



Turbulent Teens IV

2012 Outlook:

Can the World Pull Back from the Brink Again?

Executive Summary

At the close of 2009, when we published the first of this series of white papers, we dubbed this decade the “Turbulent Teens.” Nothing has happened so far to suggest that we should change this moniker. We have always acknowledged that long-term economic and market forecasting is a fool’s errand. And we admit that the first white paper offered no clue that a few months later, sovereign debt problems in Greece would precipitate a Europe-wide crisis.

In this year-end edition of “Turbulent Teens,” we update two issues we addressed in earlier versions: equity and bond valuation, and the ongoing crisis in Europe. We also examine two issues many investors are increasingly concerned about: the long-term outlook for the U.S. and the rest of the developed world, and the potential for a real estate-induced bubble busting in the largest emerging market, China. This report consists of four themes: Valuation, U.S.-West Decline, Europe and Emerging Markets.

- ◆ **We Think the “Burden of Proof” Has Shifted from Stocks to Bonds.** Based on fundamentals, we expect equity returns to remain in the high single digits—the same forecast we offered at the start of this decade, and the run rate we’ve experienced so far. We further argue that expected equity returns converge on high single digits regardless of which valuation estimator we use—or even if we assume that returns are inherently unpredictable and converge on the long-term average. Bonds have been champs for three decades, and as we write this, they have beaten stocks in 2011. But we believe the bond era is nearing an end—and that whether investors focus on nominal or real returns, bonds will pass the baton to stocks this decade.
- ◆ **Is the Developed World in the Midst of a Long Decline?** We tend to think this is not the case. The U.S. economy remains weak, but showed clear signs of improvement in 2011. Most measures of economic activity suggest that tepid but positive growth should continue into 2012. And we think that before the Turbulent Teens close, we could see major improvements in at least two critical areas: energy and healthcare, which account for more than 20% of U.S. GDP. This would boost growth dramatically, improve the fiscal outlook and trade balance, and potentially enhance people’s lives.
- ◆ **Quo Vadis Europa?** The European debt crisis remains a significant threat—and a disorderly disintegration of the Eurozone cannot be ruled out, though we think it is unlikely. Yet the problem is not so big that it cannot be solved if there is sufficient political will to muster the resources and commitment to address it. Especially critical is the role of major players such as Germany, which, because of its large export base, has an especially strong economic interest in maintaining the euro. And though reasonable people can disagree about the proper course of action, it is clear that banks need to be strengthened, the bond market must be stabilized and a long-term plan for reducing fiscal imbalances has to emerge.
- ◆ **Emerging Markets: Might China Land Hard?** Might the bursting of a Chinese real estate bubble lead to wider economic disruption, posing as great a threat to global economic stability as the European debt crisis? We tend to think that a hard landing in China is less likely to cause global economic strife than the European crisis—though contagion from issues elsewhere could exacerbate the problems in China. It is true that property prices have fallen, but we would not rule out the possibility that Chinese investors might view this as a buying opportunity, a correction in a fundamentally rising market. Furthermore, China will continue to grow at a healthy pace in 2012—and growth cures many economic ills.



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As Thomas Paine wrote, “These are the times that try men’s souls.” There is always a chance (though we believe it’s a slim one) that there could be another dramatic leg down in the ongoing financial crisis, precipitated by events in Europe, China, the U.S. or elsewhere. Other calamities we cannot anticipate, from a natural disaster to terrorism, could turn out to be the defining events of 2012 or later, dramatically influencing markets and economies. The tendency of asset prices to be driven by macro events that are hard to anticipate or control has produced a volatile and unsettling environment that has humbled many previously celebrated investors. Indeed the lessons of the past several years have been hard—but if we can absorb them and learn from them, we think a new period of stronger, more sustainable growth might start before this decade concludes.

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We Think the “Burden of Proof” Has Shifted From Stocks to Bonds

Are stocks currently cheap or expensive? If we buy stocks today, what sort of return can we reasonably expect? Are returns simply not predictable, and are efforts to use anything other than the historical average futile? Are stocks a better buy than bonds, or will bonds deliver better risk-adjusted returns over the next decade as they have for the past three decades?

These are basic investment questions, and yet it is easy to find widely divergent views on them. Some well-known and respected observers think the S&P 500 is likely to fall back toward its 2009 lows; others think much higher prices will be achieved over the next few years. Of course, differences of opinion are what make markets.

To some degree, bullishness or bearishness can be traced to different forecasts of future events: those who think that the global financial system will collapse are understandably bearish, while those who think we are likely to muddle through are more optimistic. None of us can predict the future with certainty, so it is difficult to know who will be right, and whether those who forecast correctly were skillful or lucky.

Valuation Metrics Can Be Used to Estimate the Expected Return for Stocks

There is a simple way to think about returns. Let's start with Treasury bonds. The best estimate of nominal returns from bonds is the yield. That is, if you buy a 10-year T-bond today yielding about 2%, absent a disastrous change of fortune for the U.S., you will get 2% annual interest payments each year and you will get your principal back in 10 years. Interest rates, inflation, political uncertainty and many other things could influence real returns along the way, but bonds offer a certain mathematical comfort that stocks cannot. Yet at today's low rates, that comfort comes at a price. Both real and nominal bond returns will probably be below average over the next several years, absent a prolonged period such as the 1930s in the U.S. or the slow-growth/deflationary environment of Japan in recent decades. In our white paper *Turbulent Teens III: The Debt Dichotomy*, or “Gentlemen Prefer Bonds”^{*} we presented this argument, and we will review some math on bonds below.

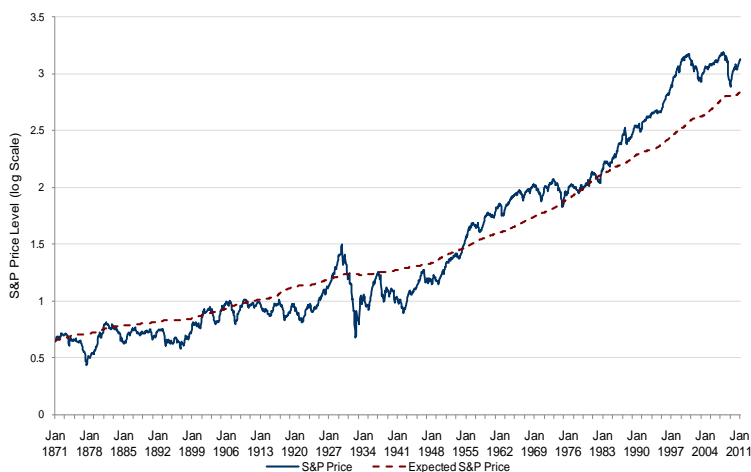
Is there a way of thinking about stocks that offers the same sort of comforting certitude that bond investors enjoy? The short answer is no. Stock prices can go and have gone to zero. But we suggest there is a proxy that is analogous to bonds.

Dividends paid are comparable to interest payments. Earnings above and beyond what are paid in dividends are retained in the firm and likely kept in reserve, used to buy back stock or reinvested to help maintain and grow the business. As a first cut, let's assume that the retained earnings, on average over time, find their way to shareholders in the form of increased stock prices.

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In this simple model, the annual expected change in stock price is equal to that year's retained earnings, with a modest expected premium based on the gains from reinvesting those profits over the year. How well does that explain changes in U.S. stock prices over the past 140 years? Based on our analysis of the data compiled by Professor Robert Shiller, as presented in Figure 1, it fits pretty well. Since 1871, the cumulative change in stock prices equals retained earnings plus 50 basis points per year.

Figure 1
 Since 1871, Cumulative Stock Prices Have Increased
 At About the Same Pace As Retained Earnings



Source: QMA, Shiller, Robert:
www.econ.yale.edu/~shiller/data.htm

Note that there appears to be a break point in the graph around World War II. Before the war, the implied return on retained earnings was consistently negative; that is, stock prices rose by less than retained earnings. In those days, investors bought stocks primarily for the dividends, and dividend payout ratios were much higher (60–80%-plus) than they are today (about 25%). Investors were wise to focus on dividends, since it appears that earnings reported but not distributed as dividends seldom benefitted shareholders much.

