

# LOMBARD STREET RESEARCH

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## Gerrard Group PLC

### **Gerrard & King Limited**

Cannon Bridge,  
25 Dowgate Hill,  
London, EC4R 2GN  
Tel: 0171 337 2800  
Fax: 0171 337 2801  
e-mail: enquiry@gerrard.com

### **GNI Limited**

Cannon Bridge,  
25 Dowgate Hill,  
London EC4R 2GN  
Tel: 0171 337 3500  
Tlx: 884862  
Fax: 0171 337 3501  
e-mail: enquiry@gni.co.uk

### **Lombard Street Research Ltd.**

Cannon Bridge,  
25 Dowgate Hill,  
London, EC4R 2GN  
Tel: 0171 337 2975  
Fax: 0171 337 2999  
e-mail: lsr@lombard.demon.co.uk  
[www.cbot.com/lrwelcom.htm](http://www.cbot.com/lrwelcom.htm)

### **Greig Middleton & Co. Limited**

30 Lombard Street,  
London, EC3V 9EN  
Tel: 0171 655 4000  
Fax: 0171 655 4321

## English-speaking deficits

### A familiar pattern, as the world economy enters another period of strong growth

**The USA and the UK tend to have current account deficits**

For most of the last 25 years the English-speaking countries of the industrial world have had current account deficits on their external payments, whereas continental Europe and Japan have had current account surpluses. Another pattern is that the English-speaking countries have led the world upturns. In other words, their economies tend to move forward first in the international business cycles, with continental Europe and Japan following afterwards as they benefit from higher exports. At some point the widening in the English-speaking deficits is associated with currency weakness and rising inflation, and monetary policy is tightened. The world economy then slows down.

**and to lead the world economic cycle**

Of course, the USA is the key economy in this context, but - taken together - the UK, Canada and Australia are quite important, and it is curious how often they seem to have the same financial problems. The present cyclical conjuncture fits the usual pattern. Over the last year the growth of domestic demand in the USA and the UK has been much more rapid than in continental Europe and Japan. Most leading indicator indices - such as those prepared by Lombard Street Research - have over the last 18 months seen larger rises for the USA and the UK than for other countries, while the leading indicator indices for the G7 as a group or the whole OECD area have climbed strongly. Buoyant stock markets around the world may be interpreted as an anticipation of the upturn or as one of its causes. (Higher share prices make people feel better-off and they are likely to spend more.)

**Same pattern being repeated today**

But what has caused the buoyancy of stock markets? One view is that the current cycle is like many others before it, with an acceleration in money growth in the English-speaking countries creating excess liquidity in the corporate and financial sectors. (See the research paper on the US stock market in this *Review*.) Share prices have soared, as companies and financial institutions buy and sell shares between each other at ever-higher prices. But - if this is a standard cycle - the above-trend growth now being enjoyed will continue, the level of output will go above trend (as it now seems to be doing in the USA and the UK), and inflation will accelerate. At present financial markets are blissfully complacent about inflation. The differential between index-linked and conventional gilt yields in the UK is down to 3 1/2%, close to the lowest it has been since index-linked were first issued in 1981. In most countries the yield difference between one-year and twenty-year bonds is trifling and far less than the historical norms. A return to rising inflation is probable in 1998 and 1999, led (if that is the right word) by the English-speaking countries. It would be a logical sequel to the world upswing of 1997 and 1998, but it will come as a shock to financial markets.

**and, as usual, it will result in more inflation**

## Summary of paper on

### "Why are American share prices so high?"

#### Purpose of the paper

On standard valuation criteria, the US stock market is expensive. This paper considers possible explanations. It argues that the acceleration in US broad money growth since late 1994 has been a key reason for the upturn in share prices. Excess liquidity is also a powerful influence behind above-trend growth in demand and output, which will lead to higher inflation.

#### Main points

\* **US equity valuations are stretched. The dividend yield is at an all-time low.**

\* **Three explanations are reviewed critically:**

*Explanation 1: The combination of inflation and unemployment is the best for over 30 years. Answer: But this may be a favourable moment in the cycle, with rising inflation likely to follow low unemployment over the next two or three years.*

*Explanation 2: The trend growth rate of the US economy has accelerated. Answer: Unconvincing, as productivity in the business sector grew more slowly in the last three years than on average since the Second World War.*

*Explanation 3: The demand for equities has been boosted by demographics, particularly the need for more pension provision. Answer: Possible, but the equity market's surge looks cyclical in nature, whereas demographics take effect gradually over the long term.*

\* **More plausibly, the surge in share prices is due to high money growth, and associated excess liquidity in the corporate and financial sectors (see p. 7). High money growth is partly due to the recuperation of the US banking system (see pp. 8 - 9).**

\* **High real money growth and share prices will keep demand growing at above-trend rates, contributing to a strong outlook for the world economy in the rest of 1997 and 1998.**

This paper was written by Professor Tim Congdon, with assistance from Alexander Skinner, and is based on material presented at recent Lombard Street Research seminars.

## Why are American share prices so high?

### Some explanations and implications

**US equities on very demanding valuations** American share prices are at unprecedented levels. The dividend yield on the S & P 500 stands at under 1.7%, compared with an average value in the 30 years to 1996 of 3.7%. Meanwhile the relationship between equity and bond yields is unusually stretched. In the last 15 years the yield on 30-year US Treasury bonds has typically been about 2 1/2 to 2 3/4 times the dividend yield on the S & P 500. Before 1996 the bond yield had exceeded 3 times the equity yield only once, for a few months in the spring and summer of 1987, and that was before the stock market crash in October 1987. Today the bond yield is 4 times the equity yield. (See chart on p. 12.) A counter-argument is that the price/earnings multiples for US equities are still some way beneath all-time peaks. However, corporate earnings benefit at present from the cyclical buoyancy of the American economy. Adjusting for the state of the business cycle, the P/E multiples are close to previous peaks and well above the long-term averages.

