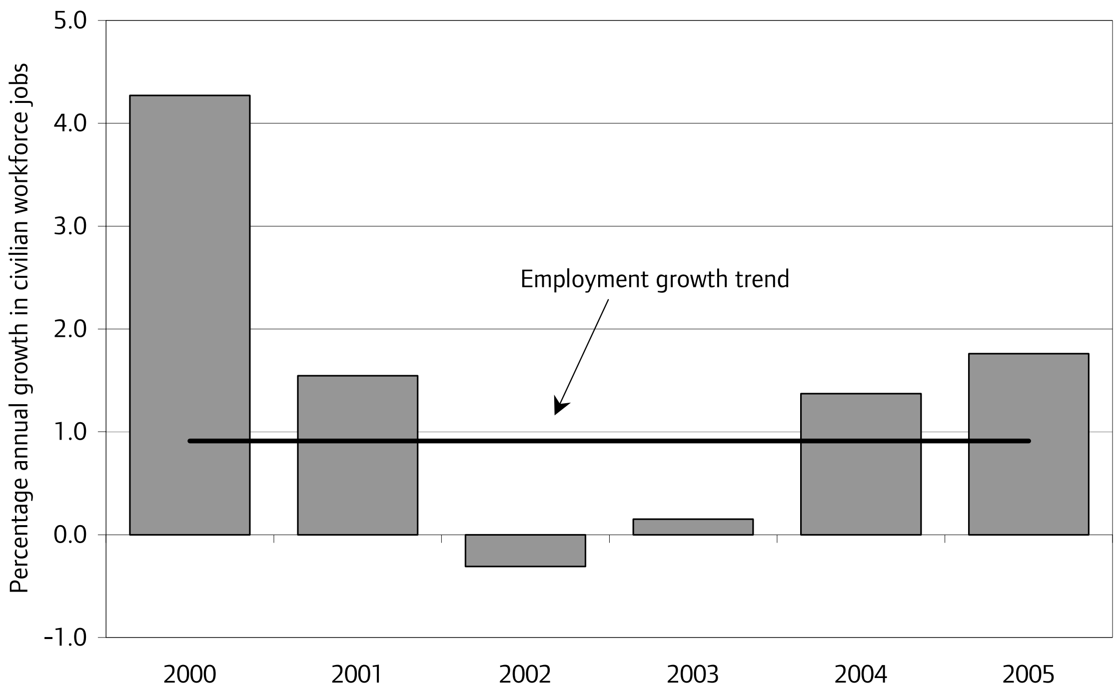
Trend projections do not incorporate cyclic variations and constitute estimates of jobs and output at comparable points in the cycle. Since the starting point of the trend is close to the peak of the last cycle, the economy will lie below it for much of the cycle, rising to meet it at some point before the next peak. The long-term projections represent what is required to ensure that the economy can function throughout the whole cycle.

Short-term projections provide guidelines to GLA functional bodies to form the basis of business planning and service delivery – for example in deciding the timing of investments and the likely course of revenue. They estimate the jobs and output for which provision should prudently be made at any point in time, that is, the best estimate based on current knowledge of the capacity required over the next three years.

Neither long nor short-term projections carry a guarantee of accuracy. Noise in the system means that the short-term projections, in particular, are subject to error. One way of dealing with this is to produce forecast ranges. This is the approach taken, for example, by the Bank of England in its inflation report. Another is to abstract from the difficulty by asking how far the emerging observations generate a deviation from long and short-term projections, which are likely to undermine it. This is the approach taken here.

The projections

Chart 2 Forecast job growth, baseline scenario



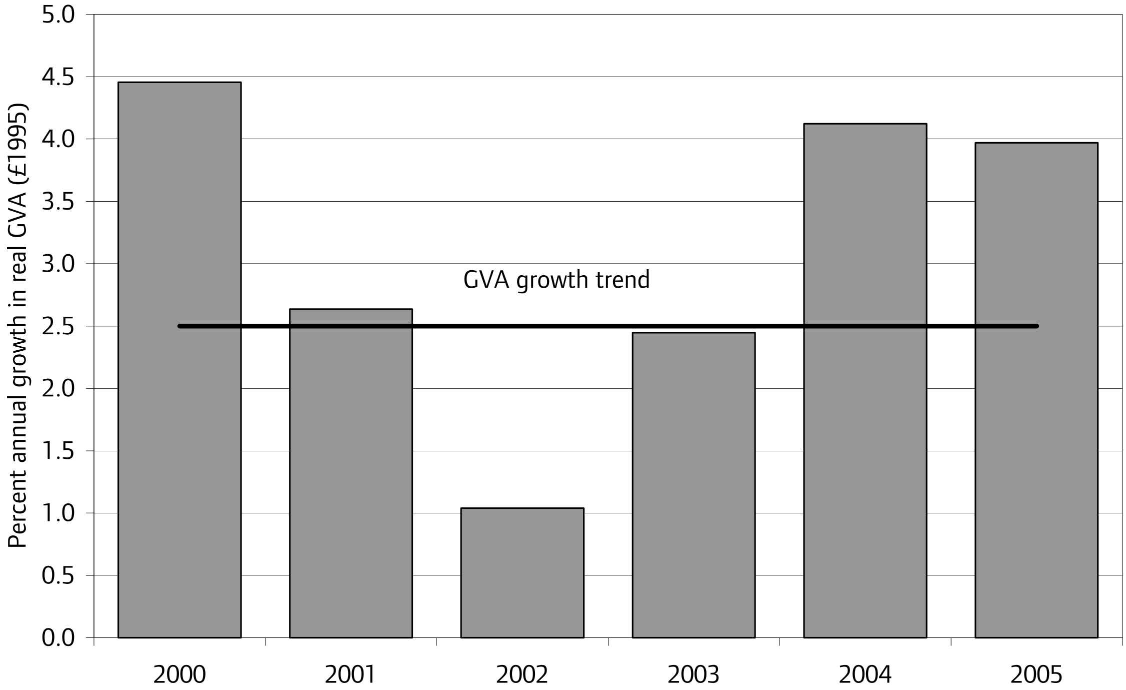
Source: Experian Business Strategies (forecast growth) GLA Economics and Volterra (trend)

GLA Economics have commissioned Experian Business Strategies (EBS) to prepare projections which combine the GLA's long-term population and employment projections, the Treasury's output projections from the pre-budget report, and more recent data revisions.

The assumptions behind the projections come from two sources. The labour supply in London is first estimated assuming that, while varying cyclically, it will rise to meet the long-term projections in 2010. EBS's standard UK forecast was then constrained by the Treasury's UK output and consumption growth assumptions, issued with the pre-budget report for 2002[2]. This was with the exception of the year 2003, where GLA Economics considered the Treasury's own forecast growth rate of 2.8 per cent over-optimistic. For that year, the forecast applies the more prudent rate of 2.4 per cent given as the average of forecasts made in the previous three months[3].

The core projections provide growth rates for civilian workforce jobs in London, for output (GVA) in total and for five broad sectors, and for household spending. Table 2.1 in appendix 2 gives details of these growth rates, and table 2.2 the corresponding absolute levels.

Chart 3 Forecast GVA growth



Source: Experian Business Strategies (forecast growth) GLA Economics and Volterra (GVA growth trend)

The results are summarised in Charts 2 and 3 which present GVA and employment growth rates over the forecast period, compared to the trend projections. Chart 4 compares forecast overall employment with historic data and with the trend projection.

In line with the consensus view for the UK economy, the forecast suggests that the present downturn will bottom out in 2003.

- GVA growth was one per cent below trend in 2002, will be slightly below trend in 2003 and will rise 1.6 per cent above the trend in 2004.

[2] Treasury (2002a)
[3] Treasury (2002b)

- Employment growth will be 0.8 per cent below trend in 2003 and will rise above trend by 2004.
- Employment will reach 4.74 million by 2005, just above the trend.

War: a risk analysis

The most substantive immediate downside risk is that of war. GLA Economics therefore commissioned an analysis to ascertain the potential impact of a Middle East war on the baseline projections. A general assessment of all risk factors is ruled out by the level of military and political uncertainty and so the impact study isolated the three principal identifiable factors which can be expected to impact London economically.

These are:
- tourism, a major source of London's income
- a spike in oil prices
- a longer and deeper downturn in the US and world economy.

We consider two alternatives, a high-risk and a low-risk scenario. The low-risk scenario supposes:
- a temporary spike in oil prices
- little impact on US and world economy
- a loss of £0.8 billion in London's GDP due to reduced tourism.

The pessimistic, high-risk scenario supposes:
- a bigger and more prolonged spike in oil prices
- a substantial impact on the US and world economy
- tourism hit by the same amount.
-

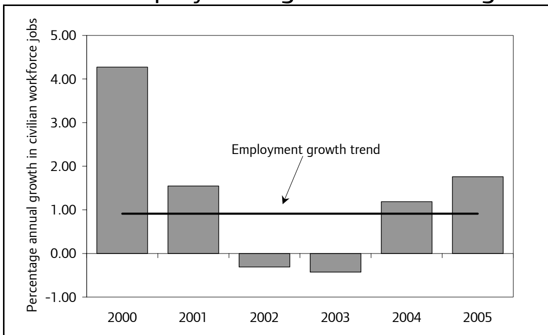
These are informed by a report from the Institute of Directors on the potential economic impact of the war[4]. The potential impact on London's tourism was separately estimated by GLA Economics[5].

In both scenarios examined the result is:
- negative job growth in 2003 (with a loss of between 19,000 and 47,000 jobs), in contrast with the baseline prediction of small positive growth
- reduced GVA growth for 2003 (reduced by between 0.5 and 0.9 per cent) and 2004 (reduced by between 0.2 and 0.4 per cent).

