INEICHEN RESEARCH AND MANAGEMENT

Risk management research

Europe doubling down

Ineichen Research & Management ("IR&M") is a research boutique focusing on investment themes related to absolute returns and risk management.

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The essence of investment management is the management of risks, not the management of returns.
—Benjamin Graham

One of the greatest pieces of economic wisdom is to know what you do not know.
—John Kenneth Galbraith

This is the inaugural piece of our new research related to active risk management.

The financial landscape is a mess. Europe is levering up, i.e., doubling down. The investment discipline that addresses macro uncertainty, drawdowns, negative compounding, capital erosion, governmental malfeasance and unsustainable Ponzi-like pyramid schemes is active risk management. This is arguably a big task that reaches far beyond the mathematically elegant mean-variance space or the insidious world of VaR.

Feature

- We suggest an economic trend following approach to asset allocation. Applying financial orthodoxy to the current investment environment could be ill-advised or much worse.
- We recommend ignoring forecasts other than for entertainment value. A forecast is biased by definition because it is an opinion. An investment process focussing on facts seems more logical than an investment process that focusses on opinions.
- We also recommend "lie watching," not as hobby but as a commercial endeavour, risk assessment tool and survival technique.

Macro perspective

- The global economy has been deteriorating since February. Autum 2011 closely resembles early summer of 2008.

Risk

- Economic variables are falling and risk measures are rising. This is a time to be cautious or hedged rather than courageous and unhedged.
- The time to be courageous is when economic variables are rising and risk measures are falling. This time will come. Trying to predict when that might be is folly.

Europe doubling down

On a personal note

Investment thinkers must develop for themselves a model, or systematic perception, as to how markets work. Those believing strongly in the efficient market hypothesis are, of course, relieved of such undertaking.
—Arthur Zeikel[1]

Active risk management

I continue to believe that controlling risk, i.e., trying to avoid large drawdowns and periods of negative compounding, make a lot of sense for the long-term investor. I believe this always to be true but one could argue that in the current economic and political environment it is particularly true. The investment discipline that addresses uncertainty, drawdowns, negative compounding, capital erosion, governmental malfeasance and unsustainable Ponzi-like pyramid schemes, etc is active risk management. This is arguably a big task that reaches far beyond the mathematically elegant mean-variance space or the insidious world of VaR.

"*The aim of the wise is not to secure pleasure, but to avoid pain.*"
—Aristotle

The hedge fund industry was able to put itself on the agenda of institutional investors not because the managers were particularly friendly but because many institutional investors sensed that having an oversized allocation to long-only equities coming out of a 20-year equity bull market might not be the pinnacle of investment wisdom. The institutional search for alternatives commenced in 2000 around the peak of the historically unprecedented equity bull market, i.e., plus or minus two to three years from the peak. All the talk about alpha was just the marketing aspect of this trend that I believe is continuing albeit having moved into a different stage. Many investors have bought into the idea of "absolute returns" throughout the past decade in which equities have not halved once but twice. This means they have bought into the idea that it is active risk management that is the key to absolute returns, i.e., the long-term compounding of capital in real terms.

"A wise man changes his mind, a fool never."
—Spanish proverb

Now we are, potentially, at the end of a 30-year bull market in government bonds whereby the governmental authorities are not exactly a hub of unlimited credibility and persuasiveness when it comes to handling the current difficult situation. Furthermore, we are regularly reminded of Keynes' (and Lenin's) treatise that if the government wants to take from those who have, there will always be a way to do exactly that. (So there *are* actually governmental actions one can count on.)
The institutional allocation to hedge funds is rather small, say less than 5% on

"Most of the poverty and misery in the world is due to bad government, lack of democracy, weak states, internal strife, and so on."
—George Soros

[1] Zeikel, Arthur (1988) "On Thinking," Financial Analyst Journal, May-June, pp. 11-17. Arthur Zeikel was President at Merrill Lynch Asset Management.

average, despite having absorbed large amounts of resources in terms of human and intellectual capital of most institutional investors over the past 10+ years. If we agree that applying the absolute return investment philosophy (by seeking asymmetric returns[1]) is the opposite of the long-only investment philosophy and the glorification of benchmarks and mean-variance optimisers, then large parts of the institutional portfolios are unhedged. Risk is uncontrolled. This is—I believe and/or hope—where my new research comes in.

Please allow me to briefly elaborate on two beliefs I hold that explain the purpose of this new research. The first relates to asset allocation and the second to forecasting.

Asset allocation

I take issue with mean-variance optimisation mainly because the "mean" in mean-variance is not very meaningful [pun obviously intended] and variance of security prices is not an intelligent approach to assess, understand and eventually control risk, or, more precisely, uncertainty.[2] In addition, many viable asset classes and investment opportunities do not fit well into an optimiser.[3]

"Computers are useless. They can only give you answers."
—Pablo Picasso

Over the past couple of years the topic of tail risk gained prominence. This is a healthy development because it goes to show how defunct any risk assessment that involves assumptions about normal distributions or efficient and frictionless markets really is. (Whether all the tail risk product launches over the past two years are a healthy development too is a different matter.)

"To build may have to be the slow and laborious task of years. To destroy can be the thoughtless act of a single day."
—Winston Churchill

A "risk measure" that is most likely even more relevant than tail risk today is the "probability of negative compounding". Simplifying a bit, tail risk stands for losing money fast whereas the idea of negative compounding stands for losing money slowly. Negative compounding is the opposite of positive compounding. Positive compounding essentially means sitting there,—and yes, I am simplifying a lot again—doing nothing, and watching capital compound positively. Negative compounding essentially means sitting there, doing nothing, and watching capital compound negatively, i.e., erode. The idea of asymmetric returns then, is, rather than just "sitting there," to do something about having a bit more of the positive compounding and, most importantly, a lot less of the negative compounding. An environment of negative real interest rates is obviously a period that favours negative compounding rather than positive compounding. (With negative compounding I mean negative compounding in real terms of course.) Inflation and negative real interest rates are a good example. If (a true and credible measure of)

"Knowledge is a process of piling up facts; wisdom lies in their simplification."
—Martin Henry Fischer (1879-1962), German-born American physician and author

[1] I view "asymmetric returns" as the implementation of the absolute returns investment philosophy. Seeking an asymmetric return profile is worthwhile because investors are loss averse. The idea is to mitigate/avoid/control the downside while still being exposed to the upside. This is an active task. What amazes me is that there are still people who argue that higher returns are solely a function of taking higher risk. This view implies a form of symmetry that might apply to the long-only space; the long-only space being essentially a place where the returns are "given" by the market. However, the craft that I like to refer to as "active risk management" is about altering these given return profiles to the long-term advantage of the "alterer," i.e., the investor. It goes without saying that this task doesn't work for all investors. If capital is eroded or destroyed, some investors will be holding shorter sticks than others. It is potentially ironic that "absolute returns" is a relative performance game too, as it is about altering the risk profile in a way that it is someone else who holds the shortest of sticks when things go wrong.

[2] Please refer to earlier work regarding the difference between risk and uncertainty. Investors need compensation of bearing the latter. However, orthodox finance is focused primarily on the former because it's easier to measure.

[3] See Ineichen (2010)

inflation is 2% and the safest yield is 1%, then the rate at which capital compounds more or less safely—the "sitting-there-doing-nothing-yield"[1]—is -1% in real terms. I fear that mean variance thinking does not address this issue whereas an active risk management approach focussing on "absolute returns" does. As Warren Buffett put it:

> *When we can't find anything exciting in which to invest, our "default" position is U.S. Treasuries…Charlie and I detest taking even small risks unless we feel we are being adequately compensated for doing so. About as far as we will go down that path is to occasionally eat cottage cheese a day after the expiration date on the carton.*[2]

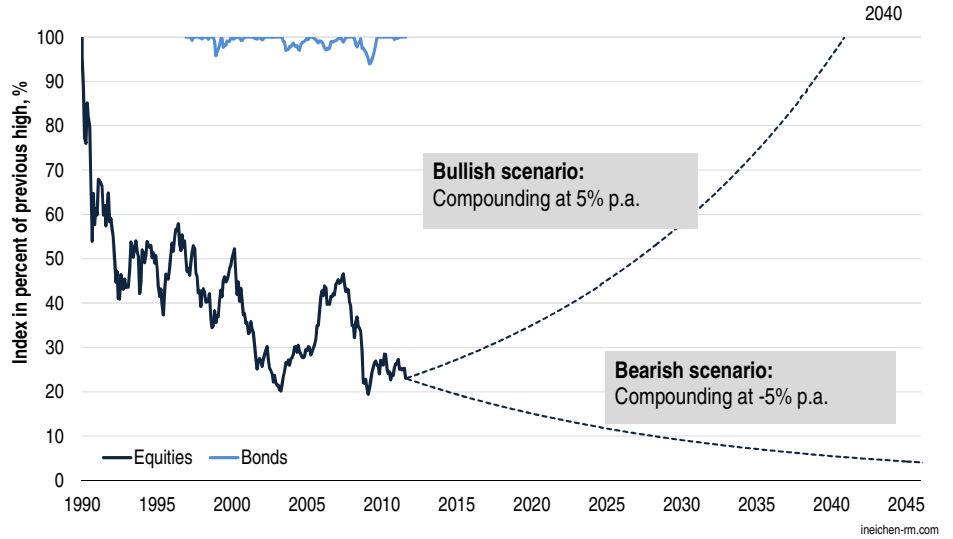
Or as Jim Rogers put it:

> *One of the biggest mistakes most investors make is believing they've always got to be doing something, investing their idle cash…*
> *The trick in investing is not to lose money. That's the most important thing. If you compound your money at 9 percent a year, you're better off than investors whose results jump up and down, who have some great years and horrible losses in others. The losses will kill you. They ruin your compounding rate, and compounding is the magic of investing.*[3]

"It is better to have a permanent income than to be fascinating."
—Oscar Wilde

The Japanese stock market is the most recent and prominent example of negative compounding over a long period of time:

Chart 1: Japanese equities (Nikkei 225) and bonds with projection for equities



Source: IR&M, Bloomberg, Bank of America Merrill Lynch

The Nikkei has compounded at roughly -5% over the past 20+ years. If the Nikkei now starts compounding at 5% instead of -5%, the index will have had recovered its losses in around 2040. The Jeremy Siegel-esque idea that long-only equities are a good investment in the long-run very much depends on a huge catalogue of

"All great truths begin as blasphemies."
—George Bernard Shaw

[1] The "sitting-there-doing-nothing-yield" is obviously a very sophisticated econometric term, which is why it's in brackets. The term is synonymous to "buy-and-hold".

[2] Berkshire Hathaway, annual report, 2003

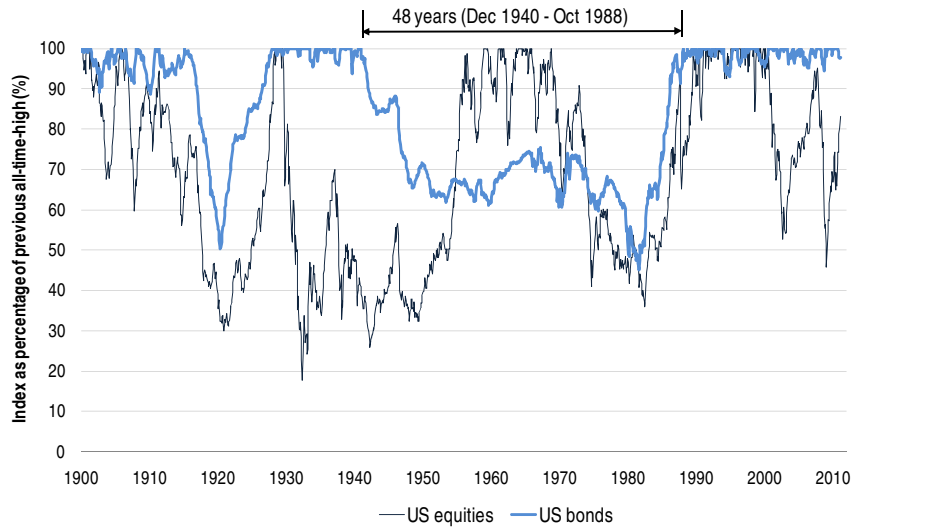
[3] Rogers, Jim (2000) "Investment Biker – around the world with Jim Rogers," Chichester: John Wiley & Sons. First published 1994 by Beeland Interest, Inc.

assumptions. Personally, I think many of these assumptions on which the buy-and-hold mantra is built are wrong and dangerous for the investor's wealth.

If we buy a bond, we call this an asset. However, for the entity launching the bond, it is a liability. If this entity has overplayed its hand by launching too many bonds and needs to get rid of their liabilities, it essentially "gets rid" of our assets. Many industrialised nations "overplayed their hand" and are in the process of deleveraging, i.e., "getting rid of" their liabilities in one form or another.[1] This occurs over many years. This means our assets (the getting-rid-of-liabilities) compound negatively until gone or materially decimated. Chart 2 shows that bonds can compound negatively in real terms over long stretches too.

"Finance is the art of passing currency from hand to hand until it finally disappears."
—Robert W. Sarnoff (1918-1997), former chairman of RCA

Chart 2: US equities and bonds under water (Jan 1990 – Mar 2011, real total returns terms)



Source: Ineichen (2011), Global Financial Data, Bloomberg
Equities: S&P 500 TR Index, estimate prior to 1988; bonds: BarCap US Aggregate TR Index, estimate prior to 1976.
Indices adjusted with CPI.

It is a historical fact that both equities and bonds can compound negatively in real terms for a very long time. Tail risk from equity investments is in the investors' collective mind and memory because many equity markets have tanked twice in the last decade and are in the process of halving early on in this decade (for the first time) as I write. However, the risk of negative compounding bond investments is not really contemplated. (See side text.) The multi-year negative compounding of bonds is too far back for anyone to take note. Bond markets compounding negatively for decades is not in the econometric models either. The thought of many European institutional investors essentially having abandoned asset allocation—either willingly or regulatory-induced—for a concentrated government bond portfolio (the other side of the get-rid-of-liabilities) is arguably a scary one.

"There can be few fields of human endeavor in which history counts for so little as in the world of finance."
—John Kenneth Galbraith

One market response to the fear of fiat money, deleveraging, and negative compounding is—rightly or wrongly—gold. As Ludwig von Mises put it:

[1] The notion that a government can raise money to finance early retirement for its governmental employees during their mid-life, and that the financier of that scheme, which arguably has Ponzi-like characteristics, then goes on and calls this an "asset" is fascinating; to say the least.

> *The gold currency liberates the creation of purchase power from the influence of politics and from the fluctuating economic philosophies held dear by changing political majorities. This is its advantage.*[1]

Contrast this view with this one:

> *Like gold, U.S. dollars have value only to the extent that they are strictly limited in supply. But the U.S. government has a technology called a printing press (or, today, its electronic equivalent) that allows it to produce as many U.S. dollars as it wishes at essentially no cost… We conclude that under a paper money system, a determined government can always generate higher spending and, hence, positive inflation.*
> —Ben Bernanke, speech at the National Economists Club in Washington, November 2002

The supply of gold is limited. The supply of USD, EUR, and now, sadly, CHF is not.

Chart 3: Gold in real USD terms

Source: IR&M, Bloomberg
30 September 2011 inclusive

[1] From "In GOLD we TRUST," Erste Group, July 2011. Making reference to "Why Gold-Backed Currencies Help Prevent Wars" by Ferdinand Lips.

