Fundamentals

Economic and Investment Commentary

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Legal & General Investment Management

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The longer-term future for equities

Many commentators are saying that future returns on equities may be much lower than those achieved in the past. Andrew Clare, Financial Economist, examines the issues and opines as to the longer-term return prospects for UK equities and other UK asset classes.

Last month's *Fundamentals* underlined our faith in equities for this year. This month, we examine the longer-term case for equities in their own right and relative to other UK asset classes.

Many investment professionals are warning that equity returns may be lower in the future than they have been in the past. This assertion is becoming commonplace in the media. It comes on top of two particularly poor years for equity markets, which may cause pension fund trustees and the general public to question their faith in equities.

Unfortunately, too few financial market commentators have taken the time to explain why future equity returns may be lower or to emphasise the longer-term prospect for equities with respect to other asset classes. So, we believe the time is right to examine some of the key issues that should be considered when forecasting longer-term investment returns. Our aim is to try and unpack this forecasting process a little, in a way that will enable interested parties to make up their own minds about these issues.

Figure 1 shows the average real return on equities and gilts for the twentieth century as a whole and for each individual decade. Over the whole period, equities outperformed gilts by around 5% per annum. Decade by decade, equities have outperformed gilts. Even though equities performed relatively poorly in the 1970s – gilts performed dismally.

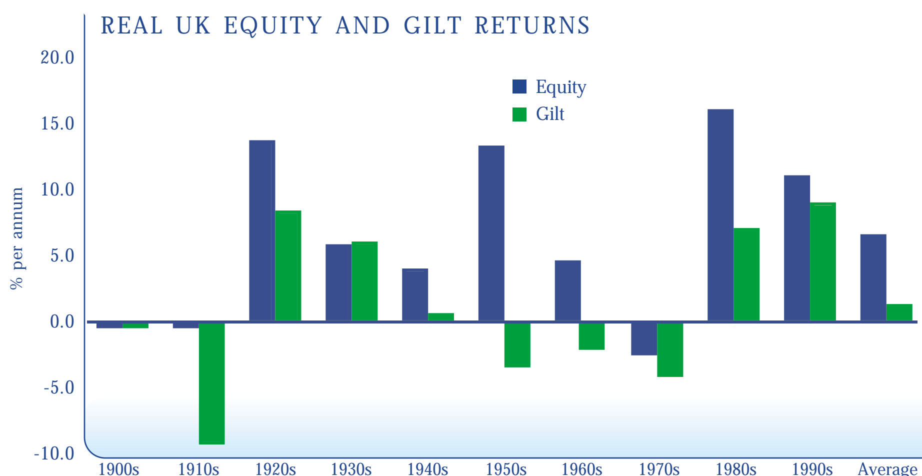

Figure 1

Source: CSFB

Of particular note is the performance of equities in the 1980s and 1990s. These two decades represent the best 20-year performance of the UK equity market over the last century. Real returns averaged 13% per annum over this period. This is why, until recently, investors have placed almost unquestioning faith in equities. This faith has been termed 'the cult of equity'.

The best way of illustrating the prospects for future equity returns is to go back to basics. Our approach here is to consider the three key components, or building blocks, of expected equity returns. These are:

- the expected real return
- expected inflation
- the risk premium

Expected real returns

According to economists, investors expect a real return from investing or lending their money. But the expected real return needs to be defined carefully.

Even if there were no inflation and no risk in the world, people would still expect to receive a positive reward for investing their money. The opportunity cost of investing money is the return that might have been achieved if the money had been invested directly by, for example, setting up one's own company.

In a world with no risk and no inflation, in aggregate, the return from investing directly in corporations would be determined by productivity growth alone. For economists then, the real return that investors could expect from their investment would be equal to the potential real productivity growth rate of the economy.

Many economists would agree that long-term productivity growth in the UK amounts to just 2.25% per annum. It is interesting to note that real equity earnings growth in the UK has averaged just 2.2% per annum since 1970. This emphasises the close link between the real growth potential of the economy and the earnings growth available from investing in equities. There is strong evidence then that real earnings growth and the real productive capacity of the UK economy are closely related – and are quite low.

The expected real return, as economists define it, from investing in the UK should therefore be around 2.25% per annum. This is the first component in the formulation of the total return that can be expected from investing in the UK.