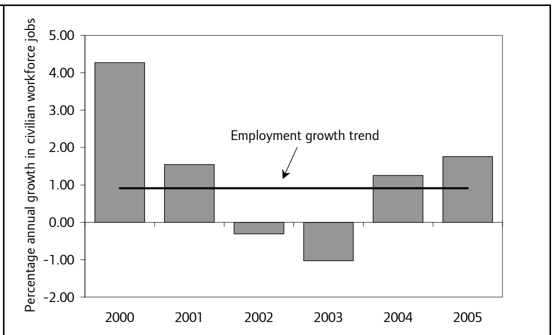
---

[4] IoD (2003)
[5] GLA (2002c)

Chart 4 Employment growth under high and low-risk scenarios



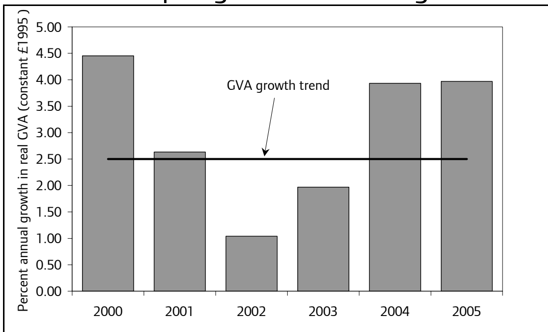
4a: low-risk scenario



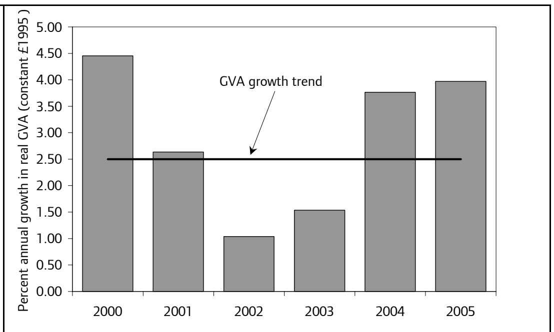
4b: high-risk scenario

Source: Experian Business Strategies (forecast growth) GLA Economics and Volterra (trend)

Chart 5 Output growth under high and low-risk scenarios



5a: low-risk scenario



5b: high-risk scenario

Source: Experian Business Strategies (forecast growth) GLA Economics and Volterra (trend)

Table 1 below summarises the patterns of job change associated with the baseline projections, the low-risk scenario and the high-risk scenario.

Table 1 Baseline, low-risk and high-risk scenarios compared

	2003	2004	2005
Cumulative change in jobs compared to 2002			
Baseline projection	6,930	69,933	151,929
Low-risk scenario	- 19,564	34,695	116,070
High-risk scenario	- 47,240	9,755	90,692
Change in jobs from previous year			
Baseline projection	6,930	63,003	81,995
Low-risk scenario	- 19,564	54,259	81,375
High-risk scenario	- 47,240	56,995	80,936
Departure from baseline projection (cumulative growth)			
Low-risk scenario	- 26,494	- 35,238	- 35,858
High-risk scenario	- 54,170	- 60,178	- 61,237

Though war will thus have a serious impact on London's economy, there is not at present reason to believe that it will be significant enough to warrant a departure from the baseline predictions, and the remainder of this report will therefore assess London's current situation and requirements in the light of these baseline predictions.

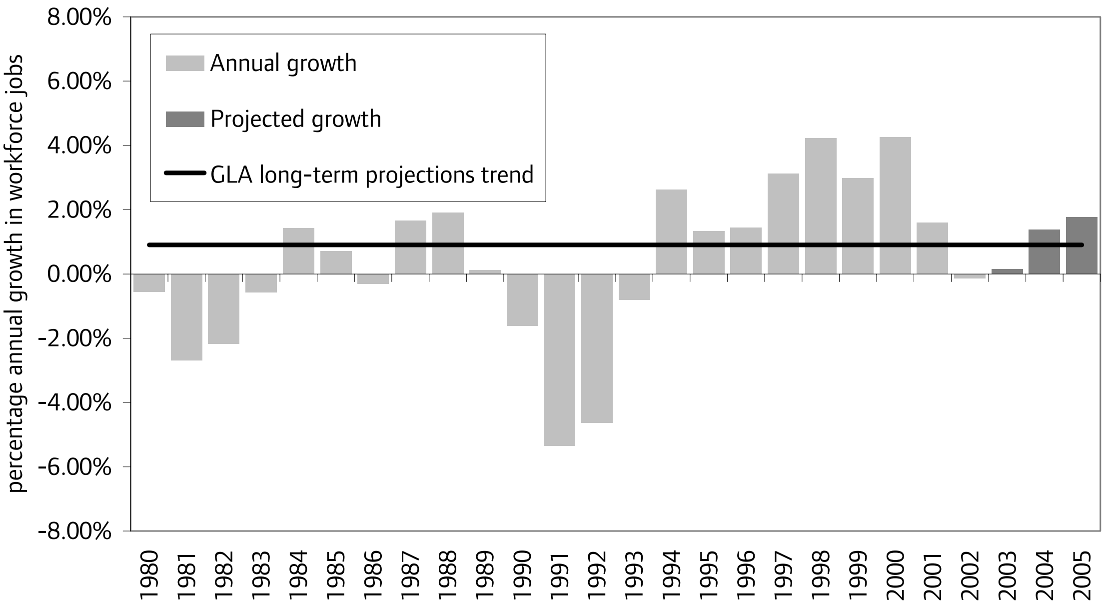
These scenarios incorporate the major identifiable potential risks arising from outside the UK and in particular incorporate the potential impact of disturbances in the US economy. The high-risk scenario should therefore be taken as the lowest possible growth path on the basis of existing information.

London today

Charts 6 and 7 show the short term projections for job and GVA growth, compared with what took place in past cycles.

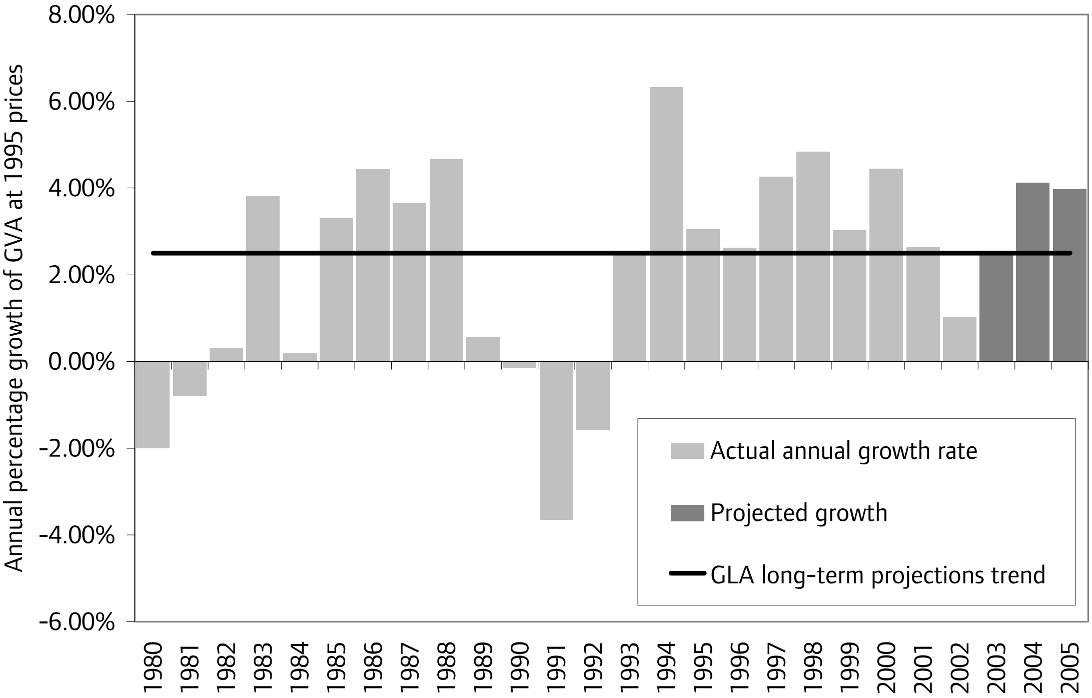
As noted above, the assumptions behind the short-term projections are the authoritative projections of population provided by the GLA's demographic analysis, and of employment derived from Volterra Consulting's analysis of long-term trends in productivity (GLA 2001b). Also, on the other hand there are the Treasury's assumptions about UK output growth published in the pre-budget report for November 2002, modified downwards for 2003.

Chart 6 Job growth rates and trends in the two previous cycles



Source: Experian Business Strategies (forecast and historical data) GLA Economics and Volterra (growth trend)

Chart 7 GVA growth rates and trends in the two previous cycles



Source: Experian Business Strategies (forecast and historical data) GLA Economics and Volterra (growth trend)

Pessimism is a prevalent view. London, like the rest of the world, is passing through a phase of slower growth and some job loss. This occurs in every business cycle. Two questions need to be addressed. First, does anything about the present reduction lead to a conclusion that the trend has changed? Second, what are the associated upside and downside risks?