Since WWII, the implied return on retained earnings has been consistently positive, but about equal to the risk-free rate. One might ask why the return on retained earnings isn't higher, let's say about equal to the return on the overall equity market. Perhaps the simplest explanation is that management teams are composed of human beings who, much like investors, consistently make pro-cyclical mistakes, overinvesting during expansions and underinvesting during weak periods such as the one we are working through today. This hypothesis has support in a line of academic research that finds a negative correlation between companies' investment intensity and stock price performance (Titman, Wei, and Xie, 2004; see Endnote 1).

The E/P Ratio Is Worth a Closer Look

If total returns have been well explained by dividends plus retained earnings with a small kicker, then that simplifies back to the earnings yield or the E/P ratio. That is, *a simple but powerful way to estimate expected returns is to use the E/P ratio*. We know that earnings vary, and can hit high or low cyclical levels, so some smoothing might make sense. This is exactly what Professor Shiller has argued with his 10-year-trailing real earnings calculations. We think that trendline analysis might be more useful, but that is nit-picking. The basic intuition of the value of E/P for market-wide expected return estimation is simple and powerful.

Equity investors get their dividends, and, unless management is incompetent or dishonest, over time profits not distributed as dividends should find their way into the stock price. The E/P ratio today is about 7–8%*, depending on which earnings numbers we use; that strikes us as a sensible estimate of expected returns for U.S. equities. For individual companies, all kinds of other factors might intervene, but for the market as a whole, this should hold reasonably well.

Figure 2
Efficacy of Valuation Factors (1970-2011)

Historical Efficacy of Valuation Factors in Predicting Future Returns (1970-2011)				
Country	Metric	1-Year Forward Return Spread (Q5-Q1)	3-Year Forward Annualized Return Spread (Q5-Q1)	5-Year Forward Annualized Return Spread (Q5-Q1)
Australia	EP	22.93%	12.87%	8.26%
	CFP	27.54%	16.27%	8.18%
	BP	23.07%	22.14%	5.99%
	Dividend Yield	25.83%	21.05%	7.03%
France	EP	4.61%	0.88%	8.17%
	CFP	11.97%	13.64%	12.42%
	BP	18.39%	24.97%	12.08%
	Dividend Yield	17.30%	21.25%	12.09%
Japan	EP	13.33%	12.41%	8.36%
	CFP	29.14%	23.19%	10.89%
	BP	-0.78%	4.55%	3.70%
	Dividend Yield	26.76%	21.37%	8.79%
UK	EP	29.84%	24.51%	9.12%
	CFP	29.37%	23.48%	9.92%
	BP	17.84%	21.32%	12.61%
	Dividend Yield	32.61%	26.45%	11.28%
US	EP	13.18%	11.08%	4.61%
	CFP	15.49%	13.95%	9.65%
	BP	8.73%	10.36%	9.47%
	Dividend Yield	13.59%	14.54%	9.78%
Average**	EP	13.33%	9.89%	6.23%
	CFP	22.22%	18.95%	9.18%
	BP	18.72%	20.63%	10.21%
	Dividend Yield	17.91%	17.83%	8.75%

Source: QMA, FactSet

** Average also includes the following countries: Canada, Germany, Italy and Spain.

Looking at History May Provide Useful Evidence

Investors have proposed a number of other valuation methods—but what has worked historically? The answer as presented in Figure 2—which summarizes the results based on the 1–5 quintile spread—is a mixed bag. We examined data on several international equity markets and calculated returns as a function of valuation multiples in quintiles. With a few exceptions, the most expensive quintile underperformed the cheapest quintile of markets over the three hold-out periods across select countries studied for all the metrics.

Looking at the summary data at the bottom, book/price and cash flow/price offered the highest spread on average across the countries examined, with dividend yield a step behind and E/P back in the pack. This suggests that the distinction of flow-based valuation metrics and asset-based metrics might not matter much, since cash flow/price (CF/P) and book/price (B/P) end up with about the same spread overall.

The E/P ratio is based on one-year-trailing reported earnings. So why, in Figure 2, did B/P or CF/P seem to have more predictive power globally? We observe two reasons for this. First, they are better proxies for “normalized earnings” than reported earnings. Book value essentially smooths the variability of annual earnings over the business cycle as a “stock metric.” Similarly, cash earnings vary much less than reported earnings over the business cycle and are less prone to companies’ accounting changes and earnings management.

* The next 12 months’ expected EPS of the S&P 500 is \$107, according to Thomson Reuters, yielding a forward E/P of \$107/\$1,250 or about 8.0%. The trailing-4-quarter EPS is \$91.82, yielding an E/P of \$91.82/\$1,250 or about 7.3%.

Over the Long Term, Expected Returns Based on Fundamentals Have Been Fairly Consistent

“The key issue in investments is estimating expected return.” So began one of the last articles by the late, great Fischer Black. One approach we have used in prior “Turbulent Teens” pieces is to simply take the historical average return for a given level of valuation. In the second piece in the series, we used this approach to argue for high-single-digit equity returns in this decade. In the third piece in the series, we argued that bond returns were likely to be below average over the next several years and stock returns were likely to be better as a result of the record-low interest rates hit recently.

The trouble with this approach is that the volatility around these expected return forecasts is quite high, about as high as (and in some cases higher than) the volatility around the simple long-term average. Because of the high volatility, the explanatory power of macro-level expected return models tends to be fairly low. Indeed, in the academic world over the past decade or two, there has been a healthy debate over whether asset class returns are predictable at all, or whether there is any predictor better than the historical average. Campbell, Shiller, Viceria and others tend to argue that returns are somewhat predictable, while an equally luminous group argues that they are not. A recent working paper by Robertson and White takes an interesting approach to this issue. In effect, they argue that actual returns have been so variable that there is quite “limited scope for even the best predictive regression” to out-predict the historical average (a working paper, “The Limits to Stock Return Predictability,” September 2009).

Based on the valuation metrics discussed above, our estimate of expected U.S. equity returns is the high single digits, close to the historical average. While European equities are slightly cheaper than those of the U.S. and other developed markets due to the European sovereign debt crisis, our expectation for all developed markets over the next decade is broadly the same—high single digits. Since both the long-term average and our forecast are about the same, we need not make a compelling case for return predictability.

Expected Equity Returns Have Not Changed Much Over Time, Remaining Generally Around 5–10%.

Actual returns might vary outside the 5-10% range for years at a time (e.g., we have seen very small returns in the past decade, but saw a remarkable decade-plus era of 18% annual gains in the 1980s and 1990s), which stems from valuation changes. As a result of shifts in interest rates and inflation, perceptions of higher or lower future growth, or key environmental factors such as wars, investors develop a higher or lower appetite for risk. When inflation and interest rates are falling, growth is strong, and the world is relatively peaceful, as it was in the 1980s and 1990s, investors’ willingness to take risk increases. They bid up valuation ratios, but do not perceive that expected returns drop as a result. (Indeed, surveys of investor expectations of returns in the late 1990s showed high expected returns despite record-high valuations.) *Instead, when things are going well, investors expect them to continue to go well and so they discount the possibilities of bad events and losses; that is another way of saying that investors increase their appetite for risk.*

Seen in This Context, Valuation Changes Are a Way to Keep Expected Returns Fairly Steady

When valuations are high (say P/Es of higher than 20x), investors aren't thinking, when they are buying expensive stocks, that expected returns from those levels will be low. Rather, they think that things are going so well that a higher P/E is "justified"; otherwise, returns much higher than normal would continue to prevail.

As it turns out, at least so far, unusually good or bad conditions have not persisted indefinitely. Strong periods of growth tend to be followed by recessions, high inflation at some point reverses, and, sadly, periods of relative peace tend to be followed by wars. It is seldom predictable when these reverses will happen, and we seem always to be surprised when they do. The volatility of stocks arises from the variability of life.