However, if one believed that the UK economy were now a 'new economy', able to grow at a faster non-inflationary rate because of productivity gains achieved through technology, then one would be justified in expecting a higher real return from investing in the UK. But it would take a lot to convince macro-economists that the growth potential of the economy has changed significantly.

Expected inflation

In the past, inflation has been relatively high, especially in the 1970s. Clearly, investors require compensation for the decline in the value of money over time, which is the main consequence of inflation. Therefore, investors have typically demanded high levels of compensation for high expected levels of future inflation.

Since the 1970s, however, inflation rates in all of the world's major economies have fallen dramatically. Figure 2 plots – in blue – the UK's inflation rate since 1975. It has fallen substantially, since the high inflation era of the mid 1970s. The experiences in Europe, the US and Japan have been broadly similar.

The fall in global inflation rates largely reflects the gradual success and increasing sophistication of monetary policy regimes around the world. The independence of central banks and the widespread practice of inflation targeting, in various guises, have undoubtedly not only reduced average inflation rates, but also helped to change inflation expectations.

Figure 2 also plots – in pink – a survey-based measure of UK inflation expectations, available since 1986. Inflation expectations have fallen towards the MPC's target of 2.5% per annum. Quite clearly then, inflation expectations are much lower today than they were 15 years ago when the survey began. Therefore given the monetary policy framework that now exists in the UK, and the fact that inflation expectations have fallen towards the

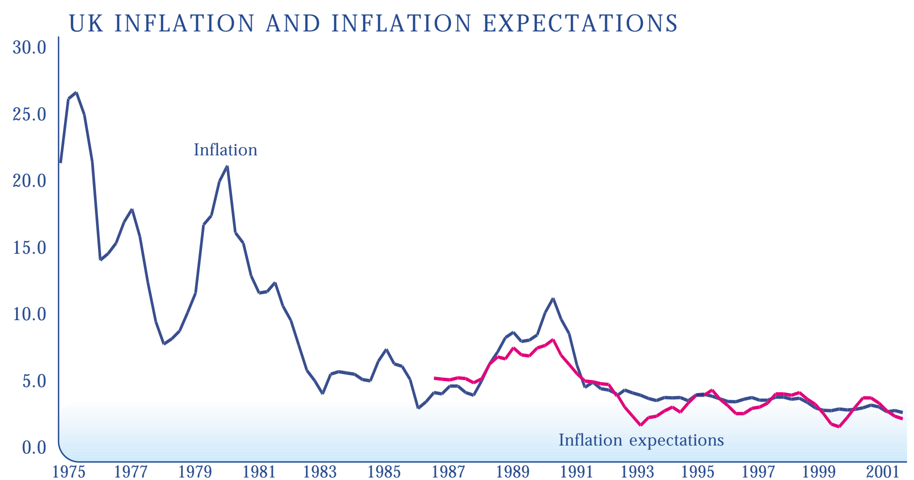

Figure 2 Source: Datastream, Bank of England

MPC's target, 2.5% would seem to be an eminently sensible figure to use as a component in our expected investment return projections in the UK. Any other figure would be very difficult to justify.

In the past, expected returns were justifiably higher because inflation and inflation expectations were higher too. In the future, nominal equity returns and earnings growth should all be lower in a low inflation world.

However, if one were to believe that inflation will not average 2.5% in the future, then one would clearly adjust nominal GDP and earnings growth expectations accordingly.

Risk premia

The equity risk premium – a comparative concept – which is usually defined as the expected return on equities, over and above the expected return on default free government debt – is the most controversial part of the projection of future equity returns.

Has the equity risk premium fallen over the last few years? Figure 3 presents one measure of the implied risk premium on the UK equity market. It is based on a simplified version of the Dividend Discount Model (DDM). This approach is widely used by City strategists and by the Bank of England, although unfortunately it is not widely used by equity analysts. The version of the DDM used here states that the forward-looking risk premium is approximately equal to the current ACT adjusted dividend yield, plus the real growth rate of dividends, minus the equilibrium long-term yield on a default-free government bond.

The only unknown in the DDM definition of the equity premium is future real dividend growth. If we accept that the long-run growth potential of the UK economy, and therefore real dividend growth, is around 2.25%, then the risk premium implied by the DDM is around 3.25%. This is lower than its long-term average of 4.5%.

However, if one believed that real earnings growth could grow much faster in the future – once again putting faith in the existence of a 'new economy,' then the implied risk premium, given current equity valuations – would be consequently higher. And hence one's long-term equity risk premium projections would be higher too.

