Two years ago we projected that a drop in the inflation rate from 5% to 3% coupled with real interest rates near the 1971–91 average of 3% would drive bond yields down to 6% by 1996. Now that we're almost halfway to 1996 and yields are within 100 basis points of our target, we're extending our sights to the end of the decade. It is our belief that, while a modest cyclical rebound in inflation could temper some of the near-term momentum in the bond market, continued low inflation coupled with a decline in real rates to the long-term 2 1/4% average will drive yields toward the 5% level by the turn of the century.

This projected decline in interest rates will also translate into higher stock prices. We're looking for P/E multiples to expand still further, with the S&P P/E rising to between 20X and 25X earnings by the year 2000. Combined with relatively robust EPS growth, boosted by significant and increasing exposure to faster growing foreign economies, this P/E expansion will help to propel the DJIA toward 7000 as we enter the 21st century.

Five factors will combine to keep inflation under control:
1) Destimulative fiscal policy which is projected to result in cumulative deficit reduction of more than $300 billion over four years.
2) Productivity gains from “destructuring” within the service sector that will limit unit labor cost increases.
3) Continued slower than normal growth by a debt burdened private sector.
4) Ample capacity both domestically and abroad.
5) Reform of the health care system that helps drive medical cost inflation down toward the overall inflation rate.

Real long bond yields will be driven down toward the long-term 2 1/4% average from 1950–1992 by the following factors:
1) A rebound in the savings rate propelled by:
   a) The first material aging of the U.S. population since WW II.
   b) A loss of confidence in both public and private retirement plans to adequately meet the needs of future retirees.
2) A reduction in the budget deficit from over 5% to less than 3% of GDP.
It was almost two years ago that we wrote a report entitled "6 in '96" (April 21, 1991). The long bond was yielding 8.30%. It was our view at the time that the "great rate retreat" of the 1980s was not about to end, but would instead proceed right through the mid-90s. We projected that a drop in the inflation rate from near 5% to around 3%, coupled with real interest rates near the 1971–1991 average of about 3%, would drive Treasury long bond yields down to the 6% level by 1996. Now that we're almost halfway to '96 and bond yields are within 100 basis points of our 6% target level, it's time to extend our sights a little further to the end of the decade.

While a modest cyclical rebound in inflation could temper some of the near-term momentum in the bond market, it is our belief that long bond yields will continue to decline, reaching as low as 5% by the turn of the century. Destimulative fiscal policy, service sector productivity gains, ample global capacity and reform of the health care system will be the keys to keeping inflation in check. Concurrently, the first significant increase in the median age of the U.S. population since WW II, combined with increasing concerns over retirement benefits, should help propel the savings rate higher. This higher savings rate coupled with progress on deficit reduction will drive real rates back down to the 2 1/4 % long-term (1950–1992) historical average, and perhaps even as low as the 1% average of the 1950s.

Taking stock

This projected decline in interest rates will also translate into higher stock prices. After all, it was the 650 basis point plunge in long bond rates that was chiefly responsible for the doubling of the P/E for the S&P 500 from 1981 through 1992. We're looking for multiples to expand still further, reaching between 20X and 25X earnings by the year 2000 (see Chart 1). P/E expansion, which accounted for over 70% of the market rise over the past decade, will help propel the DJIA toward 7000 as we enter the 21st century (see Table 1). And S&P EPS growth is unlikely to slow much from here, even as domestic U.S. growth and inflation remain subdued. The reason: an increasing share of S&P earnings growth will be coming from faster growing economies abroad, with an estimated 45% of S&P 500 EPS already coming from foreign EPS.

Inflation: Keeping the "Genie" in the bottle

The primary catalyst behind the decade long decline in interest rates has been a drop in inflation rates. From a peak of almost 13% in 1980, CPI inflation has fallen to just 3.1% in 1992 (see Chart 2). Our chief economist Dr. Maury Harris, is currently forecasting even further declines in inflation, with CPI falling to the 2.7% level during 1993. Sustainably low inflation (3% or less) is one of the keys to long bond yields moving toward 5% by the year 2000. Looking ahead, there are five factors which will combine to keep the inflation "Genie" in the bottle through the turn of the century.

