

Newsletter

My name is Max Rudolph. I am a credentialed actuary and CFA charter holder working as a strategic planning consultant and private investor in Omaha, Nebraska, USA. I write a monthly newsletter, covering a variety of topics. Coverage is mostly related to risk management and investments. Some are written at a high level, dealing with the general economy, and some cover very specific topics. The newsletters are educational in nature and do not constitute investment advice. The newsletters are released publicly at www.rudolphfinancialconsulting.com 6 months after they are released to subscribers.

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Financial Predictions for 2011

Please remember that these predictions are for fun. If I knew what was going to happen, I certainly would not share that information with you! You must make your own decisions regarding your unique financial circumstances and not hold others, especially me, responsible for your own results. Enjoy!

Financial Predictions for 2011 – How Did They Turn Out?

Each of these predictions was made at the beginning of 2011. Now it is December 2011 and each will be reviewed for accuracy. Let's find out how I did!

General happenings.

Politics, regional conflicts and sovereign economic policies have a great impact on the worldwide economy, take years to play out and have unintended consequences.

Economic variables are mean reverting, cycling from low to high and back again. Bubbles and their opposite occur regularly, although they are often hard to identify until after the fact. Some of these can be recognized in advance, and the risk manager who considers two for each one that occurs has added value. Some of the potential bubbles likely to regress are commodities, treasuries, municipals and emerging markets. Farmland is a longer term bubble.

Results:

Here are some of the events that occurred in 2011. Natural disasters occur regularly and contingency plans should be in place for them.

- Australian flooding/monsoon/fires
- Pakistani earthquakes
- Arab Spring – Tunisia/Libya/Syria
- Japanese earthquake and tsunami
- Icelandic volcano
- US storms (e.g., tornados in SE and Joplin Missouri, hurricane Irene)
- US flooding in Missouri river basin
- North Korean transition
- Tensions rising in China
- European sovereign debt crisis

Current likely bubbles

- All debt
- Farmland

New emerging risks

- Space weather – especially geomagnetic storms
- Systemic risks that are non-financial in nature
- Supply chain higher order concentrations (I might think I am diversifying my supply chain by using multiple vendors, but if each of them uses the same supplier I really have not reduced my risk)

These predictions were made in January 2011.

- Politics: The US political cycle lasts 4 years. The Democrats have lost their supermajority in the Senate and President Obama is now trying to reposition himself as a moderate prior to the next election. He will struggle to implement health care reform and Dodd-Frank this year and will be seen internationally more to position himself for the reelection bid as a foreign policy expert. Tensions remain high on the Korean Peninsula and in the Middle East. When King Abdullah of Saudi Arabia dies that will spark a period of uncertainty that could lead to an outbreak of hostilities in that region. The Tea Party won some races and it will be interesting to see how well they “play with others”. If they can this will help the Presidential aspirations of someone like Sarah Palin. This would make re-election of President Obama more likely as the Tea Party is so far to the right that the Democrats can position themselves as the sane alternative. Driven by the price of oil and terrorism, numerous countries have the possibility of social unrest. Countries most at risk are Iran, Venezuela, Pakistan, Mexico, Saudi Arabia and the Koreans. Sovereign debt issues in Europe could eventually lead to the collapse

of the Eurozone. This will be driven by Germany, who will eventually get tired of supporting the other countries. When they have had enough they will enter a path to world superpower along with China. The risk of China experiencing an economic hard landing is increasing. This could have major unintended consequences, everything from an internal revolt to a selloff in US Treasuries to an armed conflict. An interesting scenario with long term consequences would be a joint US/China invasion of North Korea. In the short run it would ease tensions but in the long run would provide the Chinese an opportunity to size up how a potentially fading superpower would survive an attack that could be direct or indirect, military or financial (many opponents have underestimated the US in the past). The mismatch between males and females due to the one child rule will have unintended consequences that are hard to sort out (Gates Foundation efforts in the developing world should also be watched). Unattached males make good soldiers, and mail order brides from other parts of the world could cause immigration surprises.