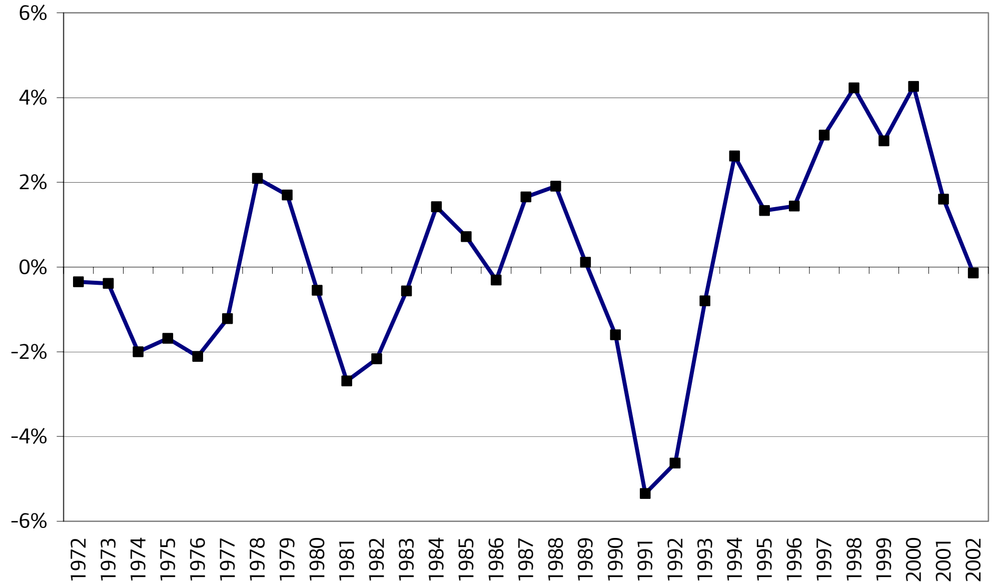
The conclusions of this analysis are that:

- Downside risks are relatively small. Losses in the present cycle have been extremely light compared with the past.
- Major structural changes mean that past sources of job loss have not contributed to the same extent in this cycle and should not be expected to do so.
- A turnaround in the world economy has already started although it is at an early stage.
- On the most pessimistic scenario, by 2004 London's growth rate for both jobs and output will rise above the long-term trend.
- The major risk to London's economy arises from capacity shortages in this upturn.
- London, as the rest of the economy, remains vulnerable to external shocks, above all the Middle East war.

Workforce jobs in London: a cycle around a rising trend

Chart 8 shows the change in London workforce jobs, reported annually, over three business cycles. The dataset used is from EBS. As can be seen, in each of the last three downturns – above all the most recent – job losses were significantly greater than they have been in this cycle. In particular, for London the 1989-93 recession was clearly the worst in recent times and can reasonably be treated, if repeated, as the worst possible variant.

Chart 8 Annual change in civilian workforce jobs in London



Source: ONS and Experian Business Strategies

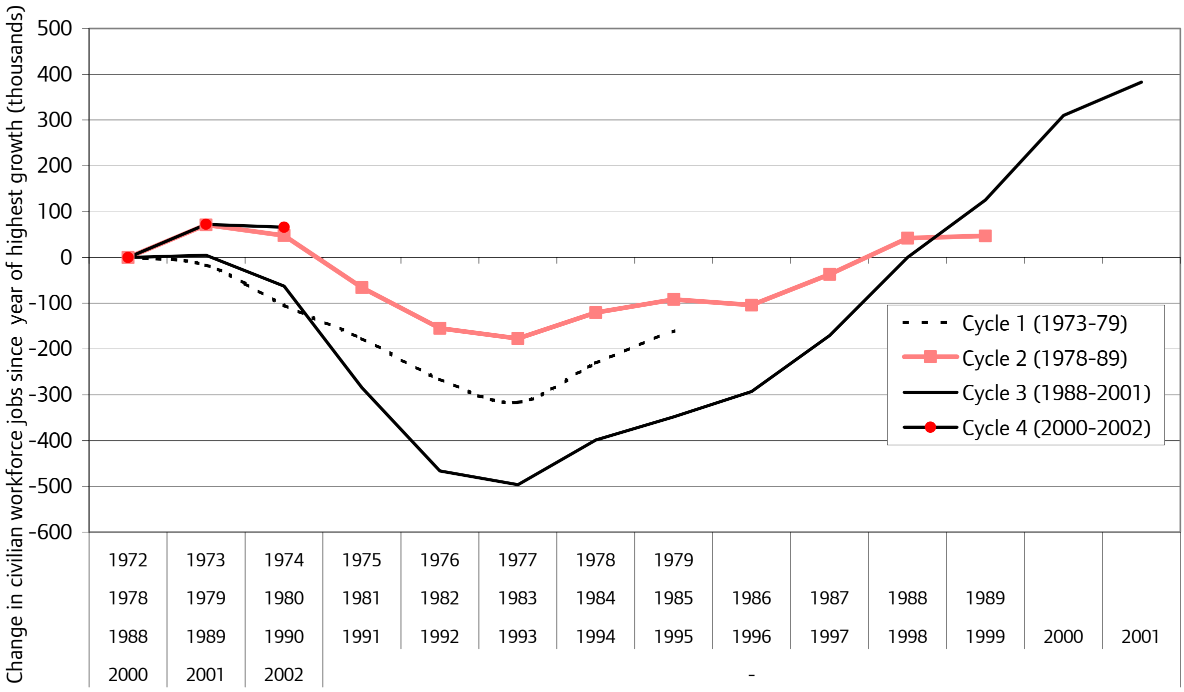
In that recession, year-on-year workforce job losses were recorded for four successive years from 1990 to 1994, reaching an annualised rate of 250,000, 5.6 per cent of the workforce. Over the whole of these four years, 525,000 jobs were lost.

The recent downturn begins from a higher point than the last one. Cyclic variation is superimposed on a growth trend. In order to compare its impact on jobs with the previous cycle, we should begin from the two points when growth rates began to slow, that is, 2000 and 1998 respectively. London's rate of job loss is still barely negative. In 2002, the first year in which any jobs were shed, the total job loss was 7,000, and over 2000-2002 London actually gained 66,000 jobs. In comparison, growth became negative within a year of the start of the last slowdown, within two years, 65,000 jobs had been shed.

Most significant is what took place when the downturn was over. Despite London's greatest recorded job losses, what followed was over eight consecutive years of growth from the low point of 1993 to the high point of 2001, when it acquired 878,000 jobs to end up with a job total that was 377,000 higher than in 1988, an average annual growth rate of 0.7 per cent.

Thus in the worst recession in London's recent history, London's economy nevertheless grew at an annual average of 0.7 per cent, just 0.2 per cent lower than the GLA trend projection.

Chart 9 Job losses and gains in past cycles



Source: Experian Business Strategies

Which jobs were lost?

What is the risk that such a pattern will be repeated? When we examine the actual pattern of job change in London over the recent past, it becomes clear that the job losses of this worst case scenario are unlikely to be repeated, while there is every reason to suppose the job growth will be repeated. Thus the extreme volatility manifested in the previous worst case should be treated as a one-off structural change, with scant evidence to support the thesis that the pattern will recur in the current downturn.

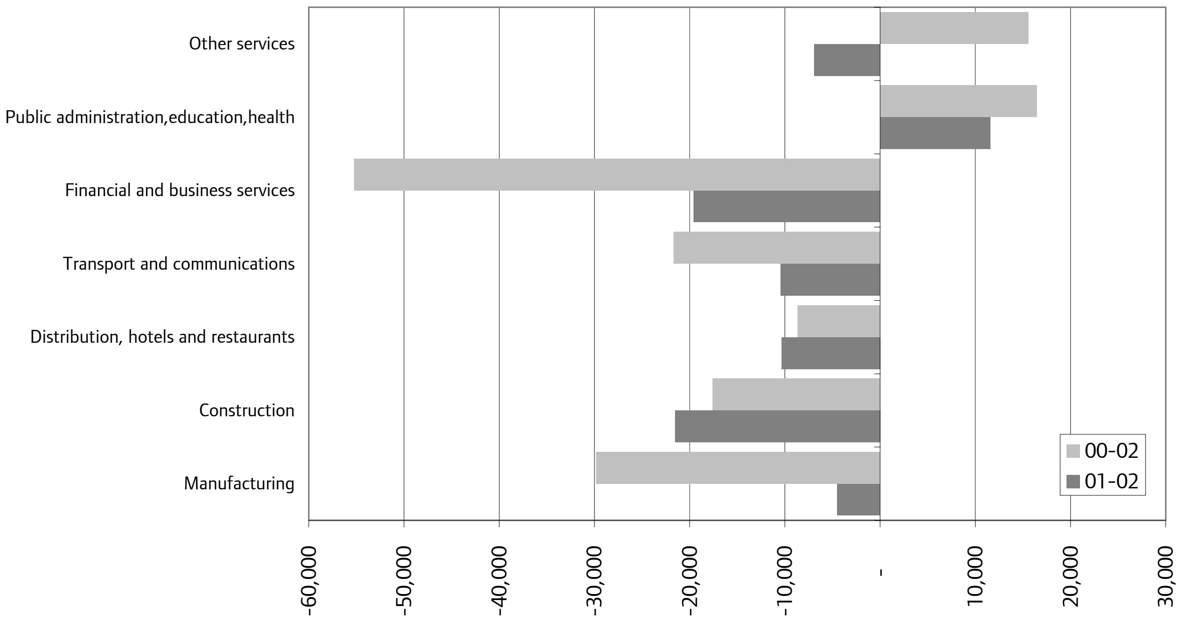
Which jobs are actually being lost? The first point to note is that three-fifths of the 500,000 jobs lost between 1988 and 1993 came from the manufacturing sector. This should be compared with the recent past in which manufacturing losses have accounted for one-third of the total. This is a structural feature of London's new economy; it has only 300,000 manufacturing jobs and therefore, job losses on the previous scale are not just unlikely but numerically almost impossible.

Second, losses in the financial and business sector also have to be differentiated, since they are heavily driven by losses in the narrow area of financial intermediation, concentrated in the City.

As Chart 11 indicates, the City accounts almost alone for nearly half of the employee jobs lost between 2000 and 2001[6]. So far there is no evidence that the scale of these losses are being repeated generally.