Many institutional investors do not hold gold. However, in times where governments "overplayed their hand" with their liabilities in one form or another, gold is potentially one of the very few assets that can compound positively in real terms through a buy-and-hold strategy. At the moment, institutional investors' involvement in gold is miniscule. Value investors despise it as it has no cash flows and no proper Graham-esque valuation. It's outside of financial orthodoxy. Institutional portfolios are arguably government bonds-heavy, especially in Continental Europe, thereby financing governmental folly.

"Gold gets dug out of the ground in Africa, or someplace. Then we melt it down, dig another hole, bury it again and pay people to stand around guarding it. It has no utility. Anyone watching from Mars would be scratching their head."
—Warren Buffett

Table 1 shows returns from an investment in gold in both nominal and real terms by decade. The first column measures the percentage of months whereby real 10-year US Treasury rates were below 1%.

Table 1: Gold in economically sound, inflationary and deflationary decades

Decade	Percentage of months where real 10Y USD Yield below 1%	Period nominal return	Period real return
1970s	50%	1356%	627%
1980s	11%	-22%	-53%
1990s	0%	-28%	-46%
2000s	25%	281%	196%
2010s	33%	48%	42%

Source: IR&M, Bloomberg
30 September 2011 inclusive.

Gold has done/is doing well when real interest rates are low. Whether real yields are low due to inflation (high inflation rates and equally high yields) or deflation (low inflation or deflation and very low yields) doesn't really matter that much. If the current decade resembles the last decade or the 1970s, gold should do well in real terms. However, if disco indeed comes back and it is the 1980s all over again, it most likely will not.[2]

"Gold is not something you buy to make money. It's something you buy so you won't lose money. You buy it when you see the feds' crackpot financial system coming apart. That's what's been happening for the last 10 years. The fixes don't stay fixed. And gold goes higher."
—Bill Bonner[1]

I believe a further shortcoming of the traditional asset allocation process is related to the reference point. Asset allocation doesn't question/addresses the investor's home currency. This is very dangerous.
One interesting aspect from the hedge fund industry is that many managers always think in relative price terms. In the FX market this is the norm. In one of the James Bond movies an actor says something of the order "currencies went up across the board." This is of course nonsense. For some currencies to rise, others must fall. I believe this thinking is quite healthy. It is also applicable to other asset classes. When equities went up, one should ask: "up against what?" Did equities rise against USD, Gold, eggs, etc? US USD investors, for example, only lost 22.2% with the S&P 500 price index between January 2000 and September 2011 whereas Swiss CHF investors, assuming no hedges, lost 55.1% with US equities. This is arguably a big difference.
When finishing this document I came across this wonderful quote:

[1] "Where Warren Buffet is wrong," Daily Reckoning, Blog, 23 August 2011

[2] Note that gold hasn't done that well for CHF investors. Until the Swiss National Bank committed the monetary equivalent of harakiri in September 2011, both gold and CHF were perceived as safe havens from a governmental-authorities-overplaying-their-hand standpoint. Gold remains a safe haven with the CHF now effectively pegged to a bureaucracy-hugging socialist ideology going supernova.

> *We naturally imagine that the spot on which we ourselves stand is fixed, and that the things around us move. The man who is in a boat seems to see the shore departing from him, and it was the doctrine of the first philosophers that the sun moved round the earth, and not the earth round the sun. In consequence of a similar prejudice, we assume that the currency which is in all our hands, and with which we ourselves are, as it were, identified, is fixed, and that the price of bullion moves; whereas in truth, it is the currency of each nation that moves, and it is bullion, the larger article serving for the commerce of the world, which is the more fixed.*
> *— Henry Thornton (1760-1815), English economist, banker, philanthropist and parliamentarian, in his 1802 book "An Enquiry Into the Nature and Effects of the Paper Credit of Great Britain"*[1]

The question of what base one has and how things change relative to that base could become rather material; putting it mildly.

Bottom line

Applying financial orthodoxy to the current investment environment could be ill-advised or much worse.

[1] From Dr. Marc Faber, Market Commentary, 1 October 2011

Forecasting

I believe the two following pieces of wisdom are important:

> ***The essence of investment management is the management of risks, not the management of returns.***
> *—Benjamin Graham*

> ***One of the greatest pieces of economic wisdom is to know what you do not know.***
> *—John Kenneth Galbraith*

Many investors are hooked on forecasts. Forecasts are an integral part of orthodox asset allocation and are essentially guesswork. In other words, guessing is an integral part of how assets are allocated and risk is taken. However, when I listen to trend-followers, it seems to me that many of them do very well without a forecast entering their investment approach. Trend followers look at prices, not forecasts. A price is a fact, whereas a forecast is not; it's someone's opinion that might or might have merit. A forecast is biased by definition because it is an opinion. An investment process focussing on facts seems more logical than an investment process that focusses on opinions. A fact is a fact whereas an opinion is rather fluffy by comparison, and its merit often assessable with the benefit of hindsight.

"If science is defined by its ability to forecast the future, the failure of much of the economics profession to see the crisis coming should be a cause of great concern."
—George Akerlof and Joseph Stiglitz[1]

Mark Twain really hit the proverbial nail squarely on its head:

> *Forecasting is always difficult – particularly the future.*

Hindsight allows us to ridicule forecasts that went horribly wrong. Some one hundred years ago it was the automobile that changed everything. One of the all-time greatest forecasts is: "The horse is here to stay, but the automobile is only a novelty—a fad."[2] This quote is attributed to the president of the Michigan Savings Bank advising Horace Rackham (Henry Ford's lawyer) not to invest in the Ford Motor Company in 1903. Rackham ignored the advice and bought $5,000 worth of stock. He sold it several years later for $12,5 million. Potentially management consultant Peter Drucker was on to something when we said:

"The key is not to predict the future, but to be prepared for it."
—Pericles (495-429 BC), Greek orator, statesman, and general

> *Forecasting is not a respectable human activity, and not worthwhile beyond the shortest of periods.*

Forecasting might even become regulated one day; as Robert N. Veres suggested:

> *Personally, I think everybody who predicts the future with a straight face should be required (by federal law) to change out of the business suit, wrap him/herself in a gypsy shawl, wear one of those pointed wizard's hats with a picture of a crescent moon on it, and make conjuring sounds over a crystal ball. That way, everybody would know exactly what's going on and how much credibility to give the answer.*[3]

[1] "Let a hundred theories bloom," Commentary, Budapest, 26 October 2009.

[2] Replace "horse" with "buy-and-hold long-only strategy" and "automobile" with "hedge fund" and you pretty much get the attitude of most of academia and traditional asset management from about ten years ago.

[3] "The Vision Thing" in "Investment Advisor," June 1997

An associate of David Sarnoff (RCA) said in the 1920s that "the wireless music box (radio) has no imaginable commercial value. Who would pay for a message sent to nobody in particular." In 1940, Theodore van Karman, of the National Academy of Science, said jet engines and rockets would be of no future use because there was no material tough enough to stand up under their high combustion temperatures. Karman changed his mind five years later. In 1955 he said of his 1940 prediction, "What I did wrong was to write it down." In 1943, IBM President Thomas Watson's view was that "there is a world market for maybe five computers." In the same year, Admiral William Leahy of the Manhattan Project said "The bomb will never go off. I speak as an expert in explosives." So much for expert opinions; Peter Ustinov comes to mind:

"I never think of the future. It comes soon enough."
—Albert Einstein

> *If the world should blow itself up, the last audible voice would be that of an expert saying it can't be done.*

Famous last words: "Castro will last a year. No longer." Those were quite literally last words by Fulgencio Batista who was deposed by Fidel Castro in 1959. "Reagan doesn't have that presidential look" was the argument of a United Artists Executive rejecting Ronald Reagan as the lead in the film 'The Best Man' in 1964. Margaret Thatcher, quoted in 1974, thought that "it will be years—not in my time—before a woman will become Prime Minister." She became Prime Minister in 1979. In 1977, Ken Olson, president, chairman and founder of Digital Equipment Corp., thought loudly that "there is no reason for any individuals to have a computer in their homes." In 1981, Bill Gates, founder of Microsoft, thought that "640K ought to be enough for anybody."

"I don't believe in predicting markets. Market timers can't predict markets with any useful consistency, any more than the gizzard squeezers could tell the Roman emperors when the Huns would attack."
—Peter Lynch[1]

The ultimate and heavily quoted and re-quoted forecast related to investments is from Irving Fisher, Professor of Economics at Yale University who was quoted in 1929: "Stocks have reached what looks like a permanently high plateau." With the benefit of hindsight we know today that stocks halved in the years after that piece of scholarly "wisdom" and then halved again and then halved once more before all was said and done. Speaking of scholarly wisdom: A weekly newsletter from the *Harvard Economic Society* from 16 November 1929 argued:

"Forecasting is not a strong side of economics."
—Jan Tinbergen (1903-1994), Dutch economist, awarded the first Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel in 1969

> *A severe depression like that of 1920-21 is outside the range of probability.*

This is in clear violation to the wisdom from Galbraith quoted above; one really needs to know what one does not know. Educated (as in book-smart) and successful people can experience ego-inflation throughout their careers. This can cause, apart from arrogance, the lack of open-mindedness, i.e., a propensity to dogma and materially reduced tolerance and imagination towards other views and perspectives. A portfolio manager "who falls in love with his own ideas" is robbed of the ability to cut losses short. This reduces survival probability, i.e., the ability to fight another day. The letter mentioned above ceased publication in 1931, broke because of The Great Depression. Will Rogers, too, recommends caution when it comes to forecasts by economists:

"Jan, the bottom line is, before the end of the year, the NASDAQ and Dow will be at new record highs."
—Myron Kandel, Financial Editor and Anchor CNNfn/Cofounder, CNN April 4, 2000[2]

> *An economist's guess is liable to be as good as anybody else's.*

[1] Sherden, William A. (1998) "The Fortune Sellers—The Big Business of Buying and Selling Predictions," New York: John Wiley & Sons.
[2] From Covel, Michael (2004) "Trend Following," New Jersey: Prentice Hall.

There is arguably great wisdom and wit in this simple one-liner. This is despite the fact that the economist's presentation of the forecasts is often conducted with great conviction and oratorical brilliance.[2] It's a show; a form of entertainment. (It's also very helpful, if you don't want to do all the required work yourself.) John Kenneth Galbraith distinguishes between two types of forecasters:

"Mostly they [economists] are employed in the financial sector – for their entertainment value rather than their advice."
—John Kay[1]

> *We have two classes of forecasters: Those who don't know – and those who don't know they don't know.*

This quote is obviously a witty variant of Galbraith's wisdom mentioned earlier. (Galbraith was essentially paraphrasing Confucius. The wisdom arguably passes the test of time.) There is much to say that there is great wisdom for an investor to know what he doesn't know. The future is one of these things we do not know. (According to one estimate there were only about 30 individuals[3]—a mix of journalists, academics, investment bankers, and investment managers—who can claim to have predicted the subprime meltdown well in advance of the event. Hindsight allows us to identify the 30. Identifying the 30 in advance is a bit more difficult.) However, we can observe prices, identify trends and assess risk. I believe it makes more sense to base investment decisions on observables rather than pies in the sky.

"Real knowledge is to know the extent of one's ignorance."
—Confucius

Bottom line

A forecast is biased by definition because it is an opinion. An investment process focussing on facts seems more logical than an investment process that focusses on opinions.

The mess, synopsis and purpose of this research

Caveat lector: I've turned 44 in May. It is possible that financial orthodoxy, i.e., a world in which VaR is the proper way to measure risk and mean variance optimisation is an intelligent way to construct and manage institutional portfolios, is perfectly sound while my views are nothing more than naively-rebellious, anti-intellectual post-pubertal nonsense. I think not, of course, but then, I *am* indeed what is affectionately called a *quadragenarian*.

"Youth is when you're allowed to stay up late on New Year's Eve. Middle age is when you're forced to."
—Bill Vaughan (1915-77), American columnist and author

Frankly, I think the financial industry is in quite a mess. (Again, it's either the financial industry or the observer that is in a mess.) I also continue to believe that the hedge fund industry, with all its quirks, is actually quite a healthy place all things considered. Things such as too-big-to-fail, privatised profits with socialised losses, Jurassic business models, waver-thin and walk-through Chinese Walls[5], systemic instability through homogenisation of market participants (over-zealous regulation), bureaucratic complexity, misallocation of capital through interventionist (and largely failed) monetary and fiscal gyrations, solving problems of too much debt with more debt, supra-national EFSF levering up, etc only effect

"Hedge funds are presently leveraged 1-3 times, if they're mad, 5 times, if they're insane, 10 times. But 15 or 20 times was normal for bank prop desks."
—Michael Hintze, hedge fund manager[4]

[1] "Economics – Rituals of rigour," John Kay, *Financial Times*, 25 August 2011

[2] We live in a world where you can even talk yourself into Presidency.

[3] There are obviously many more than 30 who now claim to have seen it all coming. Well, haven't we all seen it coming; sort of?

[4] "Hedge funds hope 'Volcker rule' will clip banks' wings," *Financial Times*, 30 June 2010

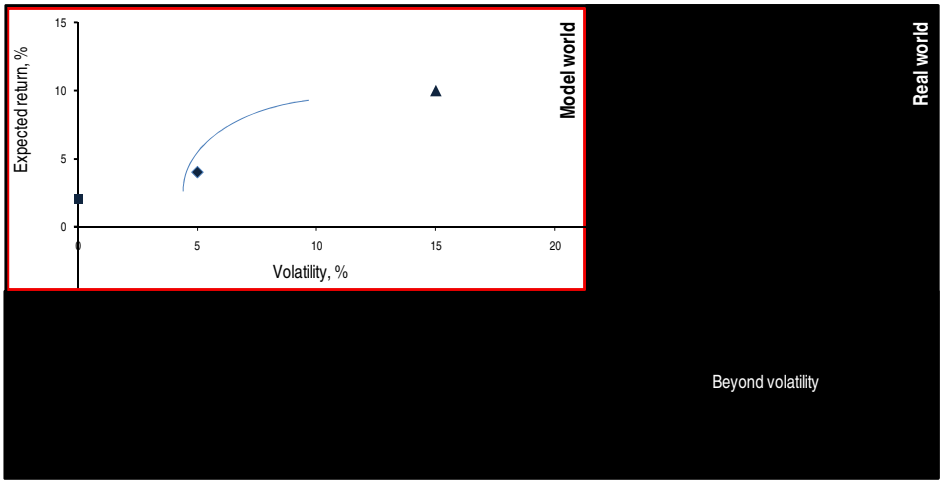
[5] The idea of an integrated bank business model with Chinese Walls is a paradox. The main benefit of an integrated bank is that information and people move between areas to serve the sophisticated client most efficiently. However, the movement of information and staff across areas is exactly what Chinese Walls are supposed to suppress.

the hedge fund industry tangentially. It's a bigger issue for everyone but the hedge fund industry. (However, as 2008 has shown, the hedge fund industry is part of the financial system. If the latter fails, the former has "some issues" too of course.)

An active risk management approach is essentially the opposite of a buy-and-hold strategy. Risk management is a task that deals with the "mess" as "defined" above and in the side text of this paragraph and indicated in the side text of the previous paragraph. A buy-and-hold strategy rests on some material assumptions which are most likely untrue in the short-term, i.e., over periods of 10-20 years. We live in a time in which even Einstein's assumptions/theories are questioned. I would like to see my new research addressing not the speed of light issue but this new, somewhat surreal investment environment from an absolute returns and risk management perspective. The way I like to see this research is as addressing the black bit in Chart 4. The pristine white area I find less and less meaningful.