- **Results: Politics. Correct.** While the Arab Spring went surprisingly fast, many of these thoughts played out as described. President Obama, now early in the primary season, is gathering the faithful by moving to the left but has tried to compromise at times and during the general campaign will move to the center in a bid to woo independents. Health care and Dodd-Frank have been a disaster so far. If the Republicans take Congress in 2012 both will be gutted. Tensions are high in Korea as the transition to “The Great Successor” begins and in Syria, where the government is using force to maintain control. The Tea Party has shown no interest in compromise, dooming Sarah Palin’s Presidential hopes for now. As an Iowa native, Michele Bachman is showing some strength there but it will be tough for her to have momentum after the first few weeks of the primary season. The European situation still seems to be waiting for Germany to tell everyone else how it is going to play out. Tensions in China are escalating, with a planned transition in 2013 coming about as rural/urban pressure is increasing. The male/female issue has started to play out, with integration of races an intriguing result with unintended consequences. Will this encourage world peace, at least in the Asian markets?
- **Stocks:** The stock market’s run-up in late 2010 has left it susceptible to a correction, but overall I believe we will remain in a trader’s market. It will continue to be volatile in 2011, with large caps outperforming small caps. I would be surprised to see below -5% or above 15% for the S&P500. Over the next 10 years stocks will outperform both cash and especially bonds. Bonds at low interest rates are hard to get excited about as we prepare to enter an era of higher inflation. There is a slight chance of hyperinflation in the United States, but it will take a few years to develop before suddenly appearing. Good companies to buy now are ones that can pass on their inflationary cost increases to their customers like those in the transportation (e.g., railroads) and energy sectors. Based on my filters here are a few companies that appear to be undervalued based on publicly available information (not recommendations, just ideas for further analysis): Whirlpool WHR, Tyco Electronics TEL, HanesBrands HBI, Conoco Phillips

- COP, and Game Stop GME. The S&P500 closed 2010 at 1257. Full disclosure: my family owns shares in COP, TEL and HBI. None are controlling positions. ☺
- **Results: Stocks. Correct.** The US stock market ended up close to breakeven while volatility increased. My prediction was not a strong one, but it was right in general. The S&P closed 2010 at 1257.64, with a high of 1370 and a low of 1074, and ended 2011 in almost an identical position at 1257.60. Large caps have outperformed small caps.
 - **Unemployment:** Fiscal stimulus continues to help bottom out unemployment, but private employers have been slow to start hiring. I expect unemployment to drop, but not below 8.5%. Structural employment provides a floor of about 6% now, and many public employers will be forced to cut back going forward. Do municipal employees have the skills and culture necessary to succeed in the private sector? Some do but many do not. Older workers will have a tough time adapting to their new reality. Municipal bonds are a worry in this regard. Once one state or large city defaults on their bonds the entire market will see spreads spike and borrowing costs go through the roof. What will the impact be on casualty insurers of this concentrated asset exposure? Certainly this is an unintended consequence of tax policy. I'd like to see the state run pension plans be consolidated either into Social Security (at least for new employees) or into a bigger pool that can attract more sophisticated managers.

The “survivors” at big firms are not always the best and brightest, especially if layoffs were influenced by seniority, and these firms will need to hire creative minds from outside to succeed. Budget imbalances will eventually create inflation, but long term treasuries will increase first, so watch for the yield curve to steepen in 2011. Taxes will not be impacted until unemployment returns to a more normal level but will eventually need to rise. This will not occur at the federal level until after the Presidential election. (I'm reading an article about Greece and they say that the tax collectors don't work in election years – and they wonder why Greece has problems!) States, on the other hand, will look for stealth tax increases through consumer basics like cell phone bills but will eventually need to increase income and/or gas taxes.

- **Results: Unemployment. Correct.** The most recent unemployment rate in the US is 8.6%, so I was dead on (somewhat surprisingly) here. Job growth has been slow, resembling growth from the worst periods of the past century. It is harder to rebound when both the private sector and public sector need to deleverage. Companies continue to hoard their cash as they wait for the many uncertainties surrounding the crisis aftermath to play out. Many of the jobs being lost in 2011 were from the public sector. Many older workers have been out of work for more than a year despite their efforts to rejoin the marketplace. Several cities have defaulted (e.g., Pennsylvania state capital Harrisburg) and Detroit hangs in the balance, but the diversity of municipal bond offerings has kept it from becoming a major issue. Future promises of health and retirement benefits continue to hang over this market. The yield curve 1 year rate moved from 29 bp to 12 bp during

