Bellwether CONSULTING

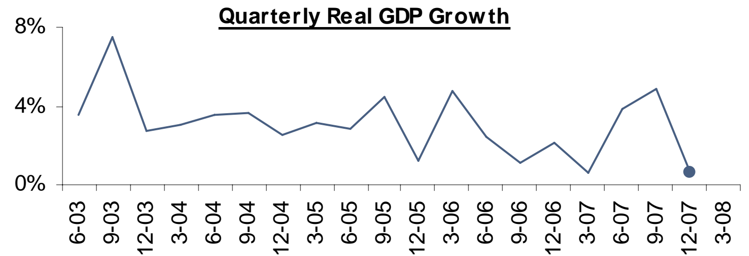
Your Quarterly Update on the Financial Markets

March 31, 2008

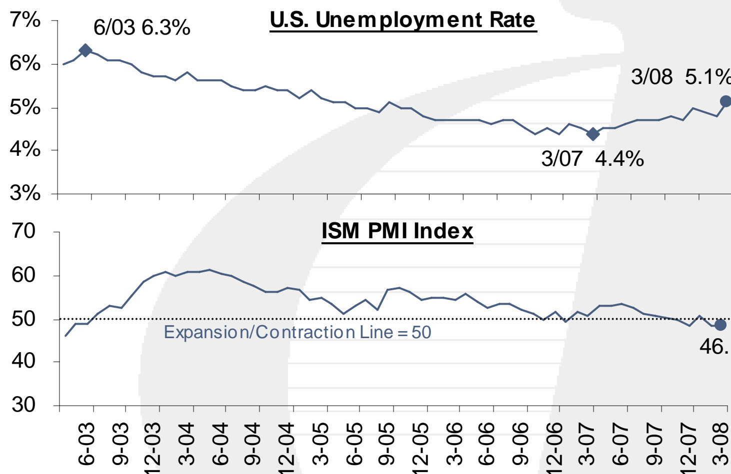
1st Quarter

MARKET Recap

The Economy: *"Buddy can you loan me a dime?"*

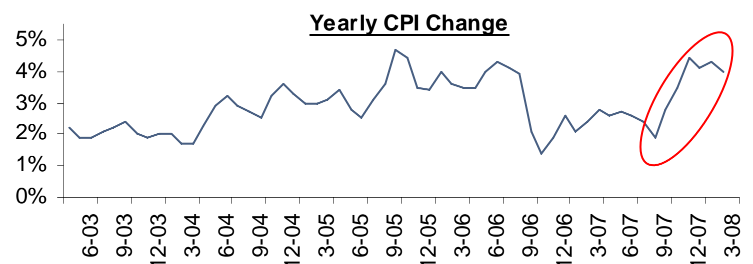


U.S. economic growth slowed significantly in the fourth quarter, with GDP advancing at a 0.6% annualized pace. Residential fixed investment led the decline, with real investment falling 25.2% in Q4 following a 20.5% decline in Q3. Other components of GDP were mixed, with personal consumption expenditures showing surprising strength (+2.3%) in the face of continued pressure on house prices. As noted in past issues, however, the impact of housing price declines is likely to be both substantial and delayed, as many consumers have been able to hunker down and make their payments. On the margin foreclosures will continue to increase, and consumers will eventually curb their spending as additional financing from home equity is no longer available. Consumer confidence measured by the Conference Board survey plunged to 61.4 in March, very close to the 10-year low achieved in 2003 just prior to the invasion of Iraq. The "housing recession" is very real, but the impact on consumer spending will be both more gradual, and more substantial, than most experts expect. For a quick retrospective, we suggest reviewing our 12/31/2006 article titled "Leverage, Leverage Everywhere", available on the website.



Second-stage indicators, including closely-watched employment statistics, began to show signs of recession in the first quarter. Unemployment rose to 5.1% in March after three straight months of job losses, culminating in the reduction of 80,000 jobs in March. Although manufacturing has traditionally borne the brunt of job losses during recessions, the ISM index, a compound index of indicators important to industry, remained only mildly negative. Of the 48,000 jobs lost in manufacturing in March, 24,000 were in the automotive industry due primarily to strikes at key parts-making facilities. Job losses were more focused on the battered construction industry where the impact is more long-term.