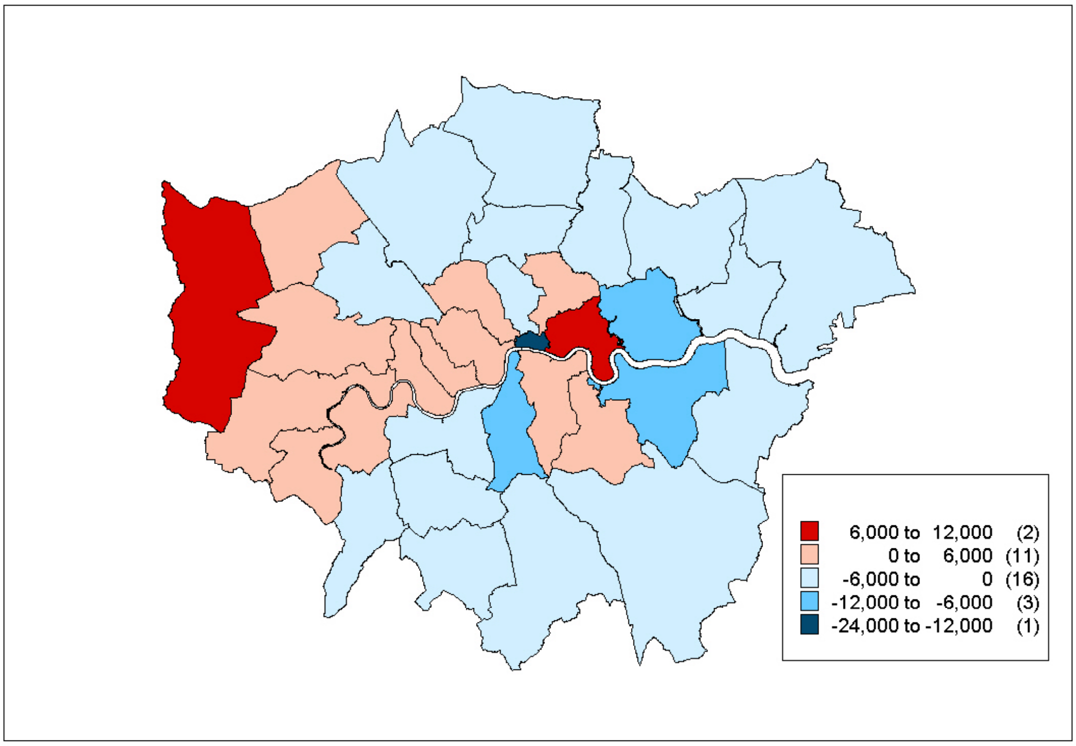
[6] Figures in this section, from the ABI 2001, refer to employee jobs and exclude self-employed. They therefore differ slightly from the figures in the last section. See Appendix 1.

Chart 10 Sources of job changes since 2000



Source: ONS. Changes are from December 2000 to December 2001 and September 2002 respectively.

Chart 11 Geographical distribution of employee job change 2000-2001



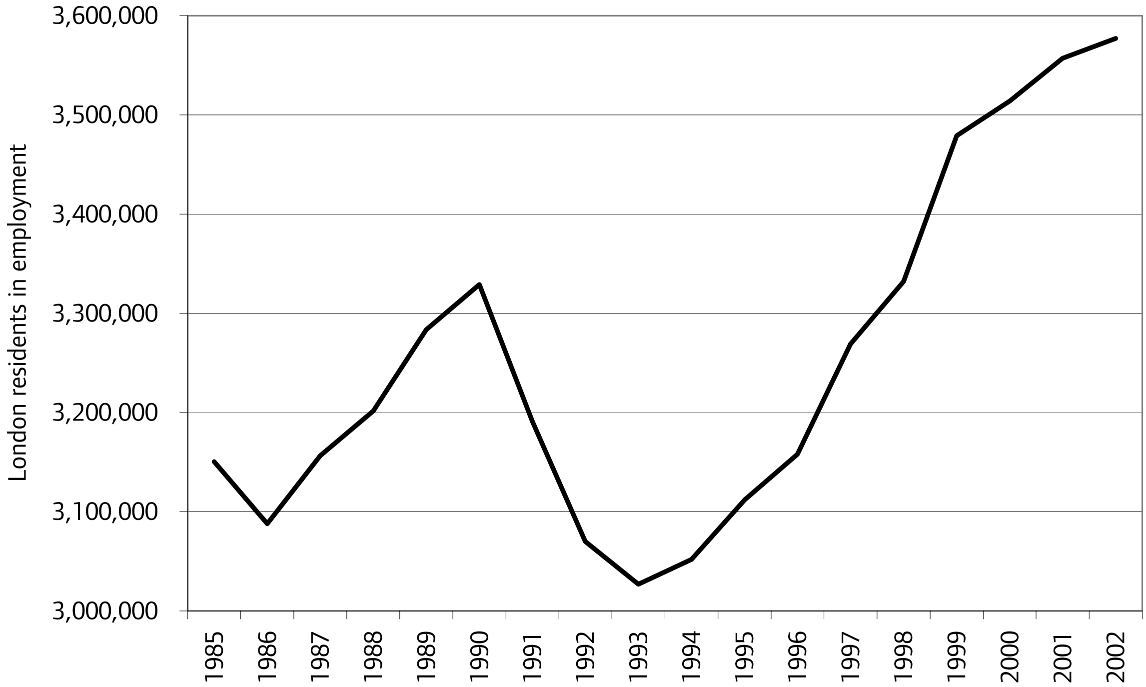
Source: Annual Business Inquiry 2001

The City's 23,000 job losses accounted for nearly half the total employee jobs lost over the period 2000-2001, during which time 14 boroughs gained jobs and only 3 boroughs lost more than 8,000. Moreover the 10,000 jobs gained by Tower Hamlets – site of Canary Wharf – made up nearly half the jobs lost in the City.

Employment and population

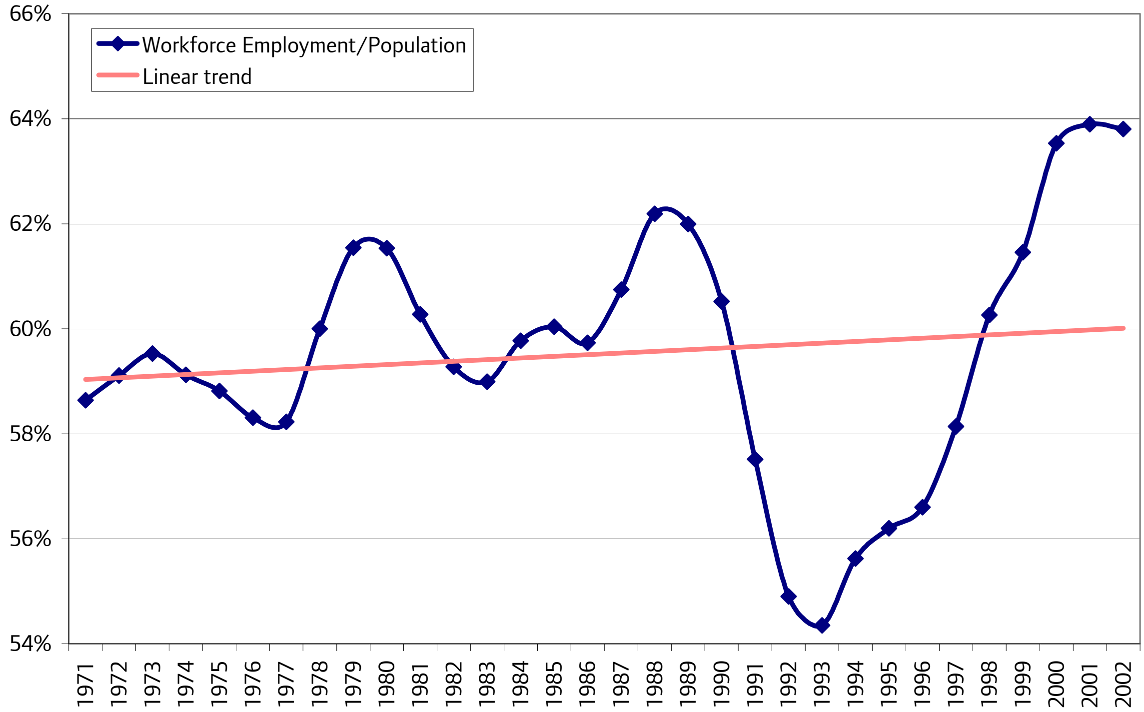
The next point to note is that the job gains of the whole of the last period from 1980 onwards have to be set against a fundamental change in the demographic patterns governing London's growth. From 1983 onwards the population began growing. Either, therefore, people are moving to London and on balance deciding not to move out, regardless of whether they find work, or the population growth reflects changes in the job market itself.