*To believe our equity forecast of high-single-digit returns, investors are **not** required to make heroic assumptions about growth or to count on future valuation increases.* As long as current earnings are realistic and are maintained, and as long as management does not use retained earnings foolishly, our forecast is about in line with more than a century of market history. That does not guarantee that actual returns will be the same as expected returns; indeed, history shows that actual returns have been much more volatile than fundamentals would suggest that they should be, and returns might be lower or higher than we expect. But absent circumstances that are significantly worse than those that prevailed on average over the past 130 years, a span that included two World Wars, a Great Depression and numerous panics and crashes, we think our forecast of returns about equal to the historical average is reasonable.

Unlike Equities, Bonds Would Require Extraordinary Circumstances to Maintain Historical Returns

On the other hand, for Treasury bonds to deliver their historic return of about 5% for someone who buys today at current yields, one has to believe that some rather unusual circumstances will pertain. For example, a buyer of the 30-year T-bond at a current yield of about 2.8% has to count on an average annual capital gain of about 2.2% (a cumulative capital gain of 24% over 10 years) to experience the average historical total nominal return of about 5%.

Over the next 10 years, that would imply a drop in yield to maturity to about 1.4% in 2022 (on what would then be a 20-year bond). By comparison, the yield on a 20-year bond today is about 2.2%, already near a record low. Of course, we cannot rule out that yields that are already low by historical standards will stay where they are or drop further in the decade to come; it has happened before in human history, and modern Japan is an example. But counting on extreme valuations to continue unabated for an extended period has been a bad bet historically (e.g. U.S. Stock Market, Spring 2000).

Combining the picture for stocks and bonds, we suggest that we needn't forecast anything special to reach our expected equity return forecast, whereas bonds can reach historical returns only if current circumstances continue or perhaps worsen for many years. That is, we suggest that a supportive bond position carries an implied forecast of future events that is not unprecedented, but is clearly unusual.

We argued in the first piece of our "Turbulent Teens" series that there was a palpable risk of inflation mid-decade. With unemployment still painfully high, it is hard to imagine an immediate rise in inflation, but a few years from now, that might not be true, as baby boomers exit the workforce in greater numbers and as emerging market wages start to close the gap with those of developed nations. If so, that could be bad news for bonds.

There have been three great regimes for Treasuries since the start of Ibbotson data in 1926. As Figure 3 shows, the past 30 years have been a golden era for bond investors, with record levels of both nominal and real returns. But in the post-WWII era through the early 1980s, bonds struggled in nominal terms and delivered negative real returns on average over more than three decades. Stocks had substantial volatility, but coped with inflation much better than bonds did due to their participation in the real growth of the economy. Indeed in the three long cycles we identified, average annual real stock returns were fairly consistent, at 5–8%, while real bond returns varied from -3% to +8%.

Much has been written about the recent volatility of equity returns and the relative tranquility of bond returns, but that is clearly regime-dependent. We cannot say for sure when it will happen, but comparing the real returns and volatility of stocks and bonds in the three periods in Figure 3, *we would not rule out the possibility of a shift this decade to a regime where stocks offer not just superior returns, but a superior risk/return trade-off compared with bonds.*

Figure 3
The Return/Risk Offered by Stocks and Bonds has been Regime Dependent

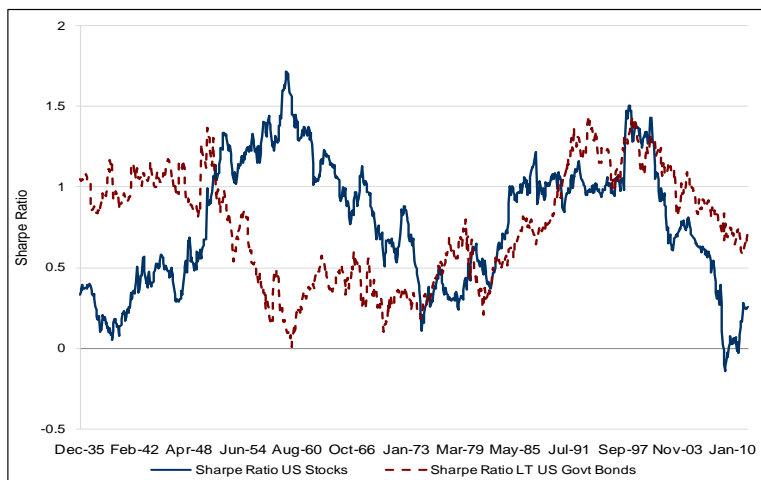
Nominal Returns					Nominal Volatility				
Date	S&P 500	LT Gov't	LT Corp	Number of Periods	Date	S&P 500	LT Gov't	LT Corp	Number of Periods
Jan '26 - Aug '49	6.32%	4.23%	4.96%	284 months	Jan '26 - Aug '49	27.82%	4.08%	3.52%	284 months
Sept '49 - Sept '81	11.11%	1.64%	2.26%	385 months	Sept '49 - Sept '81	13.63%	7.49%	7.11%	385 months
Oct '81 - present	11.12%	11.22%	10.98%	359 months	Oct '81 - present	15.49%	10.98%	9.50%	359 months

Real Returns				
Date	S&P 500	LT Gov't	LT Corp	Number of Periods
Jan '26 - Aug '49	5.02%	2.90%	3.63%	284 months
Sept '49 - Sept '81	6.45%	-2.63%	-2.04%	385 months
Oct '81 - present	7.87%	7.95%	7.72%	359 months

Source: Morningstar, Inc. Also see Endnote 2.

Whereas in the past three decades bonds have offered returns about the same as stocks with a third less volatility, from 1949–81 bonds offered nominal annual returns of just 1.6% (real returns were negative 2.6%) with volatility of 7.5%. Stocks were much more volatile over this period (13.6% on average), but they delivered much better nominal (11.1%) and real (6.5%) returns. On a rolling-10-year basis, the risk-return ratio of stocks was superior to bonds from the 1950s to 1970s (Figure 4).

Figure 4 – Stocks Offered Superior Risk/Return Ratios In the 1950's-1970's
Rolling 10-year Sharpe Ratios - U.S. Stocks and U.S. LT Government Bonds



Source: Morningstar, Inc. Also see Endnote 2.

Are Some Investors Ignoring Inflation Risks? We Think They Are.

Here's our evidence: the U.S. and the U.K. both have fiscal situations as bad as or worse than those of Italy or Spain, yet U.S. and U.K. bonds sell for yields well below those European nations mostly because, we suggest, investors know that the U.S. and the U.K. have their own currencies. If necessary, both governments can print money to meet nominal obligations. In theory, investors should demand an inflation risk premium to compensate for this risk but they manifestly have not so far. This suggests to us that investors are more concerned with whether or not they get their money back, rather than the expected real value of that capital when it is eventually returned. In our opinion, investors are so concerned with other risks that inflation is far down on their list. This might eventually turn out to be a mistake.

To summarize:

- ◆ We cannot rule out another sharp drop in equity prices, and we will discuss some of the proximate causes for such a drop in the rest of this paper.
- ◆ Yet, based on fundamentals, we think that the expected returns on stocks remain in the high single digits, the same forecast we offered at the start of this decade and the run rate that we have experienced so far.
- ◆ We arrive at the same forecast using several approaches, including one that relies on the simple long-term average.
- ◆ Bonds have been champs for three decades, and as we write this, bonds have beaten stocks in 2011. But we believe that this great bond era is nearing an end—that whether investors focus on nominal or real returns, bonds will pass the baton to stocks this decade.

Is The Developed World In The Midst of a Long Decline?