Looking ahead, it is likely that layoffs in financial services and related service industries will drive up unemployment. This phenomenon should not be too surprising, as our economy has become more service-oriented; the financial industry has become a major employer both directly and through consumption of other services. Information technology vendors in particular are vulnerable as financial firms cut budgets and staff to cope with mounting credit-related losses. In fact, this economic contraction may provide a new spark of life for U.S. manufacturing. As the Fed continues to slash rates to stimulate growth and shore up the credit markets, the U.S. dollar (the "new peso") continues to fall against major currencies. This in turn makes U.S. manufactured goods cheaper versus foreign competitors, and U.S. labor cheaper versus foreign labor. Both business and labor in manufacturing should hold up fairly well, at least relative to their "new economy" counterparts.

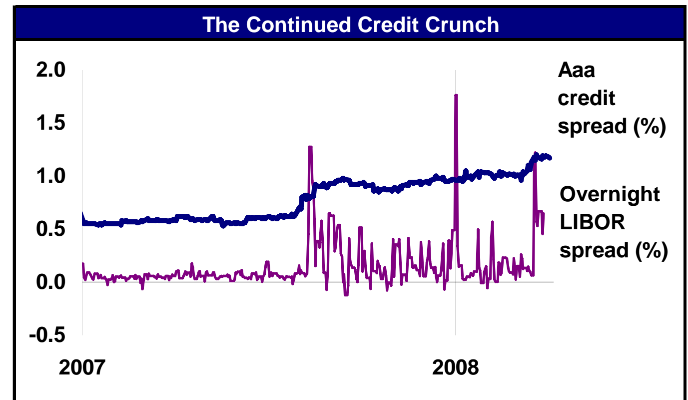


So far, prices for goods and services other than housing have failed to moderate significantly. Oil settled in above $100 per barrel in the first quarter, while commodities

more generally peaked in February and fell slightly in March. Inflation will pose a sticky problem in the latter part of this economic contraction, as currently the Fed must prioritize financial stabilization and stimulus over price stability. This quarter's focus article takes a closer look at managing inflation.

The U.S. Bond Market

Bond returns were quite strong (2.2%) in 1Q08, if not quite as high as 4Q08's 3.0%. The last 12 months have been the best for five years. On the other hand, the longer term trend in fixed income returns shows a consistent decline. A number of hypotheses might explain this – the "Great Moderation," the "global savings glut," etc. It will certainly force us to think carefully about our return assumptions for fixed income going forward.



The Federal Reserve helped the bond market significantly with a cumulative 2% reduction in the fed funds rate. Longer term rates are not overly sensitive to monetary policy actions, so these actions caused the yield curve to steepen considerably. Inflation moderated the Fed's positive impact: expected inflation may have risen by as much as 0.4%. Meanwhile, the credit crunch is not over; interbank rates continue to spike periodically with particular crises and otherwise remain fairly volatile. Credit spreads continued to increase.

Sector	1Q08 Return (%)			Important developments / fundamental drivers
	Price	Coupon	Total	
Treasury	3.29	1.12	4.43	Short-term "flight to quality" continued, but little/no positive change to the long-term fiscal policy outlook.
Agency	2.13	1.20	3.35	FNMA/FHLMC regulatory capital requirements reduced; continued success in raising additional capital.
Corporate	-1.62	1.48	-0.15	Sectors with cyclical exposure or high fixed costs suffered.
Securitized	0.41	1.35	1.72	Moderate gains in MBS, but dramatic losses in CMBS and ABS.

Corporate issues suffered particularly, in a relatively predictable pattern. Consumer non-cyclicals, aerospace, and energy issues did well, while consumer cyclicals, building materials, airlines and (of course) financials did poorly. One of the worst performers was telecom, which had already started the year with interest coverage (~4x) only slightly above the average for high yield. Corporates performed poorly *despite* a big decline (31% year-over-year) in new issuance.

Bond Indices - 1Q08 Total Return	
Lehman Aggregate	2.17%
Lehman Interm. Gov't	4.11%
Lehman Long Gov't	3.75%
Lehman Interm. Credit	1.29%
Lehman Long Credit	-2.02%
Lehman High Yield	-3.02%

The largest losses among securitized issues occurred in ABS and CMBS, while RMBS, having endured something of a shake-out already, appreciated slightly. Delinquency rates rose across all types of ABS, although credit card receivables seemed less susceptible than home equity and auto loans: consumers are expected to miss more installment payments, but to have less difficulty making minimum credit card payments. The larger CMBS market also lost considerable value, likely reflecting skepticism about the ability of late-cycle projects to withstand a downturn and continued credit crunch.

