

Feature Articles

- ▶ The Economy 2
- ▶ New Highs in the Dow Mask Stronger Performance in Most Major Indices 3
- ▶ The Nasdaq Bear-Market Bubble Ahead 4
- ▶ Update of Technical Indicators: Still a Bit Confusing Short Term, but Clearly Bullish for the Next Two to Three Years 7
- ▶ The Chairman of the Fed Starts Singing Our Song... But Misses a Few Notes 10
- ▶ Remarks by Chairman Ben S. Bernanke - October 4, 2006 12

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Treading Water Before the Next Major Advance



In brief: The Dow broke to a new high in early October, causing us to reverse our short-term defensive position we had taken to avoid the typical 4-year cycle lows between late September and late October. The OEX put/call indicator was bearish for the short term in August and September, while the longer-term signal of our broader technical indicators was bullish, which suggested one more correction before we launched into the most bullish stage of the 4-year cycle. But the corrections didn't happen, and the markets continued to push upward. The good news is that the Dow has held its new highs; the markets recently have tended to make new highs and then almost immediately fail again. In the extreme near term, the markets are getting more overbought and are likely to correct a bit into mid-to-late November or so. As long as we hold the breakout levels of 11,723 to 11,750 on the Dow, we will continue to feel good about this rally. Beyond that we will have to re-evaluate. But the next bubble boom looks to have finally begun in July and looks to stay intact.

Despite the continued threats of a slowing economy and Middle East/North Korean tensions, the recent strength in the markets suggests to us that a likely correction ahead will be minor, as the markets have largely discounted these possibilities at this stage, and that the markets will continue this bubble, which finally began more than a year after we expected it to start. Oil prices have fallen down into their support levels at \$56 to \$58 (generating the rally in stocks) and are likely to head up a bit near term, which may be the reason that the markets stall a bit here at first, especially if there is some bad news from the Middle East or North Korea.

Here's the bigger picture: the bubble boom may have been late to start in the large-cap and tech stocks in the US, but it actually accelerated in 2005 on schedule in the small-cap, mid-cap, and transportation sectors in the US and in foreign markets, especially in the emerging markets and Asia. So, the next bubble is happening, and the Decennial Cycle was more accurate than we initially thought after a flattish year for large-cap US stocks in 2005. This means that large-cap and tech stocks in the US should be in a catch-up cycle in the next two to three years, as our recovery cycle naturally moves upward again by the middle of next year after the Fed tightening cycle reverses. Hence, large caps in the US are likely to have the best risk/return performance in the next two to three years.

But we have also tempered our forecasts for the peaks in the Dow and Nasdaq (in the October issue), as it becomes more obvious that we are in an increasingly adverse geopolitical cycle similar to the

one that started around 1962-1965 and lasted into 1980-1982 with the growing Cold War environment back then. Our new forecasts of a Dow around 20,000 by late 2009 and the Nasdaq merely retesting its highs near 5,000 by late 2008 or 2009 is further supported by looking at the leading stocks and sectors of the Nasdaq.

Our reviews of the largest tech stocks in the key sectors strongly suggest that the best gains ahead will be in the networking and Internet sectors, with the software sector also delivering solid gains with less volatility to balance our tech portfolios. The semiconductors still look to have strong gains, but more volatility—while the biotech sector looks to hit new highs, but with less dynamic gains and greater volatility as well.

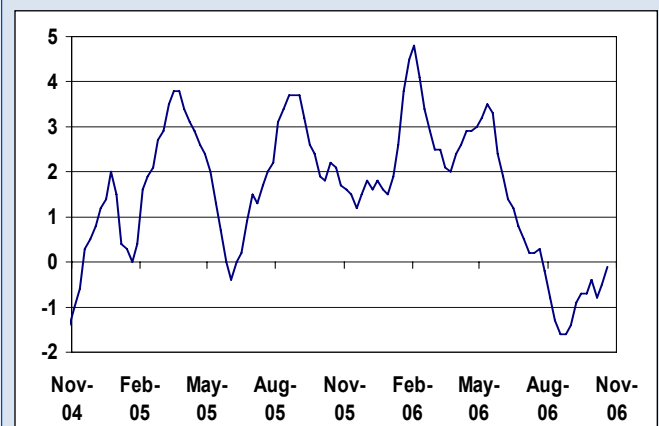
Hence, we will be emphasizing the networking, Internet, and software sectors of technology ahead—along with Asia, emerging markets, health care, and financials. We are likely to deemphasize the financials (outside of brokerage, investment management, and investment banking) due to the gradually rising interest rate environment from early 2007 into late 2009 that we forecast. We will start adding emerging markets on the next correction and may start adding commodity sectors to our portfolios later in 2007, as we expect one more commodity boom ahead from late 2007 or early 2008 into late 2009 or so. We also look toward adding more in Asia if there is another round of tensions with North Korea that causes a correction there near term.

The Economy

The markets have gone back and forth on the issue of whether the economy is going to slow just enough or too much based on the ebb and flow of economic statistics. The evidence last week started pointing toward the slower side again. The Weekly Leading Index in **Chart 1** has been saying that there would be a substantial slowdown but not a recession well into the first quarter or early second quarter of next year—and we have been forecasting that we would get down to near 1% in GDP. GDP estimates for the third quarter just came in at 1.6%, lower than the expected 2.2%. The culprit again seems to be housing, as many other areas of consumer spending (outside of automobiles) remain stronger than expected, with consumer spending rising upward to 3.1% in the third quarter as housing declined further (housing is counted as fixed investment, not spending).

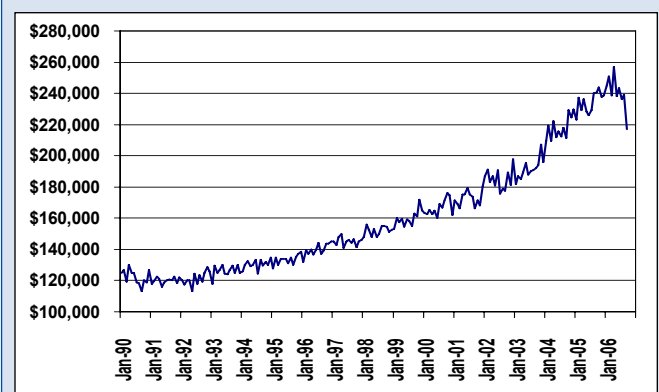
New home prices in **Chart 2** took the largest monthly drop in 35 years, 9.7%—and the drop from the top is actually 16%, higher than we saw between 1990 and 1992. So, the housing slowdown we projected has continued to occur greater than for just a normal cycle and stronger than the early 1990s downturn.