But, if one believed – as some do – that the implied equity risk premium as derived in Figure 3 is too low, and that real earnings growth is around 2.25%, then the only way to achieve a higher risk premium is for current equity prices to fall accordingly – thereby reducing equity returns in the future.

In the end, you pay your money and make your choice.

With a risk premium of 3.25%, real return of 2.25%, and 2.5% compensation for future inflation, the expected return on UK equities in the future should average around 8.0% per annum, and give a real return of 5.50% per annum. This is substantially lower than the returns achieved over the 1980s and 1990s, but still higher than the average for the last century, as shown in Figure 1.

Other considerations

In coming to a view about future equity returns as well as considering the economic fundamentals, we should also consider the policy environment. One of the reasons why equities performed so well in the 1980s and 1990s – as shown in Figure 1 – was that government policy became more and more corporate-friendly. Equities benefited enormously from the privatisation, deregulation and profit-friendly policies initiated by Prime Minister Thatcher and subsequently copied around the globe. As the balance of power shifted from labour to corporates, equities were continually re-rated, as the profit share of GDP rose over this period (particularly in the US).

Arguably this re-rating of equities is now over. The policy debate has now shifted towards emphasising the need to improve public services. In the UK, as our population continues to age, even the Conservative Party – which set the ball rolling back in 1979 – is talking about increasing public spending. Though we do not expect many of the profit-friendly policies to be reversed, the increasingly favourable environment for corporates has probably gone as far as it can and, therefore, equities should not expect too much additional help. As far as corporations are concerned then, the policy environment is probably as good as

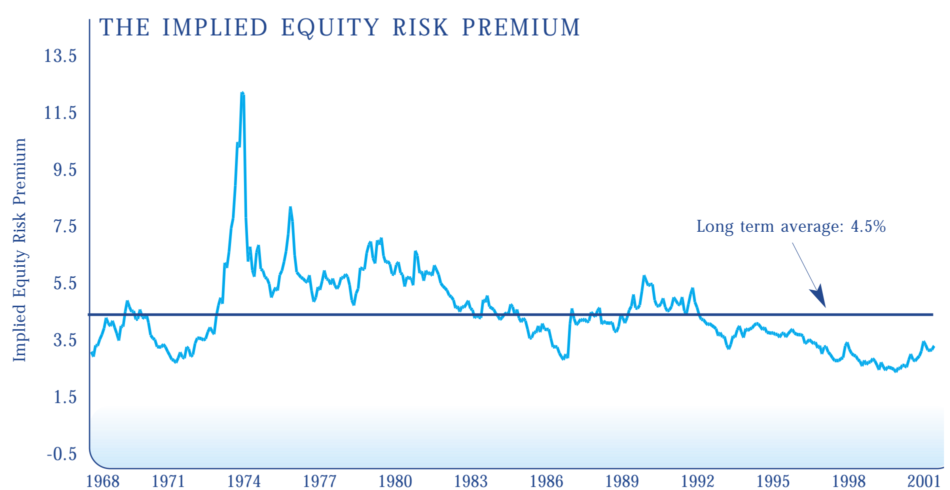

Figure 3 Source: LGIM Research

it gets right now. This is another – perhaps more controversial – reason why equity returns may be lower in the future.

Finally, we cannot ignore the impact that an ageing UK (and European) population will have on the composition of pension funds going forward, or the impact of FRS17. The demographics and the new accounting procedures will both encourage pension fund trustees to favour both government and corporate bonds more in the future than they have in the past. Such strategic shifts in asset allocation will clearly not be to the benefit of UK equities.

But before investors rush out to sell their equity holdings, it is necessary to consider the returns available from other asset classes.

Other UK asset classes

The building block approach that we use above to determine the long-term prospects for equities, can be applied to other asset classes too. What distinguishes the asset classes from one another is not the expected real return or expected inflation assumptions which one makes, but the risk premium required from each asset class.

Although we do not justify our risk premium estimates here, our numbers are based upon historical experience, simple valuation models and our own willingness to invest. For example, on average, equities have been nearly twice as volatile (risky) as gilts, and nearly three times as volatile since the start of 2000. And, a fact that might surprise some, corporate bond portfolios have typically been less volatile than portfolios of government bonds.

We believe the premium that investors expect from holding conventional gilts, and thus exposing themselves to inflation risk, should be no more than 1.0%. For a portfolio of Single A-rated corporate credit, the additional premium, which acts as compensation for inflation and credit risk, should be no more than 2.0%. Finally, the risk premium on cash should be very close to zero.