**What is the explanation?** As is well-known, UK-based fund managers have generally underweighted US equities in international portfolios over the last three or four years. Their performance has of course suffered as a result. A number of issues are raised by the ambitious valuation of the American stock market. First, how are the high share prices to be explained? Secondly, does this explanation have any message for the US economy and, by extension, for the world economic outlook? Thirdly, have the UK-based fund managers made a dreadful mistake or will their doubts about the American market be justified by a sharp fall at some point in the next few quarters? Indeed, could there be another crash like that in 1987?

**Explanation 1 = excellent inflation/unemployment combination** Several explanations for the strength of the stock market have been proposed. The most straightforward is that high share prices reflect the excellent macroeconomic situation, with inflation remaining at under 3% despite two years of above-trend growth and an unemployment rate of only 4.8%. But this view cannot be altogether reassuring for the bulls, as it implies that the magnificent numbers now being recorded are largely cyclical and may be replaced by less satisfactory inflation/growth combinations in 1998 and 1999. An alternative claim is that the long-term growth rate of the US economy has accelerated. But this does not stand up, as the growth rate of output per hour of all persons in the business sector has since 1993 been less than 1% a year, which is worse than the long-term average since 1945.

**Explanation 3 = favourable flow of funds for equities** A more purely financial line of argument turns on structural changes in the supply of and demand for equities. The explosive growth of the mutual fund industry, and the demographically-determined increase in pension provision, are said to be responsible for an excess demand for equities, which will therefore spend a longer time than "in the past trading above fair value". (See Legal & General Investment Management's *Fundamentals*, June 1997) But this is not

altogether convincing, because demographic movements are gradual and smooth, whereas the recent surge in equity valuations has been abrupt and associated with unusual price volatility.

**Explanation 4  
= upturn in money  
growth since late  
1994,**

In this research paper the explanation for the share price gains of the last few years, and of the present strength of demand and output in the American economy, is monetary. The historical evidence is that the changes in real broad money are a leading indicator of economic activity, as in most countries. (See chart on opposite page.) This accords with the standard principle in macroeconomic theory, that in the long run the demand to hold real money balances depend only on real forces. Since late 1994 the rate of monetary growth has accelerated, in rough terms from an annual rate of 0% to 3% in the preceding three years to 5% - 8% subsequently. (See pp. 6 - 7.)

**due to  
recuperation of the  
US banking system**

The upturn in money growth can be interpreted as the consequence of the banking system's return to health. (See pp. 8 - 9.) Whereas in the early 1990s many US banks had difficulty meeting the recently-imposed Basle capital requirements, only a small proportion now suffer from inadequate equity. The profits of the whole system soared from just above \$20b. a year in the early 1990s to almost \$80b. in 1995, largely because of the elimination of bad debts. Retentions, which were negligible in the period from 1987 to 1991, have been strongly positive since then. Whereas banks had to restrict asset growth in the early 1990s, they have been keen to expand since 1994 and have provided the loan finance to support record levels of corporate deal-making. The faster rate of money growth has been associated with exceptional levels of corporate liquidity, unprecedented merger and acquisition activity, and robust company balance sheets. One aspect of excess liquidity in the financial sector has been the massive influx of money into the mutual fund industry, which has contributed to the stock market boom.

**and associated  
with strong  
balance sheets,  
rising asset prices  
and above-trend  
growth**

**which will lead  
- in the normal  
cyclical manner -  
to rising inflation  
in 1998 and 1999,**

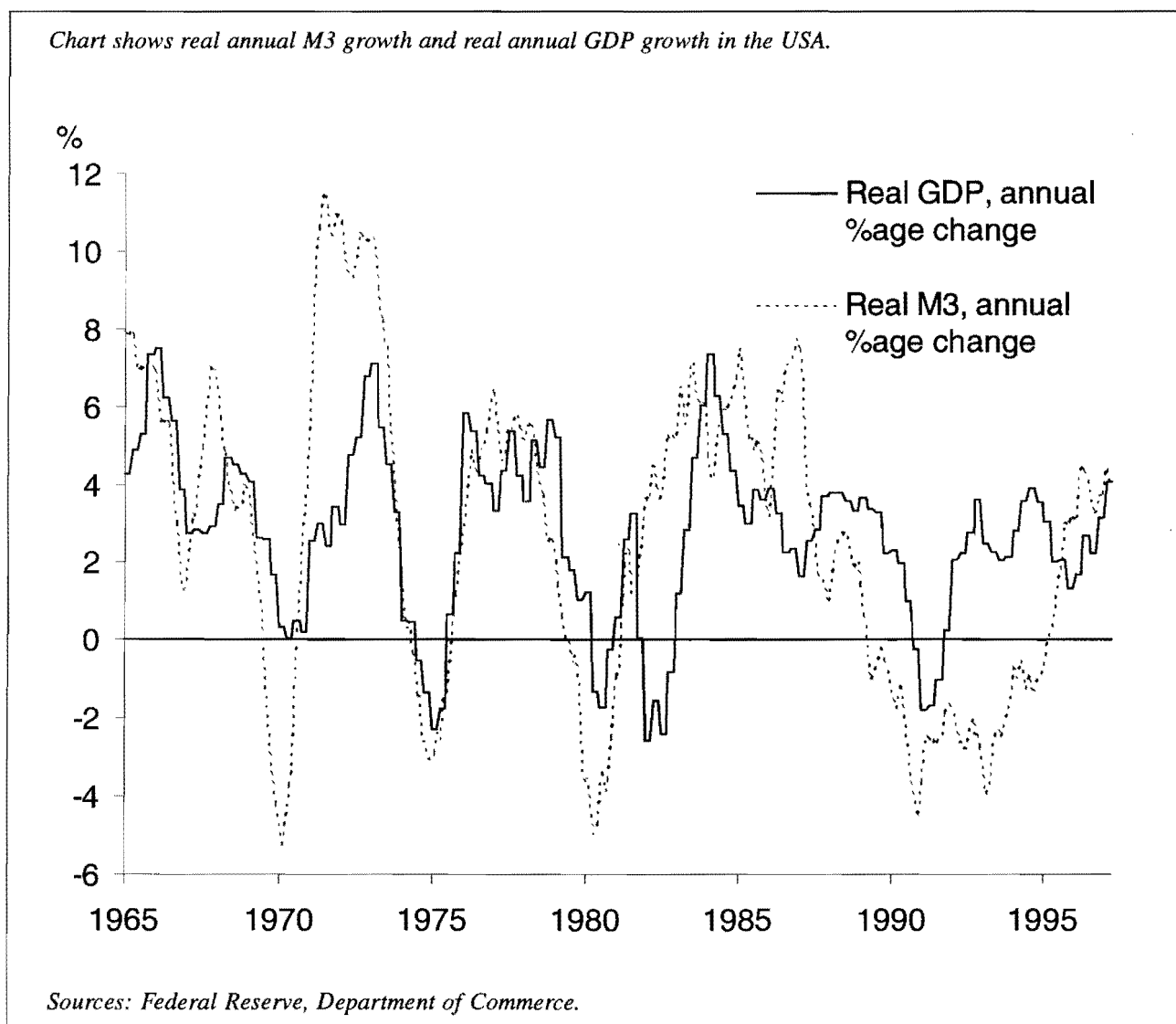
As demonstrated by the chart on p. 10, the historical evidence identifies a reasonable correlation between the *level* of the output gap (i.e., the difference between trend and actual output) and the *change* in inflation. A regression equation of the two statistical series in the chart found a constant term insignificantly different from zero (i.e., inflation does not change when output is at trend) and a regression coefficient of about 1/2 (i.e., annual inflation % rises by half of the output gap). If US output is at present 1% to 2% above trend, and above-trend growth continues, inflation will start rising by at least 1% a year in 1998, and the current business cycle will end in the usual disappointments on inflation and interest rates. (See the shaded areas on p. 11.) On this basis, interest rates and bond yields have some way to rise, and US equities a long way to fall.