Weekly Leading Index (Growth Rate)



Source: Economic Cycle Research Institute Chart 1

Median New Home Prices 1990-Present



Source: US Census Bureau Chart 2

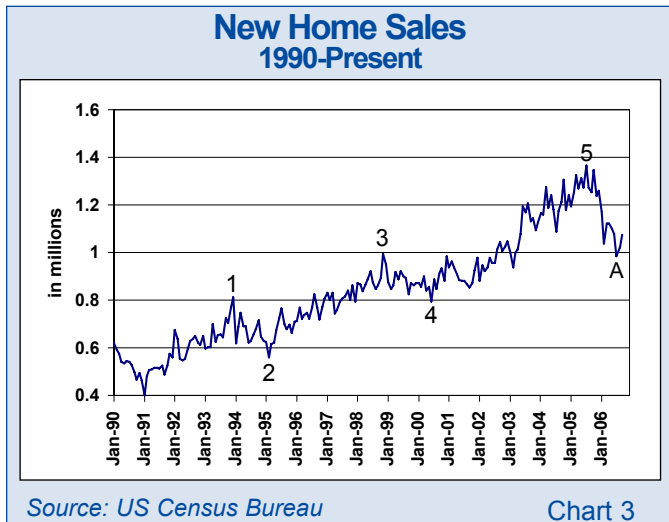


Chart 3

Chart 3 shows that new home sales have finally bounced a bit in September from levels just under 1 million, where they peaked back in late 1998. Many analysts are now saying that the worst of the housing slowdown is over. The recent heavy discounting by builders should help take down some of the excess inventory. If new home sales can hold at or above this recent low, it would be a good sign for the economy and for housing—but sales and prices are likely to gyrate more sideways (and likely down a bit more for prices) for a year or so to come (like they did from 1990 to 1992), as the longer-term demand from Baby Boomers has peaked. We may see some modest gains in housing sales and prices in the next few years (as we have seen in Europe lately), but we expect a greater slowdown and a more precipitous decline to begin around late 2010 or so for many years to follow, especially into around early 2015, where we expect the greatest unemployment and the worst for the economy.

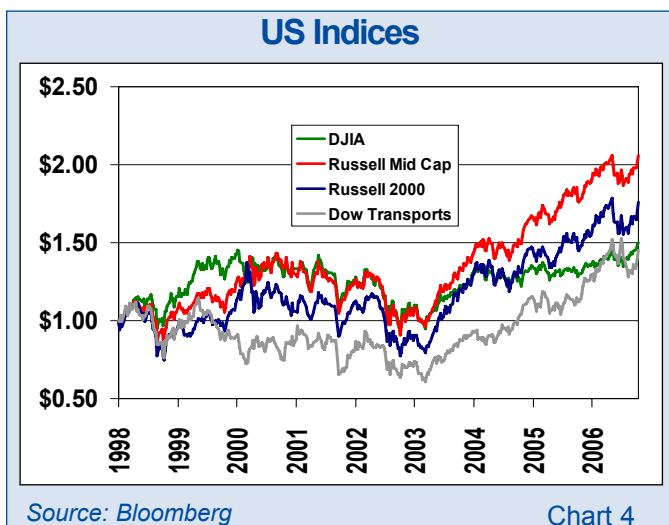


Chart 4

Home prices are likely to weaken a bit more in the next year or so, but we have likely seen the worst in price drops, if home sales hold up here as they appear likely to do for now. We still think the best time to buy a house would be around the summer of 2007, and the best time to refinance is likely to come in the next few months, as interest rates are edging down again with the slowing signs in the economy. Look for 10-year Treasury rates in the 4.4% to 4.5% range for refinancing with 5/1 ARMs. Again, with the longer and sharper decline we expect after 2010, you should reconsider your real estate decisions longer term and whether buying in 2007 makes sense if prices will decline much more after 2010, and you should reconsider what you may want to sell by late 2009 or 2010. We also expect the Weekly Leading Index to keep trending up from here; if it doesn't, that would be a sign of a more protracted slowdown. But for now, we should see the economy get stronger again between March and June of next year.

New Highs in the Dow Mask Stronger Performance in Most Major Indices

The new high in the Dow prompted us to reverse our defensive signal, and it is one of the key bullish signs we have been looking to, to validate the strong rally we expect into 2007 and beyond on the strong phase of the 4-year cycle. But the Dow is one of the last major indices to make new highs, and the gains in the Dow since the bottom in October 2002 have been much less robust than most other indices in the US, and even less so than most foreign markets.

Chart 4 shows how the mid caps have done the best over the past years and made new highs in early 2004. Presently, the mid caps have advanced 131.6% from their lows in October 2002 vs. gains of only

68.5% for the Dow. The small caps tested their old highs in early 2004 and then made new highs in late 2004, with gains to date of 133.5%. The Dow Transports have also greatly outperformed, making new highs in late 2004 and with gains of 145.3%. The Nasdaq, despite being the farthest away from new highs, has been up 114.7%.

In **Chart 5** we see that the foreign markets have experienced an even greater bull market since their various bottoms between October 2001 and March 2003. The emerging and Asian markets—where there has been the greatest demographic growth—bottomed in October 2001, and gains have been 228.6% and 157.9%, respectively. Europe’s bull market started later in March 2003, but even here the gains have been 119.7%, despite weaker demographic trends than in the US. The S&P 500 should be the last major broad index to make new highs in 2007, and it has only lagged due to its high percentage of tech stocks vs. the Dow and small-cap/mid-cap indices. Only the Nasdaq is likely not to make new highs in this last bull market, although it should come close to retesting its old highs. **Chart 6** summarizes the gains in the broader domestic and foreign markets from their lows between late 2001 and early 2003.

Earlier this year, we were lamenting the fact that 2005 was the first “5th year of the decade” in 100 years that was not a very strong year. But the truth is that the unimpressive performance was only the case in the large-cap indices in the US. The Decennial Cycle still lives and points up strongly until late 2009! The large-cap and technology stocks in the US are still “in shock” from the crash that hit harder here than elsewhere. They are clearly due for a strong catch-up rally in the next few years as the economy surges again and we move into the last peak years for Baby Boom spending and technology growth—as well as the peak of the “race for leadership” that will increasingly favor the largest leading companies in each industry and sector.

The Nasdaq Bear-Market Bubble Ahead

Don Hays has been comparing this rally in the Nasdaq to the bear-market rally on the Dow after its most dramatic crash from late 1929 into mid-1932, projecting a peak for now sometime in 2008. From 1932 to 1937, the Dow advanced 4.5 times from its bottom in a steep bear-market bubble. Such a 4.5-times gain from the Nasdaq’s lows in late 2002 of 1,100 would put it at very close to 5,000—just below its all-time highs in the bubble, as we are now forecasting. The Dow is moving into new high territory along with most other major indices, so there are no clear targets areas—now that the Dow Channel doesn’t appear to be valid on