Chart 12 Residential employment in London



Source: NOMIS (1992-2002), Annual LFS (1985-91)

Chart 13 Employment as a percentage of total population, over three cycles



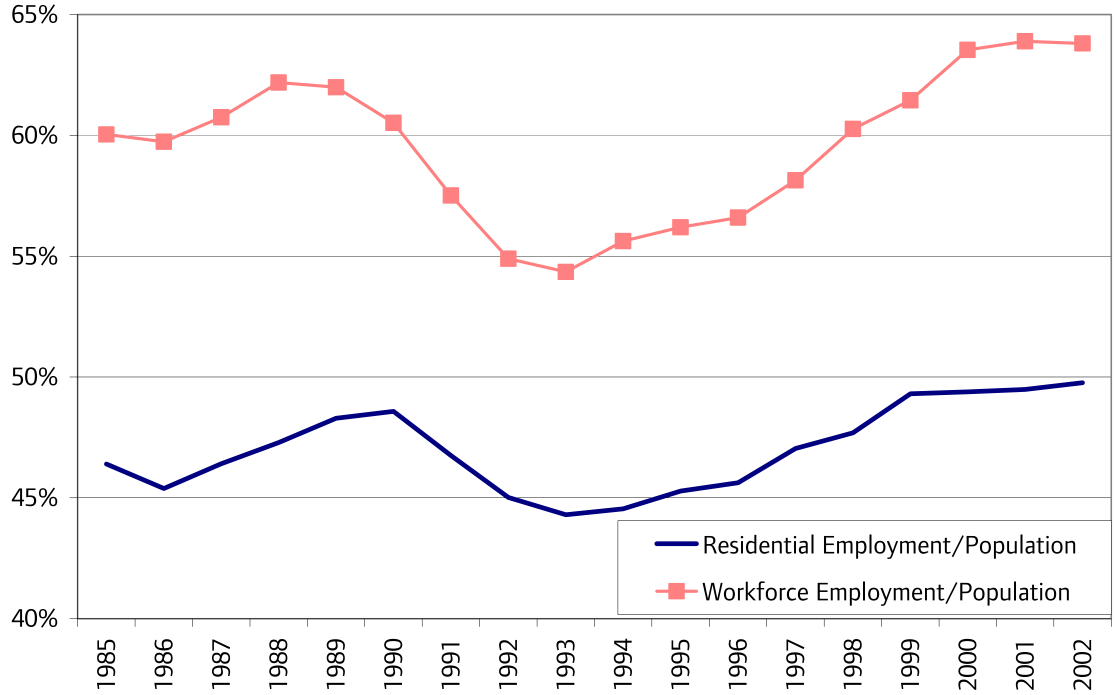
Source: employment EBS; population revised by the GLA in accordance with 2001 census

The question can be summarised as follows: to what extent is London's population growth matched by job creation? The evidence that the jobs are an integral part of the expansion is extremely strong.

Chart 13 shows employee jobs in London as a proportion of the population over the previous three cycles. Chart 14 shows the equivalent proportion for London residents over a more limited time scale. Two clear trends emerge. First, there is a secular trend for jobs to rise in relation to population. Even if the ratio in chart 13 were flat, jobs would rise in line with population; in fact the ratio is rising, indicating that the trend in job creation is outpacing the growth in population.

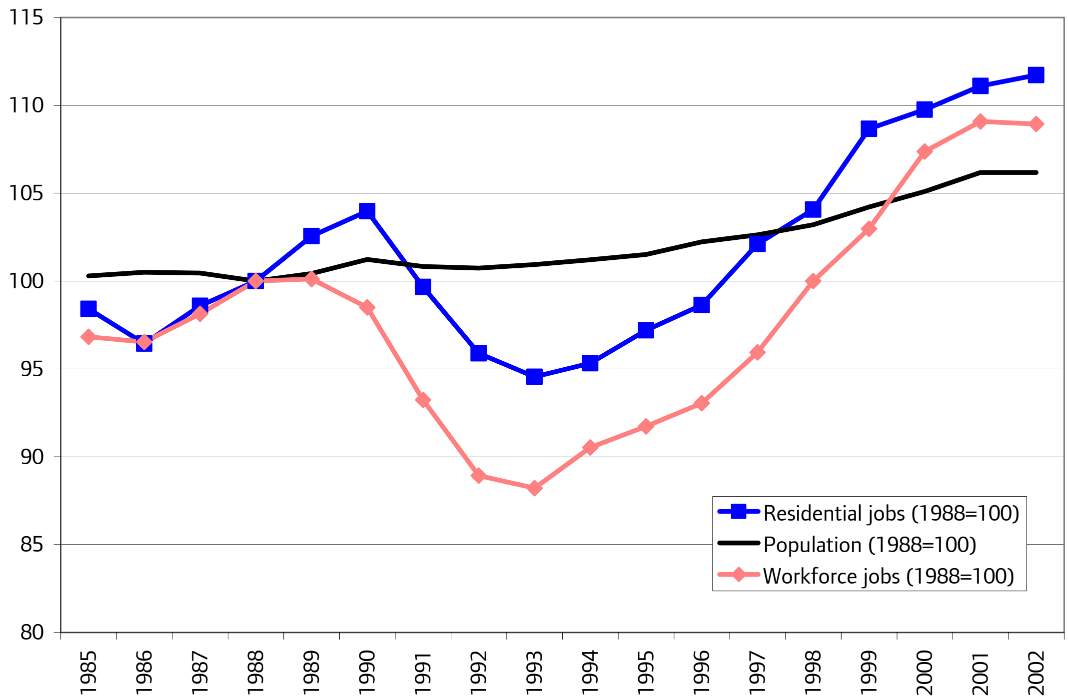
This is confirmed by a further trend. Charts 14 and 15 show that residential London employment is less cyclically volatile than workplace employment; from 1993 it has risen continuously and has not yet turned down. Although we do not currently have data for residential employment prior to 1985, it can be seen that 300,000 residential jobs were lost between the peak and the trough of the last cycle, compared to 500,000 workforce jobs, which is both proportionately and absolutely lower.
It appears that overall, commuters into London are more vulnerable to cyclic job losses than London residents. So far, there has been no net loss of Londoners' jobs, which is confirmed by the fact that the rise in the number of London's claimant unemployment is so far insignificant in comparison with previous cycles.

Chart 14 Residential and workforce employment as a percentage of population



Source: Annual Business Enquiry (workforce jobs), Labour Force Survey (Residential employment), ONS and GLA Economics (population)

Chart 15 Changes in population and employment since the last downturn

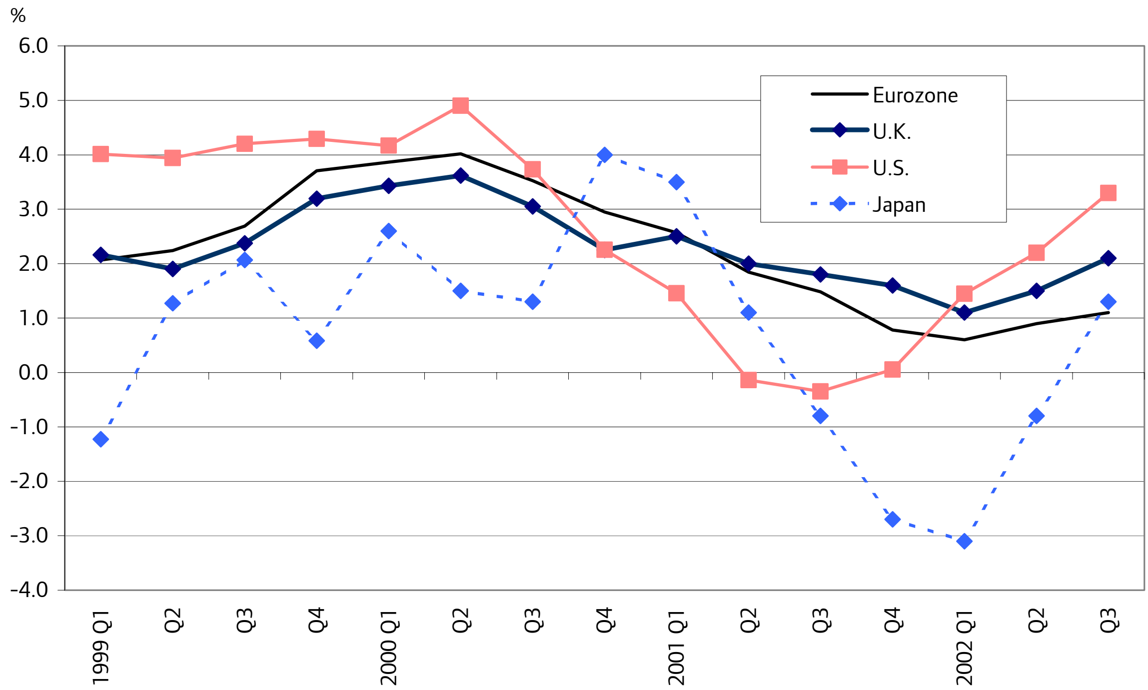


Source: Annual Business Enquiry (workforce jobs), Labour Force Survey (Residential employment), ONS and GLA Economics (population)

These two trends taken together signify first that London's employment growth is not separable from its population growth. Not only are workforce jobs growing faster than population, but there is clearly a slow but systematic trend for these jobs to be taken by residents.

Preparing for the upturn

Chart 16 Output growth in the G7 countries



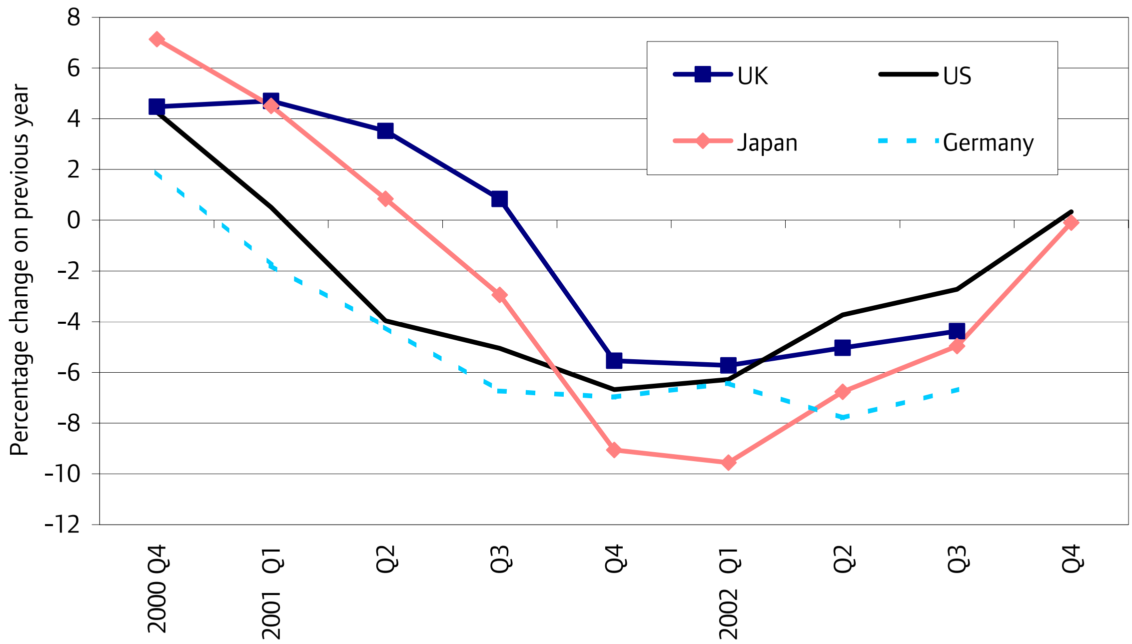
Source: Treasury

The world economy remains vulnerable to further external shocks, and its growth is extremely uneven. Nevertheless the international evidence strongly suggests that a phase of upturn is beginning. As charts 12 and 13 show, a turnaround in two key indicators of world activity – output and investment – has already taken place. The growth of such a key determinant of demand as investment is still negative but rates of decline have significantly lessened and in the case of the USA, rates are positive. Output growth is positive in all the main zones of the industrialised countries.