**with wider  
international effects**

The cyclical vitality of the US economy is one reason for expecting the world economy as a whole to enjoy above-trend growth in 1997 and 1998. But other countries will share the deterioration in inflation in 1998 and 1999.

## Real money and the business cycle

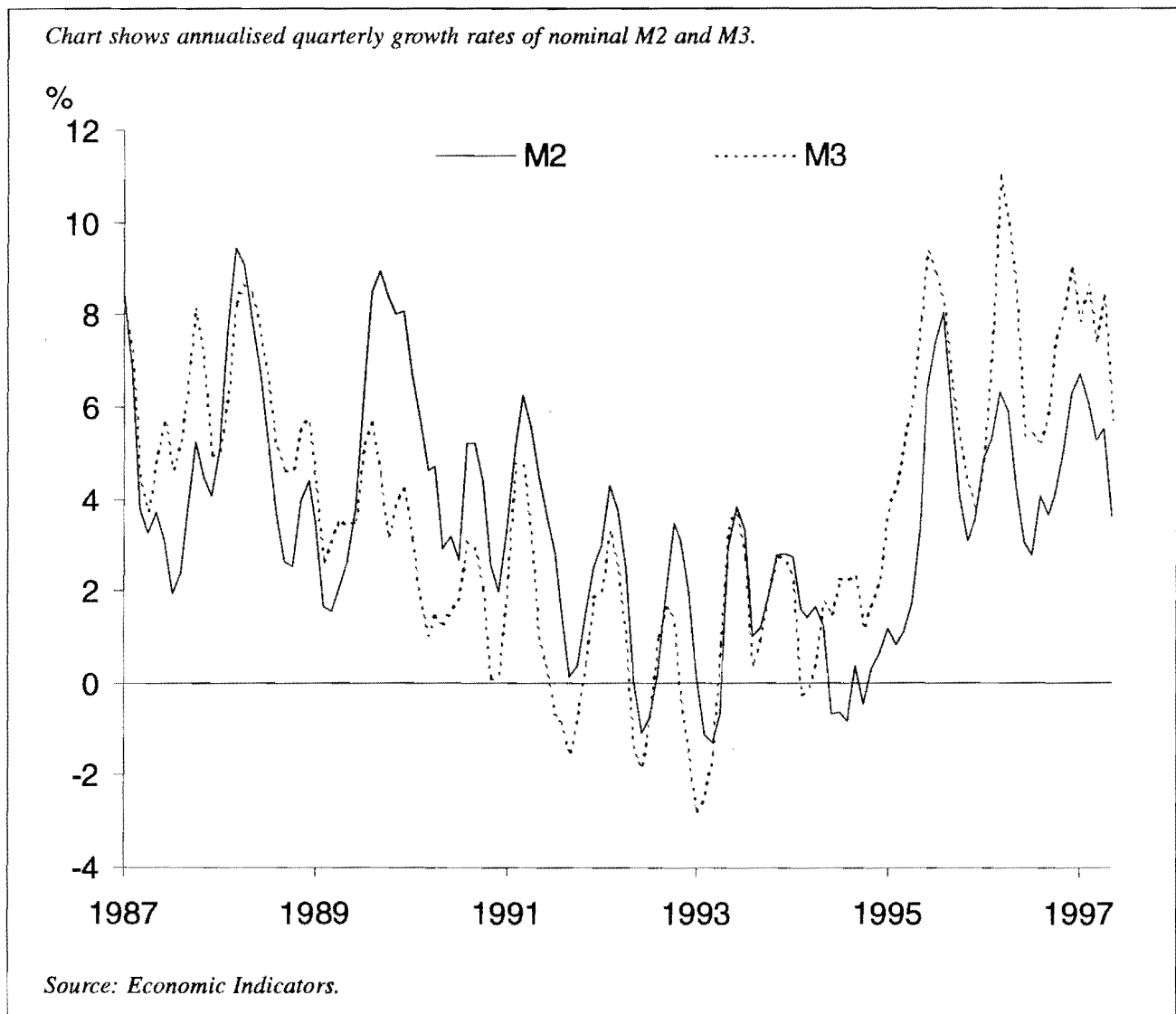
### Historical link between real M3 and real GDP