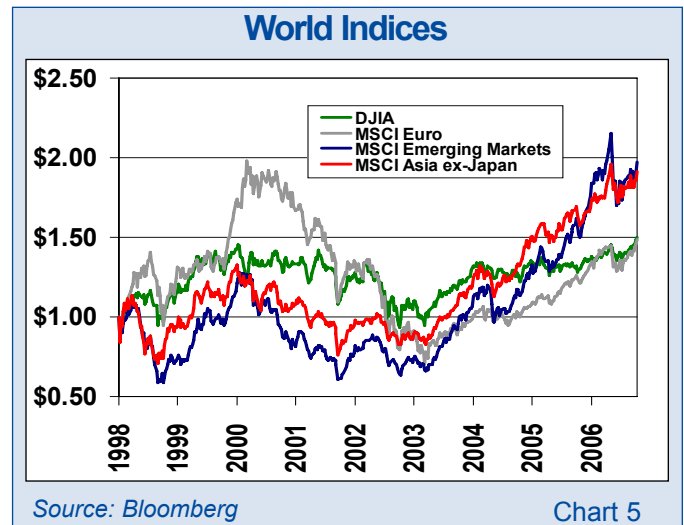
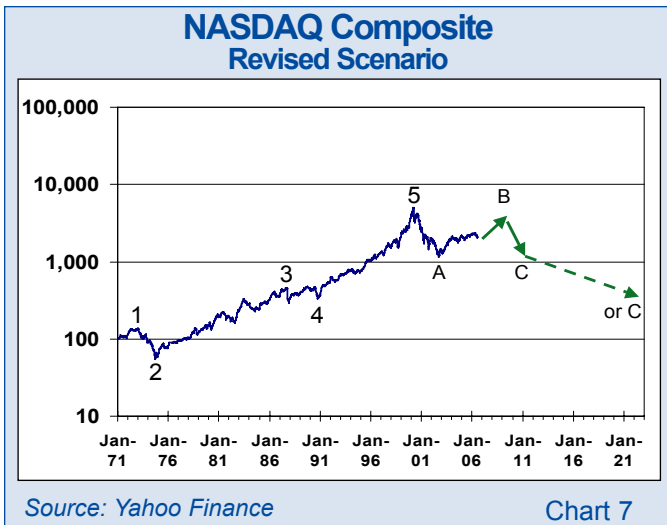


Chart 5

Index	Gain (%)
Dow Industrials	68.5%
Dow Transports	145.3%
Russell Midcap	131.6%
Russell 2000	133.5%
MSCI Europe	119.7%
MSCI Emerging Markets	228.6%
MSCI Asia Ex-Japan	157.9%

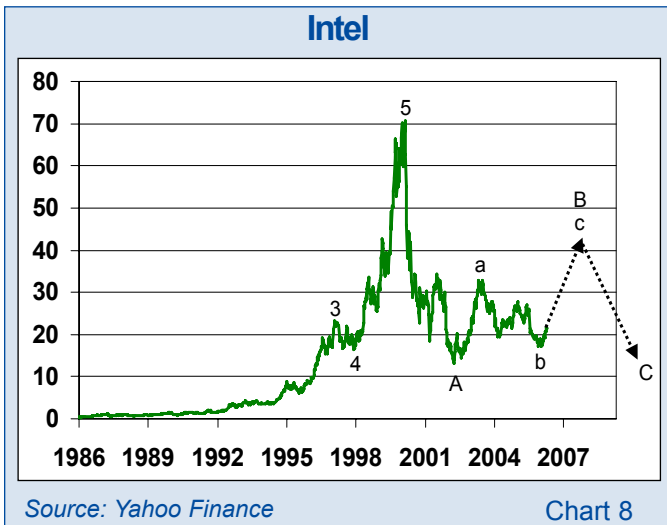
Source: Bloomberg

Chart 6



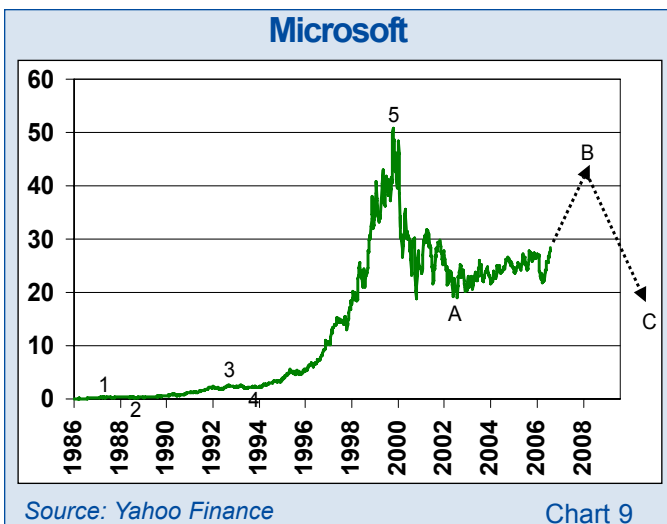
the upside looking forward (although we are still looking to the bottom of the channel for downside support, as it has barely held during the correction in 2006 and looks very likely to hold near term). But the Nasdaq has a clear resistance range between 4,300 and 5,050 from the last peak and initial correction in 2000, which gives us better targeting ranges in this index for the next bull-market top.

Also from *The Next Great Bubble Boom*, in the last great bubble that peaked in late 1929, the tech and small-cap growth stocks peaked a year earlier in late 2008. Hence, this more likely B wave or bear-market bubble in the Nasdaq could occur by late 2008 or early 2009, which would make the annual gains even stronger, as we would expect vs. the Dow. We are talking about gains of 1.8 times to 2.2 times from here in as little as 2 years! If the Nasdaq rally lasts into late 2009 or so, then we could see new highs above 5,050. When we look at the leading stocks in the major sectors and we focus on in the Nasdaq, we generally get a similar picture (**Chart 7**).



In the time frame of 2 to 3 years, most major tech stocks look unlikely to make new highs, and that supports this B wave or bubble bear-market scenario. But from the charts ahead, we can see that some sectors clearly look more opportune than others. Note: the stocks we use in the following charts are general model portfolio examples only of sectors and lead companies in sectors, and not intended as specific purchase recommendations.

We start with the largest stock in the semiconductor sector, Intel (**Chart 8**). Semiconductors were one of the strongest segments in the 1990s bull market for returns, but the volatility in this rally since October 2002 makes them look less attractive. Intel peaked at \$71 and saw an A-wave crash down to \$13. Now the B wave looks likely to peak around \$43 to \$45 or so, which would be a 2-times gain or so from here. So, semiconductors (symbol IGW in ETFs) still look strong but volatile and offer less potential gains than other sectors, such as Internet and networking.



Microsoft is the dominant stock in the software sector (but is now lagging in performance vs. other leading stocks in this sector). We most favored this sector in the 1990s due to its low volatility and still solid returns. Microsoft peaked at \$51, with an A-wave bottom down to \$19 (**Chart 9**). A likely B-wave target would be back to \$43 or higher, and there is a possibility here for a fifth wave peak at new highs above \$51. So, Microsoft at \$28 currently appears to have the potential for about a 60%

gain or more in the next 2 years or so. Oracle's chart is similar but shows greater room for growth. Hence, software appears to have a bit less potential than semiconductors or other leading sectors, but again, it has the most clear chart pattern (for heading up into a major third wave rally since the bottom in October 2002) and the least volatility. So, we continue to like this sector for balance in our tech portfolios (symbol IGV in ETFs).