- the year and the 20 year rate moving from 4.13% to 2.73%, flattening the curve as the Fed implemented policy designed to keep rates low for an extended period.
- **Securitization/Mortgages:** The securitization markets will continue their rebound. Capital requirement uncertainty will reduce and this will drive consolidation of regional banks. Home mortgages will continue high foreclosure rates, but all markets will not move together as regional diversification returns to the marketplace and it begins to loosen. Population will start to move to where the jobs are, for example away from Illinois and toward the Dakotas. A decision needs to be made about Fannie and Freddie in 2011 or it will enter the Presidential debates.
 - **Results: Securitization/Mortgages. Mildly correct and still a little early.** The market for homes is starting to clear out for low and mid-range prices. It is reverting back to a market that varies by region. Some regions will take a long time to recover (e.g., Las Vegas) while others will free up more quickly where the overbuilding was not so prevalent. The GSEs have not been addressed and could become a problem for candidates with ties to them like Newt Gingrich. Growth is occurring in apartment units as people turn their goals from home ownership to an economic goal of low debt and moving out from their parents' home.
 - Volatility has itself been volatile over the past couple of years. Too many investors are looking at VIX as a predictor of the future and there are too many big risks, both known and unknown, that should increase this statistic. Although I have not proven good at predicting VIX I think it should be in the 20-25 range right now instead of the actual 16.
 - **Results: Volatility. Correct.** The VIX has had a wild ride. After closing 2010 at 17.75 it has had wild swings ranging from 14.27 to 48.00. It closed 2011 at 23.40.
 - **Oil:** Oil is currently about \$90, toward the bottom end of my long-term mean reversion rate of \$80-120 range, but volatility continues to make short term predictions very risky. If oil prices fall below \$50, political instability in Russia and South America will quickly follow. As the world economy improves the price of oil should increase. Watch Venezuela for problems.
 - **Results: Oil. Mildly correct.** West Texas Intermediate closed out 2011 at \$99.75 per barrel, in the middle of what has been a broad range in 2011 (\$76 - \$114). The Venezuelan tension continues to build as Chavez fights cancer (and blames the US for giving it to him). At some point his country will blow up economically. Russian street protests are just getting started.
 - **Credit risk:** the market is once again allowing liberal covenants, so I am not sure what the market actually learned. Government entities are at risk and a major state or municipality in the US is likely to default on their bonds. These governments have always pointed to their balanced budgets, but accruals have not been honestly assessed. I don't think the federal government will take them over but some help will be made available. Unions in general will have to deal with these unfunded benefits, whether for legacy manufacturing firms, school districts, or governments. Investigative reporters will find easy pickings and will drive the

market to make these balance sheets more transparent. Junk bond spreads will widen.

- **Results: Credit risk. Wrong, or at least too early.** This continues to play out as junk bond spreads have narrowed. Journalists have been busy with various Wall Street scams and the European sovereign debt crisis.
- **Financial Services Consolidation:** Bank consolidation will continue, with mid-sized and smaller banks merging to gain economies of scale and consumer trust. Expenses at insurance companies are too high and industry overhead needs to be reduced. Insurance consolidation will accelerate, with household names and smaller firms being merged out of existence. Larger, supposedly sophisticated, firms accepted the investment and product risks knowingly, and many smaller firms were led along with the crowd to the cliff by statements like “all the sophisticated insurers are doing this”. In the long run I still expect to see a federal charter put in place. Principles based approaches will fade as regulatory tools but continue to be a competitive advantage for those companies that recognize the shortcomings. Goldman Sachs will fight a public relations battle and consider a return to the partnership model. This will reduce transparency into their books. Why don't people require a fiduciary relationship when doing business with them? This would better align their incentives with their customers.
- **Results: Financial Services Consolidation. Wrong, likely just too early.** Smaller banks are challenged in today's market, with some going out of business and others consolidating. Towers, a large consulting firm, continues to gobble up its rivals, which I think is a leading indicator of consolidation in the financial services industry. An investment research project I completed in 2011 showed that there is concentration risk in using a single metric to measure risk (like VaR). Now the banks are trying to get one consistent framework internationally which will increase the concentration risk already present. Here the US insurance community has lucked into a better process, where multiple regulators look at a company's books.
- **Currency/Inflation:** Eventually the dollar will revert to its trend and fall based on imbalances in our trade and borrowing policies. This will happen quicker if another currency takes leadership from, or at least shares it with, the dollar. Europe needs to get its rogue nations under control. If it doesn't Germany could become that country. China is the only other realistic option and that is unlikely for another few years. They will be better served by a basket of currencies and we will see a move in that direction with France as head of the G-7 and G-20. Other scenarios focus on countries heavily invested in dollars, such as China, Japan, and the oil exporters, choosing to dump them. US Treasuries would then spike and the US economy could find itself in a vicious cycle resulting in stagflation. This would take several years to play out. Various energy subsidies will play out here, from ethanol to wind farms, with unintended consequences following the well intentioned efforts of politicians. Unless another economy steps up to provide a flight to safety option the dollar will only be down moderately in 2011 and will go up if Spain flounders. Food inflation internationally will be high and lead to riots