Over the period April 1989 to February 1995 the stock of real broad money, M3, fell by an average of 1.5% year. During 1995 there was a clear change in trend. Growth accelerated to over 4% a year by the first half of 1996 and has remained near to this rate ever since. In previous cycles an upturn in real money growth has led to higher GDP growth a few quarters later. GDP increased by 0.9% in Q4 1996 and by 1.4% in Q1 1997, i.e. at annualised rates of 3.6% and 5.8% respectively. While growth is expected to slow in the second quarter, output and demand are still rising at an above-trend rate. Non-financial companies have benefited from strong monetary inflows. Although corporate debt with banks increased by 10.6% in the year to Q1 1997, their liquidity ratio (deposits divided by borrowings) was broadly unchanged between Q1 1996 and Q1 1997 at around 51%, above the long-term norm of 47%.

## Recent monetary trends in the USA

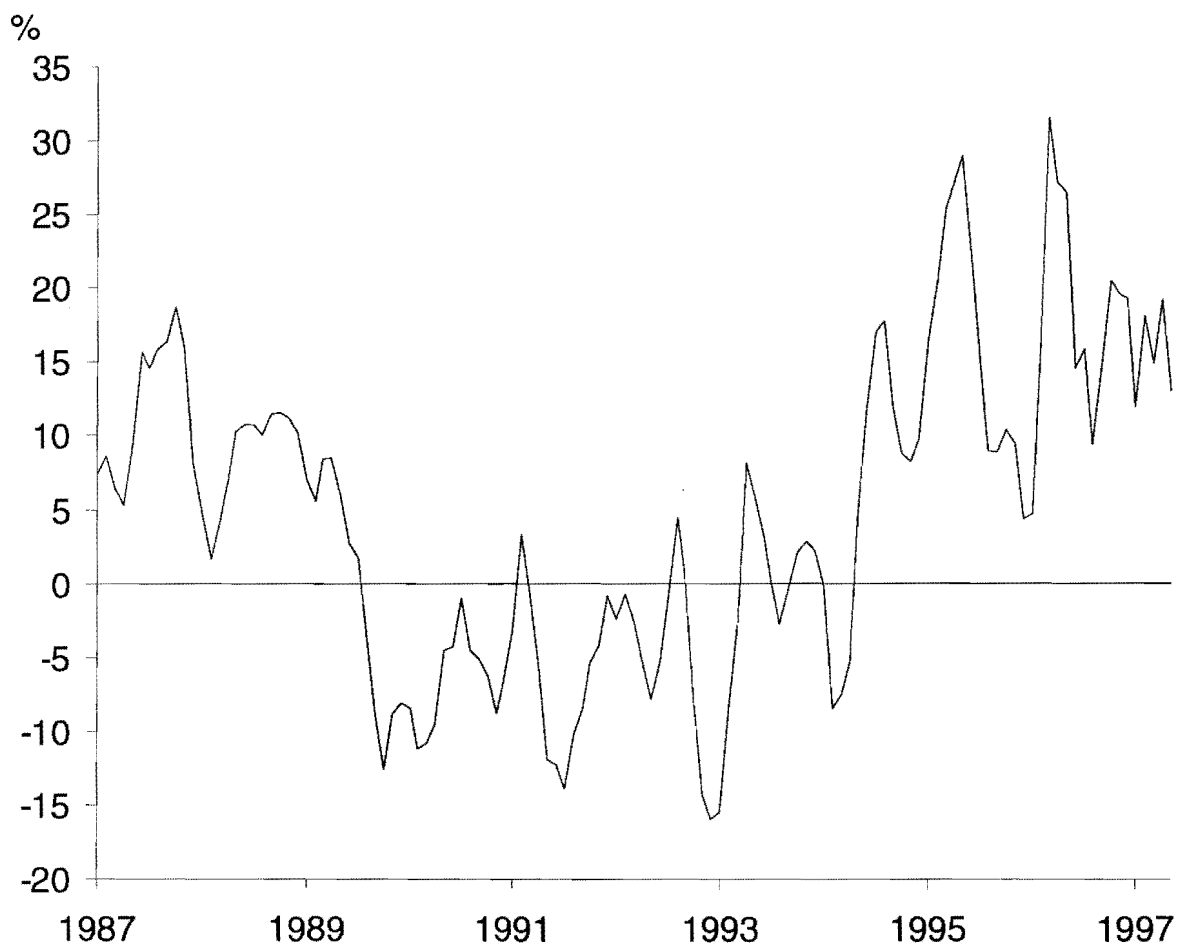
### 1. Clear acceleration in money growth since 1994



Banks' and thrift institutions' deposit liabilities are the dominant constituents of M2 and M3, the broad measures of the US money supply. Growth in the money supply is largely determined by lending to the private sector, which boosts the asset side of lending institutions' balance sheets. In the early 1990s M3 grew at an annual rate of less than 3%. M2, which excludes large time deposits, was also subdued. However, in 1995 broad money growth began to accelerate and M3 grew by 6.9% in the year to May. With banks now well-capitalised by past standards, broad money growth should remain buoyant. Low stock levels and high capacity utilisation rates are encouraging commercial and industrial borrowing, while strengthening personal sector balance sheets are sustaining household loan demand in spite of higher interest rates.

## 2. Increased corporate liquidity one influence on buoyant asset prices

Chart shows annualised quarterly growth rates of nominal M3 minus M2 i.e. a measure of wholesale money.



Source: Economic Indicators.