The U.S. Stock Market

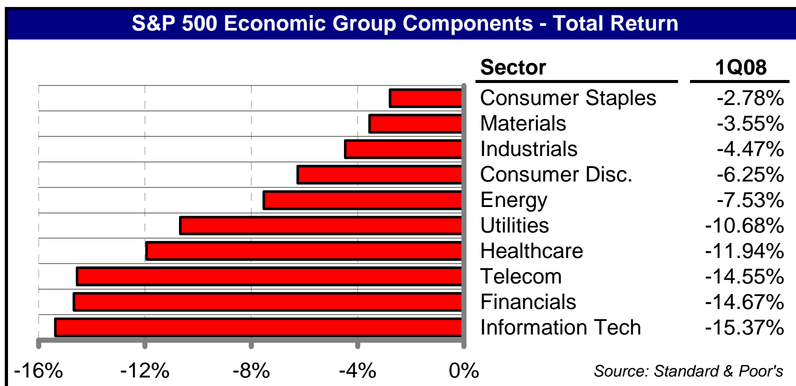
The U.S. stock market had its worst quarter in over five years, with all major indices showing returns well in the red. Market volatility, on the rise since the third quarter of 2007, continued its climb. The Dow had 36 days of triple digit fluctuations – 15 up and 21 down, compared to totals of 28 days and 24 days in 4Q 2007 and 3Q 2007, respectively. U.S. stock prices, as measured by the volatility index of the Chicago Board Options Exchange (VIX), showed fluctuations in line with the last two quarters.

Stock Indices - 1Q 2008 Total Return			
Largecap Stocks		**Midcap Stocks**	
S&P 500	-9.45%	S&P Midcap 400	-8.85%
Russell 1000	-9.48%	Russell Midcap	-9.98%
Growth	-10.18%	Growth	-10.95%
Value	-8.72%	Value	-8.64%
Broad Markets		**Smallcap Stocks**	
NASDAQ Comp.	-13.88%	S&P Smallcap 600	-7.46%
DJ Wilshire 5000	-9.52%	Russell 2000	-9.90%
		Growth	-12.83%
		Value	-6.53%

With worry rampant on both Wall Street and Main Street, an increase in market volatility is not surprising. Market volatility generally occurs when expectations are not met. But interestingly, multiple studies have found that stock market volatility is higher during bear markets than during bull markets. Two explanations are offered for this phenomenon. First, the increased uncertainty and risk in a bear market may itself generate a decline in equity value.

And, in an environment of increased uncertainty, investors react more quickly to bad news, further compounding the volatility already inherent in the market. A second explanation for increased market volatility in bear markets comes from the differences in stock market liquidity in bull and bear markets. Bull markets tend to attract more investors, increasing liquidity in the market. Conversely, some investors will be less active or even exit bear markets, leading to decreased liquidity. With less active investors, movements take on more significance.

And the first quarter of 2008 was chock-full of events to make investors worry. Perhaps the most significant indication of just how nervous investors were was the February 5th stock plummet. That Tuesday a business survey from the Institute for Supply Management provided another measure showing that the United States might be in the early stages of a recession. The survey reported that activity in the non-manufacturing sector contracted in January for the first time since March of 2003. The institute's non-manufacturing business activity index fell to 41.9 in January, from a seasonally adjusted 54.4 in December. It was the lowest level since October 2001, just after the September 11 terrorist attacks. (Readings below 50 are considered indicative of a contraction.) Most economists, and thus the market, had been expecting a figure of 53, which would have indicated a slowdown but not a contraction. In response to the unexpectedly low index numbers, the Dow Jones industrial average fell 370 points (or 2.9%). The S&P 500 dropped 3.2%, and the NASDAQ lost 3.1%. The declines were the largest since February 27, 2007, when a plummeting Chinese market alarmed investors.