"Socialist governments traditionally do make a financial mess. They always run out of other people's money. It's quite a characteristic of them."
—Margaret Thatcher

Chart 4: Model world versus real world



Source: Ineichen (2010)

"Economists are people who look at reality, and wonder whether it would work in theory."
—Ronald Reagan

Large parts of financial orthodoxy, which is the basis of traditional asset allocation and investment management, is focussed on the white bit; the model world. This is where forecasting comes in. Everything in the model world is measurable; and because it's science and because it's measurable, it's forecastable. The model requires expected returns, expected volatilities and expected correlation. Quite often historical values are used for these three types of input parameter; or serve as the basis for the input forecast. Given that

"Nothing is so firmly believed, as what we least know."
—Michel de Montaigne (1533-1592), French author, philosopher, and statesman[1]

- the 30-year bull market in bonds might not rattle on for another 30 years, to say the least, and
- there is no such thing as a risk-free rate of return (an important axiom and "centre of gravity" in the model world), and that
- inflation could be a rather big issue for investors at one stage in the future,

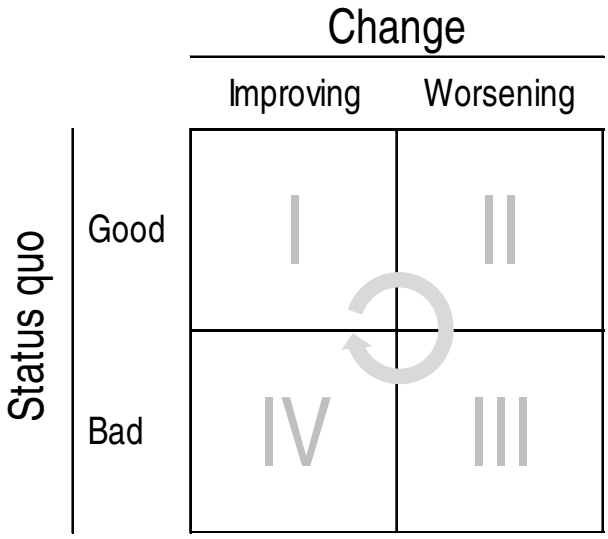
operating in the white bit in Chart 4 (which essentially means demonstrating ignorance towards the black bit in the chart) could be rather ill-advised.

[1] "Nothing is so firmly believed as that which least is known" is occasionally referred to as *Montaigne's axiom*.

Table 2 below shows a business cycle matrix. At the risk of simplifying too much, there are only two positions an economy can be in; it's either good or bad. Furthermore, economic conditions do not change randomly every day, the changes are "trending", the economy is either improving or worsening. Feedback loops keep the positive or negative trend going; quite often far longer than the majority of seers forecast. [1] (Whether it is a regular trend (e.g., a recession) or an irregular one (e.g., balance-sheet recession, age of delivering, etc.) doesn't change the logic of this argument.)

"The business schools reward difficult complex behavior more than simple behavior, but simple behavior is more effective."
—Warren Buffett

Table 2: Business cycle matrix



Source: IR&M

Acknowledging, understanding, and benefiting from the trend seems wise; trying to predict the trend reversal not so much. As Ms. Becky Quick of CNBCs Squawk Box fame put it in September 2008:

> *Bottoms are better to watch than to try and catch.*

There are only four regimes in which we as investors can find ourselves in. Given the current fast interlinkedness of things economic globally, more and more economies are in one of the four quadrants at the same time. A full business cycle moves through all four quadrants clockwise.

[1] What we *do* know is that feedback loops always end and reverse at one stage. As Plato put it: "The excessive increase of anything causes a reaction in the opposite direction."

Assessing the current position doesn't require any forecasting. As the heat maps further on in this report will show, many industrialised economies have been worsening since February or March this year. This means for most part of this year, these economies have been on the right hand side of the matrix shown above. If we accept—as an example—an average PMI[2] above 50 as quadrant II and one below 50 as quadrant III, then we are just in the process of moving from II to III. The stock market for example, does better when the economy is on the left hand side of this matrix, i.e., when things economic are improving. The main point here is that (i) quadrant III requires a more active approach in controlling for economic and cyclical risk than does, say, quadrant I, and (ii) we don't know whether we will remain in quadrant III for months, quarters, or years. (We do know that trying to catch a falling knife is silly though.)

"If it were possible to calculate the future state of the market, the future would not be uncertain. There would be neither entrepreneurial loss nor profit. What people expect from the economists is beyond the power of any mortal man."
—Ludwig von Mises[1]

Bottom line

I recommend applying a trend following approach to things economic. A trend follower does not try to pick turning points. (As a matter of fact, they often do quite poorly at inflection points.) The implicit assumption for tomorrow is that things will be the same as today.[4] This means the trend is assessed and identified today and there is no guesswork about the continuity entering the investment decision process. A trend reversal is taken into account when it becomes a fact. The absence of guesswork in the investment decision process makes the system, the investment approach, more robust. Forecasting is arguably not "flawless."

"If you give a pilot an altimeter that is sometimes defective, he will crash the plane. Give him nothing and he will look out the window. Technology is only safe if it is flawless."
—Nassim Taleb[3]

***

[1] Von Mises (1996), p. 871.

[2] Purchasing Manager Index (PMI) is a diffusion index that is measured between 0 and 100. Above 50 means economy is expanding, below 50 means economy is contracting. It is important to note that these indicators do not wobble randomly, they trend. My claim is that assessing the trend in the present is—when making investment decisions under uncertainty—more intelligent than guessing where the economy is twelve months into the future.

[3] Jorion, Philippe (2007) "Value at Risk – The new benchmark for managing financial risk," Third edition, New York: The McGraw-Hill Companies, p. 553. (Originally in "The World According to Nassim Taleb," Derivatives Strategy, December/January 1997.)

[4] This is sometimes referred to as naïve forecasting. It works well with the weather: if you say tomorrow will be the same weather as today, in many areas of the planet you will be right at least 70% of the time, i.e., much better than flipping a coin. (Coin flipping games being the preferred methodology of many scholarly economists.) In some areas of the planet the naïve forecasting model even beats science, i.e., forecasts by meteorologists.

Lie watching

There is a hobby called "bird watching" which, well, is pretty much about what it says; namely watching birds. When markets behave disorderly it is not always because of market participants being irrational or anything like that. Sometimes the market just sees the train wreck unfolding in slow motion and takes action accordingly. Politicians and politically incentivised government officials, e.g., central bank staff, have a strong incentive to calm markets. They step in, and, well, lie. It is important that investors take note. I hereby recommend "lie watching," not as a hobby but as a commercial endeavour, risk assessment tool and survival technique.

"I could end the deficit in 5 minutes. You just pass a law that says that anytime there is a deficit of more than 3% of GDP all sitting members of congress are ineligible for re-election."
—Warren Buffett

The practical investment relevance is that, under Regulomics[1], the roles of the politicians and other elected and unelected governmental officials is becoming more and more relevant in influencing market prices and trends. Spotting the lie is not just a profitable endeavour; it is as much a survival necessity.

"The lie is the basic building block of good manners."
—Quentin Crisp (1908-1999), English writer

Early August 2011 Italian and Spanish 10-year bonds were in free fall, pushing yields up to euro-era records versus benchmark German bunds. Italy and Spain had joined the other peripherals of Southern Europe. European Commission President Jose Manuel Barroso said a surge in Italian and Spanish bond yields to 14 year highs did not reflect the true state of the economies. After an emergency meeting on 2nd of August senior Italian financial officials said the country's financial system remains stable despite market tensions created by international uncertainties. The statement was:

> *Analysis has shown that despite the efforts to progressively reduce the budget deficit, there are tensions in Italian markets deriving from international uncertainty.*[2]

The so-called *Financial Stability Committee* met to discuss the market turmoil which had sent Italian bond yields soaring to record levels and hit bank stocks and to take stock of recent analysis by financial supervisory authorities. The committee said:

"For the bureaucrat, the world is a mere object to be manipulated by him."
—Karl Marx

> *The analysis confirms that the Italian banking and financial system is solid, thanks to quick action to reinforce capital conditions and bank liquidity.*[3]

When the market is voting with its feet and politicians or officials stand up and claim all is well in the world, it most often isn't. Margaret Thatcher made this wonderful point:

> *Being powerful is like being a lady. If you have to tell people you are, you aren't.*

Certain things should be obvious and the need to state the obvious suspect. Being powerful (or being a lady) shouldn't require one's highlighting. The same is true for being credible, or trustworthy, or being of high integrity, among other attributes. These are not things one should have to point out. They are given or deserved or earned and should be obvious. Credibility is earned, as is trust. So

"A lie can travel half way around the world while the truth is putting on its shoes."
—Mark Twain

[1] See "Regulomics," Ineichen Research & Management, May 2011.
[2] "Market erases 2011 gains on recession concern," *Bloomberg*, 2 August 2011
[3] "Italy finance authorities say system stable," *Reuters*, 2 August 2011

when governmental bureaucrats argue during market mayhem that the financial system is "solid" it means that it isn't. It's a politically motivated lie. The markets seek truth, politicians and governmental officials do not; at least not during market mayhem or election year; essentially when political capital is at risk. As markets have a tendency to overreact, the market's truth seeking can be messy. The lying is supposed to improve the situation; which it sometimes does, in the short-term at least. (The consensus on short selling bans today for example is probably that it is contra-productive and a waste of every one's time.)

In November 2010, the Spanish Prime Minister José Luis Rodríguez Zapatero actually said that Spain was not a short. According to Bloomberg Mr Zapatero said in an interview with Barcelona-based broadcaster RAC1:

> *I should warn those investors who are short selling Spain that they are going to be wrong and will go against their own interests.*[1]

Well, Spain of course was a short. At the time, the unemployment rate was in the region of 20% and the Eurozone as well as all parts of the economy related to the real estate bubble (interest rates being too low for too long) including the cajas (savings banks) were falling apart. Russian officials did the same thing before they declared default on Ruble denominated debt in 1998, as did the Mexican authorities in 1994 before devaluing the Peso. If everything is "solid" there is really no need to make a statement, is there? As Dennis Gartman put it in relation to the Italian "solid" statement above:

"It's frightening to think that you might not know something, but more frightening to think that, by and large, the world is run by people who have faith that they know exactly what's going on."
—Amos Tversky

> *We have learned from history that when the financial leaders tell us that the situation is "solid," it is not; indeed it is anything but that. We have learned from history that when they tell us that the situation is "solid," it is about to crack wide open and become decidedly "un-".*[2]

I believe this is related to the "Pilger's law" named after Australian born, Tony-Blair-bashing, two times Britain's Journalist of the Year Award winner John Pilger:

> *If it's been officially denied, then it's probably true.*[3]

We can trace this piece of wisdom back to Preussian/German statesman Otto von Bismarck (1815-1898), who was quoted saying:

> *Never believe anything in politics until it has been officially denied.*[4]

So this is not a new phenomenon.

[1] "Spain issues defiant warning to markets," *Financial Times*, 25 November 2010.

[2] The Gartman Letter, 3 August 2011.

[3] "Pilger's law: 'If it's been officially denied, then it's probably true,' *The Independent*, 13 October 2008

[4] A nearly identical variant is attributed to left-leaning British journalist Claud Cockburn (1904-1981): "Never believe anything until it has been officially denied."

Political lying can win time and can delude some people. Scapegoating is a practice designed to delude and is closely related to lying; or if not related to lying, it certainly is not the pinnacle of truth seeking and honesty. Hedge funds throughout their history have been blamed for nearly everything par Australia's mammalian pest and global warming. If one can blame someone else, "one" is not to take responsibility.
One of my favourite quotes in this regard is the following by German Chancellor Angela Merkel in relation to Greek 5-year CDS (credit default swap) reaching 1000 basis points:

> *In some ways, it's a battle of the politicians against the markets… I'm determined to win. The speculators are our adversaries.*[1,2]

Source: Economist, May 2010

(Spreads were at 5000 the last time I looked.) She went on blaming speculators and hedge funds for creating market mayhem. Note that the political disingenuity served a purpose. It always does. Chancellor Merkel went on the offensive the day before the parliamentary vote on German aid to Greece, appealing for European unity to ward off speculators and tighten government control over "perfidious" markets. The lying is not at all irrational or naive but very rational and calculating given the political capital at stake. The lying and scapegoating serves a purpose. Machiavelli's prince would have been proud, or as Georges Bernanos (1888-1948), French author and soldier in WWI, put it rather eloquently:

> *The first sign of corruption in a society that is still alive is that the end justifies the means.*

"In politics, stupidity is not a handicap."
—Napoleon

While French Prime Minister Sarkozy drew parallels between regulating financial speculation and combating the mafia[3], Mr Jean-Claude Juncker, the jovial, witty and Europhile Prime Minister of Luxembourg, even suggested violence (semi-seriously, I assume… but then who knows?) in relation to speculation accompanying Greece's fall:

> *Make no mistake: We have instruments of torture in the cellar, and we're going to show them, if necessary.*[4]

"We have rules governing the social market economy here, and I would like them extended to Europe and, if possible, to the world. So let us develop rules, create transparency, and keep all this under control."
—Franz Müntefering, FT, 15.2.07

Another comical/sad/disturbing episode in this regard is attributed to Peer Steinbrück, the German social democratic politician who from 2005 to 2009 served as German Federal Minister of Finance in the cabinet of Angela Merkel. He gained hedge fund prominence around the years 2005-2007, together with comrade Franz Müntefering of locusts fame, of being adamantly (or if not adamantly then certainly verbally) against hedge funds.[5] The two gentlemen were rhetorically banging the political drums for the G8 conference in Heiligendamm (Germany) to commence in June 2007 where controlling hedge funds was an

[1] "Merkel takes 'battle' to markets as lawmakers ready to vote on Greek aid," *Bloomberg*, 6 May 2010.
[2] A hub for libertarian thought Europe is not.
[3] European Commission conference on commodities and raw materials – Speech by Nicolas Sarkozy, President of the Republic, Brussels, 14 June 2011.
[4] Interview in Handelsblatt, 1 March 2010. Original. Q: Und wie wollen Sie sie [the speculators] daran hindern? A: Das möchte ich jetzt hier nicht näher bestimmen. Aber Sie können sicher sein: Wir haben die Folterwerkzeuge im Keller, und wir zeigen sie, wenn es nötig ist.
[5] Note that the whole locusts episode was essentially triggered by non-German hedge funds buying shares of Deutsche Börse en masse. So the whole episode was not driven by ignorance, but political calculation with a pinch of nationalism on the side.