and potentially regional violence as countries that import try to reduce their dependency by force. Inflation is tied closely to currency, and importers of food and oil will struggle. The law of comparative advantage will be challenged as countries with food will tighten their borders and make sure their own people are fed first. This could lead to high inflation and social unrest in some emerging markets.

- **Results: Currency/Inflation. Wrong, too early.** Things aren't that great in the US but are even worse elsewhere so the dollar remains the world's safe currency. We should not let this make us complacent. We need to delever. The Euro/Dollar rate was volatile in 2011, ranging from its start of 1.33 up to 1.48 in May and then down to a close of 1.29. This has repercussions on the price of oil as well, although which one is the driver is unclear to me.
- Unintended consequences
 - Energy subsidies: Who knows what technology is not being worked on because of the focus on only certain types of green technology? We can't leave it to government to determine optimal supply/demand balances. In the long run the market will determine who wins, not the politicians. Sometime in the next 5 years Hugo Chavez will either implode or try to cut OPEC production of oil. He continues to nationalize firms which will lead to poor performers and has already devalued his currency. Venezuela has a really poor track record for paying their debts.
 - Global warming: Governments naturally design complex systems, while simple solutions are not given a chance to work. We need to move beyond a singular focus on carbon dioxide. Watch for asset bubbles in farmland in the US short-term, and long-term opportunities in northern countries like Canada and Russia (longer term add Antarctica to this list) as tundra becomes accessible as farmland or as a source of oil.
 - **Results: Global warming.** As weather patterns shift the types of crops that can grow in northern climates will expand beyond wheat. The long awaited northwest passage will become used commercially in the coming years.
 - Fannie and Freddie reform will get a lot of hot wind in 2011. With the 2012 election looming it's unclear if Congress will deal with them soon or ignore them. In the meantime they continue to add to the government balance sheet.
 - **Results: GSE reform. Correct.** Unfortunately the easy bet was the winner in 2011. More to come.
 - Continued low interest rates by the Federal Reserve through the election – this Fed is more political than I would like to see. The US is very susceptible to a large catastrophe, financial disaster, or armed conflict with a worthy foe. Look for copycat terrorism on September 11 this year.
 - **Results: interest rates/terrorism.** It is unclear whether the terrorists are inept or if the US security presence has improved but no successful terrorist plots were completed on the 10th anniversary of 9/11. The Fed publicly announced plans to keep rates low indefinitely. This is a poor

incentive for people to save as those who have saved in the past are not rewarded. This is starting to cause problems for institutional investors like pension plans and insurance companies that provide a savings vehicle to the general public.