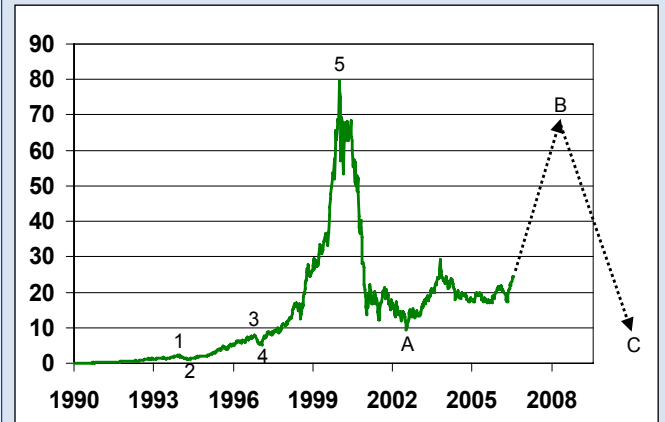
Cisco is the leading stock in the networking sector and appears to have very strong potential ahead, which bodes well for that sector. It topped at \$80, with a dramatic A-wave crash down to \$10 (Chart 10). Currently at \$25, the most likely projection for the B wave appears to be a range of \$53 to \$69. That means gains of 2.3 to 2.8 times, stronger than Intel. Hence, we feel that the networking sector (symbol IGN in ETFs) is one of the best for gains in the next 2 years or so, with reasonable volatility vs. those gains.

Outside of the new kid on the block, Google (which clearly seems to have major gains ahead and is already worth more than all other Internet stocks), eBay is the largest Internet stock that survived the last crash. This chart clearly has only seen a third wave peak in 2000 between \$58 and \$59 (Chart 11). Hence, it is very likely to move to new highs, and that bodes well for the Internet sector (although the total sector will not make new highs). The best projections would be for a target around \$75, which would represent gains of around 2.4 times, vs. \$31 currently. This makes the Internet sector (symbol HHH in ETFs) our second favorite for gains looking ahead after the networking sector, but there is a bit more volatility here recently (which has created better value).

And, finally, we look at Amgen, the clear leader in the biotech arena. This stock also clearly has only seen a third wave peak back in 2000 and has a more complex chart that suggests two likely surges ahead before peaking probably later, toward late 2009 vs. late 2008 (Chart 12). This stock will clearly see new highs, which bodes well for the biotech sector. But the gains projected for this stock at a peak of around \$110 to \$120 suggest gains of 1.5 to 1.6 times. Given the volatility of this sector in this rally, we tend to favor it less and would use it more for diversification within the tech and health care sectors. The broader index (IBB in ETFs) is likely to outperform Amgen.

To summarize: Most of the key stocks in the Nasdaq support the forecast for a bear-market bubble that comes close to retesting the old highs. If the Nasdaq rally lasts into late 2009, it is possible that we could

Cisco Systems



Source: Yahoo Finance

Chart 10

Ebay



Source: Yahoo Finance

Chart 11

Amgen



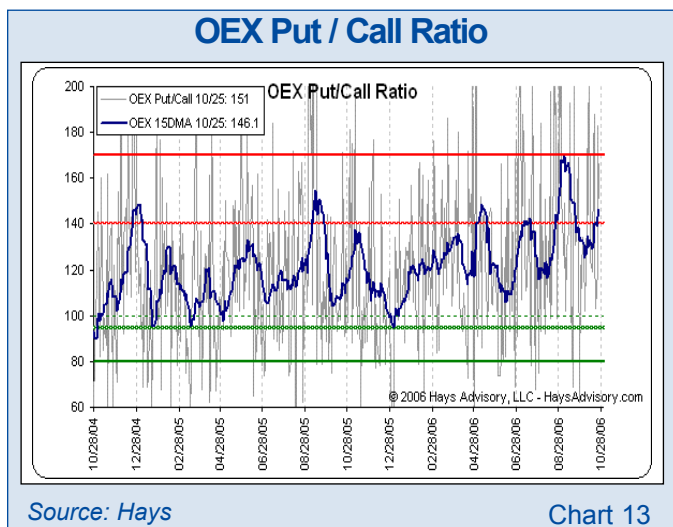
Source: Yahoo Finance

Chart 12

see new highs. But a B-wave top by late 2008 or early 2009 looks the most likely. Our favored sectors are networking and Internet for returns and software for low volatility and diversification/balance. Look to buy smaller amounts of semiconductors and biotech on sharp corrections, as they have more volatility but also strong gains ahead.

Update of Technical Indicators: Still a Bit Confusing Short Term, but Clearly Bullish for the Next Two to Three Years

In past issues we have shown how extremely oversold most of our technical indicators got into the June/July correction bottom, and that bodes very well for the next few years. But as we approached the worst two-month period from back-testing in the 4-year cycle (mid to late August to mid to late October), there was a very strong divergence. The OEX put/call ratio represents the trading positions of the smartest institutional traders and hedgers. They are the most likely to be right in the short term, and this is a shorter-term indicator. After getting normally bearish in early May 2006—which led to a substantial correction—these smart traders got extremely bearish into August and early September. This reinforced our natural policy of getting defensive just ahead of the mid term elections every four years.



We constantly warn our readers that technical indicators are only right about 2 out of 3 times. And this one was dead wrong—just when it gave one of its strongest bearish signals in years—as the markets continued to advance from the extreme oversold readings of most technical indicators (**Chart 13**). When the Dow hit new highs in early October, we reversed our defensive position back to a full-out buy position. But again, this is a shorter-term indicator, as these professional hedgers change their positions and opinions frequently. The technical indicators like the total put/call and the AII bearish and bullish readings of broader, everyday investors are more intermediate to longer term, as these investors take a long time to get very bullish or very bearish (like three years from early 2000 to early 2003 and five years to get very bullish from late 1994 into early 2000).

