THE IMPORTANCE OF EXPLICIT RISK MANAGEMENT IN INVESTMENT PORTFOLIOS

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"There are known knowns; there are things we know we know. We also know there are known unknowns; that is to say, we know there are some things we do not know. But there are also unknown unknowns – the ones we don't know we don't know.

United States Secretary of Defense, Donald Rumsfeld

At RPg we have a specific way of looking at the world of investing that involves an explicit expression of risk controls. These risk controls affect how we put capital to work and how we allocate risk throughout the world. The investment management business has come up with a "style" that this way of looking at the world falls into so they can classify the process. Some refer to our methodology as tactical; while others classify the methodology as an alternative because of our flexibility to move from stocks to cash. We simply believe we have aligned our definition of risk with the investor by focusing our time and effort on minimizing losses during bear markets.

As a means of explaining why we think it is so important to approach investing from this "tactical" lens, we start with the concept Donald Rumsfeld laid out in February of 2002 when he discussed unknown unknowns. We believe it is surprises that move markets and rather than making a "bet" that we are smarter than the market or its participants, we prefer a systematic process to determine whether an asset class is expected to make money, or lose money. If an asset class has a probability of loss we are completely comfortable removing that asset class altogether and allocating to where potential gains are more likely or waiting patiently in cash. To explain why we have such conviction on applying this methodology to all asset classes today, we have explored the debt/income relationships and the ultimate deleveraging on a number of developed economies to convey why we think it is essential to employ some system to your portfolio that has the flexibility to get off the tracks ***IF*** a train is coming.

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While there are dozens of deleveragings we could reference, we chose three: 1) the US 2008 – present, 2) Spain at present, and 3) Japan over the past two decades. While they are different because of the amounts and compositions, the economic process that is driving the outcomes is essentially the same.

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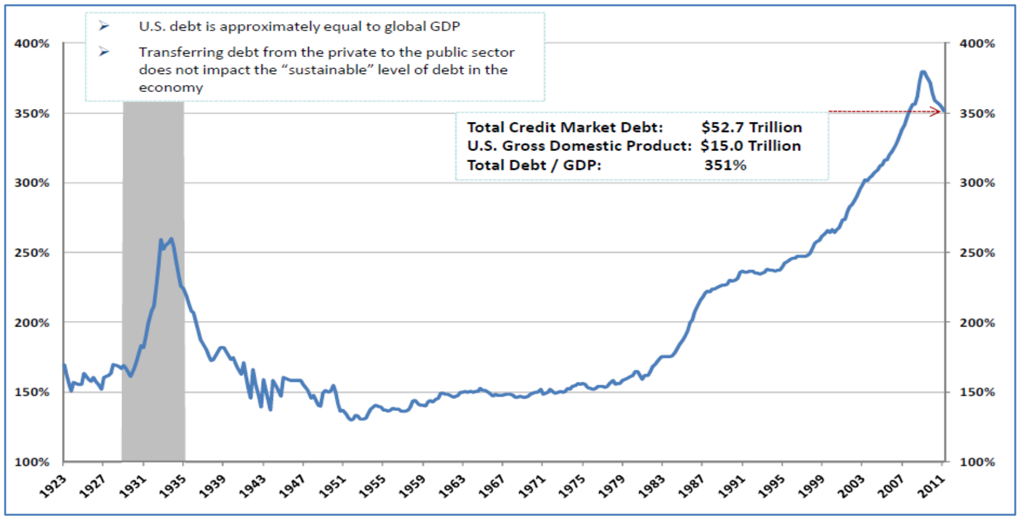
Through the process of deleveraging, an economy can experience difficulties as a result of deflation or inflation. The quest is to achieve a balance between the deflationary forces and the inflationary forces that allows for enough growth that nominal GDP growth remains above nominal interest rates. We think the unknown unknowns currently in the developed markets is whether or not the fiscal and monetary unions of the US, Europe and Japan will be able to achieve a balanced approach to their deleveraging, minimizing the pain realized when an economy goes through deflation or inflation.

The differences between deleveragings depend on the amount and pace of 1) debt reduction – lower the debt burden to something you can afford. This is painful because one man's liability is another man's asset, so when you reduce the debt burden, there is a negative wealth effect. 2) austerity, 3) transfer of wealth – Like the transfer of wealth from Germany to Spain and Greece. 4) Printing of money.

CURRENT DELEVERAGINGS

US DELEVERAGING, 2008 – PRESENT

Much like the Great Depression era of deleveraging, there was a debt driven boom prior to the deleveraging and in the case of the current crisis, it was in real estate and consumer spending. The deleveraging has transpired with two initiatives: a contraction in income, and the subsequent reflation and growth. Because of swift policy response from the Fed, the contractionary time frame lasted only six months (versus three years during the Great Depression). Since then, there has been a reflation in assets and debt reduction through a mix of rising nominal incomes, default and debt repayment.