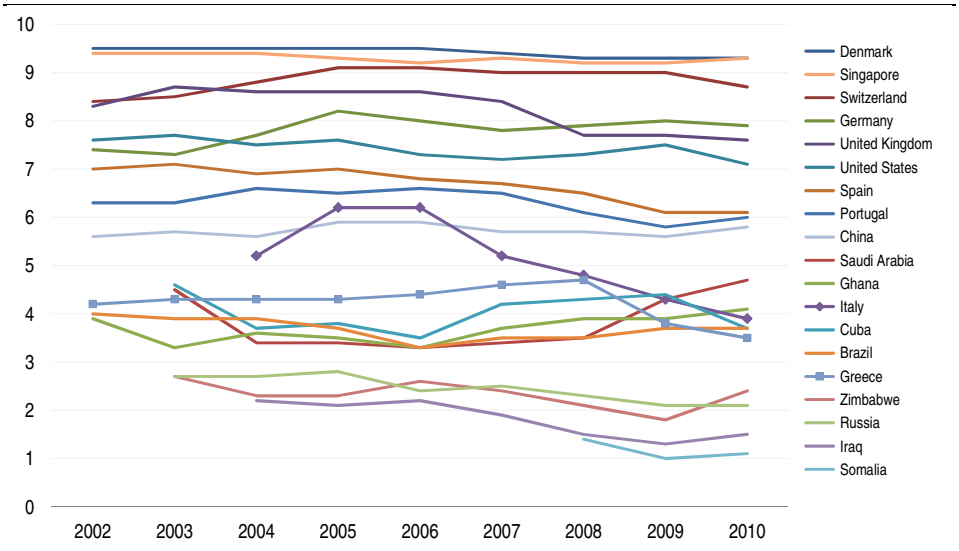
agenda item. (Again, and of course, the rhetorical escapades "justified" the political means.) The irony is that while controlling hedge funds was an agenda item in Heiligendamm it was banks—which weren't an agenda item—that brought the financial system to its knees a bit more than a year later. The funny bit is the following: On 11 April 2010, during a talk show on one of the main TV networks, the ARD, Mr Steinbrück was asked whether he could give the viewers a short definition of a hedge fund. What followed was on youtube two days later and made the rounds in the (German-speaking part of the) hedge fund industry. The normally quick-witted and straight-talking Mr Steinbrück gave—after being lost for words and mumbling a bit—a very weak definition of what best can be associated with a private equity firm. So what we have here is that one of the more vocal adversaries against hedge funds in the international regulatory space, who was at the time also finance minister of the fourth largest economy on the planet, doesn't have the slightest clue as to what a hedge fund really is.[1]

Bottom line

In a nutshell, lie watching is part of Regulomics, i.e., the current market environment. As investors we need to watch the rhetorical escapades of our leaders very carefully; not for beacons of investment wisdom but for the true insider's view of what is really going on; or the ignorance thereof. "Spain is not a short." Just think about it. It's comical, sad, and disturbing all in one; but valuable information nevertheless. Perhaps we should bin credit ratings from largely discredited rating agencies and use the Corruption Perceptions Index (CPI) from Transparency International when assessing sovereign risk instead:

"Politics is supposed to be the second oldest profession. I have come to realize that it bears a very close resemblance to the first."
—Ronald Reagan

Chart 5: Corruption Perceptions Index (selected countries)



Source: IR&M, transparency.org

[1] In defence of Mr Steinbrück: he was more pragmatic and less ideological than most of his comrades-in-arms, he advocated among other things a voluntary code of conduct for hedge funds, he was—unlike most of his G8 peers—concerned with systemic risk *ahead* of the financial crises, and he was among the calmer heads *during* the financial crisis of 2008.

In the 2010 ranking Denmark, New Zealand and Singapore rank first while Somalia is at the bottom with Burma being "runner-up" to Somalia. The average score was 4.0 and the median 3.3 of a total of 177 countries in the 2010 survey. The graph doesn't just show the relative positioning but also the change. Italy and Greece for example are in the neighbourhood of Cuba and Brazil while Spain and Portugal are similarly corrupt as China. Italy has recently been "overtaken" by Ghana and Saudi Arabia, i.e., the latter two currently being perceived as less corrupt than Italy. Should we be surprised?[1] (Note that according to this analysis, Zimbabwe—having just overtaken Pakistan—is perceived as less corrupt than Russia.)

"I've learned if the Queen asks you to a party, you say: 'Yes.' And if the Italian prime minister asks you to a party, it's probably safe to say: 'No.'"
—David Cameron

The Corruption Perceptions Index was designed to measure corruption and needs to be taken with a pinch of investment salt. A low number indicates higher perceived corruption. We could use corruption as a proxy for the probability that we will get our money back if things economic get though. An economy which is run by people who are decent, honourable, and of high integrity should be more likely to have their house in order and should be less likely to dispossess investors of their investments if things go wrong. Sending your money to Denmark or Somalia—or to Greece or Italy for that matter—is arguably not the same.

"I want my money back."
—Margaret Thatcher[2]

Pop quiz

Is the following a lie?[3]

> *I can guarantee that Greece will live up to all its commitments.*
> *—George Papandreou, Financial Times, 28 September 2011*

***

The next section is the main part and is designed to show the economic trends, point towards the macro risks, and help with the decisions which risks ought to be hedged or not. Some of these graphs and heat maps are updated frequently in an onscreen pdf update. Once you look at these heat maps on a higher frequency, they actually become "alive". The trends—the facts—become obvious and conviction is raised. Better investment decision and/or higher conviction in the existing decisions are the result.

[1] Apologetics might argue that Italy functions reasonably well despite roughly a third of the economy being relegated to black markets and the shadow economy, Bonga Bonga, and the occasional cement shoes wearing stiff finding himself at the bottom of a river.

[2] Although the exact wording is still being debated to this day, former British Prime Minister Margaret Thatcher famously went before her European Community colleagues in 1984 demanding that the UK not pay so much into the infamous Common Agricultural Policy (CAP) of agricultural subsidies since Britain believed it paid far more than it received in this scheme. Demanding a rebate, she slammed her handbag into the conference table and exclaimed something to the effect of "I want my money back!" The UK won the rebate in 1984, after Thatcher threatened to halt payments to the EU budget.

[3] Or two lies in one sentence?

Macro perspective

To combat the depression by a forced credit expansion is to attempt to cure the evil by the very means which brought it about; because we are suffering from a misdirection of production, we want to create further misdirection—a procedure that can only lead to a much more severe crisis as soon as the credit expansion comes to an end.
—Friedrich August von Hayek in a speech in June 1932

Global

Table 3 shows year-on-year GDP (seasonally adjusted in most cases) for a range of economies. We have colour-coded the data to show highs (green) and lows (red), synchronisation of the data, and past and current trend. The average is equally weighted.

Table 3: Global real GDP, SAAR (seasonally adjusted annual rate)

	Sep 1997 to Sep 2010	12 10	03 11	06 11
Average		4.6	3.9	2.8
US		3.1	2.2	1.6
China		9.8	9.7	9.5
Germany		3.8	4.6	2.8
Japan		2.2	-1.0	-1.1
UK		1.5	1.6	0.7
France		1.4	2.2	1.7
Italy		1.5	1.0	0.8
Spain		0.6	0.9	0.7
Brazil		5.0	4.2	3.1
Canada		4.2	3.0	2.1
India		8.3	7.8	7.7
Russia		4.5	4.1	3.4
Australia		2.7	1.0	1.4
South Korea		4.7	4.2	3.4
Taiwan		7.1	6.2	5.0
Hong Kong		6.4	7.5	5.1
Singapore		12.0	9.3	0.9
Switzerland		3.1	2.5	2.3

Source: IR&M, Bloomberg. Notes: Not seasonally adjusted: Japan, South Korea, Singapore, and Switzerland. Original data: US: Bureau of Economic Analysis; China: National Bureau of Statistics; Germany: Federal Statistical Office; Japan: Economic and Social Institute; UK: Office for National Statistics; France: INSEE; Italy: ISTAT; Spain: Eurostat; Brazil: IBGE; Canada: STCA; India: Central Statistical Organisation; Russia: Federal Service of State Statistics; Australia: Bureau of Statistics; South Korea: Bank of Korea; Taiwan: Directorate General of Budget Accounting & Statistics; Hong Kong: Census & Statistics Department; Switzerland: State Secretariat for Economic Affairs.

- Average GDP peaked in Q2 2010 and has been falling ever since.
- Germany's 2.7% print shocked on the downside.
- Japan's -1% print was actually better than initially feared given the circumstances.

PMI

Table 4 shows a selection of global Purchasing Manager Indices (PMI). (Table 5 further down shows non-manufacturing PMI.) These are diffusion indices and therefore oscillate between 0 and 100. A reading above 50 is associated with an expanding industrial activity whereas a reading below 50 signifies contracting activity.

Table 4: PMI

	Oct 2006 to Apr 2011	May	Jun	Jul	Aug	Sep
Average		53.7	52.8	50.4	49.7	49.8
Global PMI (JPM)		53	52	51	50.1	n.a.
US: ISM		54	55	51	50.6	51.6
US: Chicago		57	61	59	56.5	60.4
China		52	51	51	50.9	51.2
Japan		51	51	52	51.9	49.3
Eurozone		55	52	50	49.0	48.5
Germany		58	55	52	50.9	50.3
UK		52	51	49	49.4	51.1
France		55	53	51	49.1	48.2
Italy		53	50	50	47.0	48.3
Switzerland		59	53	54	51.7	48.2
Sweden		56	53	50	48.7	48.1
Brazil		51	49	48	46.0	45.5
Australia		48	53	43	43.3	42.3
New Zealand		55	54	53	52.9	n.a.
South Africa		55	54	44	46.7	50.7
Singapore		51	50	49	49.4	n.a.

Source: IR&M, Bloomberg. Original data: Global: JP Morgan; US: Institute for Supply Management; Chicago: Kingsbury International; China: China Federation of Logistics and Purchasing (CFLP); Japan: Markit/Nomura; Eurozone, Germany, UK, France, Italy, New Zealand: Markit; Switzerland: Credit Suisse; Sweden: Swedbank Markets; Brazil: NTC Economics; Australia: Australian Industry Group; New Zealand: Bank of New Zealand; South Africa: Kagiso Securities; Singapore Institute of Purchasing and Materials Management.

- Average PMI peaked in February 2011 and has been falling ever since. The figures for August were down sharply and surprised on the downside. September figures were mixed but generally were above expectations.
- The average PMI fell below 50 on the first of September when most August figures were published. The last time the average PMI fell below 50 was in June 2008. The heat map format shows illustratively the non-randomness, i.e., the trend of this important indicator. Going from green to red is arguably different from going from red to green. Risk exposures, therefore, should be different too.
- Commodity producing economies fell below 50 one or two months earlier than the rest.

Table 5: Non-manufacturing PMI

	Oct 2006 to Apr 2011	May	Jun	Jul	Aug	Sep
Average		55.5	53.5	52.6	52.0	50.8
US: Non-Man		55	53	53	53.3	n.a.
Eurozone		56	54	52	51.5	49.1
Germany		56	57	53	51.1	50.3
UK		54	54	55	51.1	n.a.
France		63	56	54	56.8	52.5
Italy		50	47	49	48.4	n.a.

Source: IR&M, Bloomberg. Original data: See previous table.

- Services PMI peaked in March and has been falling ever since.
- Flash estimates for September are down.

Business sentiment

Table 6 shows a selection of business and economic sentiment and expectations indicators for the past five years. Some are more leading than others. We show all figures in percentiles. The period high is set to 100 and is shown green. The period low is, therefore, set to 0 and is red. The colour coding allows getting a feel for the trend on a reasonably high frequency basis. There is an update nearly every day.

Table 6: Business sentiment

	Oct 2006 to Apr 2011	May	Jun	Jul	Aug	Sep
Average		68.9	66.9	63.9	53.3	51.5
US: Empire State		67	37	43	37	35
US: Philadelphia Fed		53	40	52	12	28
US: Richmond Fed		50	62	56	43	49
US: Dallas Fed		54	44	60	50	47
US: AIM		69	63	65	60	n.a.
US: NFIB		44	43	39	31	n.a.
EZ: Sentix		63	55	57	35	32
EZ: Economic		84	84	78	67	59
EZ: Business		91	90	81	74	71
China		52	53	52	51	n.a.
Germany: ZEW Exp.		50	41	36	19	15
Germany: IFO Climate		96	97	92	78	74
Germany: IFO Exp.		89	86	82	67	61
UK (EC)		74	70	67	56	49
UK (Lloyds)		63	83	67	47	56
France		88	98	85	78	71
Italy		72	71	65	67	57
Switzerland		51	43	21	13	10
Sweden		92	87	71	66	58
Japan (ESRI)		70	81	79	76	n.a.
Japan: Small biz		49	69	84	81	84
South Korea		89	84	73	75	67
Australia		74	62	66	45	n.a.

Source: IR&M, Bloomberg. Original: US: NY Fed, Philadelphia Fed, Richmond Fed, Dallas Fed, AIM (Associated Industries of Massachusetts), NFIB (Small Business Optimism Index), Eurozone (EZ): Sentix Behavioral Indices, EC (Economic Sentiment Indicator and Business Climate Indicator); China: National Bureau of Statistics, Germany: ZEW (Expectation of Economic Growth), IFO (Business Climate and Business Expectations); UK: EC, Lloyds TSB; France: INSEE; Italy: ISEA; Switzerland: ZEW/Credit Suisse, Sweden: National Institute of Economics, Japan: ESRI, Japan Finance Corp for Small Business; South Korea: BoK; Australia: National Australia Bank. Note: The table sows percentiles. 100 (green) marks high for period shown, 0 (red) is the low. The average is equally weighted.

- The peak of the average of these business sentiment and expectations indicators was in February and has been falling ever since. That's a fact, not an opinion.
- The August fall was among the most five extreme. The other four were in 2008.
- In terms of levels, the June to August 2011 period most strongly resembles the February to April 2008 period.
- The trend is obviously down. The trend will have reversed when it will have reversed. This could be soon or during 2012, or during 2013. We don't know.

Consumer sentiment

Table 7 shows a selection of consumer sentiment indicators for the past five years. We show all figures in percentiles. The period high is set to 100 and is shown green. The period low is set to 0 and is red.

Table 7: Consumer sentiment

	Nov 2006 to May 2011	Jun	Jul	Aug	Sep	Oct
Average		50.2	47.5	37.8	34.8	34.8
US: Conf Board		37	39	23.0	23.2	n.a.
US: Michigen		39	20	1	10	n.a.
Eurozone		74	69	53	45	n.a.
China		60	87	77	n.a.	n.a.
Germany		54	53	50	49	49
Japan		35	42	42	n.a.	n.a.
UK: GfK		38	24	22	24	n.a.
UK: Lloyds TSB		55	51	34	n.a.	n.a.
France		17	27	17	10	n.a.
Italy		56	44	25	15	n.a.
Spain		93	90	80	80	n.a.
Netherlands		45	43	25	8	n.a.
Switzerland		49	36	11	n.a.	n.a.
Sweden		78	69	55	36	n.a.
Denmark		61	50	45	40	n.a.
Ireland		25	24	24	21	n.a.
Greece		3	0	10	6	n.a.
Brazil		78	100	81	67	n.a.
Canada		55	52	40	n.a.	n.a.
Australia		49	31	24	40	n.a.
New Zealand		52	46	54	53	n.a.