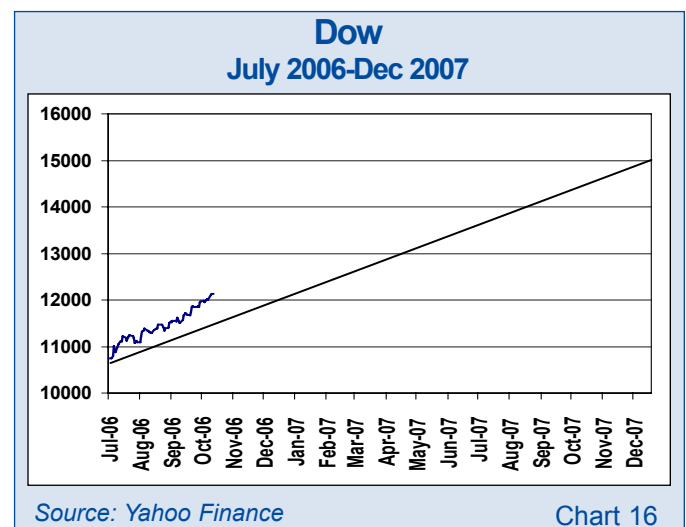
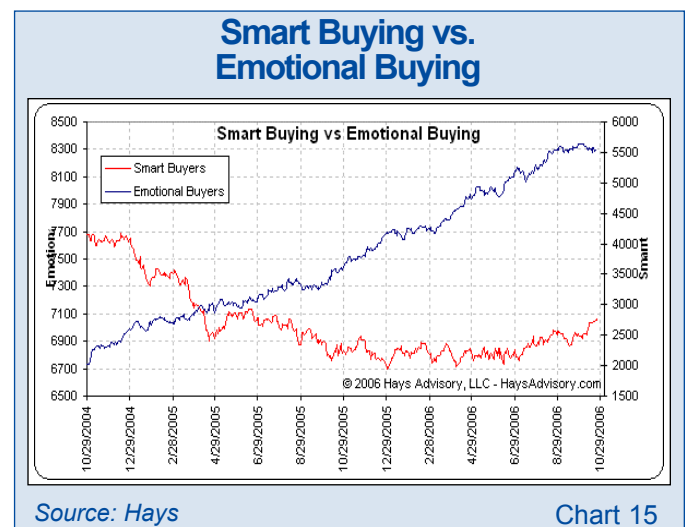
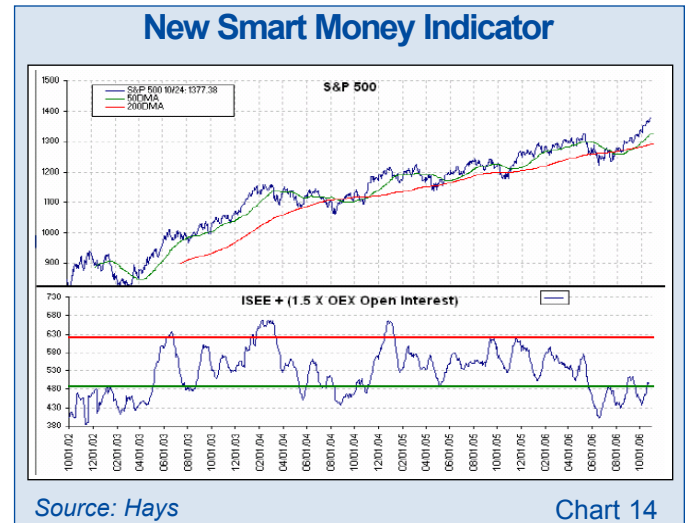
The preponderance of broader technical indicators are just moving up from extreme bearish readings in June/July 2006 and argue for a strong advance over the next few years. The OEX put/call and other short-term oscillators still argue for limited gains near term due to increasingly overbought conditions. But there should be only minor corrections ahead, given the still extreme undervaluation of stocks. Hence, after some minor corrections in November, we expect a resumption of the bubble rally that finally began in July into 2007 and beyond into 2008 and/or 2009 (depending on the indices and sectors).

Don Hays, whom we most respect and closely monitor for technical indicators, has just devised a new technical indicator that seems to work better than the OEX put/call after it failed recently. He combines the open interest of the OEX traders (which is a better measure of their broader and longer-term positions) with the ISEE Sentiment Index, which measures the sentiment of option traders. **Chart 14** shows that indicator, which bottomed at the most extreme in mid June 2006 and then gave two further buy signals in mid July and early October (when we got back in fully). Other technical indicators are approaching a more cautious position just ahead, but this one should be bullish for the next few years after its extreme bottom in June 2006. Hence, there are probably limited gains just ahead, and we are likely to see a minor correction into mid to late November or so before resuming the strong rally that started in mid-July 2006.

Another indicator that we monitor and have featured in the past (**Chart 15**) measures the smart money (those who tend to trade more in the last hour of the day after evaluating the trends) vs. the emotional traders (those who trade more on the news in the first hour). The emotional traders are finally peaking out in recent months, whereas the smart money is rising for the first time in years after bottoming out between the beginning and end of the first quarter of 2006. This again argues for a sustained uptrend over the next few years.

For the near term, it is a good sign that the Dow broke to new highs and did not immediately reverse back down. That has been the tendency of this market in recent times of extreme confusion among both sophisticated traders and everyday investors. The markets have tended to break down just below support levels that would normally signal to get more defensive, but then have reversed back up again after tricking investors to sell out. And, vice-versa, the markets have tended to break just above resistance levels and then reverse down again. This shows that the smart traders have been in charge and are manipulating the markets for their own gains—selling just above the high end of trading ranges and buying just below the low end. But, thus far, the new highs have held for weeks!

Chart 16 shows that if the 4-year cycle is typical here and we advance to around 15,000 into late 2007 or early 2008, then the Dow will have to advance about 250 points a month on average. Hence, the steady rise in the markets should not be surprising, nor should the tendency toward an overbought bias. We are a bit ahead of that trajectory, as you would expect in the early stages of the rally, but this trend line suggests that we should still



be at around 12,000 or higher by year end. We should hit 13,000 by around April 2007, 14,000 by around August 2007, and 15,000 by around the end of 2007 or early 2008.

As we commented in a recent update, we will still feel very good about this rally as long as we hold above the break-out levels of 11,723 to 11,750. The markets may move a bit higher in early November with the current momentum, but the short-term oversold readings on many indicators suggest a minor pullback into mid to late November or so. That will represent the next buy opportunity in this rally if that likely correction occurs. We still have the reality of a further slowing of the economy, which has already begun in late October, and the potential for further tensions in the Middle East near term. But the markets seem to be less reactive to events like the recent North Korea nuclear test, unless those events affect the price of oil. Oil has fallen into strong support levels between \$56 and \$58, so there is likely to be some movement upward near term.

There is still a likelihood, as previously forecast, that there will be some more tensions in the Middle East near term and further reactions to the slowing economy before stocks resume their rally. But we feel now with the recent strength and new highs on the Dow that stocks are likely to react less to these events. November is likely to continue in a trading range between 11,720 and 12,300 on the Dow and 2,240 to 2,400 on the Nasdaq. Then, in December and January, we are likely to see a strong break up again toward 15,000 by late 2007 or early 2008.

And, finally, the technical indicators have leaned consistently toward being more overbought in recent months. But we warned months ago that would tend to be the case. As we see housing, commodity, and bond prices moderate or fall, new monies will tend to flow into stocks—especially large-cap and tech stocks. This will tend to create an overbought bias for years in reaction to the extreme oversold bias between late 2001 and mid 2006. Many technical analysts will tend to warn that the markets are overbought and due for a substantial correction (as they did between 1996 and 1999), but the tendency will be for minor corrections, followed by continued overbought rallies.

At this point only a major international crisis would cause a substantial correction of 10% or more. If such a crisis were to occur, a break much below 11,723 on the Dow could foreshadow such a correction; we will be monitoring for that. A correction back to 11,723 to 11,800 on the Dow or to around 2,220 to 2,290 on the Nasdaq would represent only a 4% correction (up to 7% on the Nasdaq) from recent highs—not a big price to pay for being fully invested ahead of the next major advance in the markets (25% to 30% on the Dow and 40% to 60% on the Nasdaq), especially as the technical indicators have been very difficult to read in more recent months. The next strong buy signal should occur on the next sell-off, whether it gets that low or not. The next cautious signal would occur if we broke significantly below 11,720 (or 2,210 on the Nasdaq) without extreme oversold readings. We will keep you updated.