There are two downside risks. Firstly, as retail spending tails off, investment has to replace it as a source of demand. This process is starting but further contraction is possible if it does not rise rapidly or soon enough. Secondly, it takes time for positive world growth to feed through to employment.

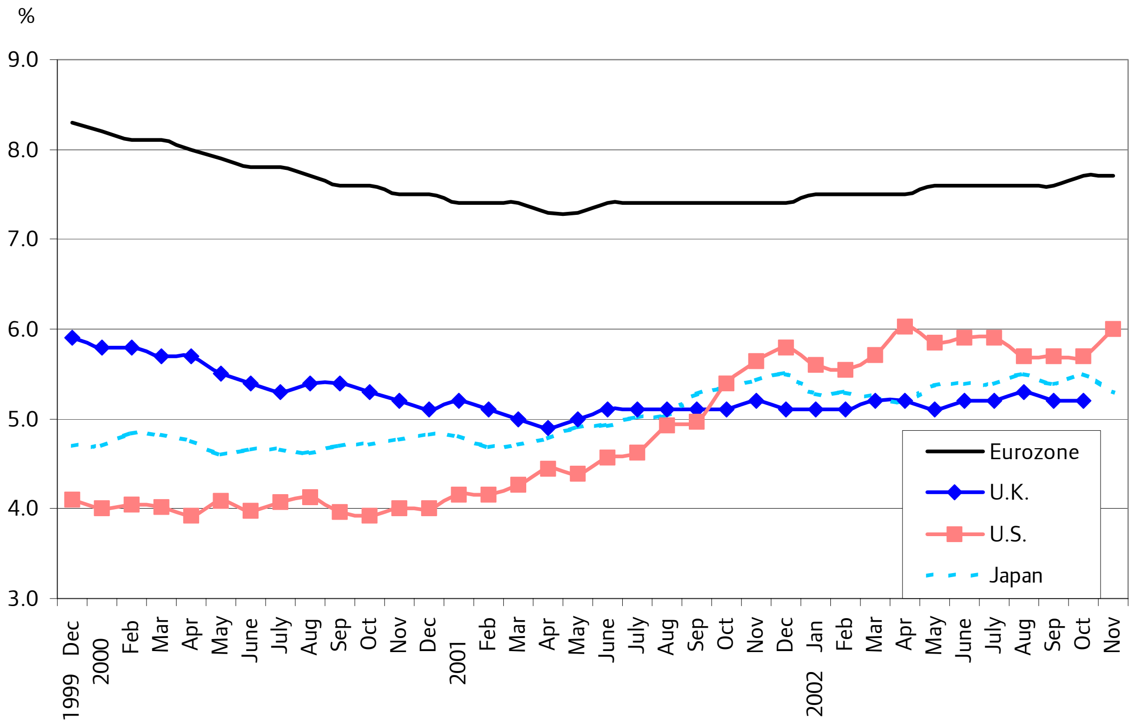
Indeed since mid 2001, as Chart 18 shows, unemployment in the UK has been the lowest of the advanced countries, suggesting that it is less affected than the others by the downturn, and has something of a special position among them.

Chart 17 Investment growth in the G7 countries



Source: Treasury

Chart 18 World standardised unemployment rates



Source: Treasury

To summarise; there is every probability that growth in London will rise within the forecast period to the trend levels. The only open question is how long this will take.

Recent downward revisions in the Bank of England's forecast for UK growth, and indications from the Treasury that they do not expect their 2003 forecast target to be met, suggest that the GLA was prudent in adopting the lower consensus UK growth rate for 2003 in place of the Treasury's UK forecast. However, there is no indication from the UK forecasts listed in the Treasury's *Review of Independent Forecasts* that a further downward revision is called for, or that the 2004 and 2005 UK growth rates will fall below the rate assumed in preparing the GLA's projections. Thus output and job levels should be expected to return to the long-term trend by 2005 at the latest.

In this situation, the greatest risk continues to be a failure to prepare for the upturn. When this begins, London must be ready to accommodate a phase of growth which will test to the limits its capacity to accommodate the fledgling new industries it has incubated. The greatest risk is underestimating what this requires.

London: a UK asset

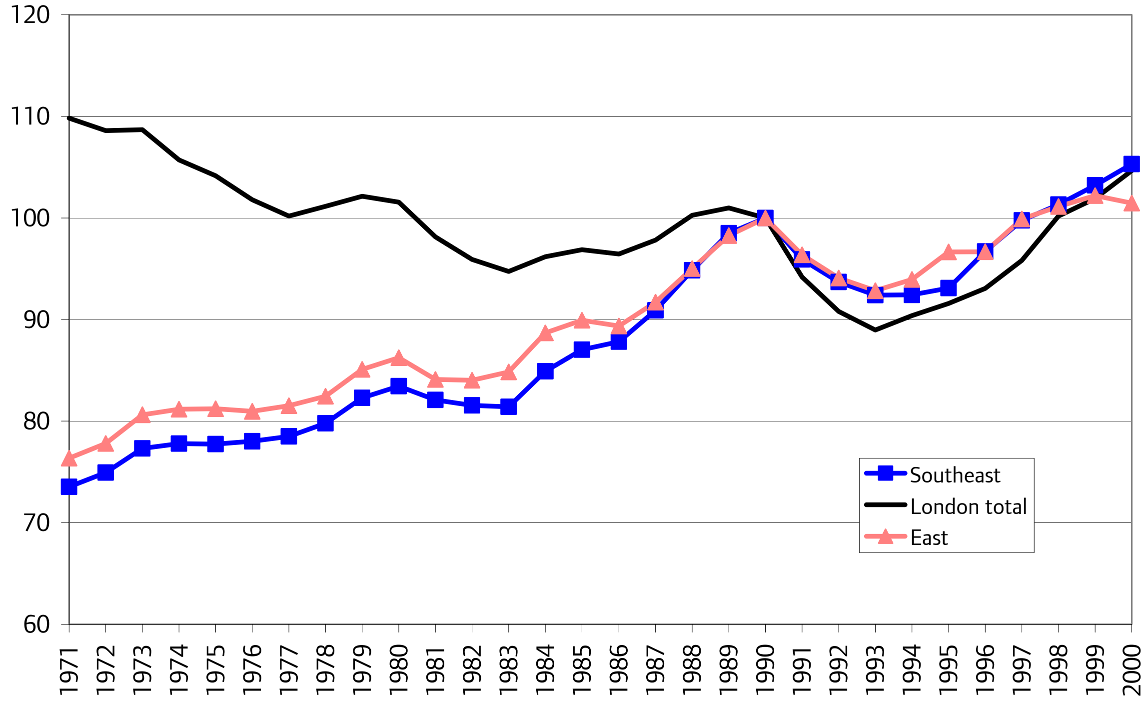
The UK's growth is inseparable from that of London, whose wealth and income are transmitted to the rest of the country. London consumes goods from the UK and the wealth that it generates is spent by businesses on intermediate goods produced in the UK, by consumers purchasing goods from the UK and by commuters into London spending their wealth outside London but in the UK. Thus The Centre for Economic and Business Research (CEBR 2001:28) estimated London's imports from the UK in 1998 at £89 billion, in comparison with £39 billion imported from the rest of the world.

Moreover the relation of London's growth to the surrounding regions has also clearly gone through a step change. As Chart 19 shows, until 1990 the growth of London, and the two regions abutting it (eastern and south eastern), ran along quite different tracks. In 1990 the growth paths converged, and over the past decade, job growth in the three regions moved together suggesting a high level of economic integration. A similar pattern was identified in *Creativity: London's Core Business*, which showed that the creative industries were expanding most rapidly in London and in the southeast. London's wealth creation is thus becoming part of a chain in which the southeast as a whole is increasingly integrated into, and shares in, London's process of change.

Thus London is not just 'another region' and, more specifically, it is not just another drain on resources: it is an earner. It makes wealth for the UK. In particular, the sectors that have been growing in London are precisely those that are the leading edge of the UK's growth.