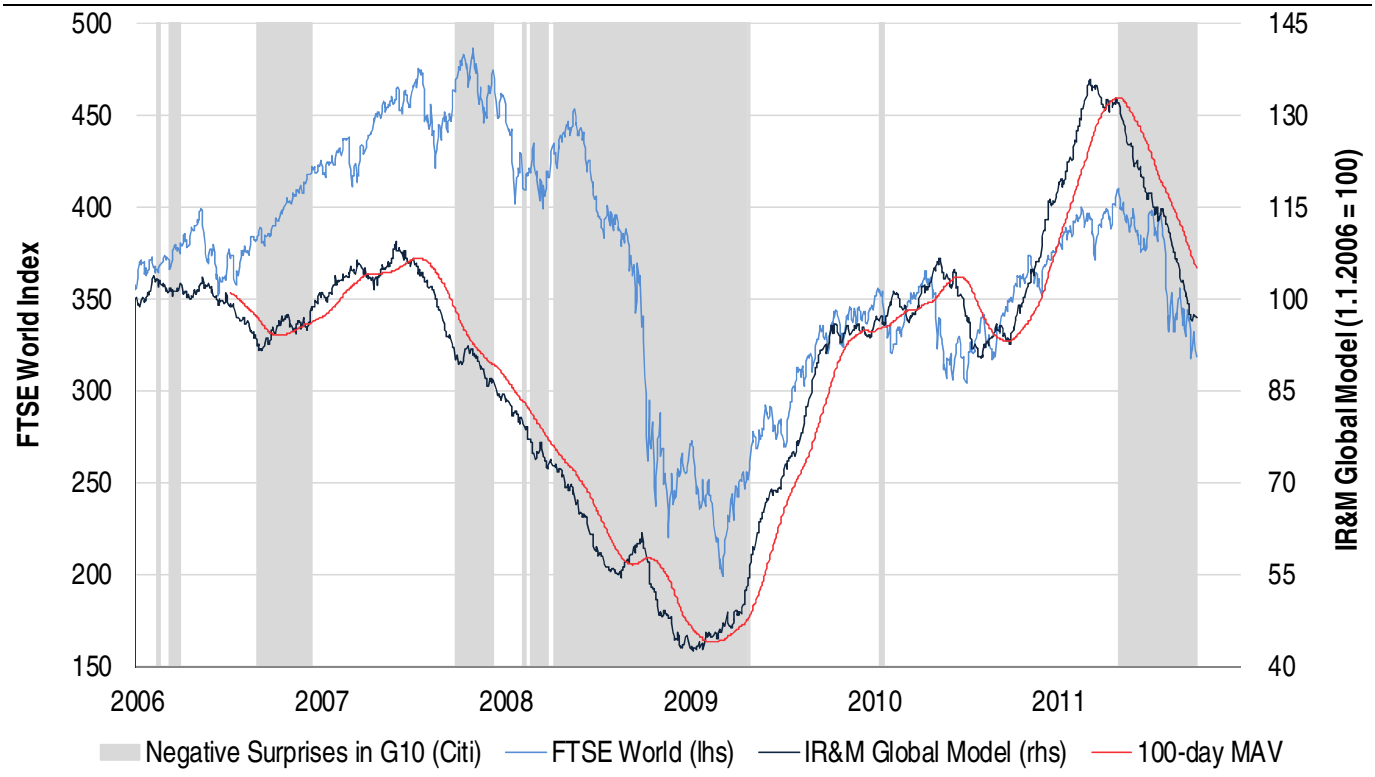
Source: IR&M, Bloomberg. Original: US: Conference Board and University of Michigan Survey Research Center; Eurozone, France, Spain, Greece: European Commission; China: National Bureau of Statistics of China; Germany: GfK (for the month ahead); Japan: Economic and Social Research Institute (ESRI); UK: GfK and Nationwide; Italy: ISAE; Netherlands: Dutch Statistics Office; Switzerland: UBS; Sweden: National Institute of Economic Research; Ireland: IIB Bank; Brazil: Fundacao Getulio Vargas; Canada: OECD; Australia: Westpac Banking Corporation; New Zealand: ANZ Bank. Note: The table sows percentiles. 100 (green) marks high for period shown, 0 (red) is the low. The average is equally weighted.

- The yellow hue on the right hand side of the Great Recession indicates that consumer sentiment in most places never really has recovered from before the Great Recession.
- The June to September 2011 period most strongly resembles the March to June 2008 period. The low was reached nine months later at an average level of 10.9 in February 2009. In March 2009, the average started to rise again.
- The relevance of the previous four tables is one of risk management: does one want to be long (or unhedged) in general or long cyclicality in particular when these indicators are steadily, day by day turning from green to yellow to red? We don't think so.
- Spanish consumers seem to be having a reasonably good time, for one reason or another. Sentiment for Dutch consumers on the other hand is horrid. It seems that the receivers of transfer payments are enjoying themselves more than the payers. Who would have thought?

Economic trend vs global equity market

Chart 6 shows a model that was designed to give an indication of the economic trend nearly every day. The idea behind the model is that these indicators are not random but trend. Models such as these allow us to decide whether the global economy is expanding or things economic are deteriorating. The moving average is the trend. We then combine the trend with expectations. The shaded areas show periods where reality is "coming in" worse than economists and strategists are expecting, i.e., the economic data is below consensus.

Chart 6: IR&M global economic model vs FTSE World Index



Source: IR&M, Bloomberg. Note: Surprises are based on Citigroup Expectations indices. IR&M Global Model is based on two weekly and 16 monthly indicators, was designed to give a data point nearly every day, and remains work in progress.

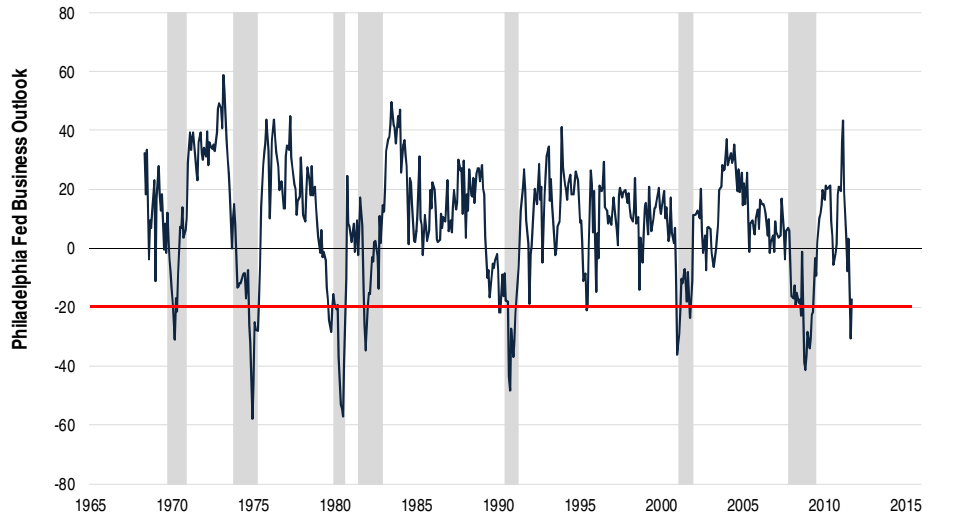
- The moving average of the model turned in early May. That coincided with expectations in G10 economies turning negative. The trend has been down ever since. The practical relevance is that these turning points should alert the investor. These turning points are factual, not opinions.

Note here that these graphs (there are more below) do not in any way predict the future. Whether these variables turn tomorrow or keep falling for years to come, we do not know. The idea is simply to pick up the trend and its derivative, the surprises. We believe that being hedged when the trend is down and surprises are negative prevents experiencing long periods of negative compounding. Also, it seems to us, negative tail events do not normally happen out of the blue. They occur when things economic are not well and the red line in the graph above is declining.

United States

Economic indicators point to recession

Chart 7: Philadelphia Fed Business Outlook

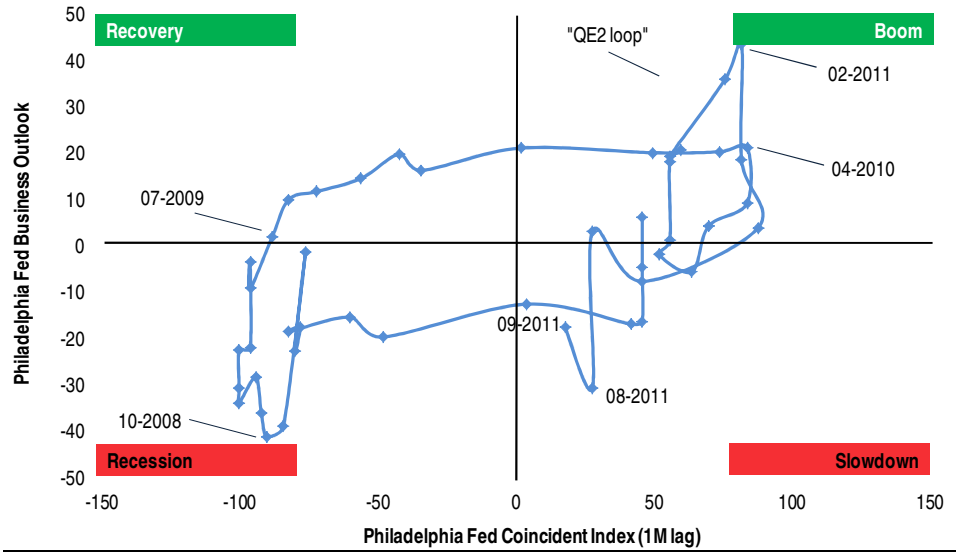


Source: IR&M, Bloomberg. Note: Shaded area show official US recessions.

- A fall of the Philadelphia Fed Business Outlook index below -20 almost guarantees a recession. See also Table 6 on page 23 that shows that this index indeed was leading some of leading indices last time around.

Chart 8 shows the last and current business cycle based on Philadelphia Fed indices. The horizontal axis shows current business climate whereas the vertical axis shows business climate outlook for the next six months. All is well in the upper right quadrant where current conditions as well as expectations are high. Then things economic start slowing down and the path goes from the upper right hand quadrant to the lower left hand quadrant. Once the nadir is reached, the path is from the lower left to the upper right again. Then the whole circle starts anew. The practical risk management relevance is that one ought to be hedged on the way from the upper right hand corner to the lower left hand corner.

Chart 8: US Business Conditions and Expectations



Source: IR&M, Bloomberg

- Peak was in February 2011. QE2 caused a mini cycle, a loop, so to speak.

High frequency economic indicators

Table 8 shows eleven economic, high-frequency variables that are related to the business cycle in one way or another. The first line shows the average of the percentiles since 2007 of these indicators. The idea behind this table is to get a near real-time reading of the direction in which the economy is heading.

Table 8: High frequency indicators

	2007-			June				July					Aug				Sep					Oct
Economic proxy	High	Low	Median	W21	W22	W23	W24	W25	W26	W27	W28	W29	W30	W31	W32	W33	W34	W35	W36	W37	W38	W39	Last
Average percentile	82	23	65	69	66	66	66	66	69	69	71	70	68	65	62	58	59	58	57	58	54	53	52
US Surprise Index	98	-141	3	-57	-117	-98	-102	-98	-85	-91	-100	-93	-91	-76	-79	-83	-68	-58	-42	-43	-41	-30	-30
US Yield curve (10-2Y)	291	-19	184	260	256	257	257	253	271	264	255	257	244	227	207	187	200	179	175	188	162	167	165
ECRI Leading (Growth)	28	-30	-5	5.7	5.6	4.8	4.4	3.6	2.8	2.5	2.7	2.8	3.3	3.4	2.9	1.5	-0.6	-3.0	-5.1	-6.1	-6.7	-7.2	-7.2
Bloomberg Cons Comfort	-5	-54	-45	-48	-47	-46	-44	-45	-44	-46	-44	-43	-47	-48	-49	-48	-47	-49	-49	-49	-52	-53	-53
Cons Discret vs. Staples	1.12	0.57	0.87	0.96	0.95	0.94	0.93	0.96	1.00	1.00	0.98	0.99	0.99	0.93	0.93	0.88	0.92	0.91	0.90	0.93	0.93	0.90	0.90
Aruoba Diebold Scotti	0.73	-3.94	-0.30	-0.38	-0.32	-0.25	-0.18	-0.09	0.01	0.09	0.10	0.09	0.01	-0.11	-0.19	-0.23	-0.23	-0.21	-0.16	-0.10	-0.05	-0.05	-0.05
US Jobless claims	659	302	450	429	426	430	420	429	432	427	408	422	401	402	399	412	421	412	417	432	428	391	391
US chain store sales, YoY	5.5	-2.5	2.5	3.1	2.8	2.5	2.4	2.2	3.0	3.5	5.5	4.5	4.2	4.0	3.6	3.5	3.0	3.0	2.7	3.3	3.4	2.7	2.7
CRB RIND	638	316	493	607	609	606	602	597	601	603	594	594	595	582	568	566	568	571	573	568	544	536	536
Copper	462	125	336	418	413	405	410	410	429	440	441	440	447	411	401	398	410	411	399	392	327	315	307
Container Ship Index	718	237	396	700	699	699	694	688	679	664	645	635	618	604	586	578	568	556	544	533	522	508	508

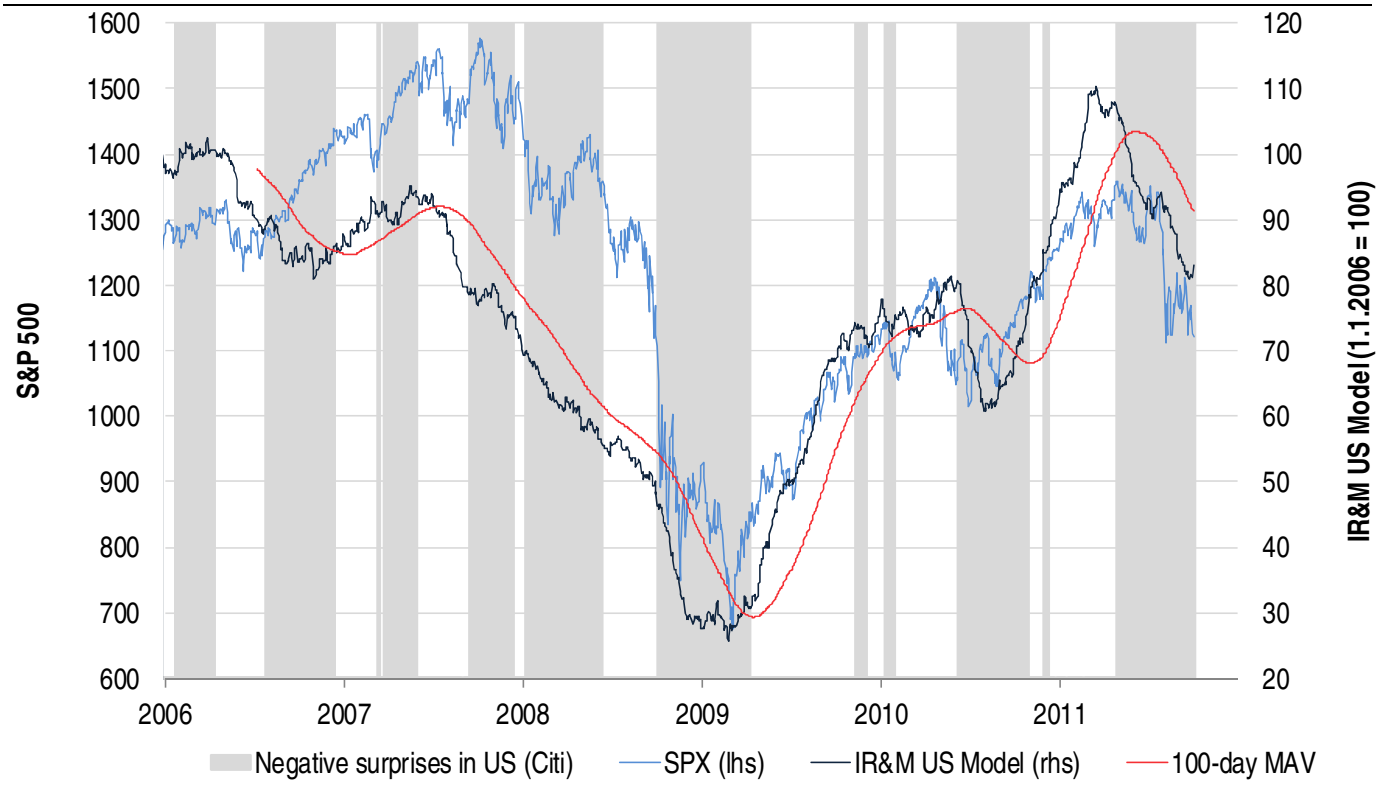
Source: IR&M, Bloomberg. Notes: US Surprise Index is from Citigroup. Bloomberg Consumer Comfort was previously from ABC News. Consumer Discretionary underperforms Consumer Staples during economic slowdown. The Aruoba Diebold Scotti Business Conditions Index (ADS BCI Index) is designed to track real business conditions at high frequency and is a daily index, published with a one week lag. CRB RIND is the Commodity Research Bureau/Reuters US Spot Raw Industrials Index consisting of raw industrial components with pre-cyclical characteristics. The prices of index constituents are not as much distorted through aggressive trading activity.