The Chairman of the Fed Starts Singing Our Song... But Misses a Few Notes

Rodney Johnson

President, HS Dent Publishing



In his speech before the Washington Economic Club on October 4th, 2006, Ben Bernanke, Chairman of the Federal Reserve Bank, made some very interesting comments that parallel our research of the last twenty years. His speech was entitled, “The Coming Demographic Transition: Will We Treat Future Generations Fairly?” We have reprinted it in its entirety below. As I see it, his main points were as follows:

- As the Boomers leave the workforce, we will have less workers, therefore less output, which will lead to a decline in standard of living for the nation.
- The benefits promised through entitlement programs are unsustainable, and to pay at the levels currently offered would require a 33% tax hike.
- There are two general ways to mitigate some of the affects of the aging of America—increase savings today through lower consumption, and/or have Boomers work longer.
- If we do nothing, we are condemning future generations to a significantly lower standard of living as well as much higher taxes, just so that the current generation can enjoy their standard of living (consumption and leisure, as the Chairman puts it).

Mr. Bernanke goes on to make the point that increasing the savings rate—both at the personal and government level—only works if it is used to invest in capital stock (things that make workers more productive, so that we can sustain a higher level of output with fewer workers). He also notes that although the dismal savings rate of US households is well known, so far no silver bullet has been discovered that would make people save more.

Mr. Bernanke’s comments and the analysis that the Board of Governors is using deserves closer scrutiny. Mr. Bernanke states that if we “do nothing,” we can expect that personal consumption of future generations would be about 14% less than it would have been without the demographic change. Think about this. Personal consumption accounts for 70% of economic activity in the US. So a 14% decline in personal consumption would equate to about a 10% decline in economic activity. This is not a “drop in the bucket” or a “minor correction.” A 10% change in economic activity is like the Grand Canyon. It implies a major correction in the US economy! To clarify Mr. Bernanke’s words and our own forecast, it is not as if the economy will suddenly stop, declining 10% in a day. Instead it will be a steady grind toward lower economic activity. The financial markets, however, do not work this way. The financial markets tend to be forward looking (at least over medium-term horizons), so stocks can be expected to fall fast and hard in anticipation of economic changes.

When Mr. Bernanke suggests a way to avoid this, he points out that his model shows that an immediate 3% increase in savings (which corresponds to a 4% drop in consumption) would change the equation so that current generations, who would be the savers, would shoulder a fair share of the lower consumption burden along with their heirs. This change—an immediate drop of several percentage points—would indeed be like falling off a cliff in the Grand Canyon, because it implies an immediate and lasting change.

What might this scenario look like? Once again, we point to the Japanese economy of the 1990s as a perfect example of slowing consumption and rising savings rates. There's only one problem—there was no subsequent investment in capital stock. The reason that the investment did not occur is because the companies that might have tapped that increased savings to build plants and increase productivity seem to have asked a simple question: "Why would I build more capacity if demand (consumption) is falling?" That turned out to be a really good question. And the way the Japanese corporations answered it was, "I wouldn't."

Most of this discussion is modeled on an industrial economy. In a service-based economy, savings and capital spending mean much less. A new desktop computer with the latest productivity-enhancing tools can be bought for a couple hundred dollars; this hardly constitutes a massive investment in capital spending. A lawyer, banker, or computer programmer would not require a new factory to churn out more efficient legal briefs, loan proposals, or computer code.

Mr. Bernanke points out that there is no basis for relying on the exact numbers of the analysis (14%, 4%), but also that there is significant credibility in the trend information. Essentially, if we do not stop consuming today at some rate, we will have a much greater drop in consumption in the future. But either way, a drop in consumption seems to be imminent.

Obviously we see Mr. Bernanke's remarks and analysis as on point. However, we do see a flaw in the analysis with regard to the timing. Mr. Bernanke points to future generations and to decades ahead. His model for slower consumption is based on what happens when generations retire. When it comes to a silver bullet for increasing savings and a motivation to spend less, Mr. Bernanke and many economic analysts are about to get what they wished for, no matter what the consequences.

As we have established repeatedly through our research using the Consumer Expenditure Survey, as conducted and published by the US government, spending on average peaks at about age 48. Savings, as noted by the Federal Reserve Survey of Consumer Finance, begins in earnest after age 50. Right now, the peak number of Baby Boomers are about age 45, having been born in ever-increasing numbers up to 1961. So what we should be (and seem to be) experiencing is an incredible run up in consumer spending as this group moves toward and through their peak spending years. This should be followed in short order (after about 2009-2010) by slowed spending and increased savings. As they say, "Be

careful what you wish for.” The exact point that Mr. Bernanke makes—saving more will require a sacrifice of slowing consumption and leisure—is what we expect to happen, with commensurate changes in GDP, and therefore, corporate revenue, corporate profits, and stock prices. In essence, we see US consumers spending less and saving more, causing a declining economy and falling markets. But our estimate is that it will happen much, much sooner than Mr. Bernanke’s model suggests.

As for the issues with entitlement programs, pensions, and taxes, we have covered them many times. The basic relationship has not changed. There is no way for the current level of pensions and benefits across the private and public sectors to be paid from the amount of assets we have put away and the current level of taxation. There are three choices: lower benefits, higher taxes, or some combination of the two. Whatever solution you choose, there will be pain. The question is, who’s willing to take that “silver bullet” of higher taxes or lower benefits so that others can live and/or retire more comfortably?

Mr. Bernanke’s speech, as posted on the Federal Reserve’s website with its footnotes, is reprinted below.

*Remarks by Chairman Ben S. Bernanke
Before The Washington Economic Club, Washington,
D.C. October 4, 2006*

*The Coming Demographic Transition: Will We Treat
Future Generations Fairly?*

In coming decades, many forces will shape our economy and our society, but in all likelihood no single factor will have as pervasive an effect as the aging of our population. In 2008, as the first members of the baby-boom generation reach the minimum age for receiving Social Security benefits, there will be about five working-age people (between the ages of twenty and sixty-four) in the United States for each person aged sixty-five and older, and those sixty-five and older will make up about 12 percent of the U.S. population. Those statistics are set to change rapidly, at least relative to the speed with which one thinks of demographic changes as usually taking place. For example, according to the intermediate projections of the Social Security Trustees, by 2030—by which time most of the baby boomers will have retired—the ratio of those of working age to those sixty-five and older will have fallen from five to about three. By that time, older Americans will constitute about 19 percent of the U.S. population, a greater share than of the population of Florida today.

This coming demographic transition is the result both of the reduction in fertility that followed the post-World War II baby boom and of ongoing increases in life expectancy. Although demographers expect U.S. fertility rates to remain close to current levels for the foreseeable future, life expectancy is projected to continue rising. As a consequence, the anticipated increase in the share of the population aged sixty-five or older is not simply the result of the retirement of the baby boomers; the "pig in a

python" image often used to describe the effects of that generation on U.S. demographics is misleading. Instead, over the next few decades the U.S. population is expected to become progressively older and remain so, even as the baby-boom generation passes from the scene. As you may know, population aging is also occurring in many other countries. Indeed, many of these countries are further along than the United States in this process and have already begun to experience more fully some of its social and economic implications.