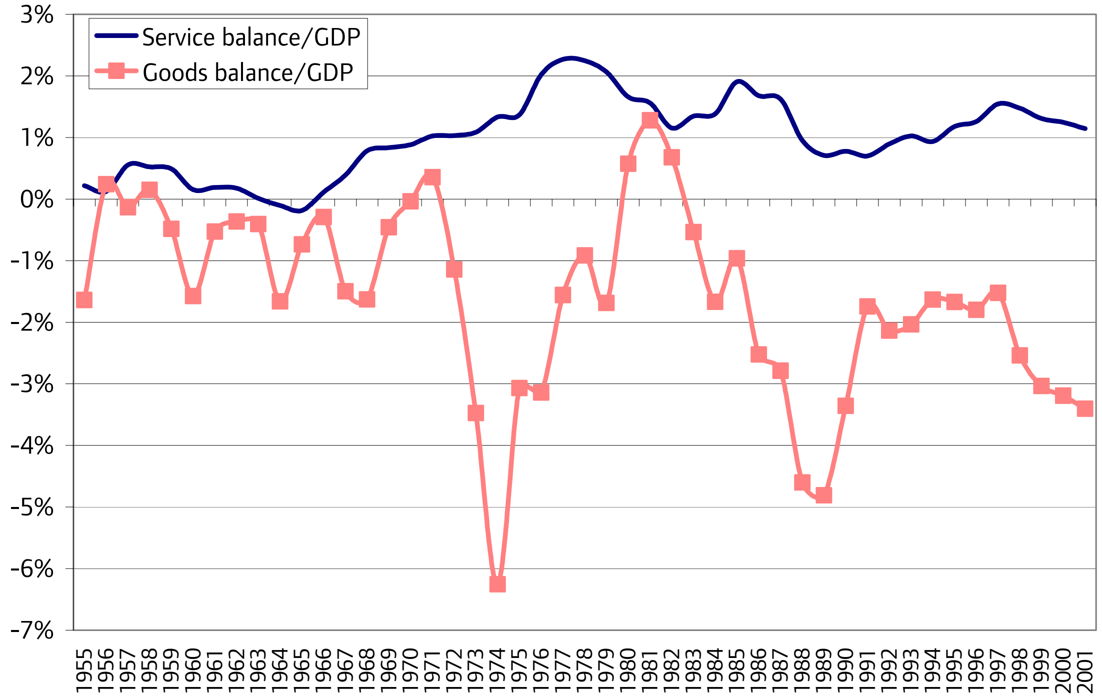
London contributes to the UK's wealth through a series of mechanisms, of which the most important indicator is its contribution to exports. This can be seen in the balance of trade in imports and exports. The service balance is also clearly less cyclically volatile; manufacturing is the principal transmission belt for external shocks to the UK economy and the service-led character of London's economy serves as a stabilising influence.

Chart 19 Growth of London and the surrounding regions



Source: Cambridge Econometrics Regional Economic Prospects (CE 2002)

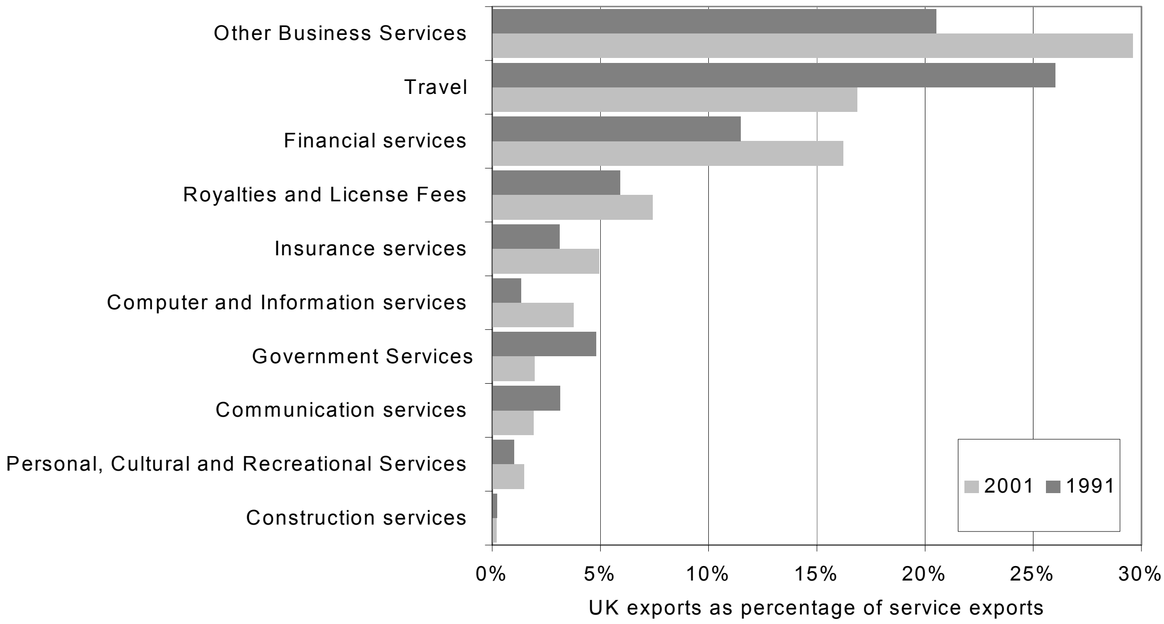
Chart 20 Balance of trade in goods and services



Source: ONS

In 2001 service exports amounted to seven per cent of UK GDP, a decisive contribution to its wealth and competitiveness. The role of the sectors in which London specialises is clear from a breakdown of service exports by sector, shown in Chart 21

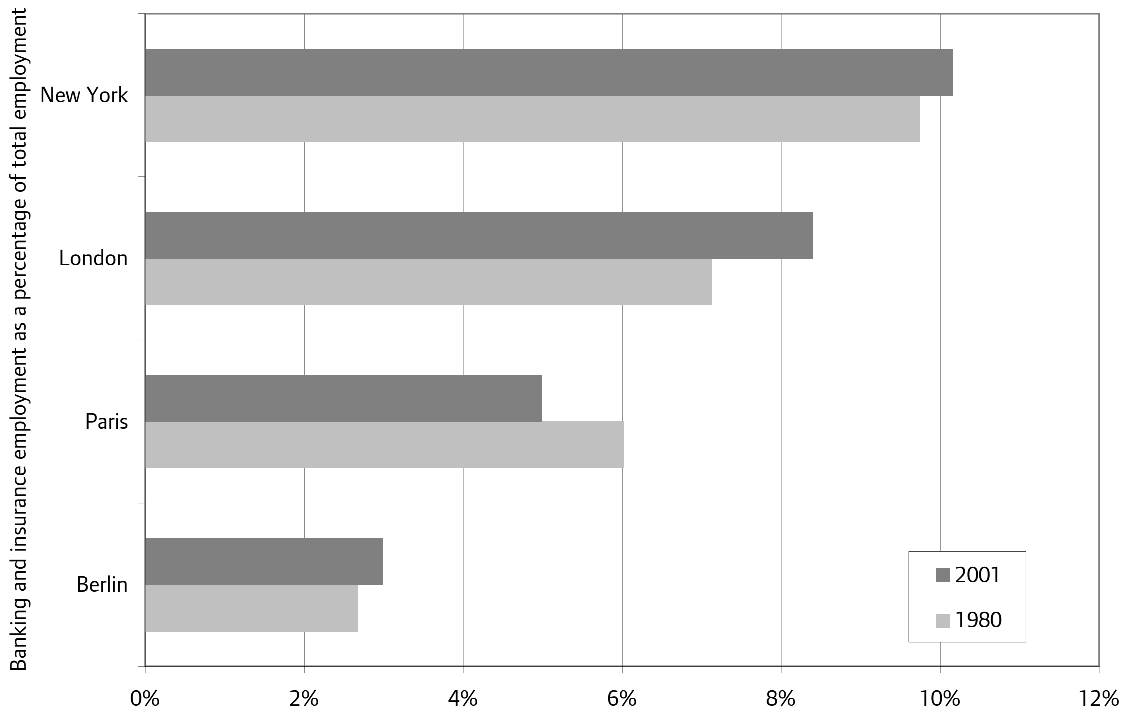
Chart 21 Exports of services as a percentage of total, 1991-2002



Source: ONS

The growth and size of financial and business services, and the significant size of royalties and license fees, are a clear indication of London's contribution to this export success. As Chart 22 shows, London is not only in the same global league in the provision of financial services as its partner world cities, but is second only to New York in the size of this sector, measured by its employment, and is growing fastest of all four.

Chart 22 Finance sector employment in the world's capitals



Source: BAK International Benchmark Club

The forces that lead such industries to concentrate in London despite its high costs are rooted in the fact that institutions require direct and rapid access to their customers and suppliers, which need to bring together in one place their key intellectual and creative assets, and which sell to millions of customers world wide. They will be unlikely to locate anywhere which is not itself a global city. The problem facing London in the short to medium-term is to provide the infrastructure, human capital and other supply conditions that ensures they are not lost to the country by being lost to the capital.

Conclusion

We conclude that current developments show no evidence of any significant departure from the long-term trend projections presented in *Planning for London's Growth* (GLA 2001a). Indeed, the projections that we have here suggest that, even in the worst case, London's output and employment will rise to the long-term trend level by 2005 at the latest.

Even if the economy plunges back into recession and were to retrace the worst known recession in its recent history – that of 1989-1993 – its growth rate would still bring employment up to the long-term trend during the next cycle.

The most important risks therefore remain on the upside; the key task facing London is to prepare for an upswing, which as is already known, will rapidly run up against the capacity constraints imposed by the existing infrastructure.

Appendices: London's statistics

Appendix 1: terms and sources

Population: Population figures have been revised in the light of the 2001 census by the GLA's Data Management and Analysis Group.

Employment: In this report unless otherwise stated 'employment' means *Civilian Workforce Jobs* as defined below. There are two ways of looking at employment: the number of people with jobs, or the number of jobs. The two concepts represent different things as a person can have more than one job.

There are also two ways of looking at the location of a given job: *workplace* employment estimates the number of people working at a given location, and who therefore travel to that location; *residential* employment estimates the number of people who have a job and live in a given location.

The number of people with jobs is measured by the Labour Force Survey (LFS) and includes people aged 16 or over who did paid work (as an employee or self-employed), those who had a job that they were temporarily away from, those on government-supported training and employment programmes, and those doing unpaid family work. Although the Labour Force Survey does provide information about workplace employment, it is chiefly used as a source of information on residential employment. The exception is self-employment for which it is assumed that the place of work and place of residence are the same.