---

**Table 1**

**DJIA value in year 2000**

<table>
<thead>
<tr>
<th>S&amp;P 500 1993 normal EPS</th>
<th>$27.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500 normal EPS growth rate</td>
<td>6.00%</td>
</tr>
<tr>
<td>S&amp;P 500 2000 normal EPS</td>
<td>$40.00</td>
</tr>
<tr>
<td>2000 Bond yield</td>
<td>5.00%</td>
</tr>
<tr>
<td>Equity Risk Premium</td>
<td>3.00%</td>
</tr>
<tr>
<td>S&amp;P 500 normal Dividend Payout ratio</td>
<td>45.00%</td>
</tr>
<tr>
<td>S&amp;P 500 2000 calculated Normal P/E</td>
<td>22.5x</td>
</tr>
<tr>
<td>S&amp;P 500 2000 calculated Normal Value</td>
<td>$900</td>
</tr>
<tr>
<td>DJIA 2000 Equivalent</td>
<td>$7000</td>
</tr>
</tbody>
</table>

---

**Chart 1**

Market P/E levels at varying bond yields

<table>
<thead>
<tr>
<th>Bond Yield</th>
<th>30</th>
<th>25</th>
<th>20</th>
<th>15</th>
<th>10</th>
<th>5</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market P/E</td>
<td>10%</td>
<td>9%</td>
<td>8%</td>
<td>7%</td>
<td>6%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Market Growth Rate</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>
1. Destimulative fiscal policy

Not only will government spending not be the engine of growth that it was during the 1980s, but the painful progress toward deficit reduction will continue to be a drag on the economy through the 1990s. President Clinton has broadly outlined an economic plan which consists of a complicated mixture of tax hikes, spending cuts and specific spending increases targeted to “investment” projects. Over four years, the President intends to raise taxes by $246 billion, cut spending for existing programs by $247 billion, while raising spending and cutting taxes for pet programs by about $169 billion. The net result is a projected $140 billion reduction in the deficit by fiscal year 1997, and cumulative reductions of $324 billion over four years (see Table 2). While the President’s plan is unlikely to survive the congressional “special interest gauntlet” completely intact, whatever emerges should closely resemble the original proposal — and will certainly be destimulative. In fact, the final package may even wind up being more destimulative than the President intended. It appears there is a newfound sense of fiscal responsibility spreading through Capitol Hill. Congressional Democrats have lobbied for, and Mr. Clinton has apparently agreed to, at least an additional $55 billion in deficit reduction above what he called for in his State of the Union address. With the economy growing at a 4.8% clip in the fourth quarter, some in Congress have even begun to question whether or not a short-term fiscal stimulus package is truly warranted.

Overall, the Administration’s economic package translates into an annual average of about $85 billion in negative stimulus. That amounts to a reduction of GDP growth of between 1% and 1.5%. While lower interest rates and reduced health care costs may offset some of the negative impact, in aggregate, the President’s plan is largely destimulative.

Round two

But wait, there’s more. The President’s health care reform plan, scheduled to be unveiled in May, is likely to incorporate a second round of painful tax hikes. While no one knows exactly which taxes will increase and by how much, “sin taxes” on such items as tobacco and alcohol are sure to be included. Other possibilities include higher taxes on insurance companies, doctors and hospitals. The only tax that Mr. Clinton has specifically ruled out as a means of paying for the reform proposals is a levy against insurance benefits.