- Average percentile peaked in March and has been falling reasonably gradually ever since. The Bloomberg Consumer Comfort Index (formerly by ABC News) is approaching its low.
- The US yield curve has been flattening, i.e., the government bond market has been signalling that not all is well in the world/US. The yield curve obviously cannot invert this time around as the short end is held artificially close to zero for a while longer it seems.
- The ECRI Leading Growth index has been in negative territory for a couple of weeks.
- Consumer discretionary has been underperforming consumer staples recently. Staples outperformance is a sign of a contracting economy, not an expanding one.
- Copper prices have collapsed.

Economic trend vs US equity market

Chart 9 shows a model based on economic variables relevant to the economy in the United States.

Chart 9: IR&M US economic model vs S&P 500



Source: IR&M, Bloomberg. Note: Surprises are based on Citigroup Expectations indices. IR&M US Model is based on three weekly and 13 monthly indicators, was designed to give a data point nearly every day, and remains work in progress.

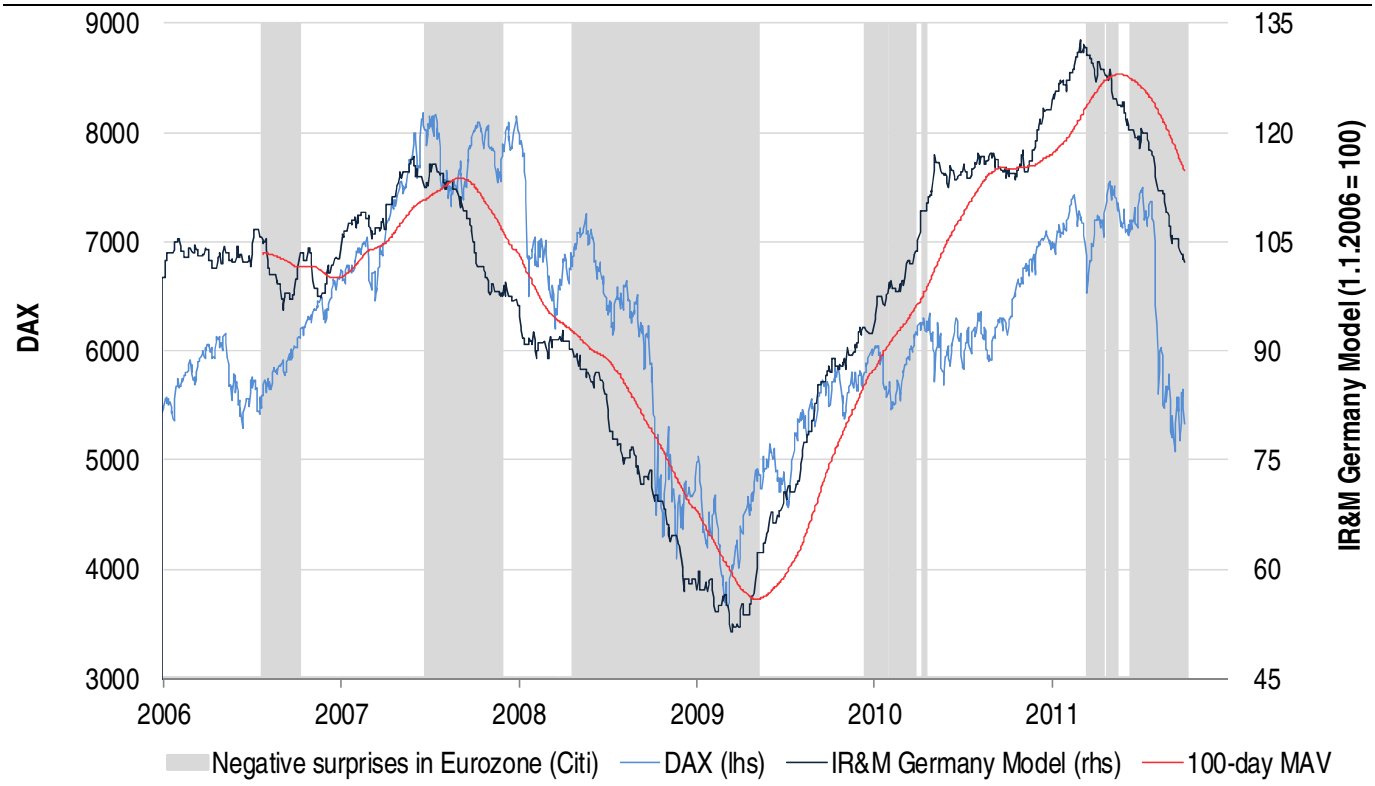
- The US economy has been deteriorating. Expectations started turn negative early May and the average of the daily model started to turn shortly thereafter. Again, the trend is a fact and, in the case of the US, reasonably clear cut.

Germany

Germany is slowing down

Chart 10 shows a model based on economic variables relevant to the economy in Germany.

Chart 10: IR&M Germany economic model vs DAX

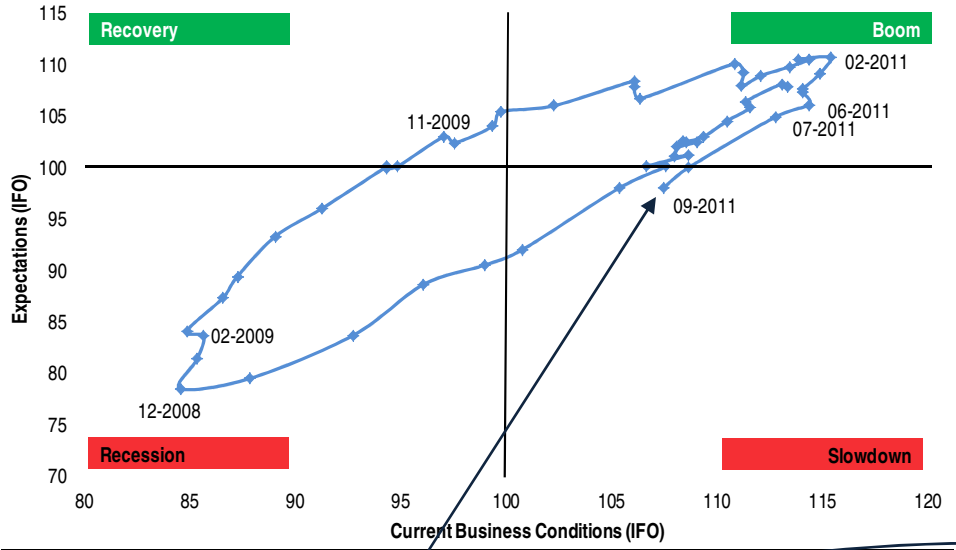


Source: IR&M, Bloomberg. Notes: Surprises are based on Citigroup Expectations indices. IR&M Germany Model is based on 12 monthly indicators, was designed to give a data point nearly every day, and remains work in progress.

- Economic indicators have been falling since March. Interestingly, but perhaps not too surprisingly, the Citigroup Expectations Index entered negative territory around the same time. The very cyclical DAX started to free fall much later, i.e., early August. The strong fall is obviously not only cyclical. Investors are starting to realise that it is Germany that is on the other side of profligacy.
- Based on this model, which is work in progress, there was no positive data point from 6 July until 7 September when industrial production for July was announced higher and above expectations. So the model was in free fall too.

Chart 11 shows the last and current business cycle based on IFO (Institut für Wirtschaftsforschung) climate indices. The horizontal axis shows current business climate whereas the vertical axis shows business climate expectations for the next six months. All is well in the upper right quadrant where current conditions as well as expectations are high. Then things economic start slowing down and the path goes from the upper right hand quadrant to the lower left hand quadrant. Once the nadir is reached, the path is from the lower left to the upper right again. Then the whole circle starts anew. The practical risk management relevance is that one ought to be hedged on the way from the upper right hand corner to the lower left hand corner. It is in those periods where the DAX experiences its losses.

Chart 11: IFO Pan Germany Business Conditions and Expectations

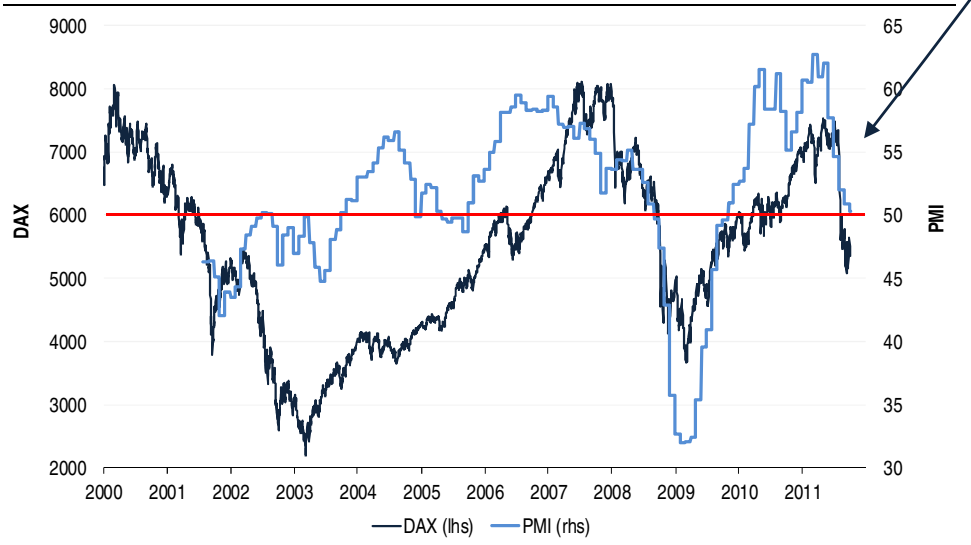


Source: IR&M, Bloomberg

- The German economy is slowing down, i.e., on its way from the upper right hand corner to the lower left hand corner.
- If this boom-to-bust path plays out like the previous one, the nadir is reached in March-April 2012. (This is not a forecast; just a comparison. We obviously don't know when the nadir will be reached; nor does anybody else.)

Chart 12 shows the DAX with PMI.

Chart 12: DAX and PMI



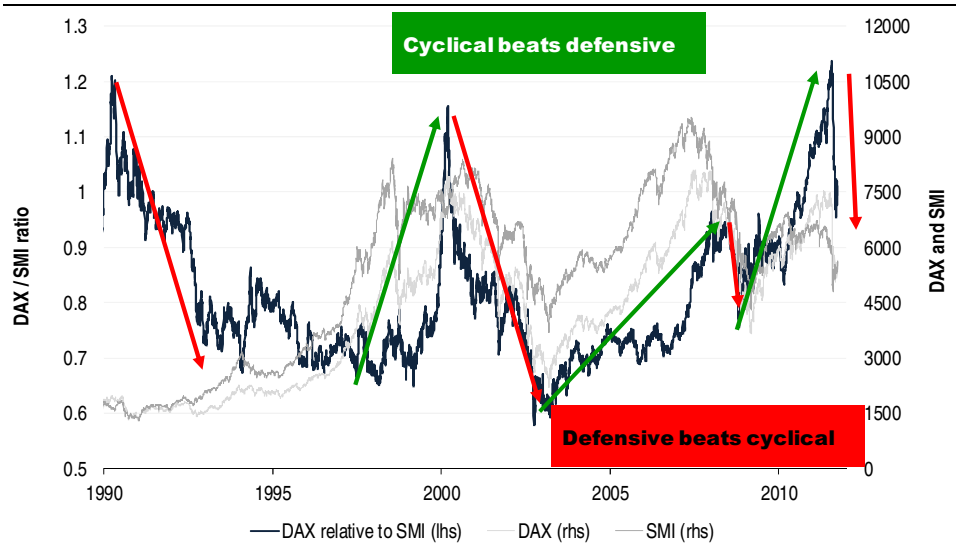
Source: IR&M, Bloomberg

- German PMI, like many other economies, is at the brink of falling below 50, i.e., economy is slowing down and at the brink of contracting. A fact.

Cyclical vs. defensive

The DAX is a proxy for cyclicality (cars, machines, etc.), the SMI for defensive sectors (food, pharma, etc.). DAX relative to SMI, therefore, is a proxy for swings in the business cycle (Chart 13). The practical relevance from a risk management perspective is to hedge cyclicality in the downturn or tilt the portfolio towards defensive if hedging is not an option.

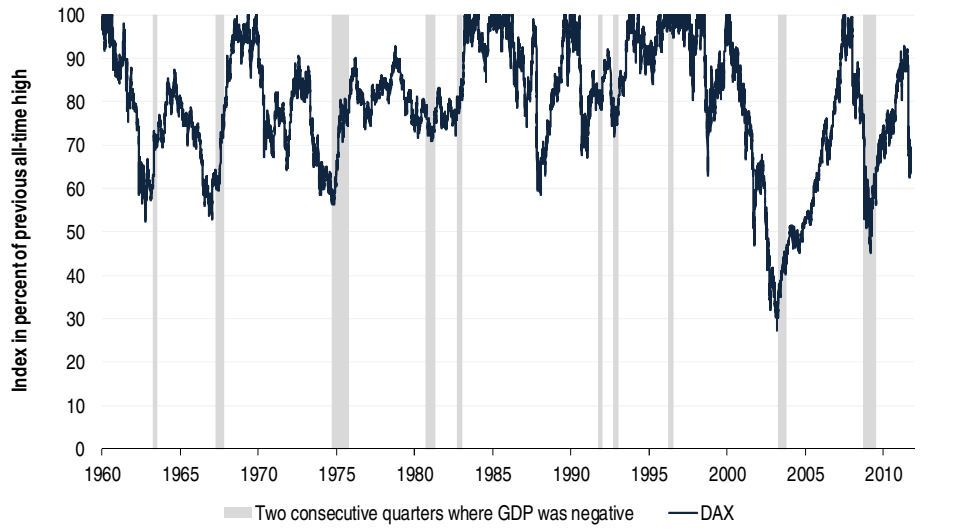
Chart 13: DAX vs SMI



Source: IR&M, Bloomberg

- The SMI has been outperforming the DAX in recent months, after the DAX/SMI ratio reached an all-time high in July 2011. The graph shows that these periods trend, i.e., can go on for many years.
- Note that the DAX spends a lot more time under water than above. (See Chart 14.)