Source: Bloomberg, Ned Davis Research, Federal Reserve, Hayman Capital Management Estimates RPg Asset Management

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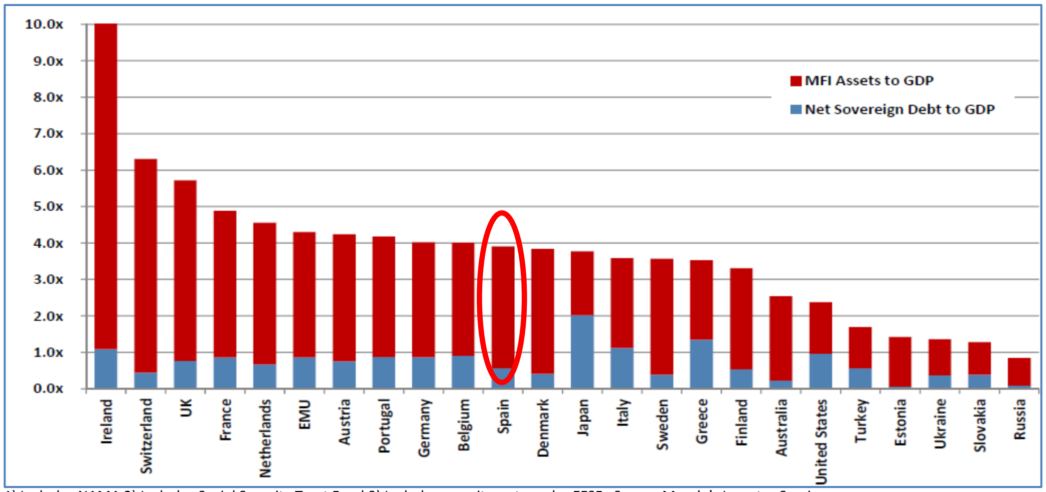
As shown in the chart above, the US is in new territory (>300% total debt/GDP), and new territory is when we think the capital markets are prone to unknown unknowns. While the aggressive moves by the Fed dramatically shortened the period of pain experienced in the US in this current deleveraging phase, the effects of an air-pocket (another recession) may be ugly with this level of debt. The best analogy we can think of is that the Fed is hoping that the extension of the runway (QE after QE) may allow for the plane to lift-off (the economy experiencing more substantial growth). While we do see green shoots in the US with this policy in place, at 351% total debt/GDP, we think it's prudent to have a systematic focus on downside protection.

SPAIN DELEVERAGING, 2008 – PRESENT

Spain has been going through the difficult deflationary phase of austerity. They have not been able to move on because they can't "print money". Currently, a quarter of the population is unemployed and incomes have fallen since 2008 and debts have risen to close to 400%. Although Spain has not been able to directly print money, the ECB has pushed a significant amount into Spain by buying its bonds and providing liquidity to its banks. While this prevented more aggressive deleveraging, the banks still haven't adequately re-equitized, as the US did during the aggressive Fed QE's, so the reflation phase has yet to begin.



1) Includes NAMA 2) Includes Social Security Trust Fund 3) Include commitments under EFSF. Source Moody's Investor Service "Country Credit Statistical Handbook", Hayman Capital Management, RPg Asset Management

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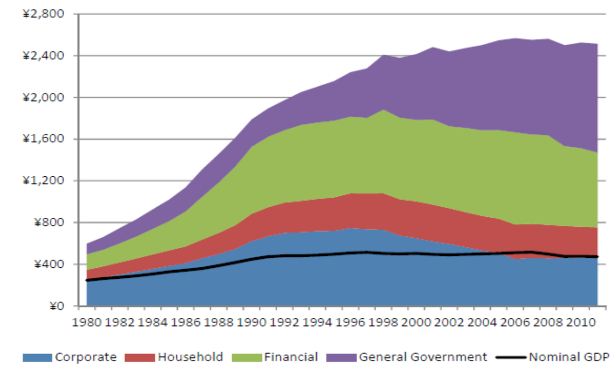
The ECB has pushed a significant amount of money into risky Spanish assets at a rate of more than 10% of Spanish GDP. Because the focus has been on austerity and "selective" printing, the balance of their programs have not spurred a nominal growth rate that exceeds their nominal interest rates. We see this as problematic and a real risk to asset prices. In the case of the current Spanish deleveraging process (which could also apply to Italy, Ireland, France, Greece and Portugal), we are in the territory of the known unknowns. That is to say we think the EMU has an ugly period of deflation ahead that will include defaults, restructurings and financial asset prices declining. The known unknown is when this will happen.