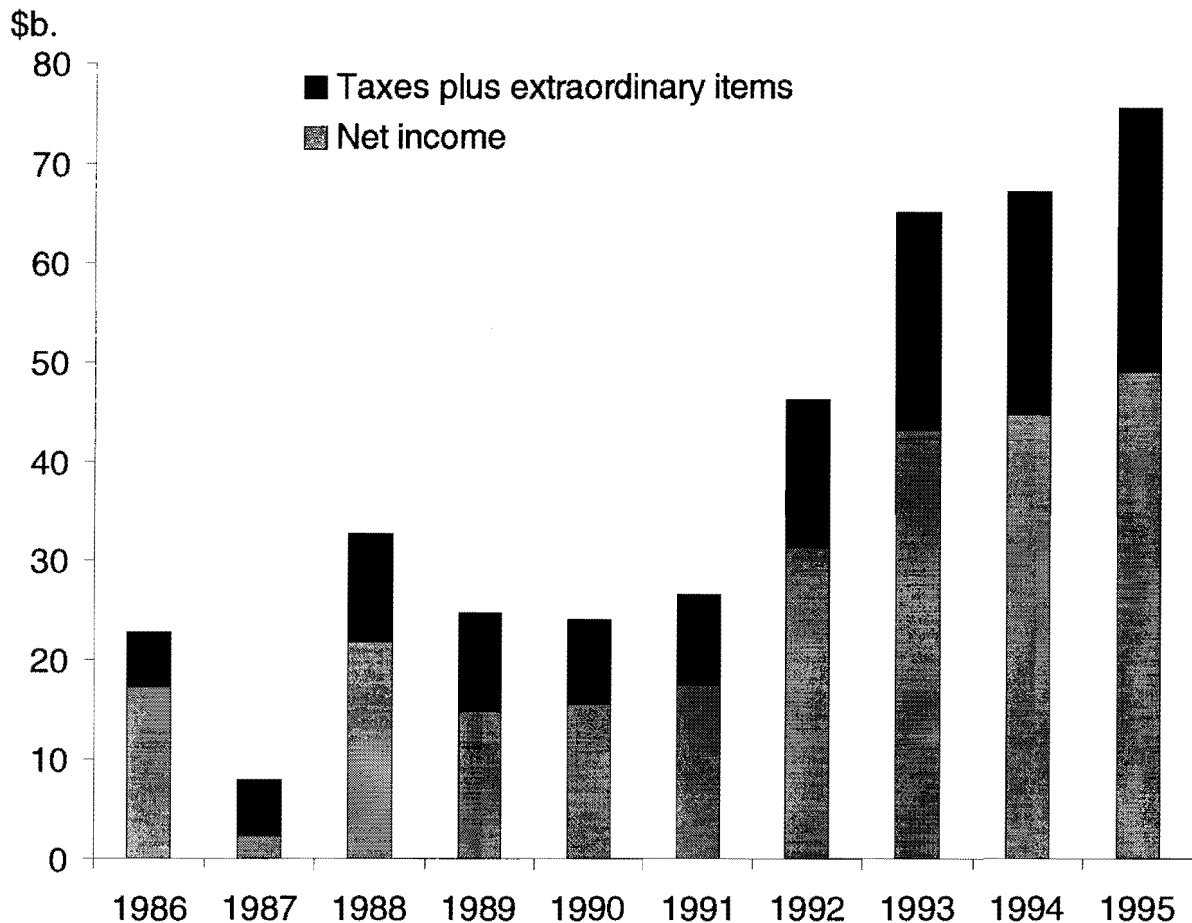
When individuals find themselves with "excess real money balances" they can restore monetary equilibrium by buying assets, transferring their excess balances to financial institutions. But at the aggregate level this is not possible because the economy is a closed circuit of payments. The only way the economy can move back towards equilibrium is through an increase in prices. M3 minus M2 is a measure of "wholesale money" balances and is largely held by companies and financial institutions. It has been growing at double digit annual rates since February 1995 and has grown at an annualised rate of 15% in the last two quarters. In an attempt to restore monetary equilibrium companies and financial institutions have been buying assets from each other, but at ever higher prices. Here is the monetary explanation for the current buoyancy of US asset prices.



## Profitability of the US banking system

### 1. Profits have soared in the 1990s, mostly because of lower loan write-offs

Chart shows annual earnings, in the form of net income and taxes plus ordinary expenses, of US commercial banks and non-deposit trust companies.