In the previous section, we explained why we are sticking with our forecast of high-single-digit returns for stocks this decade, despite the considerable risks of worse outcomes. Some might wonder whether we are missing the bigger picture—that the period of strong economic growth and high equity returns of the post-war period in the U.S. was not “normal,” but rather a bright moment that has already flickered in the past decade and might dim further in the years to come. The post-war boom had several clear tailwinds that have now dissipated: favorable demographics, rebuilding from the war, big improvements in education and technology, the rise of international organizations to better manage sources of conflict (whatever anyone might think of the United Nations and the European Union, for example, the second half of the 20th century was clearly more peaceful than the first) and the steady increase in debt and government spending. With aging populations, uncertainty about technological gains, deleveraging and austerity, these tailwinds might become headwinds.

We are hard pressed to identify anyone who thinks that the next few years will see anything better than slow growth; relative to the prospect of a Great Depression II and other apocalyptic scenarios, slow growth looks like wild-eyed optimism. We have often cited the groundbreaking and exquisitely timed work of Reinhart and Rogoff, which illustrated, among many other things, that following a systemic financial crisis, deleveraging tends to continue for an average of seven years, implying that we still have three to four-plus years to go before economic conditions markedly improve. In addition, they have argued that high levels of public debt (90%-plus of GDP) tend to act as a drag on growth; the U.S. and many other developed nations either already have crossed that threshold or soon will.

Reinhart & Rogoff are not without their critics, however. A recent 2011 Credit Suisse research report “Questioning Reinhart & Rogoff on Long-Term Growth,” argued that the slow growth after high debt/GDP mostly centered on short periods following wars. The Credit Suisse Report argued that the growth/debt link was weak other than post-war periods and that the output gap was a better predictor of future growth. The author also warned against excessive austerity to reduce debt/GDP too quickly.

Nevertheless, disagreements about the immediate future do not allow us to dismiss some of the clear longer-term issues facing developed economies.

The Elder Population Is Rising—Along with Accompanying Healthcare Costs

Slow growth over the next few years might be the best we can hope for, but some argue that absent major change, slow growth or even stagnation might continue for decades in the developed world. Demographics are a big part of the story. The dependency ratio is set to rise in the U.S. and soar in many European countries and Japan over the next 20-plus years.

Programs instituted in the developed world over many decades, designed to alleviate poverty among the elderly, have substantially succeeded: studies of life satisfaction suggest that healthy folks in their 70s are about as happy as those in their 20s. A Pew Research study dated November 2011 showed that households headed by someone over 65 are much richer than households headed by someone under 44, and that the gap widened considerably between 1984 and 2009. The Pew study also showed that income growth has been twice as fast for older households than for younger ones since 1967, thanks in part to the steady 55% of senior income derived from wage-indexed Social Security payments. The problem for the future of programs designed to help seniors is mathematics: as GM discovered, pension schemes that rely on a steadily growing pool of younger workers for viability can look bad in a hurry once growth slows, stops or reverses.

If medical costs continue to rise at anywhere near the rate they have historically, elder healthcare programs such as Medicare will surely become unaffordable. Since politicians worldwide are reluctant to give bad news to seniors, some analysts conclude that a solution to this issue can only come after a U.S. sovereign debt crisis in essence imposes a miserly solution.

Once-Strong Economic Engines Have Flagged a Bit

Others focus on a slower recent pace of technological progress. Some observers—including Peter Thiel, founder and former CEO of PayPal, and economist Tyler Cowen—have argued that innovation in the U.S. has stalled in the past decade. True, we have plenty of cool gadgets, but these have not increased productivity in the way that the introduction of the early computers did. Transportation speeds increased markedly in the 19th and 20th centuries, but have stalled or even reversed this century. In the healthcare arena, there has been nothing recently that can remotely compare with breakthroughs such as antiseptic surgery or the discovery of antibiotics.

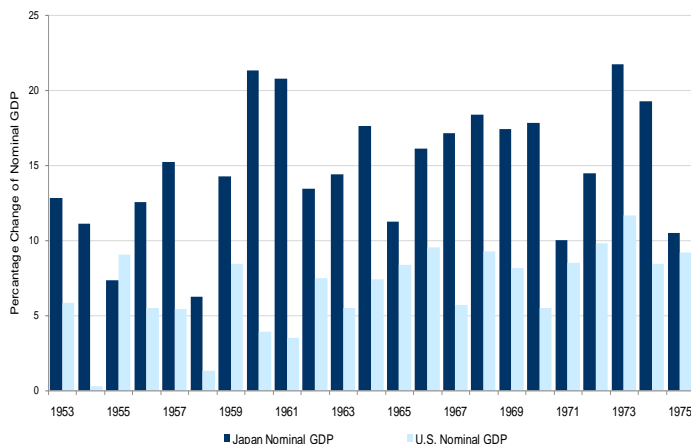
A recent book by the historian Niall Ferguson, *Civilization: The West and the Rest* (Copyright 2011), argues that the six “killer apps” that led to Western dominance—Competition, Science, The Rule of Law, Medicine, Consumerism and the Work Ethic—have been embraced by much of the rest of the world even as they have become neglected in the developed world. He argues that the West needs to rededicate itself to these six key drivers of progress to regain a competitive edge. Failure to do so, he suggests, would lead to continued loss of ground relative to less-developed nations.

Two other economic and market commentators, Nouriel Roubini and Charles Dumas, have recently offered looks at the future that are short-term gloomy but longer-term constructive. In *The American Phoenix: Why China and Europe Will Struggle After the Current Slump* (Charles Dumas, Diana Choyleva, Copyright 2011), Dumas argues that there will be another painful global recession starting in 2012, but that eventually the U.S. will occupy a much stronger global competitive position than it does today as rising inflation and higher labor costs in China blunt its cost advantages. A recent analysis by the Boston Consulting Group makes a similar point, arguing that with 15–20% wage growth in China, some U.S. states will offer labor costs competitive with China in as soon as five years. Dumas suggests that improved competitiveness and slower baby boomer retirements will drive trend U.S. GDP growth of about 2.5%. Roubini also expects another recession, but he suggests that debt forgiveness, infrastructure spending and correction of global imbalances could help lead us out of this deleveraging cycle in time.

The Path of Economic Growth Is Sometimes Rocky

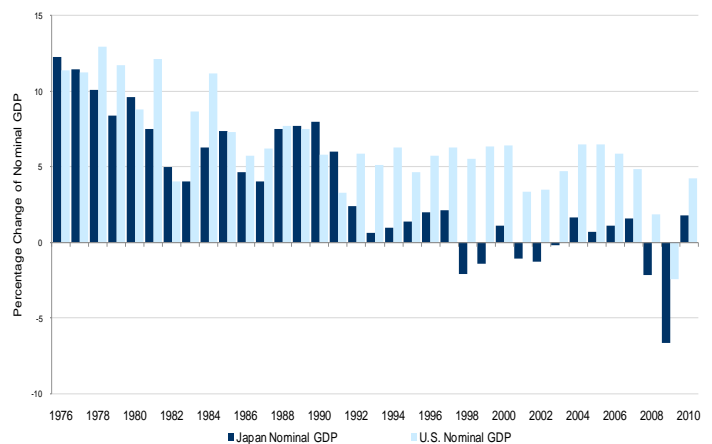
For some of us older folks, predictions of a decline of the West have a familiar ring. In the 1960s and 1970s, it became conventional wisdom in the U.S. that Japan would surpass the U.S. as an economic power as it already had as a manufacturer of autos, steel and other products. These predictions were based in part on Japan’s higher growth (Figure 5).

Figure 5
Japan Grew Much Faster Than The U.S.
In The 1950’s – 1970’s...



Source: Thomson Reuters Datastream.