Emerging Risks - Concerns

- There are many physical disasters that could happen, and a really bad one could stimulate the country to work together and build cohesion. The political tensions continue to increase as both sides posture. I continue to be worried about unintended consequences of actions today, with GSE liability still on the radar. The jobs recession will continue, but investors and those already with jobs should be more secure once we get past a flurry of layoffs early in the year. Inflation will remain low while, longer term, Treasuries rise with anticipated future price increases. The seeds of inflation are already planted. Government should issue debt in longer term fixed instruments now while they can. Otherwise the debt burden will grow so quickly with floating rate and roll over debt that it will be hard to grow out of it. Foreclosures need to occur for the housing supply to clear. It will be hard to move forward until that happens.
- **Results: Disasters.** The Joplin tornado was a great example of how a disaster can bring out the best in people. It serves as a great example for us all. While the private sector has started to add jobs in 2011 the public sector continues to shed them. Late in the year revenues for local government have been up over prior year. Hopefully as they add back positions they will do so in an intelligent way and not just rebuilt the bureaucracy and culture that previously prevailed.
- Levees in California, earthquakes/volcanos, water poisoning of NYC, hackers of Windows – all potential issues to develop contingent plans for.
- **Results: Hackers.** We see instances of organized hacking on a regular basis, with much of it coming from China and appearing to be government organized. Of course the US has similar programs used by the military. One of the interesting tidbits I read in 2011 was that US built copier machines sent to Iraq had homing devices imbedded in them. Pretty smart but will make it tougher for American exporters in the future.
- Can an internal CRO be strong enough to stand up and be counted, or will fears for their job keep them “in line”? Every firm needs a Chief Skeptical Officer. There is career risk to doing your job as a Chief Risk Officer. Speaking out, even (or especially) if you are accurate, does not lead to a long career. Perhaps independent skeptics should be hired by regulators and rating agencies to get contrarian opinions. NAIC risk focused exams could be so much more useful than they are so far, and rating agencies have perceived/real conflicts of interest since the company being rated pays for the rating. I am usually a big fan of Berkshire Hathaway, but Moody’s should not issue ratings for them. They are a major shareholder and it is a huge conflict of interest. Companies are doing Enterprise Risk Management for compliance purposes with external stakeholders rather than

to help make better decisions. This means that those who take that next step have a competitive advantage over those who don't.

- Tort reform needed – the world continues to become more litigious at its peril
- Infectious disease - increased resistance to antibiotics (e.g., tuberculosis, staff infections or pneumonia). It is getting more dangerous to visit a hospital.
- Global warming – unexpected side effects like new viral/bacterial attacks, along with coastal flooding and increased hurricane activity. Changing climate will alter weather patterns, making areas more or less prone to moisture and cold.
- Terrorism – so far external terrorists have shown themselves not to be very smart, but they are very determined. A greater risk in the US is that the political rhetoric creates followers who will “fight” for their cause domestically.
- Earthquakes and hurricanes – the US is overdue for a major quake on the west coast and other areas not normally suspected of seismic activity (e.g., Seattle, Yellowstone, St. Louis, New York City) are well into their cycle. The US is also due for a strong hurricane season.
- Principles-based capital in the financial services industry appears to be dead in the water as Basel becomes the standard (no diversification benefits, silo risk management). The NAIC, under Teri Vaughan, has started to put together a solid national staff. This has been needed for years, and adding Larry Bruning is a great addition. They should go outside their team for contrarian opinions.
- Home building sector will finish bottoming and level or slightly improve over the next couple of years depending on interest rates (up would be worse). It will take longer for the upscale market to recover. It is time to buy stocks in materials firms that serve this market and have low debt. A tax overhaul when it occurs will cap the mortgage deduction.
- US political environment – can they say no to anyone requesting a bailout? Who is next? Will the Fed allow a state to default on its debt? Illinois and California are trying to tax their way out of a problem but that will send jobs elsewhere and have unintended consequences that have not been thought through.
- Malthus – too many people, not enough food – will good intentions of the rich to save lives in the 3rd world lead to mass starvation and unstable regions in the longer term? Genetically modified seeds will delay this into the future. Perhaps it will never happen, but unstable regions develop where there is low economic activity and lots of people.
- Economy – risk of stagflation and the lack of an internal hedge for investors holding both equities and bonds. There is currently a large interest rate risk in long bonds. Make sure you are laddered so you grade to the current rates as they rise. Borrowing firms and governments with a high percentage in short duration bonds will default when the debt coverage spikes.
- Pandemic influenza – 2009 provided a test that countries and businesses should learn from. What is scary is the ability to create these superbugs in the lab. At some point terrorists (or someone entrusted to guard the bugs) will create a pandemic of some kind as Tom Clancy wrote about years ago (his example was Ebola).