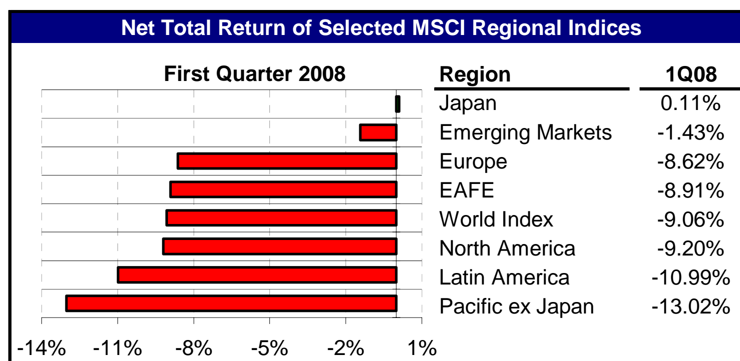
Corporate profits are expected to be down 8.1% from the first quarter of 2007, according to Thomson Financial. Companies in the financial sector were hardest hit. Excluding these firms from the estimate would show corporate profits rising more than 8%. Investors were hard-pressed to find decent returns anywhere in the market, and even the top-returning consumer staples sector finished the quarter in the red. The sector contains companies that sell consumers items that will continue to be bought even during a recession. Because of this, the sector generally performs well in a slowing economy. In addition an increasing presence in global markets and the associated new demand for these products helped performance during the slowdown.

Overseas Markets

The first quarter saw a continuation of poor global market performance with nearly all sectors losing ground. Asian emerging markets were the hardest hit while the larger Latin American markets were mixed. Inflation appears to be increasing globally creating additional drag on performance. Developed markets continued to slump as subprime losses piled up in both U.S. and Western Europe and the U.S. domestic market almost certainly appears headed for recession.

It became evident early in the 2008 that inflation was going to be the main challenge for the Eurozone as the CPI closed the quarter at 3.5%; both Germany and France have inflation rates well above the ECB's inflation target of 2%. Even with evidence of stronger price inflation (education up 9.7%, food up 5.8%, and transportation up 5.4% year-over-year in the Zone), the ECB has been sending mixed messages. Consensus has seemed to change from the ECB becoming accommodative on increasing risk of a U.S. recession, to holding the key lending rate at its current 4% level.

In Germany the Ifo Business Climate Index rose to 104.8 in March from 104.1 in February suggesting that the outlook for German industry and trade remains positive even in the face of rising inflation. The German unemployment rate continues to drop but still hovers above 8%. Despite these positives the consumer sector still lags. Strength in the euro is also becoming a source of angst for German exporters. The MSCI Germany Index was down 11.7%. In France headline inflation began to level off in February. The annual rate that rose to 3.2% in January from 2.8% in December held steady at 3.2% pace in February. The MSCI France Index was down 8.3%.



Last year's optimism in Japan has given way to this year's lowered expectations. In February The Bank of Japan's policy board voted to keep interest rates unchanged for the third straight meeting. Outgoing BOJ Governor Fukui believes inflation risks in Japan appear

relatively minor compared to those in the U.S. and Europe. His comments have been interpreted to mean that the BOJ won't need to increase rates to dampen inflation. As the quarter came to a close Japanese lawmakers vetoed the Japanese government's pick for central bank governor, Toshiro Muto, leaving the Bank of Japan in the middle of the credit crisis with no apparent successor.

Inflation in China also appears to be a hot-button issue. Leaders took steps early in the quarter to freeze regulated prices of energy and other utilities to try to control inflation in the sectors most impacted by rising global crude oil prices. China's inflation rate rose to an 11-year high of just under 7% at the end of 2007. Through last November CPI climbed to 4.6%, well above the growth target of under 3%. Food prices accelerated the most, climbing over 18% year-over-year, driven by pork prices which rose 56% from a year earlier. China needs to continue to take the steps necessary to keep its economy from overheating. U.S. Secretary of the Treasury Paulson, on his recent trip to China, praised officials for letting the yuan rise more quickly. The yuan gained 4 percent against the dollar in the first quarter and has now risen 18 percent since July 2005, when it was de-pegged from the dollar. The MSCI China Index was down 23.7%.

Latin American emerging market performance was mixed in the bigger economies of Brazil and Argentina. In Brazil industrial output climbed the most in four months in February, boosting expectations that policy makers would raise interest rates to rein in the economy's expansion. Output climbed 9.7% in February from a year earlier. At its meeting in March the central bank was considering raising the benchmark interest rate as inflation had risen above the 4.5% annual target. The MSCI Brazil Index was down 5% for the quarter. In Argentina it is anticipated that the economy will expand 7% this year. Argentina's economy is heading toward a sixth straight year of growth after adding more than 8% in each of the past five years. GDP expanded in the fourth quarter at the fastest pace in two years, led by soaring construction and consumption as President Kirchner backed wage accords to increase consumers' purchasing power. The MSCI Argentina Index was up nearly 7% for the quarter.