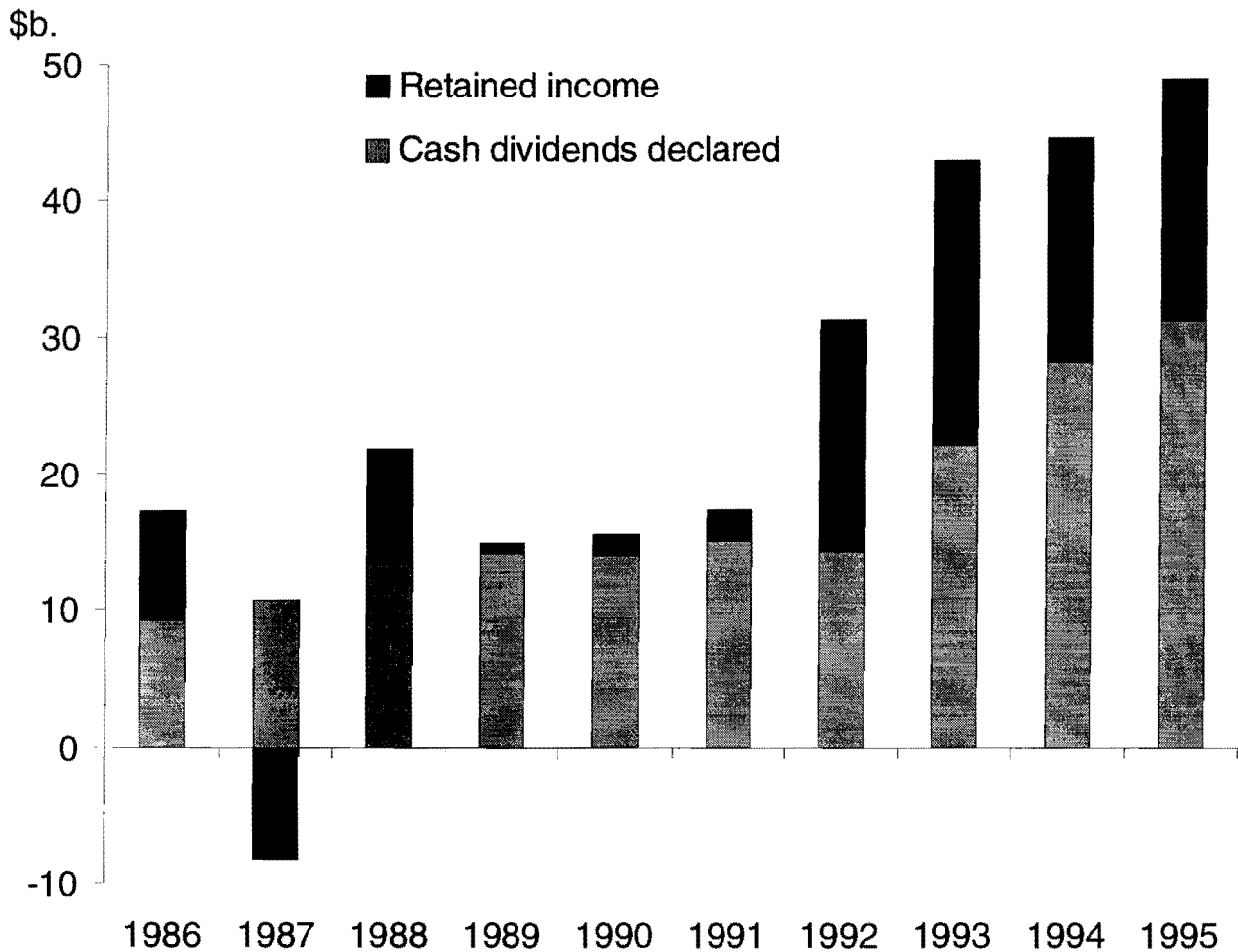


Source: Federal Reserve Bulletin.

Net income of US banks grew by 8.1% in 1996, the seventh consecutive annual increase, while returns on equity were 14.6%, up from 7.2% in 1990. The improvement was mostly due to a sharp drop in bad debt provisions. Loss provisioning fell from 1.03% of net consolidated assets in 1991 to 0.38% in 1996. Another long-term trend boosting returns on assets has been the growth in non-interest income, which went up from 30% of total revenues in 1990 to 35% in 1996. (Non-interest income includes credit card fees, mortgage fees and income from securitised loans). With the level of bad debts now stable, increasing profits will come from the further expansion of bank lending and the continued application of information technology.

## 2. Bigger dividends, but not at the expense of retentions

Chart shows annual earnings, in the form of dividends declared and retained income, of US commercial banks and non-deposit trust companies.