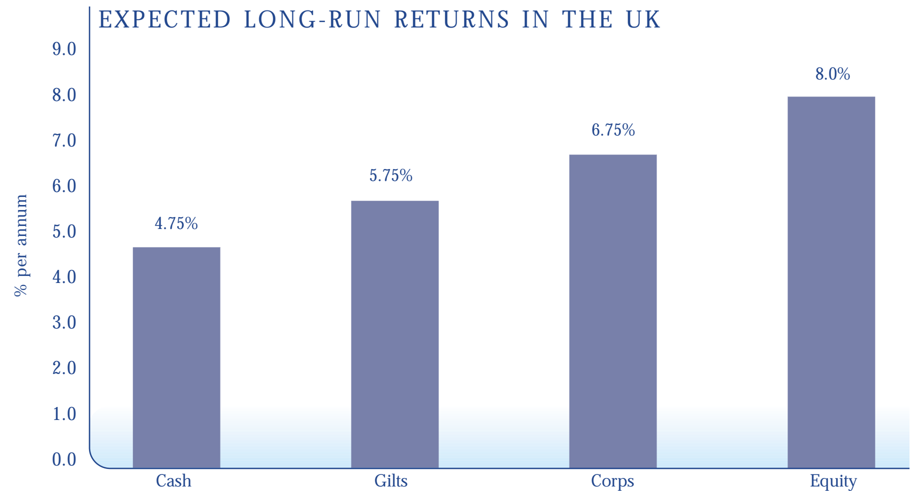

Figure 4 Source: LGIM Research

It is now possible to sum the components of expected return to give the total expected return on all these asset classes, as shown in Figure 4.

Our analysis shows that it is reasonable to expect that equities will outperform gilts by around 2.25% per annum and a portfolio of Single A corporate credit by around 1.25% per annum.

Current valuations

Our approach assumes implicitly that current valuations are fair. If an asset class is currently over or undervalued, then any reversion to fair value would clearly change returns during the correction period. Our building block approach to investment analysis cannot, therefore, be used in isolation from current market levels. For example, conducting this analysis for the US stock market in early 2000, at the height of the US equity market bubble, without reference to current market values would have been sheer folly.

However, with respect to the UK now, we believe that no asset class is sufficiently under or overvalued to make a significant difference to the return projections given in Figure 4, since they are meant to represent expected nominal average returns over the next ten years.

Implications

The implications of lower equity returns depend very much on one's starting point.

Those individuals who have some time before retirement should still invest predominantly in equities. However, for those closer to retirement and thinking about drawing their pension soon, a significant proportion of the fund – if not all of it – should be allocated to conventional fixed income securities and index-linked bonds.

Individuals who bought pension contracts based on the higher real equity return projections of the past, will have to accept the prospect of a lower pension income in the future. Although we should also stress that their lower pension income would go further in a low inflation world. Similarly those individuals who invested in endowments based on higher real return projections will have to reconcile themselves to the idea – as many already have – that their endowments will have a lower terminal value than originally envisaged.

UK companies, especially those that have mature pension funds, have been shifting their asset allocation recently towards

fixed income securities, in recognition of the new investment environment. Those companies that had in the past based their pension projections on higher future real equity returns will clearly have to increase contributions to maintain benefit levels.

We conducted an informal survey of the UK's largest actuarial consultancies. We asked them for the projections that they recommend for real UK equity and gilt returns. On average, the actuaries are now projecting real equity returns of around 4.5% per annum and around 2.5% for gilts – considerably lower than the projections made 10-15 years ago.

Thus, based on our survey, it seems that actuaries are being somewhat cautious, especially if one accepts the investment projections that we present in Figure 4 (although we should also note that they are expecting equities to outperform gilts by just 25 basis points per annum less than we are). However, such low projections should be adequate to ensure that shortfalls on pensions, based on these lower projections, will be avoided in the future.

Conclusions

Our analysis indicates that equity returns will be comparatively lower in the future, but certainly not so low as to justify a headlong rush for the exit. And, if the 'experts' are wrong, particularly about the prospects for future economic and real earnings growth, future real equity returns could be higher than the estimates which we have made here.

But perhaps the bottom line is that the long-term case for equities remains strong.