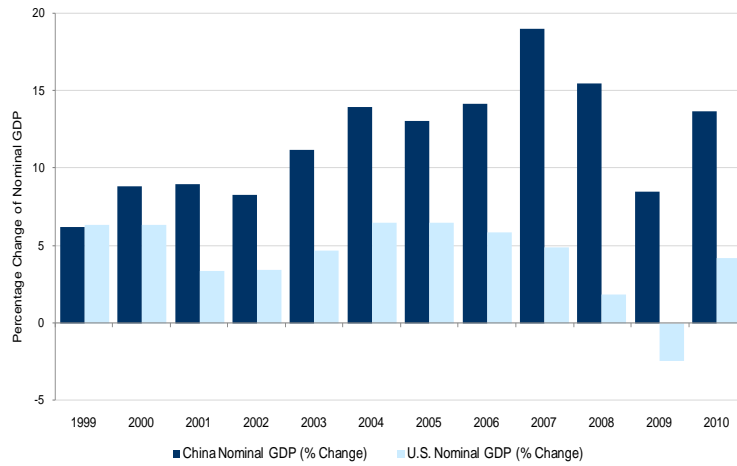
Figure 6
But Japan’s Growth Slowed
and Eventually Stalled



Source: Thomson Reuters Datastream.

Yet by the 1980's, nominal growth in both the U.S. and Japan were about the same, and in recent decades, U.S. growth has been considerably more robust. Figure 7 shows U.S. versus China nominal GDP growth since 1999. It is reminiscent of Figure 5, as some again expect China to soon surpass the U.S. economically and to dominate the global economy in a decade or two. Perhaps that will come to pass, but based on the Japanese example, it is not a sure thing.

Figure 7: China GDP vs. U.S.



It is easier to grow from a small base than a larger one. And as we noted in last year's piece in this series, it is much easier to adopt someone else's technology, products and practices than it is to develop your own. Furthermore, growth seldom follows in a steady parabolic path forever. Bubbles, imbalances, shortages of key elements of product, inflation and other factors often end up causing a pause or pullback in growth.

Nevertheless, even if the path of growth of developing nations turns out to have some bumps, that does not mean that the path of the developed world will be smoother. Indeed, global trade is growing, and all economies are becoming more interdependent. And some of the facts marshaled by the long-decline advocates are beyond dispute: deleveraging is continuing in the household sector, the situation in Europe is perilous, dependency ratios are rising, government deficits are huge, global imbalances remain problematic and the political will to solve long-term problems is lacking. In fact, as we wrote the last sentence, the thought occurred to us that perhaps the long-decline scenario is indeed the most likely outcome for the developed world.

We Expect U.S. Productivity To Be Robust

So is a rosier scenario possible? As the title of this series implies, we have long held the view that the next several years will be difficult. But we do not think that the long-term decline of the U.S. is likely. (We will discuss Europe in the next section of this paper.) In part, that is because we have gone through slumps before and pulled out of them. Figure 8 shows the annual change in rolling-5-year averages of productivity growth.

Figure 8



Productivity usually falls during recessions, as it did around the early 1980s and early 1990s recessions, but it has also tended to bounce back strong. In fact, a technical analyst might suggest that over the past 30 years the peaks and troughs have both been rising, suggesting a rising trend. The major drivers of productivity growth remain mostly intact, including great universities, creative entrepreneurs and a dynamic technology sector.

Of course, productivity can be disruptive, destroying more jobs than it creates in the short run. And technological change can take a while to increase productivity. As recently as the early 1990s, folks fretted that the PC revolution had not done much for productivity; as referenced in Figure 8 we were in the midst of a “jobless recovery.” Of course, we now know that one of the most vigorous economic recoveries and bull markets were about to start, but that was not clear at the time. That does not necessarily mean that the same thing will happen this time around, but in time we think that there is a good chance it will.

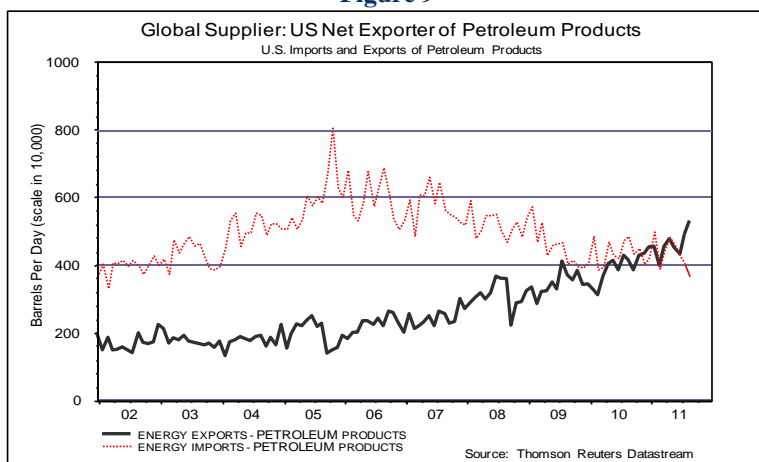
New Energy Developments Could Drive Growth

Other than a generalized sense that history tends to repeat, or at least to rhyme, as Mark Twain suggested, what reasons for optimism exist? As we have often noted, we claim no particular skill as soothsayers. But we do think that before the Turbulent Teens close, there are chances for major positive change in at least two critically important areas in addition to the obvious example of information technology: energy and healthcare. We believe these could have substantial benefits for the U.S. economy.

The development of hydraulic fracturing (or fracking) technology offers great potential to increase U.S. supplies of oil and gas, though successful widespread adoption of this technology presents substantial environmental challenges. As with so many other aspects of our politics, this has tended to be framed as a black and white issue, with some environmentalists seeking to stop development, and some industry sources and their political allies seeking to bypass environmental obstacles. No technology will ever be 100% safe and secure, as the Deepwater Horizon spill so vividly demonstrated. But life involves sensible risk-taking, and the balancing of risk and reward. Those of us of a certain age remember days before President Nixon created the Environmental Protection Agency when factories openly dumped odd-colored and foul-smelling effluent into rivers. If rules are too weak, they will be violated, causing political blowback as well as environmental damage.

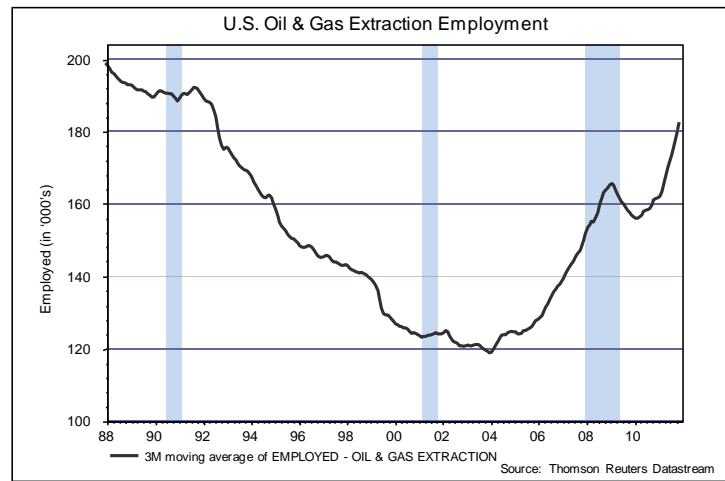
The United States is still the world's largest importer of crude oil, and we have a large overall energy trade deficit. Yet, the U.S. is on track to be a net exporter of petroleum-related products (i.e. refined products) in 2011 for the first time in 60 years (Figure 9). While some of this is due to faltering demand caused by weak U.S. growth, it's also explained by our greater ability to supply strong emerging market demand with increased domestic oil production from new sources such as Texas and North Dakota. Some energy experts believe this is the beginning of a trend that will last for at least at a decade and points toward increased energy independence. Noted energy observer Daniel Yergin and his firm, IHS Cambridge Energy Research Associates, project that by the end of the decade the U.S. will produce more than 3 million barrels a day from “tight oil” sources (oil that is extracted from dense rocks). This number equals more than half of current daily production.

Figure 9



Many of today's recent technological innovations appear to have increased consumer utility but also decreased employment. Think about the impact of tablet computers and e-readers on the publishing industry and traditional bookstores. In contrast, the increased role of fracking technology in domestic energy production has increased production and employment in recent years (Figure 10).