Chart 14: Under water perspective DAX



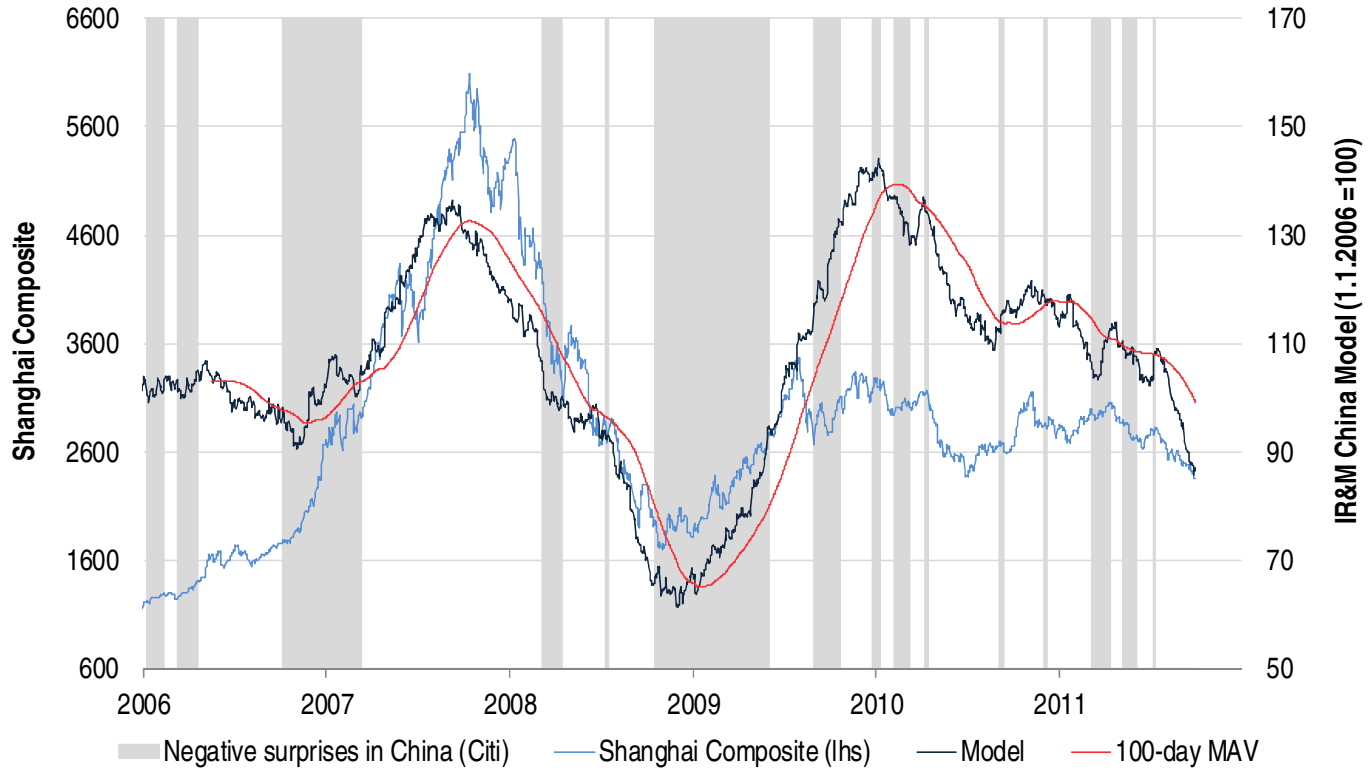
Source: IR&M, Bloomberg

China

Mixed signals from China

Chart 15 shows a model based on economic variables relevant to the economy in China.

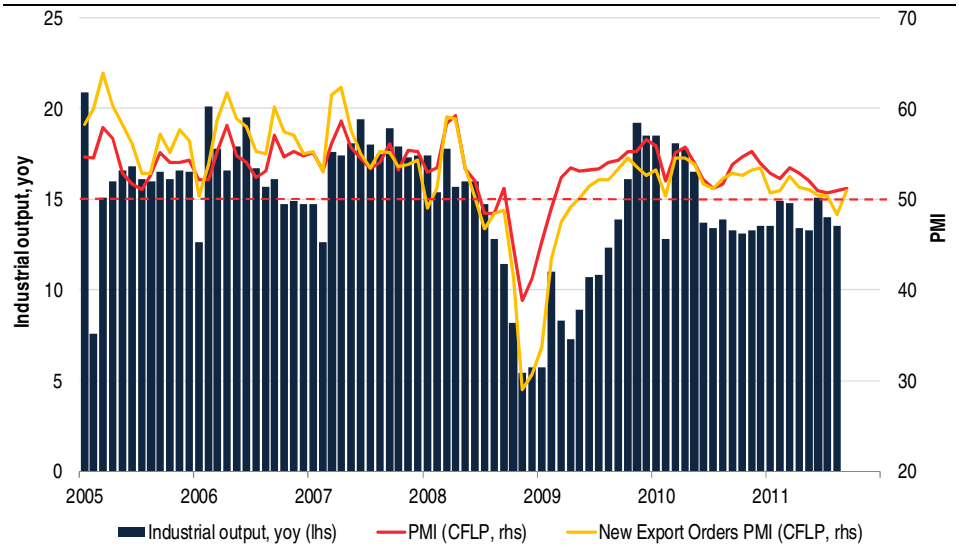
Chart 15: IR&M China economic model vs Shanghai Composite



Source: IR&M, Bloomberg. Notes: Surprises are based on Citigroup Expectations indices. IR&M China Model is based on 18 monthly indicators, includes a daily read of relative performance between property stocks and a market index, was designed to give a data point every day, and remains work in progress.

- The economic trend is not up.
- Reality is coming in above expectations, as measured by Citigroup. However, the grey bars don't seem very meaningful in this case.

Chart 16: PMI vs industrial output

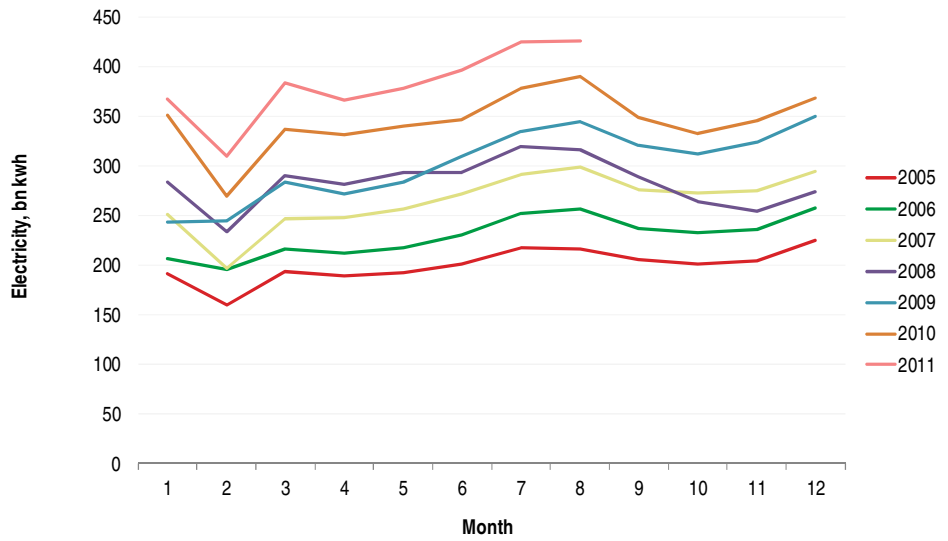


Source: IR&M, Bloomberg

- The official PMI is still above 50. The new export orders fell below 50 for August but popped up to 50.9 for September. However, PMI as measured by HSBC has been below 50 since July.
- Industrial output is in decline. However, it has not fallen off a cliff, i.e., decline is orderly.

Thanks to WikiLeaks we know what politburo member Li Keqiang thinks are important and incorruptible measures for China's economic speed. Given were China is on the corruption charts mentioned earlier, it makes sense to look for incorruptible proxies. Li Keqiang is the First-ranking Vice-Premier and deputy Party secretary of the State Council of the People's Republic of China, the seventh ranked member of the Politburo Standing Committee, the People's Republic of China's de facto highest decision-making body. Most official statistics are "for reference only" he once confide—smiling, apparently—to the US ambassador. The three variables he looks at are electricity consumption, rail cargo volume, and bank lending. We look at electricity and rail cargo volume as a form of economic health check.

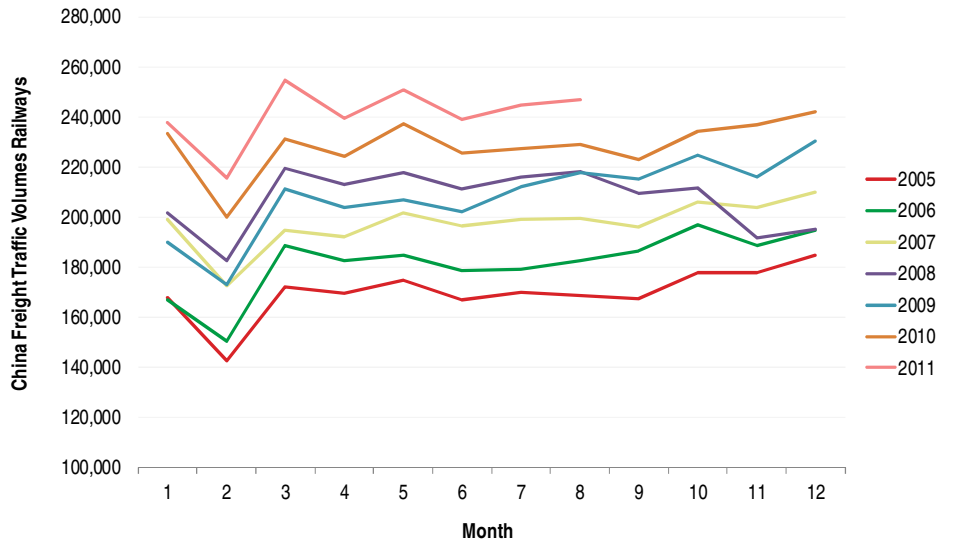
Chart 17: Electricity



Source: IR&M, Bloomberg

- Electricity 2011 is higher than 2010. However, electricity normally increases in August. It did not this year.
- Electricity falling below the previous year's level would be red flag, see 2008.

Chart 18: Freight traffic volume

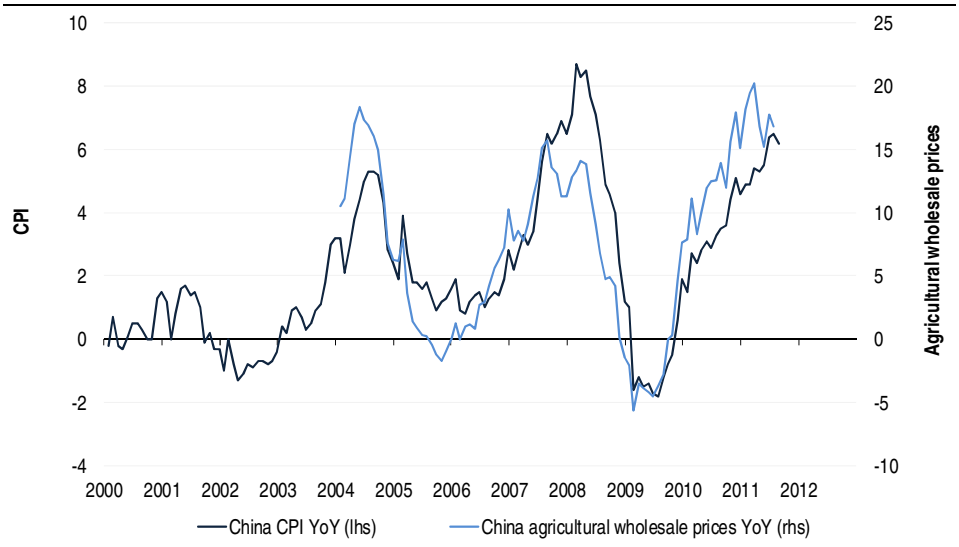


Source: IR&M, Bloomberg

- Freight traffic increased slightly.
- There are no red flags emanating from electricity and freight traffic. All is well; or so it seems.

The spectre of inflation is not only an issue for China. One could argue inflation in China, or any negative surprises out of China, economic or geopolitical, are akin to a sword of Damocles bumbling over the global economy. The following graph shows CPI with agricultural wholesale prices.

Chart 19: China CPI



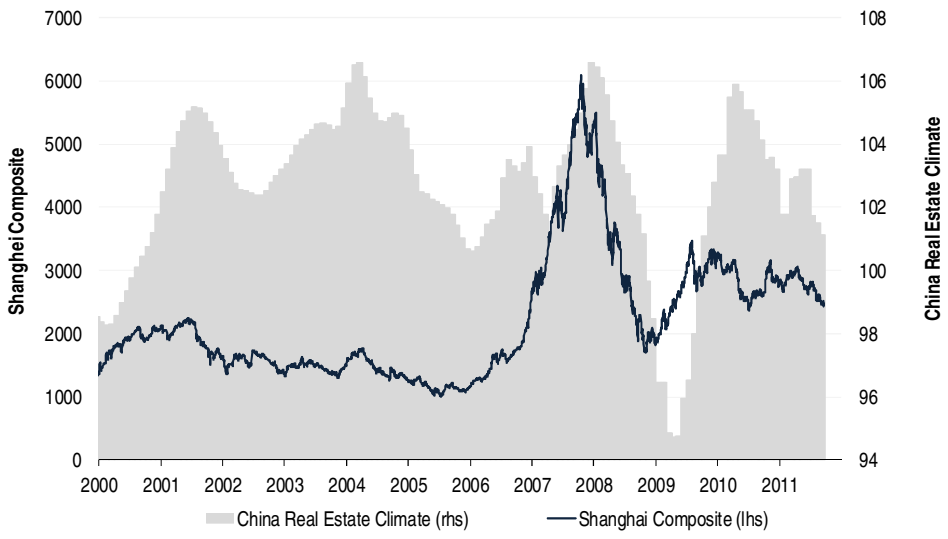
Source: IR&M, Bloomberg

- The latest CPI figure ticked down and was quite a relief. It takes at least two more (falling) readings for one to argue that inflation in China is under control.

The reason inflation is important from a risk assessment standpoint is that food inflation spiralling out of control would not only bear the risk of falling Prada handbag sales but also heighten the risk of geopolitical tensions. We like to

compare China—simpleton-esquely—to the film *Speed* in which the main characters drive a bus with a bomb on board that goes off if the speed falls below a certain level. The Politburo is planning/driving the economy. If real growth falls below a certain level, there is civil disturbance. Examining the situation from a distance it seems like a Mephistophelean pact between population and Politburo. As long as the latter delivers, say, 8% real growth per year, the former keeps quiet, i.e., suppresses demand for political freedom, uncensored TV reality shows, and that stuff. China just needs to keep going; otherwise hell breaks loose.

Chart 20: China Real Estate Climate



Source: IR&M, Bloomberg

- China bashers argue China is an accident in waiting. Real estate (and non-performing loans) are said to be the main issue.
- Judging by the data in Chart 20, the sentiment in real estate is in decline but not in free fall. Note that this indicator was a lagging indicator the last time around. It was the stock market that was the ultimate leading indicator.

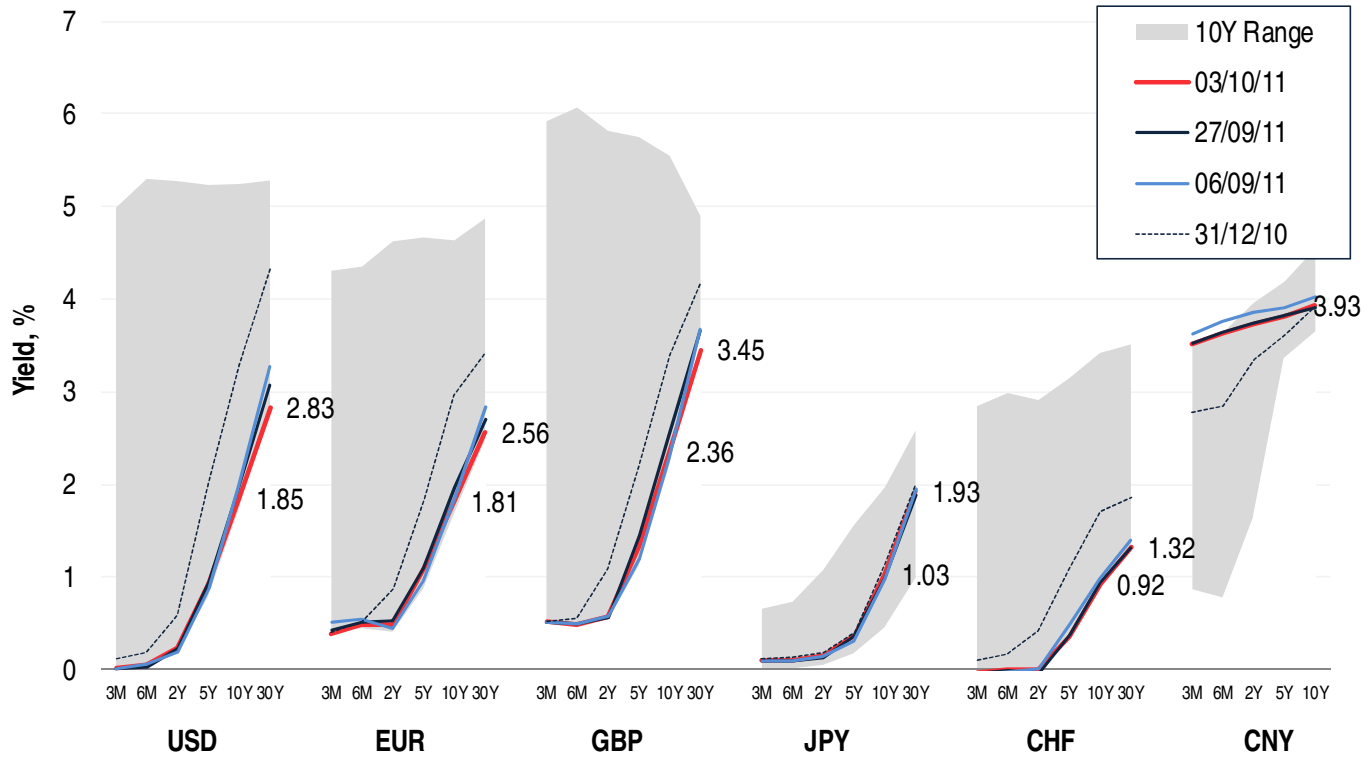
Risk

Regulomics essentially means that either the authorities take over, or do the wrong thing, or do nothing where action were required. In any case, uncertainty has risen and continues to rise.