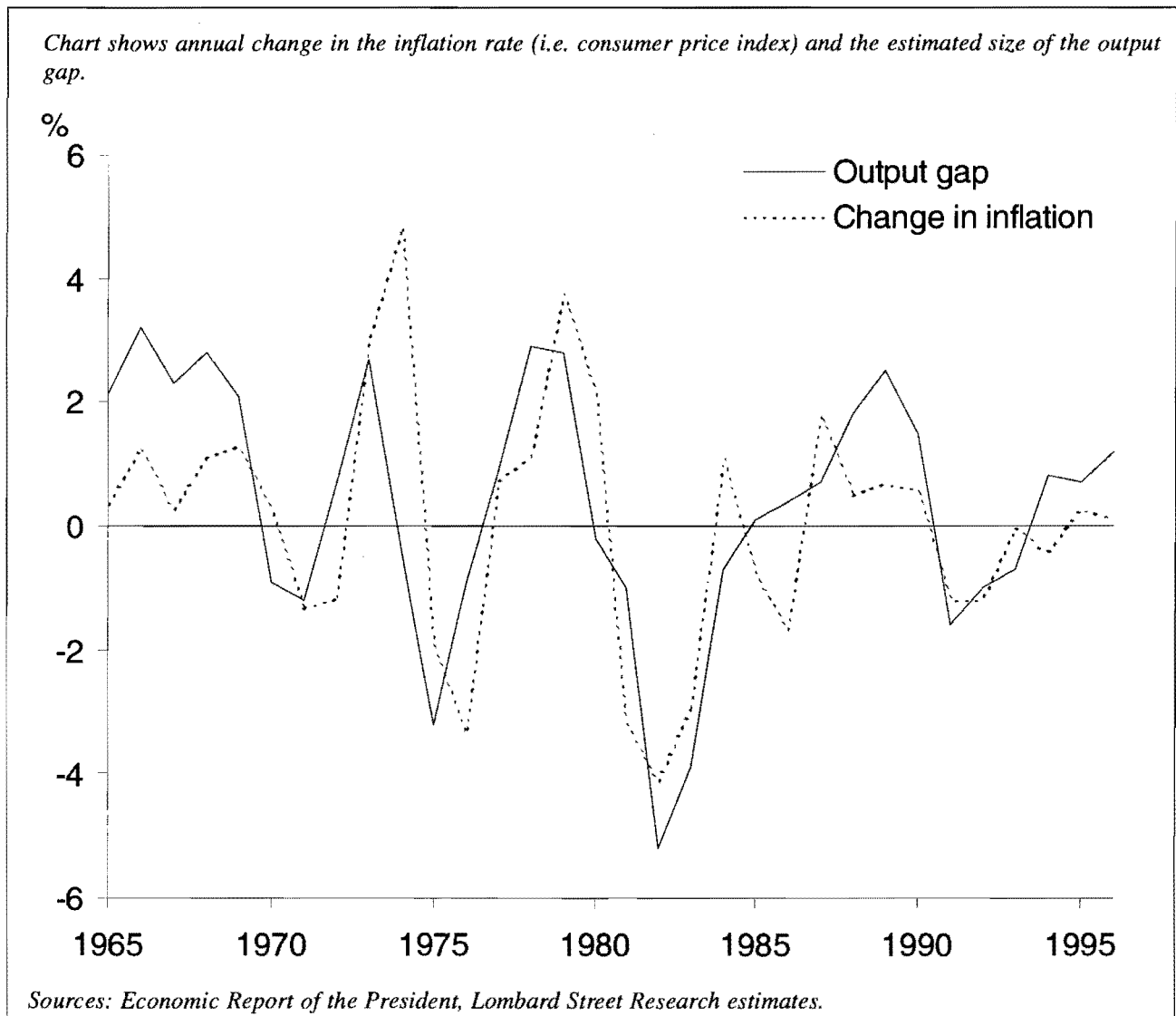


Source: Federal Reserve Bulletin.

In the five years to 1991 the equity capital of the US banking system grew on average by 5.0% a year, despite substantial capital-raising exercises. As equity/asset ratios had to be increased to meet the Basle capital rules, asset growth was modest. By contrast, in the five years to 1996 equity capital grew on average by just over 10% a year. With capital adequacy restored, banks have been keen to add assets. Whereas the stock of commercial and industrial loans was lower in 1992 than in 1986, it jumped by 9.3% in 1994, 12.3% in 1995 and 7.3% in 1996. The chart shows that banks are now growing their capital by retentions, as well as from new capital-raising. An article in the June 1996 *Federal Reserve Bulletin* noted that "the fraction of industry assets at well-capitalized banks rose to 96% by year-end [1995], up from just 30% at the end of 1990".

## Output and inflation in the USA

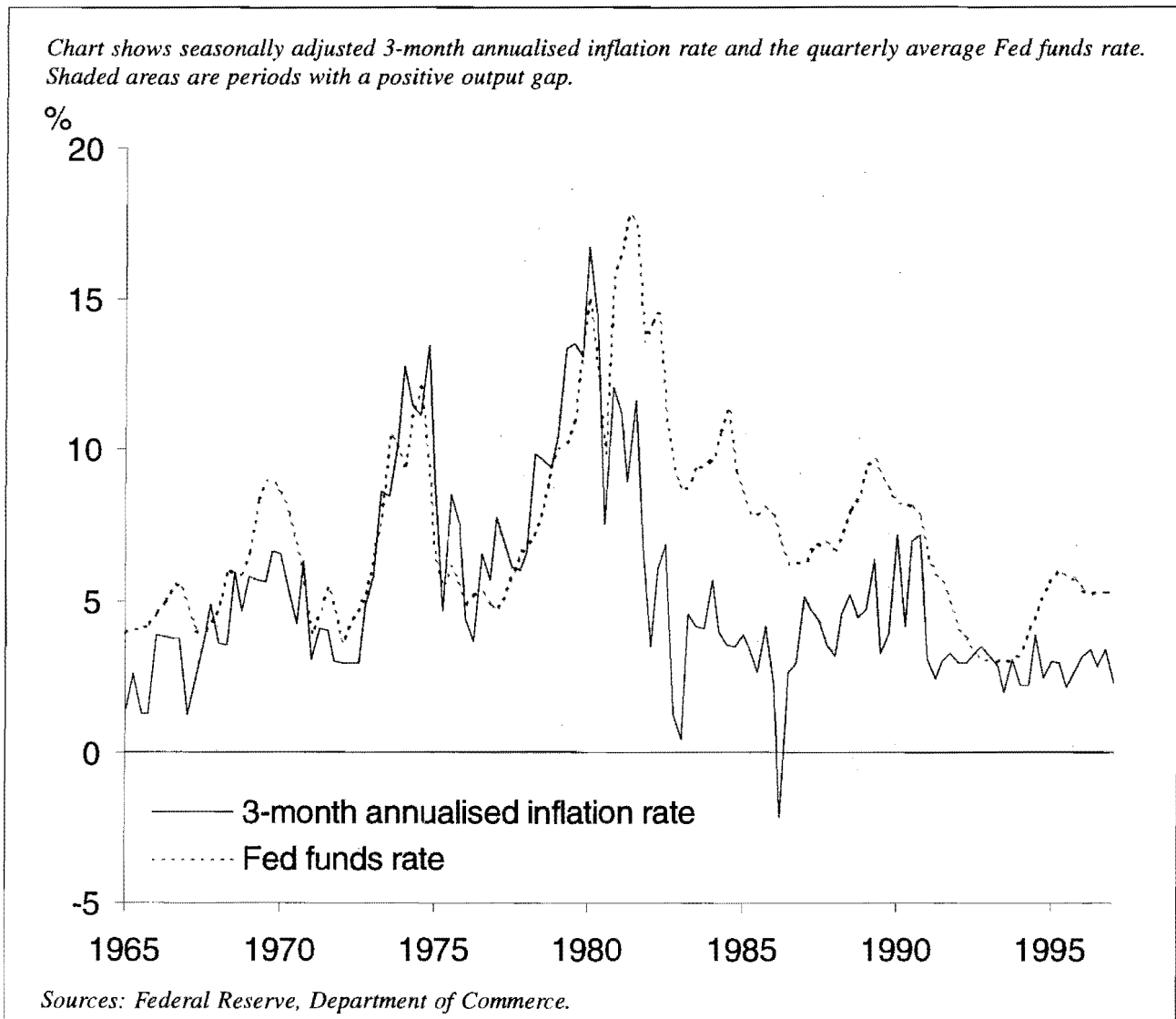
A rising positive output gap points to more inflation in the late 1990s



In his 1967 presidential address to the American Economic Association Friedman proposed that wage inflation increased (or fell) if unemployment was beneath (or above) the so-called "natural rate". A more general statement of this idea is that the change in inflation depends on the level of output relative to trend (i.e., the output gap). The above chart shows Lombard Street Research's estimates of the US output gap and compares them with the change in consumer price inflation. A simple regression exercise found that the constant term in the relationship was insignificantly different from zero (i.e., that inflation does not change when output is at trend), which fits with Friedman's hypothesis. The bad news is that - if output now goes well above its trend level - inflation will rise, and will keep on rising until output is again reduced to its trend level.