Figure 10

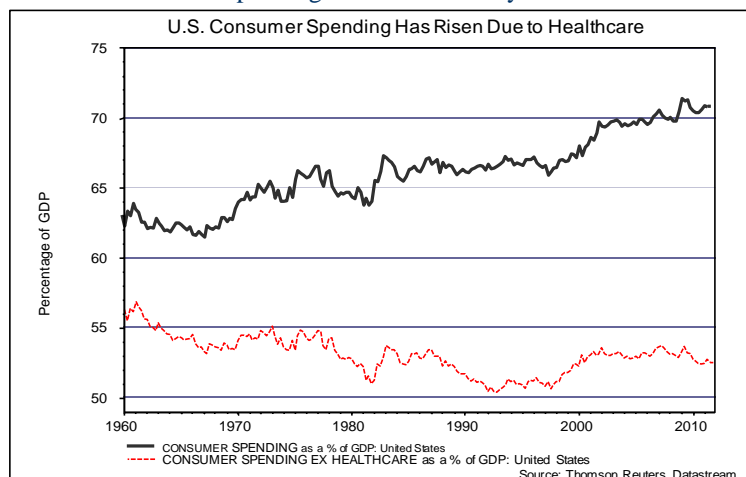


The U.S. has shipped trillions of dollars out of the country in the years since the 1973 OPEC embargo and subsequent price hikes to pay for oil. An oil shock contributed to the Great Recession, as it had contributed to prior recessions. A stronger U.S. energy sector would act like a tax cut for the U.S. economy and help correct global imbalances. We need not neglect other renewable energy sources to aggressively develop fracking technology and increase production of conventional fuels to help create a more prosperous as well as environmentally healthy future. These are the kinds of challenges the U.S. has tackled many times before, and with political will and sensible compromise could tackle again.

Efficiencies in Healthcare Would Cut Waste and Boost the Economy

The second area where we perceive the opportunity for dramatic change is healthcare. Previously, we examined the rise in consumer spending. It shows U.S. consumption as a percentage of GDP with and without healthcare expenditures. It has become part of conventional wisdom that the U.S. spends too much and saves too little. We see ourselves as having wasted too much money on big-screen TVs, home improvements, trips to Vegas and other frivolous things while the thrifty citizens of other nations have spent more wisely and saved more. But as Figure 11 shows, non-healthcare consumption is lower now than it was in the 1950s. All of the increase in consumption as a part of GDP has been due to increased healthcare expenditures.

Figure 11
U.S. Consumer Spending Has Risen Mostly Due to Healthcare



All of the difference in the savings rate between Americans and Germans is due to the extra 6%* of GDP that we spend on healthcare. We spend about as much as Germans do on creature comforts, but we have been frittering our money away on CAT scans and colonoscopies, which doesn't sound frivolous (or fun) at all.

Clearly, there exists huge differences in opinion about how to reform healthcare, and an examination of these ideas is far outside the scope of this paper. But one thing most people agree on is that the healthcare sector could do a much better job incorporating advances in information technology to improve care and cut costs.

Economist Horace "Woody" Brock has argued that policymakers have been too focused on the demand side when the key to reducing costs is to increase the supply of healthcare. He suggests a number of ways that a supply curve shift could be achieved. This includes efforts to increase the supply of doctors by investing in new medical schools and deregulation that seeks to root out certain anticompetitive industry practices. As a large percentage of patient visits involve routine diagnoses and prescriptions, he advocates expanding the range of duties for nurses and orderlies and the use of expert systems that would digitally encode the required expertise for such routine consultations.

By embracing technology and reexamining the roles that healthcare providers play we could bypass the debates about rationing, single-payer and "death panels," improving care while cutting costs.

In summary, energy and healthcare expenditures combine for more than 20% of GDP. We believe that major improvements in these areas would boost growth, dramatically improve the U.S. fiscal outlook and trade balance, and potentially enhance people's lives. Change will not be easy or painless, and compromises will be needed. But substantial advances in these and other areas could help revitalize the developed world and boost progress in the emerging world. We cannot ignore the substantial problems facing the developed world. Financial and economic conditions remain fragile.

Demographics represent a major challenge. Nevertheless, the drivers of growth are mostly intact. There are no guarantees, but we suspect that before the Turbulent Teens are done, innovation and progress will be back, and the defeatist talk of 2011 will seem like an old, bad dream.

** According to the OECD, the household savings rate in 2010 was 11.3% in Germany and 5.3% in the U.S., a 6% gap. The OECD also reports that for 2009 (the latest available data), the U.S. spent 17.4% of GDP on healthcare versus 11.6% of GDP for Germany, a gap of about 6%.*

Quo Vadis Europa?

While we do not believe the developed world is headed for a steep decline, daunting problems remain, notably in Europe. In last year's piece in this series, we addressed the issues facing the continent, discussing the need for a closer fiscal union as well as the role of Germany and the European Central Bank (ECB). We concluded by writing:

"We cannot say that we know how this will end. It is not impossible that the EU and the euro will collapse. But we suspect that is unlikely. There are powerful reasons why Germany and the other stronger European nations want the EU to hold together and prosper. Although we should brace ourselves for more European debt scares in 2011 and this issue might linger for years, the global economic recovery will make it easier to deal with this issue. Our best guess is that we will muddle through."

The passage of the year does not seem to have solved much; if anything, the problems today seem more acute and the situation more dire than a year ago. There have been numerous summits and plans put forth to "solve" the European crisis. Many of these seemed to calm markets for a time, but in short order, signs of stress have re-emerged: yields on European sovereign debt have been rising, as has the TED spread. European bank stock prices have been under pressure and concerns have grown about both their liquidity and solvency. A disorderly disintegration of the Eurozone cannot be ruled out, though we will argue below that we think this is unlikely.

How can we discuss a situation as fluid as the one in Europe in a decade-ahead piece, in a way that is less likely to be obsolete before the ink is dry? There have been many thoughtful and detailed analyses published, including work by HSBC, UBS, BCA Research and others. These pieces attempt, among other things, to size the problem, analyze the fallout from a potential failure of the Eurozone, and examine possible ways to avoid catastrophe. This is a big problem, at least as big a problem as (and probably bigger than) the collapse of Lehman Brothers. Yet, in our opinion, it is not so big that it could not be solved using Europe's and the world's considerable resources. And though reasonable people can disagree about the proper course of action, it is clear that banks need to be strengthened, the bond market needs to be stabilized and a long-term plan for reducing fiscal imbalances needs to be put into place.

The Problem in Europe Is Fundamentally Political, in Our View

That is, it could be solved if there was sufficient political will to muster the resources and commitment to solve it. In addition, it is clear that the most important players in this drama are Germany and France, as was also the case at the inception of the European Project.

The concept of a European union arose from the ashes of World War II, as a political endeavor motivated by the desire for reconciliation between France and Germany. During a speech at Zurich University in September 1946, Winston Churchill said:

"I wish to speak to you today about the tragedy of Europe (...) Yet all the while there is a remedy which, if it were generally and spontaneously adopted by the great majority of people in many lands, would as if by a miracle transform the whole scene, and would in a few years make all Europe, or the greater part of it, as free and as happy as Switzerland is today. What is this sovereign remedy? It is to recreate the European Family, or as much of it as we can, and to provide it with a structure under which it can dwell in peace, in safety and in freedom. We must build a kind of United States of Europe (...) The first step in the recreation of the European Family must be a partnership between France and Germany."

The Current EU Has Been Several Decades In The Making

In May 1950, Germany, France, Italy, Belgium, Luxembourg and the Netherlands formed the European Coal and Steel Community, issuing the Schuman declaration which stated, “Europe will not be made all at once, or according to a single plan. It will be built through concrete achievements, which first create a de facto solidarity. The coming together of the nations of Europe requires the elimination of the age-old opposition of France and Germany.” By 1957, the Treaty of Rome established the European Economic Community, stating in its preamble that the founders were “determined to lay the foundations of an ever closer union among the peoples of Europe.”