Market Overview

Beware of the rise in bond yields

This year our market overviews have concentrated on the prospects for equity markets, particularly the US equity market, which tends to lead global equity market sentiment. We have expressed the view that equity market valuations are not cheap, but that we would expect prices to be supported by an improving economic environment and a considerable monetary overhang. This view has not changed. The equity markets have been rallying since the latter part of February. As far as the UK market is concerned we are looking for an advance to as far as 5,600 by the end of this year.

The obverse of the encouraging outlook for equity investment is a dull outlook for bonds. With the G7 economies, in aggregate, operating below their trend rate of growth there is little risk that inflation will rise on a sustainable basis. However, there is a real chance that bond investors will be discouraged by signs that a synchronised global recovery is taking shape. Synchronised growth was never achieved in the 1990s, either because of the after-effects of German reunification or Japan's monetary mess.

This time the background is perceived to be different. Interest rates have been cut around the world to historically low nominal levels, fiscal policy is generally stimulative and even Japan's critics are wondering whether the upturn in global trade might provide a boost for exports and therefore industrial production. Overseas investors have often seen the Nikkei as a warrant on industrial cyclical recovery.

The result of the more upbeat economic sentiment is a move up in bond yields. The US long bond yield has risen from below 5.4%, and we believe that the sell-off has not yet finished. The yield may well rise to over 6% and in the short-term drag gilt yields up in sympathy.

London

Upside potential remains

On 7 March the MPC voted unanimously to maintain its key policy rate at 4.0%. At the moment at least, the MPC appear to be banking on consumption slowing down of its own accord, as unemployment rises. But unemployment is falling, consumer borrowing and the housing market remain very strong, non-food retail sales growth is booming, and the global economy is recovering. The UK money markets continue to price in 5% policy rates by the end of the year. The UK yield curve is basically unchanged over the month.

UK equities ended the first quarter flat despite the improving economic outlook and a results season that was better than some had feared. The FTSE 100 failed to break out decisively of its 5000 - 5300 trading range but the market has absorbed some large share issues well. Over the month the main index was outpaced by both the Small and Midcap indices, while the Techmark had another poor month. Sector performance generally saw defensive sectors at the bottom of the pack e.g. Pharmaceuticals, Food & Drug Retailers and Food Producers and cyclical sectors at the top e.g. Engineering, Electronics and Chemicals. Media outperformed but Telecoms and IT Hardware were weak.

As market participants start to discount better earnings growth and the strong domestic conditions, we continue to see upside in the market despite the failure to breach 5300.

Europe

Recovery underway

On 7 March the ECB maintained its key policy rate at 3.25%. The related press statement was fairly unrevealing. The ECB continues to see CPI inflation falling below 2% in the coming months, while

reiterating its concerns about the current European (German) wage rounds. Forward looking activity indicators suggest that a relatively weak Euroland recovery in underway. The money markets expect rates to rise between 75 and 100 basis points by the end of the year. Over the month the Bund yield curve was unchanged.

Equity performance, while broadly flat year-to-date, masks large sector volatility. Some cyclical sectors e.g. Forestry and Steel have continued their advance while Food and Pharmaceuticals have lagged. Most 'TMT' sub-sectors have been weak on a mixture of valuation or balance sheet concerns.

Wall Street

Excessive optimism?

On 19 March the Fed maintained its key policy rate at 1.75%, but as predicted last month shifted to a neutral bias. The money markets are pricing in a Fed Fund rate of 3.5% by the end of the year, which seems to be extremely aggressive, given current inflation rates. The Fed acknowledged that inventories are providing a significant boost to growth currently, but as Greenspan has said over and over, the key is final demand. And the FOMC reiterated in the statement that the outlook for final demand remains uncertain. The Fed might raise rates in May, but on the basis of the data that we have so far this year, June may be a safer bet.

Turning to the equity market, the technology sector suffered profit taking in the month, as Lucent, Oracle and SunMicro Systems all announced disappointing results. The capital spending environment in the telecommunications sector suggests that a profits improvement in the equipment providers sector is unlikely in the near term and an improvement in the more economically sensitive areas of personal computers is still not apparent. NASDAQ related issues are likely to suffer profit taking and overall market is due for a pause, with sentiment indicators suggesting excess optimism.

Japan

Even the Japanese economy may recover!

The latest surge in equity prices owes less to Fundamentals than the government's efforts to ramp up the index by stopping short selling and orchestrating buying ahead of the Fiscal year end, when near-insolvent banks have to mark portfolios to market. Overseas money has also begun flowing back into Japan; foreign investors are so underweight in Japan that some will support a rising market.