Focus On: *Inflation*

Sir Desmond: It took me thirty years to understand Keynes' economics. I'd only just cottoned on when everyone got hooked on these new monetarist ideas, you know, "I Want To Be Free", by Milton Shulman.

Sir Humphrey: Milton Friedman?

Sir Desmond: Why are they all called Milton? Anyway, I've only got as far as Milton Keynes.

Sir Humphrey: I think you mean Maynard Keynes?

Sir Desmond: I'm sure there's a Milton Keynes somewhere ...

-- "Yes Minister," British television show

Recently, the volume of discussion about inflation has increased greatly. On the supply side, rapid rises in oil and food prices continue to cause concern. Rapid growth in some emerging economies has led to significant local inflation, more pressure on commodity prices, and ultimately inflationary pressures in the developed world. Some dramatic exchange rate moves, most notably in the U.S. dollar, have made very visible the transmission of inflationary pressures between countries. The Fed continues to face some very difficult monetary policy questions, and many have raised the possibility of "stagflation."

This furor could fade quickly; certainly the Fed hopes that lower demand will moderate inflationary pressure while it tries to stimulate the economy. On the other hand, in the worst-case scenario the so-called "Great Moderation" could turn out to have been merely the low point of an inflationary cycle. Given the uncertainty, we thought it worthwhile to refresh our understanding of the fundamentals: of inflation as a phenomenon, of the factors which have driven past inflation and might drive inflation going forward, and of the actionable implications for the investor: how does one evaluate and manage inflation-related risk?

	1950's	1960's	1970's	1980's	1990's	2000's
Average US inflation (%)						
CPI	1.7	2.3	7.3	4.2	2.7	3.0
Core	*n/a*	2.0	6.0	4.7	2.3	1.9
Gold	271	235	494	857	495	473
Oil	22	20	37	55	28	48
Average prices, 2007 dollars						
Fed funds rate (avg, %)	*n/a*	4.2	7.1	10.0	5.1	3.4
US % of world economy	26.3	24.1	21.7	21.3	21.3	20.3
Trade-weighted real dollar	*n/a*	*n/a*	93	103	92	101
Total returns (% p.a.)						
S&P 500	12.3	4.4	0.2	13.5	16.5	3.1
Moody's seasoned Aaa	3.3	5.0	8.2	11.3	7.7	6.1
Moody's seasoned Baa	3.9	5.6	9.3	12.8	8.5	7.0
NCREIF Property Index	*n/a*	*n/a*	*n/a*	11.5	5.7	12.7

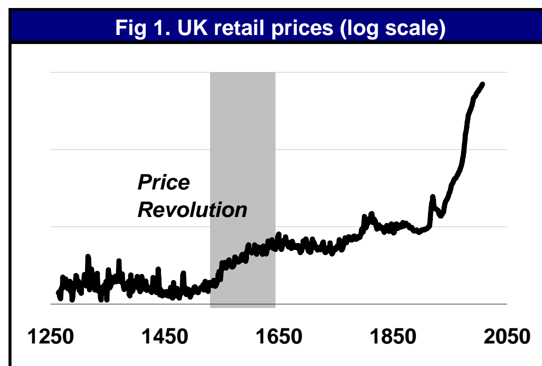
Sources: BEA, DOE, Federal Reserve, IMF, NCREIF, S&P

We have, unfortunately, to approach the subject with humility; inflation is a phenomenon, to quote Virginia Woolf, "very erratic, very undependable." Fiat currencies are historically quite new, as are activist central banks, so there is little useful precedent to guide our analysis.

The Phenomenon of Inflation: the Past and Future of Monetary History

In the most general sense, inflation (deflation if negative) is a change in the prices of all goods or services. Historically, in societies with hard currencies, there were two simple sources of inflation: debasement ("debasing" coins with less precious metal per coin) and the discovery of new specie supplies (e.g., a gold rush). Both of these have relatively straightforward physical limitations: debased coinage is detectable with simple means, and the exploitation of new precious metals supplies have led to the most notable historical examples of extreme difficulty and superhuman effort, from Solomon to Cortes to the 49ers. Hence inflation has generally been low (see Fig. 1). It is interesting to note, however, that the sustained price increase of the sixteenth century, known as the Price Revolution, is thought to be a cause, to some extent, rather than a result of the Spanish discoveries in America. Moreover, even in a world of hard currencies, credit expansion is a potential source of inflation-like phenomena. Nevertheless, it is clear that the move to fiat (i.e., paper) currencies in the 20th century was a fundamental monetary change.