From the 1960s through the 1990s, a series of moves bound the core nations of Europe closer together and expanded the core to most countries of Europe. From many different perspectives the EU already functions as a confederation with free movement of capital, goods and labor, highly integrated markets, common norms and standards, regulation, not to mention the supranational Cohesion Funds and Development Funds designed to assist poorer countries. In 1999, the euro and the ECB were created, and on January 1, 2002, euro bills and coins began circulation and the 12 (as of today, 17) old national currencies faded into history. So although the EU can trace its roots to the 1950s, the monetary integration of Europe is quite recent, and the euro is just a dozen years old. Although there had been some tests earlier, the strains of the past two years, starting in Greece, are the first existential threats the euro has faced in its short existence.

All Eyes Are on Germany

German Chancellor Dr. Angela Merkel has emerged as the most important European leader, and she recently forged an agreement that emphasizes enforceable austerity for European Union (EU) members. At the same time, the ECB, under its new head, Mario Draghi, recently announced a series of steps to improve the liquidity of European banks while reducing the immediate pressure to raise fresh capital. It’s possible that this combination will work, but that is less than a sure thing. It seems more likely to us that this crisis will not end soon, and that examinations of European woes are likely to be a section of next year’s edition of the “Turbulent Teens.” So what can this year’s edition contribute to what we believe will be an ongoing dialogue?

We will attempt to consider the European woes from a German perspective. Let’s assume for the moment that Germany will act primarily based on what it believes to be its own interests. What are the forces that might push Germany to act in one way or another? At the end of the day, will they do whatever it takes to save the euro? To many in the financial markets on this side of the pond it might appear as though Germany has continually done too little, too late. Does this mean that Germany is prepared to see the euro fail? In our opinion, the answer to that is no. Chancellor Merkel might pursue different solutions from those the U.S. pursued and in the end there is no guarantee that the euro will survive, but in our opinion, Germany will do whatever it takes simply because Germany has a great deal to lose if the euro fails. We base our opinion on our analysis of history, economics and analogies to a successful union, that of the U.S.

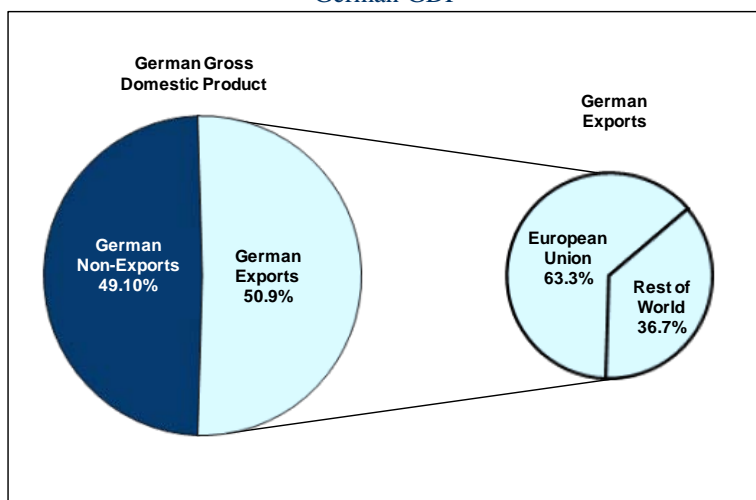
Germany Has a Strong Economic Interest in Maintaining the Euro

Some might look at Germany’s position today and argue that it does not need the euro. Germany is the dominant European economic power; it has one of the four biggest economies in the world, has some of the globe’s most competitive businesses and is a mighty exporter. It would take a huge hit if the euro fell (we will discuss how big below), but it would eventually recover.

The German perspective might be different. The two World Wars came at a great cost in blood and treasure for many nations. For Germany, the costs also included national humiliation, a terrible burst of inflation between the wars, a devastating loss of moral authority and a piece of the national soul. The country was rent in two for decades. It has overcome all that to achieve its current status. Might some wonder where Germany would be if it had not spent so much of its body and soul in conflict with its neighbors? Germany has prospered mightily in a more unified Europe. Why chance that a disorderly break-up of the euro could unleash old passions? For Germany, the clear lesson of the past century is that conflict has been a loser and harmony has been a winner for the lives of the German people. We suspect that she was expressing a heartfelt belief forged in national self-interest when Angela Merkel said in Bundestag this past November, “The euro is a guarantor of united Europe, or put it another way: if the euro fails, Europe fails.”

The economic costs to Germany from a euro break-up would be substantial and multifaceted, but we will focus on a single, simple and straightforward one: Germany has an export-driven economy (Figure 12).

Figure 12
German GDP



Source: Thomson Reuters Datastream.

Exports constitute half of GDP. By comparison, U.S. exports are about 10% of GDP. Fully 60% of German exports go to other European countries. If the euro fell and Germany reverted to the Deutschmark (or a “new euro” dominated by Germany), Germany’s European markets would contract—both because of the likely economic contraction of its neighbors and because the Deutschmark would probably rise sharply in value, raising the cost of German products. Similarly, the new Deutschmark would likely make German products more expensive in the U.S., China and elsewhere as well. It does not seem like a stretch to say that German exports could fall by 10%, causing a 5% drop in GDP, comparable to what the U.S. experienced in the Great Recession. It is not inconceivable that German exports to the rest of Europe could be cut in half, wiping out 15% of German GDP, a drop comparable to the Great Depression.

A case can be made that Germany has been the biggest beneficiary of the European Union and the euro; that also means that Germany has the most to lose if it fails.

Some in the U.S. Might Misinterpret Germany’s Different Tactics for Resolving The Crisis As a Lack of Resolve

A recent *NY Times* piece examined the divergent attitudes between the U.S. and Germany in their approaches toward financial crises (“Euro Crisis Pits Germany and U.S. in Tactical Fight,” December 11, 2011). Two key differences are worth highlighting: Germany has a much different view on the value of financial markets and their signals, and a very different view of the dangers of debt and inflation.

The article states, “Mrs. Merkel views the financial industry with profound skepticism and argues, in almost moralistic fashion, that real change is impossible unless lenders and borrowers pay a high price for their mistakes.” It later notes, “Many Germans also view the Anglo-Americans’ fascination with the financial industry as the root of the West’s decline in competitiveness with the rising East. Big banks create and exploit bubbles, requiring huge bailouts, they say, without creating sustainable growth. Meanwhile, German exports will set a record this year, breaching the 1 trillion-euro mark, or roughly \$1.3 trillion, for the first time.” The article also points out, “Germans are staunchly opposed to any solution that involves greater debt, but even more so to policies that might court inflation, their historic obsession. Policymakers in Berlin and at the Bundesbank headquarters in Frankfurt have urged restraint on the part of the European Central Bank, insisting it should not buy up too many bonds from heavily indebted Eurozone countries.” It then offers a quote from Josef Joffe, publisher of the German weekly *Die Zeit*, describing the German position: “We will save the euro. We have to save the euro. We have the biggest resources and the biggest interest. But we will hearken fiscal probity. We will not sacrifice our memories.”

A further insight might come from an October 31, 2011, *Financial Times* piece, which notes that “Germany’s finance minister see the financial crisis not as a threat, but as an opportunity.” The article, titled “Crisis provides opportunity for ‘fiscal union,’” notes that German Finance Minister Wolfgang Schäuble believes interference in each other’s budgetary affairs in the Eurozone “is the way to go.”

We repeat: German tactics might not work, but we think that Germany is genuinely committed to sustaining the euro and genuinely believes that it has adopted the tactics that will give it the best opportunity to do so. The detailed analyses of others suggest that as big as the European problem is, it is not too big to fix. Therefore, we think the chances are that it most likely will be fixed in time.