2. Service sector productivity gains

In Destructuring: How less is more in the late 1990s (January 1, 1993), we pointed out how “destructuring” is bullish for inflation. Companies which spent enormous amounts of money on technology over the past decade are finally beginning to see the payoffs from those investments. These improvements in productivity have limited wage inflation, and driven the growth rate of unit labor costs radically lower (see Chart 3). The continued “mainstreaming” of information technology in the 1990s will yield productivity improvements in the service sector to rival those so painfully achieved within the manufacturing sector during the 1980s. Just as a manufacturing firm can now build a car or produce a ton of steel with fewer workers, so too can a service company provide telephone services or process credit card purchases with fewer employees. As these productivity gains spread throughout the service sector, their impact will be reflected in slower than normal job formation, declining unit labor costs and continued modest inflation pressures.
Early signs

There are signs that this restructuring of the service sector is well underway, and that it is already impacting employment. For example, non-farm business productivity rose by 2.8% in 1992, the largest gain since 1973. During the fourth quarter, the gain was an even more impressive 4.8%. However, while productivity has risen at the highest level since the 1970s, service sector employment has continued to lag. During 1992, service sector employment grew at a rate of just 1%, far below the levels reached in past recoveries (see Chart 4).

According to the National Association of Purchasing Managers, 69% of executives reporting productivity gains last year credit workforce reductions, contracting out for goods and services or shedding of business units (i.e., de-structuring) for these gains. The solid 4.8% rise in GDP during the fourth quarter of 1992 was accompanied by a less than robust average monthly increase in non-farm payrolls of just 73,000 (see Chart 5). Even the surprisingly strong 365,000 gain in non-farm payrolls in February is being viewed cautiously. Labor Secretary Robert Reich credits 90% of the newly created jobs to part-time and temporary positions taken by individuals in search of full-time employment. It appears that the proliferation of cheap and powerful computers is starting to have an impact upon job formation within the service sector, and will continue to be felt in the years ahead.

3. Continued slow growth within the private sector

In addition to the cut back in government spending, the private sector should also continue to grow at a slower than normal rate through the end of the decade. Consumers are going to have to pay down the enormous debt burdens that were accumulated during the 1980s. And although this de-leveraging process is already underway, outstanding consumer debt payments as a percent of disposable income remains relatively high (see Chart 6). Since the consumer represents about two-thirds of the economy, overall growth rates should remain subdued through the 1990s as debt levels are returned to more manageable levels.
While it's true that individuals have benefited from being able to refinance home mortgages at lower interest rates, this has not produced a new consumer "spending spree". Instead, the cash flow that has been freed up as a result of lower mortgage payments is being used to retire higher yielding debt, such as balances on credit cards. Consumer confidence (see Chart 7), which has rebounded only modestly since the end of the recession, should remain low throughout the remainder of the decade. Individuals will continue to worry about future layoffs as more companies “destructure”.

4. Ample capacity

Even after eight quarters of an economic recovery, there exists ample domestic capacity. Because of the relatively shallow nature of the current recovery, demand growth remains weak and the capacity utilization rate has edged up only slightly to the 79% level. In fact, the utilization rate is not substantially above the lowest levels hit during the trough of the recession in early 1991 (see Chart 8).

The same conditions exist within the service sector. As you can see from Chart 9, office building vacancy rates in 49 major U.S. cities remain at an average of about 20%.

With growth expected to remain moderate through the remainder of the decade, the U.S. economy will have ample capacity. But the excess capacity does not begin at the Atlantic and end at the Pacific. As you can see from Chart 10 ample capacity is a global phenomenon. In fact, just to close this current global capacity gap, GDP for the 26 OECD nations would have to grow at a rate of 1.3% over the next seven years while holding new net investment completely flat. Given the increasingly globalized economy, capacity abroad is nearly as important as domestic capacity. In an environment of abundant capacity and intense competition, weak demand growth will continue to translate into only moderate inflation pressures.
Health care reform

Health care reform may emerge as the inflation wildcard. In his State of the Union address on February 17, President Clinton repeatedly emphasized the importance of controlling health care costs. The President pointed out during his address that we currently spend about 14% of our income on healthcare, and if left unchecked, health care spending will consume one-fifth of income by the year 2000. The CBO actually projects that health care spending will consume 18% of GDP by the year 2000. Health care costs have been rising an average of 8.2% over the past four years, versus an average increase of 4.3% for core inflation overall (see Chart 11). Given this rapid rise in health care costs it’s not surprising that the President has made it a priority of his administration.

Has health care inflation already peaked?