Keep in mind, Lehman Brothers 10-year bonds were trading at ~400 bps over the 10-year Treasury the week before they declared bankruptcy. The Friday before they declared bankruptcy their bonds were ~700 bps over the 10-year Treasury. Those same bonds were trading at $0.08 the following Monday morning. Point being, it's not like we're all going to get an advanced notice of a sovereign default so we can move off the tracks.

JAPAN DELEVERAGING, 1990 – PRESENT

When thinking about Japan, it would be prudent to apply the unknown unknowns to their deleveraging process. While Japan has eased interest rates, nominal income growth has been stagnant while price erosion has been persistent. Meanwhile, as illustrated below, nominal debt has risen much faster than growth, pushing debt levels from just under 400% of GDP at the end of 1989 to over 500% today. Japanese Equities have declined almost 70% during that time frame.



Public and Private Sector Debt (% of GDP)

	1989	Jun 2011	Delta
Corporate	131%	97%	-34 pts
Household	55%	62%	7 pts
Financial	135%	152%	17 pts
General Govt.	66%	221%	155 pts
Total	**387%**	**533%**	146 pts

Source: Bank of Japan. Latest data point is FQ1 2011 (6/30/2011, Hayman Capital Management, RPg Asset Management)

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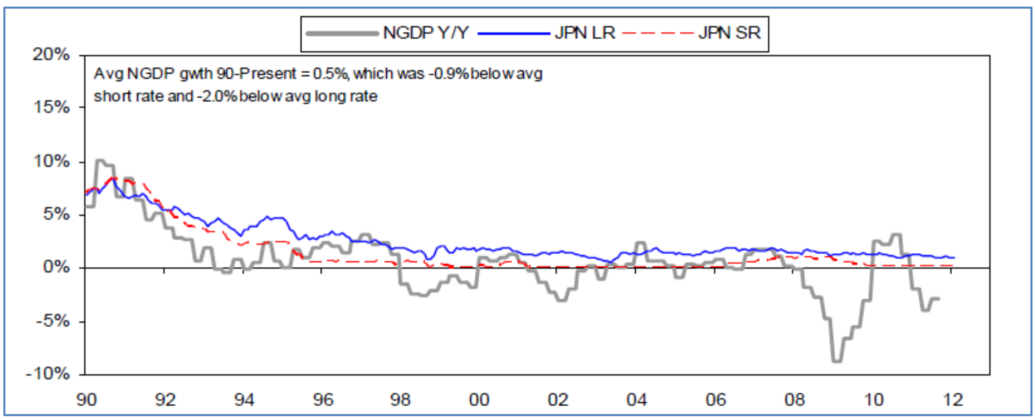
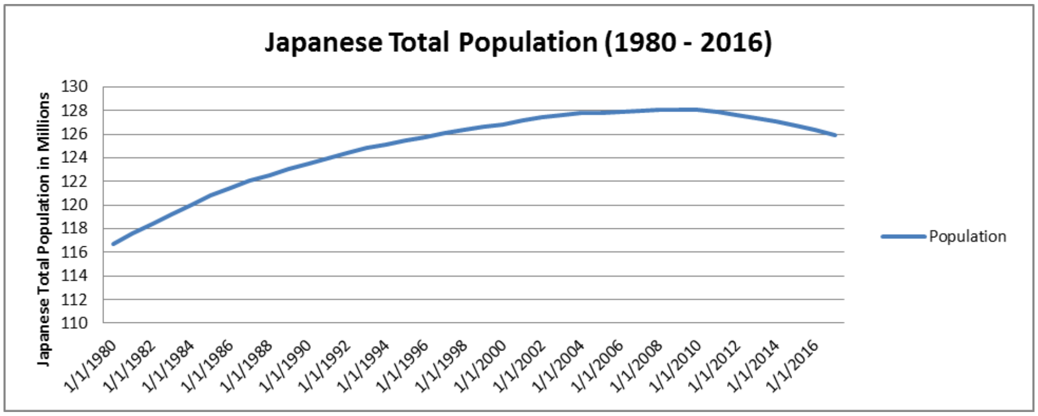


Source: Bridgewater Associates, LP, RPg Asset Management

The almost zero interest-rate-policy preserved fiscal survival and allowed the government to borrow without a meaningful increase in interest expense. However, interest rates have been at or near zero since 2001, and with no more room to cut; sovereign interest expense may have begun an irreversible upward trajectory.