Fig 1. UK retail prices (log scale)

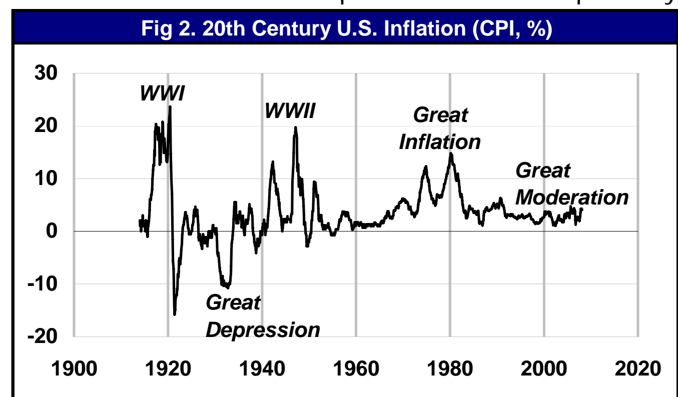


In the modern fiat currency world, there are essentially five causes of inflation: government / central bank expansion of the money supply, credit expansion, full resource utilization, supply shocks, and wage/price expectation spirals. Obviously these are not mutually exclusive.

Let us look at recent US experience. After World War I, the U.S. experienced a post-war inflation similar to that after most previous major wars. The Depression then led to a massive deflation; after the UK abandoned the gold standard in 1931, a series of "competitive devaluations" in which governments sought to maintain some degree of price stability and financial confidence forced the U.S. and most other nations to abandon the gold standard. World War II brought further inflation, but a long period of low inflation followed in the 1950's and 1960's.

Perhaps the most interesting inflationary phenomenon of recent history followed in the 1970's – a period of sustained high inflation worldwide known colloquially to economists as the Great Inflation. It is hard to put forward a simple explanation for this period: many countries experienced similarly high inflation, but not at the same time; a few countries, notably Germany and Japan, had much greater and earlier success in fighting inflation. The most likely explanation is that the coincidence of a number of factors led to the magnitude of the inflation. Supply-side shocks, especially oil, have been a traditional explanation, against which it is argued that the inflation started well before oil prices started rising; oil seems to have been a reinforcing factor rather than a primary factor. It also seems to have been an avoidable problem: Japan had notable success in quickly fighting oil-driven inflation. On the demand side, many countries experienced both slower productivity growth and sustained wage pressure. Central bankers seem to have been slow to realize that conditions had changed for the worse from the 1960's, or to have developed preferences based on those better times. Hence they both pursued overly accommodative monetary policy in the interests of unrealistically low unemployment levels and overestimated how difficult it would be to bring inflation down once it started to accelerate. US-specific factors also probably played a role, transmitted through fixed exchange rates. Vietnam War spending probably played a limited role: major wars have uniformly led to inflationary spikes, but the Vietnam War was relatively limited and inexpensive. However, the combination of war spending and higher domestic spending, at a time of already high private sector demand, was probably one of the initial causes of the Great Inflation in the US.

Fig 2. 20th Century U.S. Inflation (CPI, %)



In 1979, Paul Volcker raised interest rates dramatically and succeeded in eventually bringing inflation down, though not without contributing significantly to a recession in the early 1980's. Fed economists, at least, believe that Volcker's ferocity in fighting inflation, mirrored by central bankers in other countries, led to what is variously known as the Great Moderation or the Inflation Stabilization – the period of sustained low inflation since the 1980's. In this view, central banks have established credibility as inflation fighters that has led the public to form long-term expectations of low inflation. These expectations are self-reinforcing, because inflation does not then respond significantly to short-term supply shocks.