But just as the Administration prepares to tackle “run away” medical costs, health care inflation may already have peaked. As you can see from Chart 11, health care cost inflation rose substantially from about 6% in 1987, to over 9 1/2% in 1990. Since then, however, health care inflation declined by about 340 basis points; 183 basis points during 1991 and an additional 158 basis points in 1992. In fact, health care inflation fell by a greater percentage over the past two years than the overall core rate of inflation. For example, while health care costs fell 341 basis points from 1990 through 1992, core CPI (ex-food & energy) fell only 173 basis points (see Chart 12). And there are signs that health care inflation could fall even further. During 1992, health service employment rose by just 20,000 per month, about one-third below the level for both 1990 and 1991. Pharmaceutical companies, fearful of the new administration’s threats to introduce mandatory price controls, have already embraced the concept of pricing restraint. Drug prices which had risen at a rate of 7.5% for the 12 months ended December 1991, have slowed to a 4.8% rise for the 12 months ended January 1993. In a departure from the past, the American Medical Association (AMA) recently indicated that it would support the concept of spending limits on health care, and even accept a National Health Board to review prices and practices in medicine.

So while President Clinton’s stated goal of seeking to limit the growth in health care costs to the overall level of CPI is an ambitious one, it is not necessarily an unachievable one. Several alternatives currently being considered by the President’s health care team including managed competition, mandatory and voluntary price controls and minimum standards of care, could help drive health care inflation down toward the core inflation rate over the next decade. And as our chief economist Dr. Maury Harris points out, if the President is successful in...
pushing health care costs down to the overall rate of inflation, that could shave as much as 1/2 percentage point off of CPI.

Real rates: Back to the future

In The Ozzie and Harriet Market (March 20, 1992), we first suggested that the financial market environment of the 1990s will resemble the 1950s, because baby boomers will save and invest pretty much the same way that their parents did in the 1950s. In fact, during the 1950s long-term bond yields averaged less than 3%, inflation was just over 2% and real interest rates were under 1%. Maybe this is too much to hope for. But, an aging of the population and concerns over retirement benefits, coupled with gradual reduction in the nation’s budget deficit will help drive real interest rates back down to the long-term average of 2 1/4 %, and possibly even as low as the 1% average of the 1950s.

The demographic shift

For the first time since the end of WW II, there has been a substantial aging of the U.S. population. The median age in the U.S. has risen to an all-time high of 32.8 years, and is projected to increase still further to 35.7 years by the turn of the century (see Chart 13). The baby boomers (individuals born between the years of 1946 – 1964) are aging, and as they age, their emphasis is shifting from consumption to savings. They’ve become more concerned with planning for their own retirement, educating their children (or grandchildren) as well as setting aside funds for a relatively new financial burden—parent care. As Chart 14 illustrates, the percentage of the population between the ages of 40 and 49 has risen from 10.1% in 1980, to 12.6% today, the highest level in four decades. These 40–49 year olds represent that sector of the population where the savings rate first begins to increase materially. As these “boomers” move even further into middle age, the savings rate is likely to rise at an even faster rate. Individuals between the ages of 45–64 have a savings rate which is about 50% higher than the savings rate for individuals aged 25–44. Throughout the remainder of this decade, the 45–54 year old age group is projected to be the fastest growing segment of the population, nearly doubling by the year 2000. The savings rate, which has already rebounded from the low 4% level in 1989, should continue to rise right through the decade toward the 6.8% average of the 1950s (see Chart 15).

Shrinking retirement benefits could boost savings

Another factor which should also contribute to an increase in the savings rate over the next decade is the growing concern over retirement benefits. Many employers faced with the pressures from a competitive global environment have been aggressive in reducing employee benefits. Full time positions are being downgraded to part time and temporary status in an attempt...
to minimize benefit expense and limit liability. Many companies are opting for defined contribution plans instead of defined benefit plans in order to avoid the high premiums paid to the Pension Benefit Guarantee Corp. (PBGC), lower the investment risk and reduce administrative costs. By 1996, the assets in defined contribution plans are expected to exceed assets in defined benefit plans for the first time in history. And at the same time that employees are under pressure from companies reducing benefits, the Government Pension Benefit Guarantee Corp. Fund, which insures a large portion of the nation’s private pension plans, is itself on the brink of insolvency. The PBGC’s total deficit grew to $2.4 billion at the end of 1992.