One way to look at the impact of politics on markets is through the yield curve. Table 9 shows six yield curves, the changes over one week, one month, and year-to-date, as well as the 10-year range.

"Financial markets are driving the world towards another Great Depression with incalculable political consequences. The authorities, particularly in Europe, have lost control of the situation."
—George Soros, FT, 29 Sep 2011

Table 9: Yield curves



Source: IR&M, Bloomberg
Note: Numbers in graph stand for 10-year and 30-year yields. Short end of CHF yield curve "disappears" because yields are negative.

- USD, EUR, GBP, and CHF curves are at a multi-year low.
- The blue print for yield curves of industrialised areas could a "Japanisation" of the curve. This is a hypothesis, not a fact. Switzerland is already there. Easy monetary policies have kept the short end low. Now the authorities are working on bringing down the long end. This means the curve falls to zero on the short end and stays there for a long time and then the long end follows, i.e., the curve flattens. The curve needs to stay positive for the banks to continue to reflate their balance sheets.
- If there are any unknown unknowns lurking in the future, they will most likely be reflected in the graph above first.
- The most recent move in the CNY yield curve is down due to latest CPI print being down and the potential of the tightening cycle coming towards an end. If inflation continues to be a problem (or re-appears to be a problem) the yield curve will reveal the earliest red flags.

Financial risk monitor

Table 10 is a risk monitor. The idea is to show heightened risk or stress very early on. We update this frequently in our on-screen updates.

Table 10: Financial risk monitor

		10-year*			2009	2010												2011								
Market	Risk proxy	High	Low	Median	12	01	02	03	04	05	06	07	08	09	10	11	12	01	02	04	05	06	07	08	Last
Composite	St. Louis Fed Stress	5.4	-1.2	0.2	0.3	0.2	0.2	0.1	0.0	0.8	0.6	0.5	0.6	0.4	0.2	0.2	0.2	0.0	0.0	-0.2	-0.1	0.1	0.0	0.8	1.0
	BB Financial Conditions	1.3	-12.7	-0.1	0.0	-0.2	0.2	0.4	0.2	-1.0	-1.4	-0.4	-0.4	-0.2	-0.1	-0.3	0.2	0.1	0.4	0.6	0.5	0.5	0.0	-0.9	-1.9
	Citi Macro Risk	0.99	0.0	0.40	0.09	0.16	0.07	0.05	0.17	0.56	0.77	0.41	0.59	0.47	0.36	0.51	0.28	0.33	0.32	0.31	0.44	0.40	0.68	0.90	0.97
Liquidity	LIBOR 1M OIS Spread	338	1	10	9	9	9	5	7	13	16	12	7	6	7	7	8	9	11	10	9	8	8	13	15
	Euro Libor-OIS Spread	196	-2	9	31	30	29	26	23	30	28	35	39	19	22	33	41	21	25	16	28	20	35	64	82
	Euro Basis Swap Spread	-3	-300	-34	-38	-32	-35	-36	-38	-48	-42	-31	-52	-35	-26	-56	-60	-31	-33	-8	-26	-28	-46	-80	-109
Credit	TED Spread	464	9	27	20	18	14	14	19	38	36	31	17	14	18	15	18	16	17	24	21	24	16	32	37
	EmMa Spread	1037	111	278	256	278	268	205	217	307	319	270	292	274	255	277	241	246	237	234	247	239	256	336	469
	CDX.NA.IG	279	29	86	86	97	92	88	92	113	123	104	114	107	94	100	85	84	82	88	89	91	96	115	144
	iTraxx 5Y Europe	217	20	71	76	83	85	79	87	118	129	105	118	111	97	117	105	98	98	97	102	106	117	153	202
	iTraxx 5Y E. Crossover	1150	150	381	432	454	464	427	426	559	575	481	531	510	458	522	437	416	386	353	370	395	438	646	839
Sovereign	iTraxx 5Y E. Sovereign	362	47	155	n.a.	n.a.	91	83	115	133	159	115	156	156	152	203	210	176	179	187	197	217	270	293	339
(5Y CDS)	Greece	5047	5	14	281	398	376	341	722	689	910	759	943	793	805	976	1074	869	941	1350	1420	1952	1722	2261	n.a.
	Ireland	1192	5	161	156	149	144	142	190	233	267	208	341	458	472	611	615	596	585	661	669	769	790	769	700
	Portugal	1216	4	9	91	160	165	142	280	306	311	225	334	409	378	543	500	433	465	653	679	745	924	918	1110
	Spain	437	3	18	111	124	135	119	159	214	265	176	244	230	215	365	350	249	249	237	251	270	363	358	382
	Italy	538	6	12	109	120	130	115	141	199	190	136	230	195	171	269	238	180	183	148	164	171	310	361	470
	Belgium	299	2	6	54	63	68	55	81	101	144	99	128	126	117	201	218	173	174	143	151	143	199	230	260
	France	203	2	5	31	49	58	46	61	68	93	66	81	79	70	105	101	99	91	74	73	80	122	154	187
Rates	BBOX (swaption volat.)	138	68	93	111	106	99	95	102	101	96	90	91	95	88	96	101	100	97	96	96	98	98	93	95
Bonds	MOVE (bond volat.)	265	51	101	108	86	81	85	86	112	90	78	104	85	100	102	110	96	91	77	72	89	88	98	101
Equities	VIX (equity volat.)	81	10	19	22	25	20	18	22	32	35	24	26	24	21	24	18	20	18	15	15	17	25	32	43
	Skew Index (CBOE)	142	106	118	126	118	120	124	125	123	117	120	115	120	116	117	121	130	129	127	124	122	121	120	115
FX	VXY (G7 FX volat.)	24	6	10	13	12	12	11	11	14	14	11	13	12	13	13	13	11	10	11	11	11	12	12	14

Source: IR&M, Bloomberg
Note: *10-year period or since data is available. Last update as of 1 Oct 2010 3pm GMT.

- The current financial crisis is a sovereign crisis, not necessarily a liquidity crisis. This means the risk gauges that flashed red in the last crisis have not been flashing red this time around, the infamous TED spread being one example. It is the risk measures which measure sovereign risk that are deep red. They will stay deep red as they continue to move from one all-time to the next. The table shows that we are in the don't-try-to-catch-the-falling-knife phase, i.e., risk gauges move from orange to red. The there's-a-light-at-the-end-of-the-tunnel phase will be characterised by these measures moving from the then all-time-high back to the mean, i.e., from crimson to yellow to green.

- Bloomberg doesn't really calculate the 5-year CDS for Greece anymore. Greece is essentially in default. (Some market pundits argue there will be sell-the-rumour-buy-the-fact moment, i.e., once default is announced, uncertainty is gone, and this would be a positive; emanating in a year-end rally or something like that. This is an opinion of course; just an opinion.)

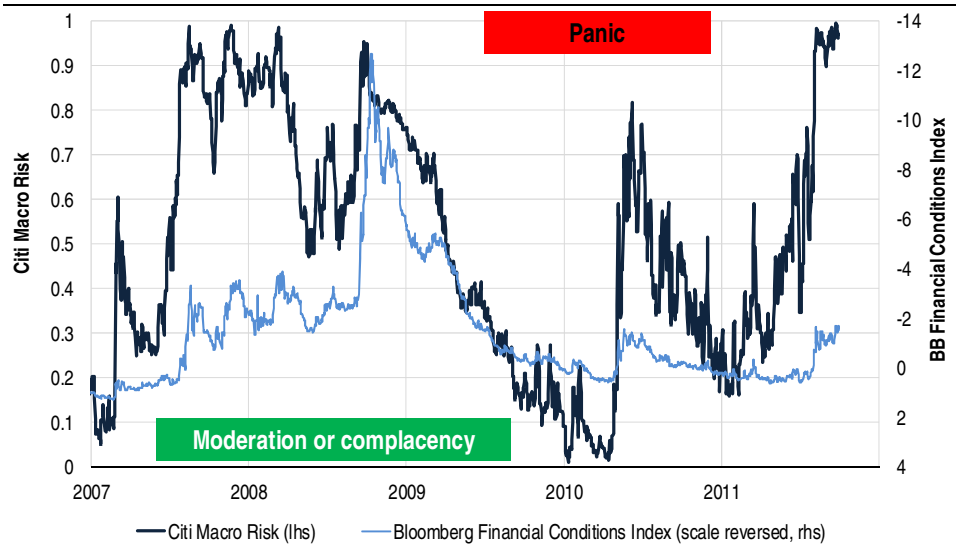
- There is still some stress in bank funding despite ECB generosity.

- Equity and FX implied volatility is high; bond volatility not so much.

Macro uncertainty

Chart 21 combines the Citigroup Macro risk index with a financial conditions index from Bloomberg. The former moves between 0 and 1. The latter is open and is shown reversed.

Chart 21: Macro risk and financial conditions



Source: IR&M, Bloomberg

- The Citigoup Macro Risk index is on red alert since 4 August 2011; red alert here defined as an index higher than 0.9.
- The Bloomberg Financial Conditions index is elevated but nowhere near the Lehman levels from three years ago. According to this graph, 2011 has a certain resemblance with 2007. However, as mentioned elsewhere, the cracks in the system are not identical to last time. It is sovereign risk gauges that are now flashing red, not liquidity risk gauges.

Table 11 shows the IR&M bubble monitor that we update quarterly. It's a tick-the-box approach to six characteristics that are typically associated with a building bubble. Note that the box ticking is only semi-factual, i.e., some ticks are open to debate.

Table 11: IR&M bubble monitor

	Gold	US Treas.	China real estate	China stocks	EmMa stocks
Prices at or close to all-time-high	☒	☑	☑	☒	☒
Very strong recent price rise	☒	☑	☑	☒	☒
Money too cheap for too long	☑	☑	☑	☑	☑
Excessive use of leverage	☒	☒	☑	☒	☒
Retail participation	☑	☒	☑	☒	☒
Front-page news (TV, Mags, etc.)	☑	☒	☑	☒	☒
	☒	No	☑	Yes, be alert!	

Source: IR&M

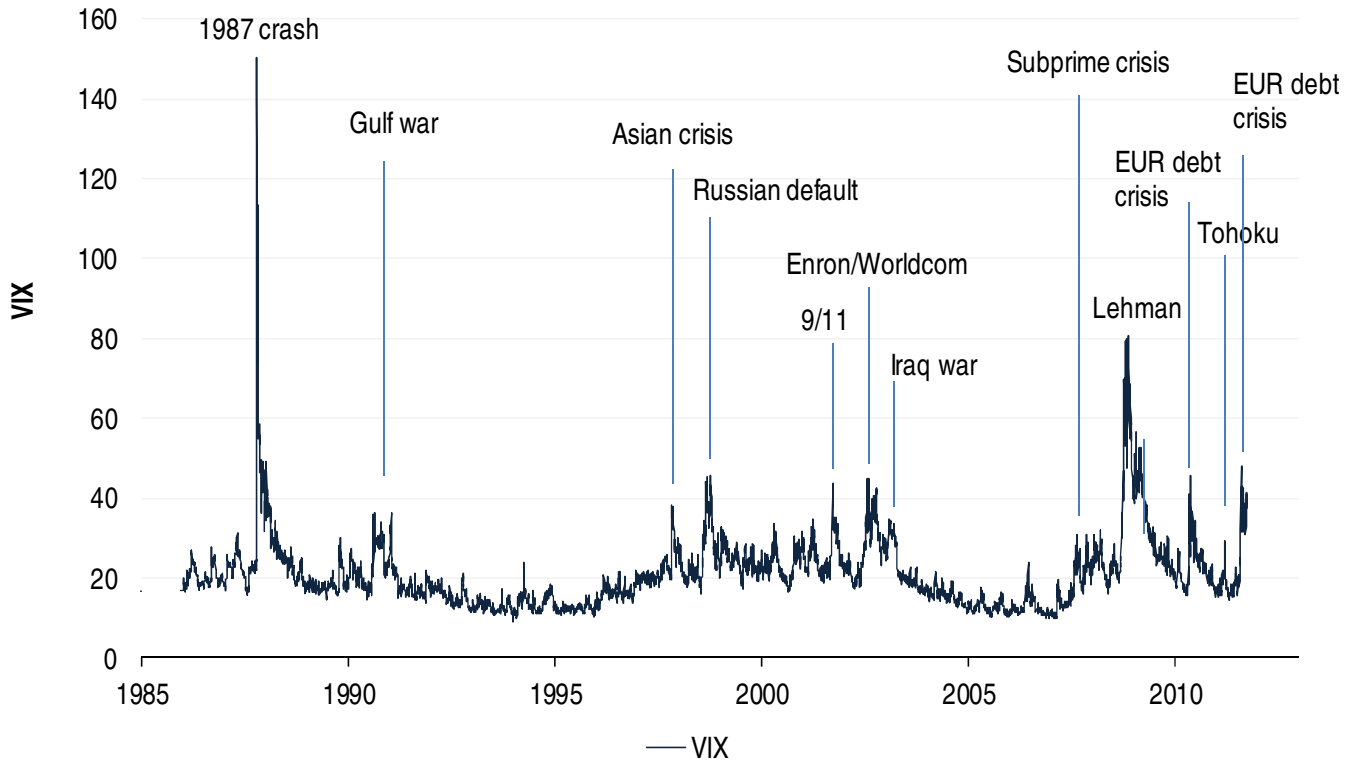
- Money that is too cheap causes asset price inflation, i.e., lifts all boats. This applies to nearly anything.
- Chinese and emerging market stocks are in a non-bubble.

- Gold has experienced a correction, i.e., prices are not close to all-time-high as recent strong move has been down. However, retail participation (in some parts of the world) and media coverage is high.

Fear gauge

Chart 22 shows the most prominent risk/fear gauge, the legendary VIX.

Chart 22: VIX



Source: IR&M, Bloomberg

- VIX spiked above 40.

Bottom line

Economic variables are falling and risk measures are rising. This is a time to be cautious or hedged rather than courageous and unhedged.

The time to be courageous is when economic variables are rising and risk measures are falling. This time will come. Trying to predict when that might be is folly.

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