## Inflation and interest rates

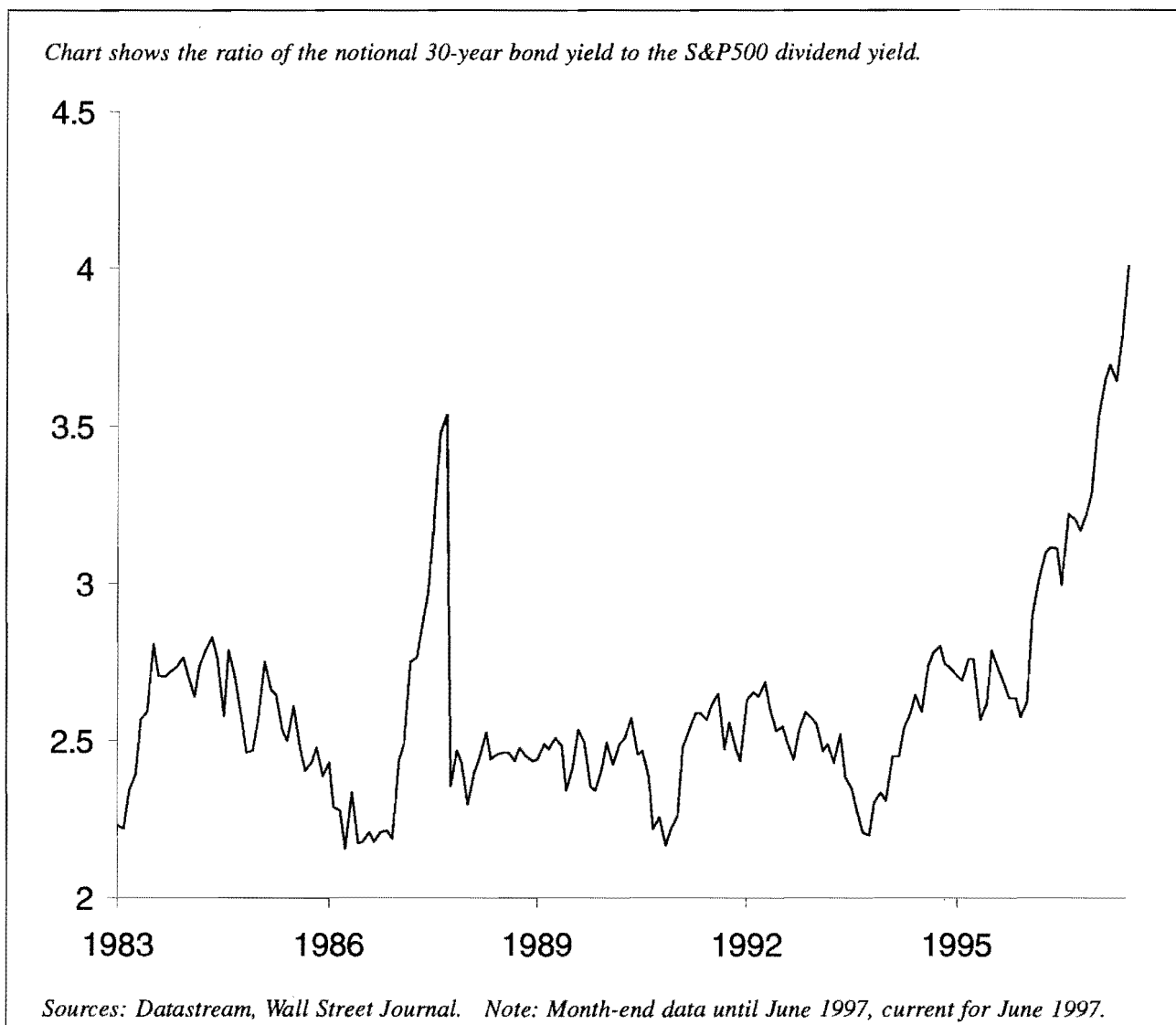
### Inflation and interest rates rise when the output gap is positive



The chart shows the behaviour of inflation and interest rates when the US output gap has been positive in the past. For bulls of American financial assets, it presents a worrying picture. In all four previous episodes, inflation and interest rates were higher at the end of the positive-output-gap periods than at the start. (Bond yields followed interest rates.) But there is scope for debate about the output gap in the US economy today. The chart suggests that output went above trend in 1995, but the OECD's estimates are that it remained beneath trend in both 1995 and 1996. The OECD's view agrees better with recent benign inflation performance. But the stock market's gains are themselves a symptom of excess real money balances, which can be worked out of the economy only by a period of above-trend operating ("overheating") and rising inflation.

## The bond/equity yield ratio

### US equity market set for a fall?



Investors have a choice between holding their wealth in equities or bonds. As the chart shows, on average over the last 15 years the 30-year US government bond yield has been between 2 1/2 and 2 3/4 times the S & P 500 dividend yield. Until recently the only exception was in the spring and summer of 1987, but that was before the crash in October 1987. At its peak in 1987 the bond/equity yield ratio was 3 1/2; today it is just over 4. If bond yields now tumbled from 6 3/4% to about 4 1/2%, a yield ratio of 2 1/2 - 2 3/4 could be restored without any change in the yield on equities. But the current stock market boom is itself a symptom of excess money balances and a classic associate or precursor of rising economic activity. If bond yields rise and the yield ratio returns to 2 1/2 - 2 3/4, US share prices could fall by over 30%.