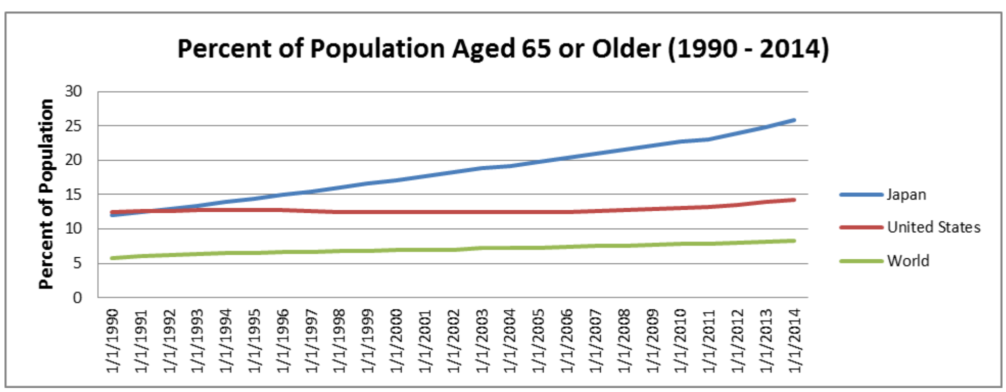
Almost all Japanese Government Bonds were bought by Japanese institutions and citizens, but as illustrated below, the population peaked in 2008 at just above 128 million and is now in a long-term secular decline.



Source: Bloomberg, RPg Asset Management

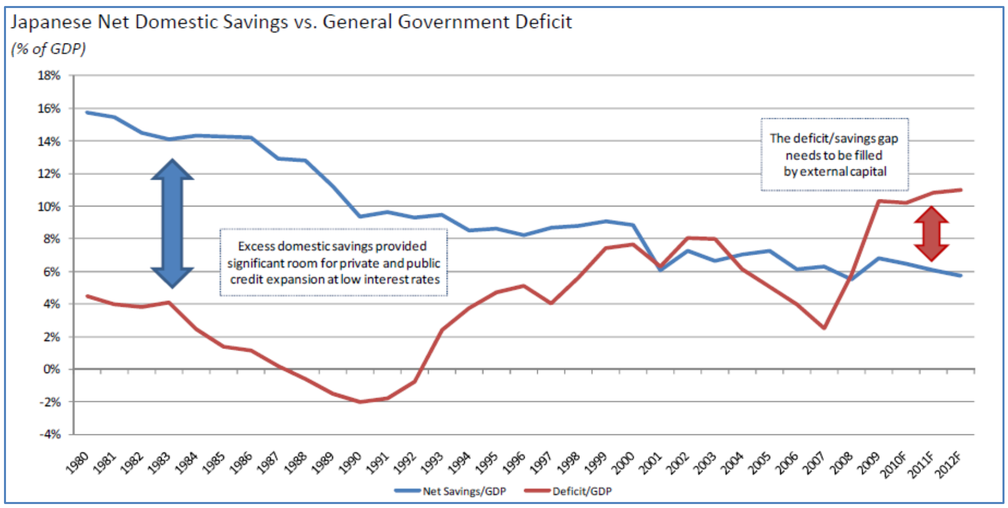
Funding Japan's debt domestically will be increasingly more difficult. The recent increase in deficits and decline in savings has already developed a funding gap into the foreseeable future.

What is perhaps more alarming than the decline in population is the composition of the population. 25% of Japan's population will soon surpass 65 years of age, nearly 2x that of the US and 3x that of the world. We expect that as Japan's citizen's age, they will be net spenders vs. net savers putting pressure on one of the buyers of JGBs. Also, the President of the all-important Government Pension Fund stated recently that they were going to review their holdings of JGBs, and consider additional allocation of capital to emerging market equities and other "alternatives". They currently are the largest holder at 67% of JGBs so any marginal shift from them could be important.



Source: Bloomberg, RPg Asset Management

We think funding Japan's debt domestically will be increasingly more difficult. The recent increase in deficits and decline in savings has already developed a funding gap into the foreseeable future. If Japan is no longer capable of funding its government deficits domestically, they will be forced to source funds from non-domestic capital markets at prevailing interest rates. This may put upward pressure on rates, thus increasing their interest expense necessary to cover the general JGB issuance. We think there is a real risk of economic contraction, where financial asset prices fall, debt is restructured, and austerity is imposed in Japan.



Source: IMF World Economic Outlook, Japan National Accounts, Hayman Capital Management, RPg Asset Management

We are not a global macro firm that makes clients profit from timing these secular changes. We simply point out to our clients the importance of having an explicit risk management methodology in place and that the process is systematic and repeatable.

We think it's prudent to consider the solution that focuses on risk management. Especially given all that's happening on sovereign balance sheets, as well as all of the unknown unknowns, risk management is paramount.

The current challenges that we see in the developed markets with significant sovereign debt/GDP ratios and their potential impact on asset prices has us asking the question on where do we deploy, allocate and invest hard-earned assets? If the choice is between an equity solution that employs a systematic, repeatable risk-management methodology designed to avoid bear markets and defend capital or an equity product designed to outperform a benchmark, we think it's prudent to consider the solution that focuses on risk management. Especially given all that's happening on sovereign balance sheets, as well as all of the unknown unknowns, risk management is paramount.

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