- **Results: Pandemic influenza.** Recent research extended this debate further as scientists took a benign pathogen and made it able to spread in airborne form. This will get to terrorists at some point or, more likely, will escape accidentally.
- Counterparty risk – will losses be allowed? AIG provided a great example of concentration risk, although I wish someone would show me where the money went and how it was repaid. A central clearing house is needed that keeps track of net exposures. How do we keep a clearinghouse from increasing systemic risk itself? How Bernie Madoff survived all these years is a mystery to me. Where was the investor due diligence? Much of the US economy continues to be concentrated in a few parties, and now the American taxpayer is one of them. This is not a positive consequence and will lead to more systemic risk and higher correlation in the tails. More qualitative analysis needs to be done by financial experts rather than relying on models that aren't accurate in the tail. Relying on Black-Scholes models to determine both value and prices has been a disaster. If you can't understand a risk without complicated mathematics it should be avoided. We need to spend more time learning from history.
- Concentration risk – this will be a hot topic over the next few years much as emerging risks have become. Whether it is power at the top of an organization, short term liquidity, geographic focus or silo risk focus, too much concentration in too few entities or people is a great risk. Eventually it will take you down.
- Risk combinations – risk managers tend to anchor based on current events and have trouble getting their hands around how multiple risks interact.

Top Actuarial Issues

- Defined benefit plan valuation – needs to reflect marketplace economics, mean reversion and conservatism. Valuation methods have led defined benefit plans to be little more than a Ponzi scheme, relying on inflation to reduce the value to the retiree and the expense to the employer. Everyone needs to save for their own future. Actuaries and investment professionals from other disciplines should be welcomed, along with those from outside the profession. Focus should be on cash flows rather than regulatory requirements. An estimate of fair value of these liabilities should be calculated and shared with stakeholders. Municipal plans and teacher plans are especially likely to default. This may be the issue that causes unions to lose power.
- Demographics – designing products that are economically sound to both policy owner and company. Variable annuity writers seemed to have learned and adjusted with their new products, but have reverted back to features that make no sense to me. Why is it conservative to force asset allocations toward bonds in a low interest rate environment? Have insurers considered a hyperinflation scenario? They should.
- **Results: Demographics.** Several writers of VA products have recently left the market. There are rumors of mispriced products that insurers continue to sell in volume. It's likely not a good scenario if you met your sales goals in VA for 2011. I wonder how many incentive plans have adjusted for that.

- Obesity – how will the various drivers of mortality and morbidity interact (some good, some bad).
- Lack of rudimentary knowledge of assets and how to value them – need teaching sessions that are short of stochastically based financial economics. Focus on transparency and peer review. An actuary's primary skill is discounting contingent events. This skill set is valued outside insurance and pensions too if you are a strategic thinker.
- Peer review – how to make it extend beyond a regulatory requirement to help manage the business by identifying and exploiting advantages as part of a strategic planning process. Making someone accountable does not preclude the need for outside opinions and skepticism.
- National health care – we continue to need actuarial solutions with transparency. Tort reform is not happening but is necessary for cost reductions. Will health care reform be repealed? No. The votes aren't there. The Republicans will attack it through funding mechanisms and making the legislation difficult to implement.
- **Results: National health care.** Another ongoing saga that is playing out as expected. There will be lots of bluster before the 2012 election but the courts are driving the process right now.
- Systemic risk – this is another topic where actuaries can help but are not being engaged. I personally don't think systemic risk can be managed effectively due to the political pressure surrounding the topic.

Scenario Planning

What follows are a base set of scenarios that companies/individuals could use to plan for the next few years. Some analysis will reflect quantitative tools but all should look at the risks on a qualitative basis first. When models are used for extreme scenarios they do not perform very well.

- Higher interest rates and inflation: use deterministic scenarios grading 3% per year until you get to 12% or a mean reversion process that does the same would provide some eye-opening results.
- NEW FOR 2011 – qualitatively consider a 20% inflationary environment
- Flat equity markets combined with higher inflation
- Health care reform – qualitatively how would that impact your business?
- Falling dollar – could combine with high interest rate scenario
- Global climate change – how will this impact your business

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