Our Own Union Offers a Lesson in Shared Sacrifice

We offer one final note on this section. The U.S. is a young country compared with Europe but it is an old union compared with the EU. The U.S. union was tested in blood, and it has endured. Because the U.S. is a genuine union, we barely think about transfers between states, but they are big and ongoing. For example, in 2005, the average per capita federal tax burden on a citizen of New Jersey was \$9,947, while per capita federal spending in the state was \$6,771 according to the U.S. Dept. of Commerce. In effect, the average New Jersey citizen transferred \$3,176 to citizens of other states. Yet to our knowledge, there have not been massive protests in New Jersey over “bailouts” of southern states, which typically get much more federal spending than they pay in taxes, though that is what happens year after year. In the U.S., we accept that wealthier citizens pay a disproportionate share of taxes and less fortunate citizens obtain benefits. We might disagree about how much those taxes and benefits should be, but the basic principle is not in dispute. Where those citizens happen to live is just not part of the conversation. Nearly everyone hates the concept of bailouts, especially if one’s own money is doing the bailing, and more so if one believes that those being bailed out don’t deserve it. But at the end of the day, we do what we think we have to do to preserve our union because it is in our self-interest to do so.

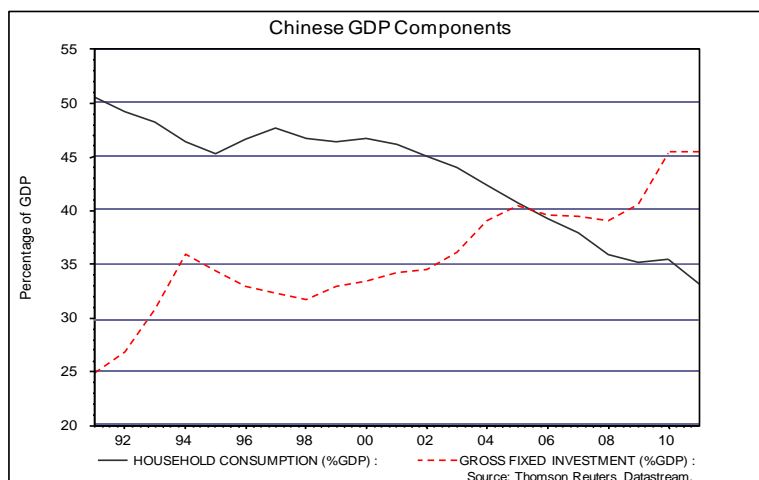
In time, if the EU is to survive and endure, we suspect that German citizens will come to the same conclusions that some of us in New Jersey have come to: the strong have a duty to help the weak, not out of charity, but because it is in their self-interest to do so.

Emerging Markets: Might China Land Hard?

As if the problems in the U.S. and Europe weren't enough for our readers to digest, we would be remiss in our duties if we did not tackle the emerging world as well. We intend to publish a more detailed analysis of emerging markets during 2012, but for this year-end edition of "Turbulent Teens," we will focus on just one topic of special interest to global investors: will a property bubble in China burst, leading to a hard landing that drags down global economies? We confess that our basic answer to this question is: we don't know. All economic data are, at best, an estimate of reality, subject to significant measurement error. Economic data from China are probably even less reliable than oft-revised data from the U.S. and other nations. Fast growth also creates issues for data collectors in any nation. So reaching conclusions based on uncertain information from China is especially difficult.

That might help explain why opinions on the likelihood of a hard landing in China differ so widely among various astute and informed observers. Hedge fund manager and well-known short seller Jim Chanos has long been bearish on China, judging from his comments during his CNBC appearances and other interviews. According to a recent publication from BCA Research, an Emerging Markets Strategy Special Report titled "Cracks in China's Property Market," excess supply and weak demand for property, accompanied by excess leverage and liquidity problems for developers, are likely to lead to at least a substantial growth slowdown if not something worse. China's woes could be exacerbated by the global economic slowdown, as much of China's growth is driven by investment as opposed to domestic consumption (Figure 13).

Figure 13



At the same time, a December 1, 2011 Goldman Sachs report on China concluded, "We believe the risk of a hard landing is low, and that the market has discounted this concern to an excessive degree." Another report, from the CEBM Group, offered a cautious but basically constructive view of the property market, predicting a modest drop in prices in the first half of 2012 followed by stabilization starting mid-year.

So where do we stand? Though we have already confessed our lack of conviction, we tend to think that a hard landing in China is less likely to be the cause of global economic problems than the European debt crisis, though contagion from problems elsewhere could push China into a hard landing.

Here are some points we think are worth pondering:

- ◆ **What's the right analogy?** Having just witnessed the terrible fallout from the collapse of property bubbles in the U.S., Ireland, Spain and elsewhere, the obvious analogy to China property would seem to be property elsewhere. But we think there is at least some reason to consider the U.S. equity market in the 1980s and 1990s as a better analogy. China has a high savings rate and a less-developed financial system. Real estate has been a good place to invest for years, and it is generally more trusted than financial alternatives. Property prices have fallen, but we would not rule out the possibility that Chinese investors might view this much as U.S. investors came to see the crash of 1987: as a buying opportunity, a correction in a fundamentally rising market. The bubble might eventually burst, but that could be years from now.
- ◆ **Growth cures many ills.** If the U.S. and Europe were consistently growing at 3% or more, many of the problems we are confronting would be much more manageable. The Goldman report referenced above predicts 8.6% growth in China in 2012. That might be optimistic, but we suspect that absent contagion from elsewhere, China will continue to grow at a healthy pace in 2012. Growth means that empty buildings can start to fill up, and sketchy loans can look more solid.
- ◆ **Bursting of property bubbles can be managed under some circumstances.** It might be interesting to compare the U.S. policy response to the S&L crisis of the 1980s and 1990s (precipitated by the bursting of local real estate bubbles) and the response to the bursting of the more recent housing bubble. In the U.S., mitigating the effects of the S&L crisis was easier than softening the blow of the housing crisis due in part to the superior financial climate and the more positive overall economic environment in which the S&L crisis occurred. It would be foolish to try to push this analogy too far, but it is at least suggestive that drops in real estate prices do not always lead to a major, broader crisis.

As we have made clear throughout this report, the downside risks are difficult to assess precisely; that is true for China, Europe and the U.S. Yet we tend to think that Europe is a greater risk than China to world economic growth and stability over the next couple of years.

Endnotes:

1. Capital Investments and Stock Returns, Sheridan Titman, K. C. John Wei, Feixue Xie Source: *The Journal of Financial and Quantitative Analysis*, Vol. 39, No. 4 (Dec., 2004), pp. 677 -700
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Concluding Thoughts

We are two years into the Turbulent Teens. We see no reason to think that 2012 or the next few years will deliver calming tranquility. Indeed, what was the best call for 2011 might well be the best call for 2012: it has to get worse before it can get better. Like it or not, we are in the midst of a period where government policies (for good or ill) will continue to play a huge role in the success or failure of the global economy and markets. The private economy is the superior long-term growth engine, but following financial crises the challenges of managing the deleveraging of the private sector, correcting global imbalances, constraining public-sector deficits and rebuilding confidence will require strong global leadership at a time when distrust of government is widespread. In this environment, the chances of policy mistakes are high, and the possibility of a global depression is significant.

That said, we remain optimistic that the world will continue to muddle through rather than collapse. The developed world is a bit grayer, less confident and more cynical than it was in, say, 1999. But if Minsky and his followers were right that the tranquility of the 1980s and 1990s led to the complacency that we have paid so dearly for in the past decade, perhaps this turbulence will someday lead to a better tomorrow? Experience is an unsentimental teacher. The lessons of the last several years have been hard; but if we can absorb them and learn from them, we anticipate that a new period of stronger more sustainable growth might start before this decade concludes.

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Definitions:

The S&P 500 Index covers 500 industrial, utility, transportation, and financial companies of the U.S. markets. The value-weighted index represents about 75% of the NYSE market capitalization and 30% of the NYSE issues.

Treasury bonds are marketable, fixed-interest U.S. government debt securities.