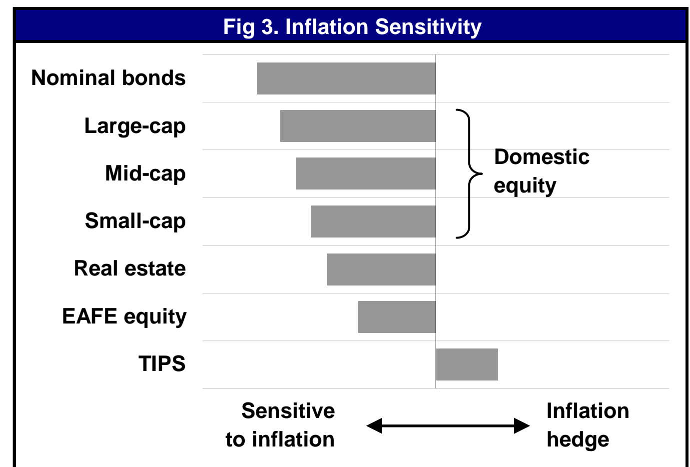
Which brings us to the present and future. The Great Moderation, which has encompassed more stable real economic growth as well as low inflation, has been a function of central bank inflation-fighting credibility, relatively short supply shocks, and underlying process changes in the real economy. Will these continue? The Fed's credibility is currently undergoing its most severe test since Volcker, and, rightly or wrongly, the Fed has not yet demonstrated any clear inflation hawkishness. The current "supply shock" in oil, for example, notwithstanding the tendency for commodity price spikes to be temporary interruptions in generally cheaper commodities over time, has some secular rather than cyclical causes; certainly some forecasters predict sustained high prices. On the demand side, developing countries had previously been seen to be exporting deflation, through lower prices for rich countries' imports. As internal demand in developing countries accelerates, their impact may have turned from deflationary to inflationary, most visibly through the pressure on input prices. Finally, no one can predict the future real economic trajectory with any confidence. In general, predictions of continued gradual change frequently turn out glaringly wrong. While disaster may not be imminent, confidently expecting the Great Moderation to continue for any significant time seems unwise.

Investing in an Inflationary (Deflationary?) World

What kind of inflation-related risks, then, should one take with a given portfolio? In theory, there is no qualitative difference between inflation risk, real interest rate duration, beta, etc. The challenge is to take an efficient mix of each of these risk factors.

The behavior of various asset classes in different inflationary/deflationary environments is not generally well understood. Fig. 3 shows the correlation of various asset classes' nominal returns with inflation. Not surprisingly, the only actual inflation hedge is TIPS. Foreign equities are also relatively unaffected by domestic inflation. Conversely, nominal fixed income suffers most from higher inflation. Most surprising, perhaps, is domestic equities' relatively high sensitivity to inflation. Theoretically, corporate profits should adjust relatively smoothly with inflation, and equities should benefit further from the declining real value of corporate debt. On the other hand, sufficiently high inflation will slow general economic growth; empirically it has also been shown that equities tend to be undervalued during periods of higher inflation, because investors fail to increase nominal growth rates sufficiently. Real estate has been a traditional moderate inflation hedge, with levered REITs performing better than unlevered direct real estate.

Fig 3. Inflation Sensitivity



Most current asset management industry offerings do not seem to take much advantage of the inflation hedging opportunities available. In Fig. 4, we compare two popular balanced funds, the Vanguard Wellington Fund and the Fidelity Balanced Fund, with a published asset allocation recommendation by David Swensen, the noted manager of the Yale University Endowment Fund, for the individual investor. All have similar return objectives, although Vanguard and Fidelity both seem to fail to take advantage of the full range of asset classes to diversify efficiently. Swensen's recommendation also produces somewhat lower inflation exposure, through much heavier use of real estate, TIPS, and international equities. Part of this shift is uncontroversial: higher international allocations are currently very popular. We suspect however that allocating to less familiar asset classes in the magnitudes necessary to hedge inflation to a meaningful degree and allocating to out-of-favor asset classes such as real estate (i.e. avoiding the tendency to reduce those allocations and make directional bets) will be significant psychological challenges for many investors.

Fig 4. Inflation Sensitivity of Various Portfolios

	Swensen rec.	Vanguard Wellington	Fidelity Balanced
US Large-Cap Equities	30.0%	52.9%	56.6%
EAFE Equities (unhedged)	20.0%	13.6%	6.0%
US Direct Real Estate	20.0%	0.0%	0.0%
Lehman US Aggregate	15.0%	33.6%	37.3%
TIPS	15.0%	0.0%	0.0%
Expected return	7.0%	7.2%	7.0%
Volatility	7.4%	9.3%	8.9%
Inflation correlation	-0.10	-0.11	-0.12

Bellwether Consulting LLC
P.O. Box 140, Montclair, NJ 07042
www.bellwetherconsulting.net
Copyright © 2008 All Rights Reserved.
Bellwether CONSULTING