But with increased evidence that the US is now recovering, corporate Japan, with its high operational leverage, must benefit from such an event. However, the external sector is much less important to Japan than domestic demand and if the stock market rally is to continue, investors will need to see this area showing signs of improvement. Indeed, inventories have now been liquidated to such an extent that industrial production cannot decline much more. In March both the government and the Bank of Japan upgraded their assessment of short-term economic trends and the latest survey of business sentiment at last shows a turn for the better. Cyclical upswings occur even in the sickest of economies.

The one concern remains the current lack of government action on further economic stimulus and structural reform; more measures are being hinted for a June announcement. Failure to deliver will disappoint investors and the further the market rises in the interim, the further it could fall ultimately.

Asia Pacific

Well supported markets

The region has made further gains over the past month led by Taiwan and Korea, with some suggestion of switching by foreigners from the latter into the former, influenced by Korea's 90% gain since its September low. Technology stocks, particularly component manufacturers, have performed well despite pricing weakness in semiconductor chip prices as we move into a period of seasonal weakness. The sector continues to benefit from the strength in outsourcing as customers continue to seek ways of lowering their cost bases.

Laggard markets included both Australia and Hong Kong. The former is seen as a defensive market and continues to be neglected while investors seek cyclical recovery in the higher beta markets. Rising bond yields and a strengthening currency has also sapped sentiment. Meanwhile the corporate reporting season has generally been a disappointing one in Hong Kong for the larger companies. Hampered by a large fiscal deficit and the prospect of interest rate increases being imposed before any domestic economic revival starts, investors remain unenthused about this market at present. This despite the effective go-ahead being given to licensing Chinese institutions who wished to invest their surplus foreign exchange in the Hong Kong stock market.

Markets have moved from being liquidity-driven to being earnings-driven as investors digest the implications from a move towards a tightening monetary policy in the U.S. and the prospect of an early rise in interest rates in certain parts of Asia and Australia. New Zealand has already raised rates by 0.25%. This may lead to short-term consolidation, but markets are expected to be well supported on the downside by new global money.

FORECASTS FOR 12 MONTHS' TIME

Equity Market Indices		10 Year Bond Market Yields	%
UK: FTSE 100	5,600	UK Gilt	5.25
US: Dow Jones	11,000	US Bond	5.50
Germany: DAX	6,200	German Bond	5.00
Japan: Nikkei 225	16,000	Japanese Bond	2.50

Key Dates

April/May 2002

Date	Event
17 April	Labour force survey, average earnings (Dec-Feb) • Budget Day
18 April	ECB Governing Council meeting
21 April	World Bank Group/International Monetary Fund Spring Meetings
22 April	British Chamber of Commerce annual conference • CBI Pay Databank Survey
23 April	CBI Economic & Business Outlook Quarterly Industrial Trends Survey •
	St George's Day
1 May	France Labour Day
2 May	ECB Governing Council meeting
6 May	May Bank Holiday, UK & Rep Ireland
8 May	Bank of England MPC meeting • VE Day on anniversary of end of WWII in Europe
9 May	Bank of England MPC Interest Rate Announcement • BRC shop price index (Mar) •
	National Association of Pension Funds annual conference & exhibition, Brighton
10 May	Bank of Japan Wholesale Price Indexes •
	Federal Statistical Office Germany - Foreign trade
13 May	BRC releases (April) retail sales monitor •
	CBI Small & Medium Enterprise (SME) Trends Report
15 May	Labour Force Survey, average earnings (Jan-Mar)

April 2002						
M		2	9	16	23	30
T		3	10	17	24	
W		4	11	18	25	
T		5	12	19	26	
F		6	13	20	27	
S		7	14	21	28	
S	1	8	15	22	29	

May					
M		7	14	21	28
T	1	8	15	22	29
W	2	9	16	23	30
T	3	10	17	24	30
F	4	11	18	25	
S	5	12	19	26	
S	6	13	20	27	

June					
M		4	11	18	25
T		5	12	19	26
W		6	13	20	27
T		7	14	21	28
F	1	8	15	22	29
S	2	9	16	23	30
S	3	10	17	24	31

July					
M	1	8	15	22	29
T	2	9	16	23	30
W	3	10	17	24	31
T	4	11	18	25	
F	5	12	19	26	
S	6	13	20	27	
S	7	14	21	28	