Even a practitioner of the dismal science like me would find it difficult to describe increasing life expectancy as bad news. Longer, healthier lives will provide many benefits for individuals, families, and society as a whole. However, an aging population also creates some important economic challenges. For example, many observers have noted the difficult choices that aging will create for fiscal policy makers in the years to come, and I will briefly note some of those budgetary issues today. But the implications of demographic change can also be viewed from a broader economic perspective. As I will discuss, the broader perspective shows clearly that adequate preparation for the coming demographic transition may well involve significant adjustments in our patterns of consumption, work effort, and saving. Ultimately, the extent of these adjustments depends on how we choose--either explicitly or implicitly--to distribute the economic burdens of the aging of our population across generations. Inherent in that choice are questions of intergenerational equity and economic efficiency, questions that are difficult to answer definitively but are nevertheless among the most critical that we face as a nation.

Demographic Change and the Federal Budget

As I have already mentioned, the coming demographic transition will have a major impact on the federal budget, beginning not so very far in the future and continuing for many decades. Although demographic change will affect many aspects of the government's budget, the most dramatic effects will be seen in the Social Security and Medicare programs, which provide income support and medical care for retirees and which have until now been funded largely on a pay-as-you-go basis. Under current law, spending on these two programs alone will increase from about 7 percent of the U.S. gross domestic product (GDP) today to almost 13 percent of GDP by 2030 and to more than 15 percent of the nation's output by 2050. The outlook for Medicare is particularly sobering because it reflects not only an increasing number of retirees but also the expectation that Medicare expenditures per beneficiary will continue to rise faster than per capita GDP. For example, the Medicare trustees' intermediate projections have Medicare spending growing from about 3 percent of GDP today to about 9 percent in 2050--a larger share of national output than is currently devoted to Social Security and Medicare together.

The fiscal consequences of these trends are large and unavoidable. As the population ages, the nation will have to choose among higher taxes, less non-entitlement spending, a reduction in outlays for entitlement programs, a sharply higher budget deficit, or some combination thereof. To get a sense of the magnitudes involved, suppose that we tried to finance projected entitlement spending entirely by revenue increases. In that

case, the taxes collected by the federal government would have to rise from about 18 percent of GDP today to about 24 percent of GDP in 2030, an increase of one-third in the tax burden over the next twenty-five years, with more increases to follow. (This calculation ignores the possible effects of higher tax rates on economic activity, an issue to which I will return later.) Alternatively, financing the projected increase in entitlement spending entirely by reducing outlays in other areas would require that spending for programs other than Medicare and Social Security be cut by about half, relative to GDP, from its current value of 12 percent of GDP today to about 6 percent of GDP by 2030. In today's terms, this action would be equivalent to a budget cut of approximately \$700 billion in non-entitlement spending.

Besides tax increases, spending cuts, or reform of the major entitlement programs, the fourth possible fiscal response to population aging is to accommodate a portion of rising entitlement obligations through increases in the federal budget deficit. The economic costs and risks posed by large deficits have been frequently discussed and I will not repeat those points today. Instead, I will only observe that, among the possible effects, increases in the deficit (and, as a result, in the national debt) would shift the burden of paying for government spending from the present to the future. Consequently, the choices that fiscal policy makers make with respect to these programs will be a crucial determinant of the way the economic burden of an aging population is distributed between the current generation and the generations that will follow.

A Broader Economic and Generational Perspective

Indeed, framing the issue in generational terms highlights the fact that the economic implications of the coming demographic transition go well beyond standard considerations of fiscal policy and government finance, important as those are. For reasons that I will explain in a moment, the aging of the population is likely to lead to lower average living standards than those that would have been experienced without this demographic change. How that burden of lower living standards is divided between the present and the future has important implications for both intergenerational fairness and economic efficiency.

Why will the coming demographic transition carry a cost in terms of long-run living standards? Assuming it unfolds as expected, the projected aging of the population implies a decline over time in the share of the overall population that is of working age and thus, presumably, in the share of the population that is employed. For any given level of output per worker that might be attained at some future date, this decline in the share of people working implies that the level of output per person must be lower than it otherwise would have been. In a sense, each worker's output will have to be shared among more people. Thus, all else being the same, the expected decline in labor force participation will reduce per capita real GDP and thus per capita consumption relative to what they would have been without population aging. These reductions in output and consumption per person represent an economic burden created by the demographic transition.

Although some adverse effect of population aging on future per capita output and consumption is probably inevitable, actions that we take today, in both the public and the private spheres, have the potential to mitigate those effects. One such action would be to find ways to increase our national saving rate. If the extra savings were used to increase the nation's capital stock--the quantity of plant and equipment available for use by workers--then future workers would be more productive, ameliorating the anticipated effects on per capita output and consumption. Alternatively, using extra saving to acquire financial assets abroad (or to reduce foreign obligations) would also increase the resources available in the future.

By saving more today, we can reduce the future burden of demographic change. However, as any economist will tell you, there is no such thing as a free lunch. Saving more requires that we consume less (to free up the needed resources) or work more (to increase the amount of output available to dedicate to such activities). Either case entails some sacrifice on the part of the current generation. Consequently, a tradeoff exists: We can mitigate the adverse effect of the aging population on future generations but only by foregoing consumption or leisure today. This analysis is simple, but it shows why the coming demographic transition has economic implications that go well beyond the effect of aging on the federal budget.

In recent work, economists at the Board of Governors have used a stylized model to get a rough estimate of the magnitudes of the intergenerational tradeoffs that we face.¹ Their analysis takes as a starting point a baseline scenario in which U.S. demographics remain (hypothetically) the same in the future as they are today. In this counterfactual scenario, the ratio of workers to the overall population is assumed to remain at its current level over time and per capita consumption grows with productivity. Now in reality, as I have noted, an aging population will reduce labor force participation, so the likely future trajectory of per capita consumption over time lies below that implied by the baseline scenario that assumes away the demographic change. The shape of the actual consumption trajectory depends, however, on the saving behavior of the current generation. If today's saving rate is low, then the current generation can enjoy consumption close to what it would have been if the aging issue did not exist. However, in this case, the burden on future generations will be relatively great. Alternatively, the current generation could consume less and save more, which would allow the consumption of future generations to be closer to what it would have been in the absence of population aging.

How big are these effects? To assess magnitudes, the Board economists first examined the case in which the nation saves at its current rate for the next twenty years, thereby largely insulating the baby-boom generation from the effects of the coming demographic transition. After that, they assumed, consumption falls and saving rates rise, with all future generations experiencing the same percentage reduction in consumption relative to the baseline in which no population aging occurs. Their rough calculations suggest that, in this case, the per capita consumption of future generations would be about 14 percent less than what it would have been in the absence of demographic change.

For comparison, they next considered the case in which the burden of demographic change is shared more equally among current and future generations. They considered a case in which the national saving rate, instead of staying at its current level for the next twenty years, rises immediately. Further, they asked by how much today's saving rate would have to increase to lead to equal burden-sharing among current and future generations. ("Equal burden-sharing" is interpreted to mean that the current generation and all future generations experience the same percentage reduction in per capita consumption relative to the baseline scenario without population aging.) They found that equal burden-sharing across generations could be achieved by an immediate reduction in per capita consumption on the order of 4 percent (or, since consumption is about two-thirds of output, by an increase in national saving of about 3 percentage points.) This case obviously involves greater sacrifice by the current generation, but the payoff is that all future generations enjoy per capita consumption that is only 4 percent, rather than 14 percent, below what it would have been in the absence of population aging. The large improvement in the estimated living standards of future generations arises because of the extra capital bequeathed to them by virtue of the current generation's assumed higher rate of saving.