Growing pressures on Social Security

While Social Security doesn’t face the same dilemma as the PBGC (the fund is, in fact, currently running a large surplus), many are questioning the ability of the system to adequately provide for the basic needs of all future retirees. By the year 2050 the number of individuals over the age of 65 is expected to swell to almost 79 million, from about 32 million today.

But not only is the number of individuals eligible for Social Security increasing, it’s also increasing at a faster rate than the rest of the population. The percentage of the population over the age of 65 will rise from 12.6% currently to 20.6% by 2050. The dependency ratio (which measures the number of children under the age of 17, and elderly over the age of 65 for every 100 people between the working ages of 18–64) is expected to rise from about 63% currently, to almost 80% by 2050. Considering that the portion of the population under the age of 17 is expected to shrink from 26% today to 23% by 2050, it’s clear that retirees will make up the lion’s share of this growth in the dependency ratio. It is feared that these increasing burdens upon the Social Security system may force a reduction in the growth of benefits in the future.

Budget cutting

But even if the Social Security benefits are not directly reduced, after tax purchasing power will decline as a greater percentage of payments are subject to taxation. President Clinton has proposed raising the percent of Social Security benefits included within taxable income. Currently, 50% of Social Security benefits are taxable for individuals with income and benefits exceeding $25,000, and couples receiving more than $32,000. Under Mr. Clinton’s new proposals, 85% of benefits would be taxable for individuals and couples within the same income categories. The President is also said to be considering a move to eliminate the cost of living adjustments (COLas) for government retirees. Not only would this suspension of COLas cover all Federal employees, but military personnel as well.

The prospects for continued cost cutting moves by private employees, spending reductions by the Federal government as well as increasing burdens upon both the Pension Guarantee Fund and Social Security will create an even greater incentive for individuals to save independently for retirement. This lack of confidence in both private and public pension systems to adequately meet the financial needs of future retirees will only contribute to an increase in the savings rate.

Deficit reduction

Another factor which should help push real interest rates lower is a decline in the budget deficit. As Chart 16 illustrates, there has historically been a very strong correlation between budget deficits as a percent of GDP and real interest rates. As budget deficits rise, government borrowing tends to “crowd out” private borrowing, thus forcing real rates higher. Investors also tend to demand higher risk premiums when deficits rise, as protection against the government trying to “inflate” its way out of debt. As you can see from Chart 16, during the 1980s the budget deficit as a percent of GDP rose dramatically. In fact, with the exception of the 1940s (which included the war years 1942-1945 when the deficit averaged about 22% of GDP) the deficit-to-GDP ratio was higher during the 1980s than at any other time in the 20th century. Over this same period, real long-term interest rates averaged almost 5.5% — an all-time high.

In contrast, the 1950s represent the last period over which the U.S. actually ran budget surpluses. Not surprisingly, real long-term interest rates fell near their historical lows, averaging less than 1% during the decade. Given this relationship between deficits and real rates, it is not unreasonable to expect a decline in real interest rates if budget deficits start to decline as a percent of GDP.
Deficit reduction could lower real rates an additional 100–200 basis points.

In recent testimony before Congress, Federal Reserve Chairman Alan Greenspan stated that real deficit reduction could bring about "a very dramatic decline" in long-term interest rates. Chairman Greenspan inferred that reducing the deficit by about $145 billion could result in a decline of as much as 2 full percentage points in real rates. In fact, since the Chairman's testimony, rates have declined an additional 40 basis points, largely as a result of the market's approval of the Administration's deficit reduction proposals. Work done by our chief economist, Dr. Harris, lends support to Mr. Greenspan's statements. Dr. Harris projects that for every 1% point drop in the deficit as a percent of GDP, real interest rates could be expected to decline by about 50 basis points. In his economic plan, President Clinton has proposed reducing the deficit from about 5.4% of GDP currently, to about 2.7% by 1997. Reducing the deficit by between $120–180 billion could bring real rates down from the current level of about 3 3/4%, to the 2 1/4% average of 1950–1992 (see Chart 17). Even further reductions in the deficit as a percent of GDP by the end of the decade could push real rates down closer to the 1% average of the 1950s.