August					
M		5	12	19	26
T		6	13	20	27
W		7	14	21	28
T	1	8	15	22	29
F	2	9	16	23	30
S	3	10	17	24	31
S	4	11	18	25	

September						
M		2	9	16	23	30
T		3	10	17	24	
W		4	11	18	25	
T		5	12	19	26	
F		6	13	20	27	
S		7	14	21	28	
S	1	8	15	22	29	

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Views Commentary

Upward Tendency

	Price Inflation (RPIX)		GDP (Growth)		Earnings (Growth)		Dividends (Growth)		£/$		£/Euro		Base rates		FTSE 100
	End 2002 %	End 2003 %	End 2002 %	End 2003 %	End 2002 %	End 2003 %	End 2002 %	End 2003 %	End 2002	End 2003	End 2002	End 2003	End 2002 %	End 2003 %	Twelve months time
ABN Amro	2.30	2.30	1.80	2.70	-2.00	7.00	4.00	4.00	1.42	1.41	0.60	0.60	4.50	5.00	5800
CSFB	2.50	2.50	2.10	2.80	17.60	17.70	2.90	3.00	1.40	1.40	0.65	0.68	4.50	5.50	5900
Deutsche Bank	2.30	2.40	1.70	3.00	5.00	10.00	5.00	6.00	1.52	1.56	0.66	0.67	4.50	5.00	6000
Dresdner Kleinwort Wasserstein	2.70	2.40	2.50	2.40	3.00	5.00	2.00	4.00	1.39	1.39	0.59	0.61	4.50	5.00	5450
Goldman Sachs	3.00	2.60	2.40	2.50	-1.00	14.00	-2.00	4.00	1.45	1.45	0.71	0.71	4.60	5.40	5600
HSBC Securities	2.60	2.70	2.70	2.10	0.00	14.00	5.00	8.00	1.46	1.49	0.65	0.65	4.75	5.50	5900
JP Morgan	2.30	2.20	2.30	3.00	-	-	-	-	1.47	-	0.63	-	5.00	5.00	-
L&G Inv Mgt	2.50	2.50	2.30	2.50	4.00	9.00	3.00	5.00	1.55	1.65	0.65	0.65	5.00	5.00	5600
Merrill Lynch	2.50	2.50	2.20	3.50	5.00	8.00	6.00	9.00	1.42	1.43	0.63	0.64	5.00	4.50	5500
Morgan Stanley Dean Witter	2.40	2.50	1.80	3.40	5.00	15.00	5.00	7.00	1.42	1.50	0.68	0.70	4.25	5.00	6000
Schroder-SSB	2.30	2.50	2.30	3.60	5.00	8.00	5.00	7.00	1.46	1.45	0.63	0.66	5.00	6.00	6200
UBS Warburg	2.20	2.50	1.80	2.50	4.20	16.20	5.60	6.40	1.45	1.45	0.62	0.62	4.50	4.50	5875
Median (ex L&G Inv Mgt)	**2.40**	**2.50**	**2.20**	**2.80**	**4.60**	**12.00**	**5.00**	**6.20**	**1.45**	**1.45**	**0.63**	**0.66**	**4.50**	**5.00**	**5888**
Last Month	2.30	2.50	2.20	2.80	4.85	12.00	4.50	5.50	1.45	1.45	0.64	0.67	4.50	5.00	5800
Actual end : 2001	1.90		2.20		–		–		1.45		0.61		4.00		5217
2000	2.00		3.00		18.00		7.00		1.49		0.63		6.00		6223
1999	2.30		2.10		11.00		5.60		1.62		0.62		5.50		6930

KEY Median figures indicate change over previous month: **0.00** increase **0.00** decrease **0.00** no change

The improving economic outlook has once again resulted in several houses revisiting their inflation forecast for the year. The 2002 year-end RPIX median increased by 0.1% to 2.4%. This sentiment reinforces the expectation that base rates will start to increase. Year-end base rate expectations have been held at 4.5%, 0.5% higher than the current position.

The 2002 year-end earnings growth median fell by 0.25% reflecting decreases by several houses. Also the 2002 and 2003 dividend growth medians rose by 0.5% and 0.7% respectively.

The month saw very few changes to the 12-month FTSE 100 forecast, but an increase by three houses narrowed the previous bull/ bear gap to 750.

For further comment on Fundamentals, or for further copies, please contact Lindsey Carr on 020 7528 6529

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