The number of workplace jobs, usually termed *employee jobs,* is measured by the *Annual Business Enquiry* and the *Short-term Employment Survey*.

Workforce jobs represent the sum of: employee jobs, self-employment jobs from the LFS, those in HM Forces, and government-supported trainees. Vacant jobs are not included. Civilian workforce jobs, the most usual measure of workforce jobs, excludes those in the HM forces (who number around 14,000 in London).

EBS also supplies the GLA with estimates of International Labour Organisation (ILO) employment figures, the denominator in the ILO unemployment figures. This is the same as LFS residential employment. They also supply Full-Time Equivalent (FTE) employment, defined as the sum of full-time jobs, 40 per cent of part-time jobs, and self-employment. Employment forecasts are available broken down by gender, part-time/full-time, and age-group.

Output: regional output is reported, in line with the European standards termed ESA95, as Gross Value Added (GVA). This is sometimes termed Gross Domestic Product (GDP) at basic prices, and has replaced the concept of GDP at factor cost in the European Accounts system. It is the total net product, measured at market prices, less taxes on output levied at the point of production, plus subsidies levied at the point of production.

For forecast purposes the most important variable is real output, corrected for inflation, and this is estimated throughout this report at constant 1995 prices. All growth rates refer to real GVA growth rates.

Estimates of nominal regional GVA are available for a limited number of years (up to 1999) from the Office of National Statistics. No official estimates of real regional GVA are available because of the difficulties in producing authoritative regional price indices. Most regional forecasters therefore supply their own estimates of London's output. The London GVA figures used to estimate the forecast, and the forecasts themselves, are supplied by EBS, and coincide with that of the ONS for the year 1995. In this year the nominal and real figures are the same apart from a minor adjustment to reflect ONS's revisions to estimated UK GVA in 1995.

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.

Appendix 2: summary of the forecast

Table 2.1 Projected growth

Percentage growth to next year	2000	2001	2002	2003	2004	2005
Output (GVA)	4.5	2.6	1.0	2.4	4.1	4.0
Employment (civilian workforce jobs)	4.3	1.5	-0.3	0.2	1.4	1.8
Financial and business services output	6.7	5.8	1.1	1.2	4.7	5.3
Distribution, hotels and catering output	5.1	-0.1	3.0	1.7	3.6	3.3
Transport and communications output	6.8	4.4	-0.3	4.1	5.8	5.2
Other (mainly public) services output	3.0	1.4	2.1	1.9	3.9	3.0
Manufacturing output	2.1	-0.9	-3.3	1.5	3.7	2.7
Household spending	5.9	4.1	3.3	2.2	3.0	3.4

Source: Experian Business Strategies

Table 2.2 Projected absolute levels

£ billion at 1995 prices (except employment)	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Output (GVA)	130.7	134.1	135.5	138.8	144.6	150.3
Employment (millions of civilian workforce jobs)	4.53	4.60	4.59	4.60	4.66	4.74
Financial and business services output	53.6	56.7	57.3	58.1	60.8	64.0
Distribution, hotels and catering output	18.6	18.6	19.2	19.5	20.2	20.8
Transport and communications output	18.7	19.5	19.4	20.2	21.4	22.5
Other (mainly public) services output	28.2	28.6	29.2	29.8	30.9	31.8
Manufacturing output	11.0	10.9	10.6	10.7	11.1	11.4
Household spending	79.1	82.3	85.1	87.0	89.6	92.6

Source: Experian Business Strategies (forecast and historical data) GLA Economics and Volterra (growth trend)

Appendix 3: population

Table 3.1 Population projections, revised in line with 2001 census

	1,991	1,996	2,001	2,006	2,011	2,016
Barking and Dagenham	145,370	156,286	164,346	173,362	182,714	191,951
Barnet	298,129	303,712	315,267	323,277	330,218	336,605
Bexley	218,336	217,867	218,756	217,675	217,231	217,423
Brent	246,937	248,306	263,805	280,271	295,099	307,883
Bromley	293,460	291,523	296,155	297,659	298,881	300,658
Camden	178,622	181,855	198,432	213,361	225,356	234,962
City of London	4,111	5,399	7,216	8,751	9,942	10,903
Croydon	317,411	328,495	331,530	333,263	335,200	337,530
Ealing	279,948	291,315	301,553	312,960	323,848	333,592
Enfield	261,548	263,108	274,343	284,301	293,827	302,715
Greenwich	211,875	208,582	215,238	224,282	233,526	242,501
Hackney	185,614	190,560	203,352	216,894	228,812	239,401
Hammersmith and Fulham	153,820	153,092	165,476	177,563	187,537	195,457
Haringey	208,728	209,946	216,809	223,994	230,932	237,539
Harrow	202,560	206,037	207,988	207,546	207,062	207,718
Havering	231,544	227,903	224,720	218,864	214,632	211,811
Hillingdon	235,045	240,193	243,052	243,820	245,294	247,077
Hounslow	207,612	205,051	212,668	220,144	227,062	233,351
Islington	170,850	172,981	176,103	180,914	186,331	191,504
Kensington and Chelsea	143,327	140,684	159,147	170,079	175,301	178,893
Kingston upon Thames	136,237	138,592	147,625	153,768	158,941	163,612
Lambeth	252,705	257,229	266,791	279,203	292,298	304,379
Lewisham	237,697	240,711	249,451	257,333	265,418	273,339
Merton	170,849	179,943	188,348	197,763	206,429	214,047
Newham	218,312	227,823	244,291	260,381	274,730	287,717
Redbridge	229,741	230,850	239,329	245,757	252,238	258,607
Richmond upon Thames	163,390	169,819	172,808	174,086	174,402	175,235
Southwark	224,240	229,980	245,416	261,019	276,051	289,725
Sutton	170,582	175,537	180,174	183,309	186,202	189,067
Tower Hamlets	165,849	179,467	196,630	216,816	236,018	253,850
Waltham Forest	216,002	219,386	218,649	222,477	228,165	234,214
Wandsworth	261,386	258,022	260,847	270,408	282,945	294,275
Westminster, City of	183,761	171,266	181,691	190,238	196,703	201,521
Greater London	6,825,598	6,921,520	7,188,006	7,441,538	7,679,348	7,899,063

Source: ONS and GLA Data Management and Analysis Group

Sources

Individual references are supplied here for specific documents to assist the reader in locating the source of the data which GLA Economics used. Data in the public domain are referenced in this report by the name of the supplier. Data whose dissemination is restricted by copyright is referred to also by the name of the supplier.

Abbreviations used in this report

BAK = BAK International Benchmark Club
CE = Cambridge Econometrics
CEBR = Center for Economic and Business Research
DMAG = Data Management and Analysis Group
EBS= Experian Business Strategies
GLA = Greater London Authority
IOD = Institute of Directors

Bibliography

CE (2002) *Regional Economic Prospects,* Cambridge Econometrics, tba 2002

CEBR (2001) *London's Contribution to the UK Economy*, Centre for Economic and Business Research, July 2001.

EBS (2003) *Regional forecast*, Experian Business Strategies, January 2003.

GLA (2001a) *Planning for London's growth,* GLA Mayor's Office, November 2001.

_______(2001b) *Forecasts for Employment in Greater London*, Volterra Consulting, March 2002.

_______(2002a) *Review of independent forecasts*, GLA Economics, September 2002.

_______(2002b) *Creativity: London's Core Business*. GLA Economics, September 2002.

_______(2002c) 'A Future Gulf War: the potential economic impact on London', *London's Economy Today* 1. GLA Economics, September 2002.

_______(2003a) *DMAG Briefing 2003/3 GLA 2002 Round of Demographic Projections,* Baljit Bains, GLA Data Management and Analysis Group, 26 November 2002.

_______(2003b) *Spreading Success: how London is changing.* GLA Economics, January 2003.

IOD (2003) *War and the World Economy*: *IoD Economic Paper,* Institute of Directors, January 2003.

Treasury (2002a) *Pre-budget forecast*. Treasury, 27 November 2002, Table 9.

_______(2002b) *Forecasts for the UK Economy: a comparison of independent forecasts.* Treasury, December 2002.

________(2000c) *Long term average of independent forecasts*. Treasury, November 2002

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

中文
如果需要此文檔的您的母語拷貝，
請致電以下號碼或和下列地址聯係

Hindi

यदि आप इस दस्तावेज़ की प्रति अपनी भाषा में चाहते हैं,
तो कृपया निम्नलिखित नम्बर पर फोन करें अथवा दिये
गये पता पर सम्पर्क करें।

Vietnamese

Tiếng Việt
Nếu bạn muốn bản sao của tài liệu này bằng ngôn ngữ của bạn, hãy gọi điện theo số hoặc liên lạc với 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 θα θέλατε ένα αντίγραφο του παρόντος εγγράφου στη γλώσσα σας, παρακαλώ να τηλεφωνήσετε στον αριθμό ή να επικοινωνήσετε στην παρακάτω διεύθυνση.

Urdu

اگر آپ اِس دستاویز کی نقل اپنی زبان میں چاہتے
ہیں، تو براہِ کرم نیچے دیئے گئے نمبر پر فون کریں
یا دیئے گئے پتہ پر رابطہ قائم کریں.

Turkish

Bu brosürü Türkçe olarak edinmek için lütfen asagidaki numaraya telefon edin ya da adrese basvurun.

Arabic

إذا أردت نسخة من هذه الوثيقة بلغتك، الرجاء
الاتصال برقم الهاتف او الكتابة الى 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.

GREATER**LONDON**AUTHORITY

City Hall
The Queen's Walk
London SE1 2AA

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

MoL/Mar03/SD D&P/330