Bridging the credibility gap

There is of course a credibility gap between projected deficit reductions and real deficit reductions. Virtually every President since President Ford has championed deficit reduction, most showing the deficit dropping to zero by the fourth year of their respective administrations. While a healthy dose of skepticism is warranted, there are several reasons to be encouraged by President Clinton's rhetoric:

1. He has taken his message of "shared sacrifice" to the American people and they appear to be willing to go along (at least for now);
2. With the Democrats running both the Congress and the White House there is no one else left to blame for "gridlock" over deficit reduction;
3. Republicans will use further cuts in government spending as a means of restoring their damaged credibility; and
4. Ross Perot will remain highly visible and highly vocal on the issue of deficit reduction. Should Mr. Clinton forget about his promise of real and credible cuts in government spending, Mr. Perot will be there to remind him—in about 100 million different ways.

The "rolling coupon" effect

Another factor which will greatly benefit Mr. Clinton's efforts to reduce the deficit is the favorable impact of high coupon debt issues being refinanced at substantially lower interest rates (a process referred to as "rolling off the curve"). Over the next eight years there are a large number of high yielding Treasury issues which will be maturing—some with coupons above 13%. Even without the benefit of heroically low interest rate assumptions, interest expense on existing Treasury debt will decline dramatically by the year 2001. For example, if we were to hold the financing mix unchanged and assumed that interest rates remained at current levels, annual interest expense for total Treasury debt currently outstanding would decline by $50 billion in eight years (see Table 3). If we were to alter the financing mix by
reducing both 10-year note and 30-year bond issuance by 50% while holding rates unchanged, annual interest expense for outstanding Treasury debt would fall by an additional $10 billion.

But if rates were to decline, the interest expense on outstanding Treasury debt would fall even further. For example, cutting rates by a modest 50 basis points over eight years while holding the financing mix constant reduces interest expense by $53 billion. If we assume the long bond were to drop to 5% by 2001, annual interest expense declines by over $61 billion.

Even if rates were to rise over the next eight years, annual interest expense for outstanding debt would still decline. For example, if the yield on the bond were to rise over 100 basis points to 8% by 2001, interest expense would still decline by $40 billion. It would take a 13 1/2% yield on the long bond, and a doubling of the yield on the 3-month T-bill to 6%, before interest expense for outstanding Treasury debt would rise.

Table 3
Interest expense reduction on Treasury debt (Dollars in billions)

<table>
<thead>
<tr>
<th>Basis point yield shift by year 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage cut in 10-year and 30-year issuance</td>
</tr>
<tr>
<td>0%</td>
</tr>
<tr>
<td>25%</td>
</tr>
<tr>
<td>50%</td>
</tr>
<tr>
<td>100%</td>
</tr>
</tbody>
</table>

Of course, this isn’t meant to imply that total interest expense on the Treasury’s debt will decline simply because higher coupon issues are “rolling off”. Each year interest expense will grow as long as the government continues to run annual budget deficits.

However, the government will now stand to benefit from the lowest interest rates in three decades. Individuals who have had to sit by and watch their 12% coupon bonds being called away, or their 10% CDs maturing understand all too well just how powerful an impact this refinancing effect can have. But instead of having to lend at substantially lower rates as savers do, the government is reaping the benefits of borrowing at sharply lower yields.
And this decline in bond yields will also translate into higher stock prices. Unlike the 1950s, when earnings growth was modest (S&P 500 EPS in 1960 was only 15% higher than in 1950), as we discussed earlier in the report, S&P EPS growth is unlikely to slow much in the late 1990s, even as domestic U.S. growth and inflation remain subdued, because an increasing share of S&P earnings growth will be coming from faster growing economies abroad. This combination of low domestic inflation and relatively robust earnings growth should see P/E multiples expand as high as 20-25X earnings by the year 2000, driving the DJIA to 7000.