These numbers shouldn't be taken literally but the basic lesson is surely right—that the decisions that we make over the next few decades will matter greatly for the living standards of our children and grandchildren. If we don't begin soon to provide for the coming demographic transition, the relative burden on future generations may be significantly greater than it otherwise could have been.²

At the heart of the choices our elected representatives will have to make regarding the distribution of these costs across generations will be an issue of fairness: What responsibility do we, who are alive today, have to future generations? What will constitute ethical and fair treatment of those generations, who are not present today to speak for themselves? If current trends continue, the typical U.S. worker will be considerably more productive several decades from now. Thus, one might argue that letting future generations bear the burden of population aging is appropriate, as they will likely be richer than we are even taking that burden into account. On the other hand, I suspect that many people would agree that a fair outcome should involve the current generation shouldering at least some of that burden, especially in light of the sacrifices that previous generations made to give us the prosperity we enjoy today.

The choice of which generations should bear the burden of population aging has consequences for economic efficiency as well as for intergenerational equity. If we decide to pass the burden on to future generations—that is, if we neither increase saving now nor reduce the benefits to be paid in the future by Social Security and Medicare—then the children and grandchildren of the baby boomers are likely to face much higher tax rates. A large increase in tax rates would surely have adverse effects on a wide range of economic incentives, including the incentives to work and save, which would hamper economic performance. Alternatively, to avoid large tax increases, the government could decide to sharply reduce non-entitlement spending in the future. However, such actions might also have important social costs that need to be taken into consideration.

Sharing the Burden of Population Aging

If, as a nation, we were to accept the premise that the baby-boom generation should share at least some of the burden of population aging, what policy steps might be implied? As I have already noted, from a broad economic perspective, the most useful actions are likely to be those that promote national saving. Perhaps the most straightforward way to raise national saving--although not a politically easy one--is to reduce the government's current and projected budget deficits. To the extent that reduced government borrowing allows more private saving to be used for capital formation or to acquire foreign assets, future U.S. output and income will be enhanced and the future burdens associated with demographic change will be smaller.

Increasing private saving, which is the saving of both the corporate sector and the household sector, is likewise desirable. Corporate saving, in the form of retained earnings, is currently at relatively high levels, but household saving rates are exceptionally low.³ A broad-based increase in household saving would benefit both the economy and the millions of American families who currently hold very little wealth.

Unfortunately, many years of concentrated attention on this issue by policymakers and economists have failed to uncover a silver bullet for increasing household saving. One promising area that deserves more attention is financial education. The Federal Reserve has actively supported such efforts, which may be useful in helping people understand the importance of saving and to learn about alternative saving vehicles. Psychologists have also studied how the framing of alternatives affects people's saving decisions. For example, studies suggest that employees are much more likely to participate in 401(k) retirement plans at work if they are enrolled automatically--with a choice to opt out-- rather than being required to actively choose to join. The pension bill recently passed by Congress and signed by the President included provisions to increase employers' incentives to adopt such opt-out rules; it will be interesting to see whether such rules are adopted and, if so, how effective they are in promoting employee saving.

Other steps can also help increase the future productive capacity of the economy and thereby reduce the adverse effects of demographic change. For example, devoting resources to improving our K-12 education system, expanding access to community colleges, increasing on-the-job training, and stimulating basic research could augment the nation's capital in the broadest sense of the term and might have desirable distributional effects as well.

Another response to population aging is to adopt measures that encourage participation in the labor force, particularly among older workers. In the near term, increases in labor force participation would raise income; some of this income would be saved and would thus be available to augment the capital stock. In the long run, higher rates of labor force participation, particularly by those who would otherwise be in retirement, could help to offset the negative effect of population aging on the share of the population that is working.

To some extent, increased labor force participation by older workers may happen naturally. Increased longevity and health will encourage greater numbers of older people to remain longer in the workforce. And slower growth in the labor force will motivate employers to retain or attract older workers—for example through higher wages, more flexibility in work schedules, increased training directed toward older workers, and changes in the retirement incentives provided by pension plans.

Reform of our unsustainable entitlement programs should also be a priority. The nature and timing of those reforms will be determined, of course, by our elected representatives. However, the intergenerational perspective does provide a few insights that might be helpful to policymakers as they undertake the needed reforms. First, restructuring the finances of our entitlement programs to minimize their reliance on deficit spending will enhance national saving and reduce the burden on future generations. Second, changes in the structure of entitlement programs should preserve or enhance the incentives to work and to save; for example, we should take care that benefits rules do not penalize those who may wish to work part-time after retirement. Finally, the imperative to undertake reform earlier rather than later is great. As illustrated by the simulation I discussed earlier, the longer the delay in putting our entitlement programs on a sound fiscal footing, the heavier the burden that will be passed on to future generations. Moreover, the sooner any restructuring of entitlement programs takes place, the easier it will be for people now in their working years to prepare, for example, by saving more today. However, if reform is delayed and fiscal exigencies ultimately force changes in these programs with little notice to potential retirees, their ability to adjust their behavior appropriately could be much reduced.

Conclusion

Over the next few decades, the U.S. population will grow significantly older, a development that will affect our society and our economy in many ways. In particular, the coming demographic transition will create severe fiscal challenges, as the cost of entitlement programs rises sharply. I hope to have persuaded you today, however, that the economic implications of this transition go well beyond fiscal policy. From a broader economic perspective, the question is how the burden of an aging population is to be shared between our generation and the generations that will follow us. A failure on our part to prepare for demographic change will have substantial adverse effects on the economic welfare of our children and grandchildren and on the long-run productive potential of the U.S. economy.

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Footnotes

1. See Sheiner, Sichel, and Slifman (2006) and Elmendorf and Sheiner (2000) for discussions of the basic approach. [Return to text](#)

2. Another approach for gauging the potential impact of demographic change on future generations is the generational accounting framework developed by Auerbach, Gokhale, and Kotlikoff (1992). This framework begins with the assumption that, for people living today, tax rates will not be increased and benefits will not be cut. On that assumption, one can calculate the taxes (net of transfers received) that future generations will have to pay to achieve long-term balance in the government budget. According to recent estimates using this approach, to achieve long-term budget balance the net tax rate on future generations will have to be about double the tax rate on current taxpayers (Gokhale and Kotlikoff, 2001). This approach looks at the intergenerational issue through the prism of fiscal policy rather than taking the broader economic perspective I have emphasized today, and its underlying assumptions are somewhat different. However, the basic message--that failure by the current generation to address the economic implications of aging will impose significant costs on future generations--is the same. [Return to text](#)

3. It is worth noting that a household's saving need not equal its change in wealth, since the standard definition of saving excludes capital gains. One plausible explanation of the recent low level of household saving rates is that capital gains in stocks and in residential real estate, by increasing wealth, have reduced the motivation of households to save out of current income. If that explanation is correct, then the recent slowdown in the appreciation of house prices should lead ultimately to some increase in household saving rates, all else equal.