

CAMBRIDGE ASSOCIATES LLC

INVESTMENT PUBLICATIONS HIGHLIGHTS

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Investment Publications Highlights

Summarized by Published Research Team

"Reflections on the Sovereign Debt Crisis" by Edward Chancellor, GMO, July 2010

Today's sovereign debt crisis, which primarily involves developed world countries, is different than those in the past. This means that past outcomes, such as inflation or default, are not as straightforward this time around. Absent a strong economic recovery, politicians and central bankers will be required to make tough decisions. While the eventual outcome is unknown, the upside for bondholders at current yields appears to be very limited.

Government indebtedness in many countries is at the highest levels since the end of World War II. In the past, high levels of public debt have been associated with poor economic growth, and often lead to inflation or default. Today's sovereign debt crisis is different, however, as it is primarily a developed world problem. This introduces a high level of uncertainty as to how it will be cured, and absent a strong economic recovery, politicians and central bankers will be required to make tough decisions. While the eventual outcome is unknown, the upside for bondholders at current yields appears very limited.

It is difficult to make predictions about the future of government defaults, as there are no reliable leading indicators of public insolvency. For example, countries have often defaulted at levels far below the maximum 60% debt-to-GDP ratio prescribed by the Maastricht Treaty. Ratings agencies have worried about Japan's rise in gross government debt for years, yet at 230% (gross) of GDP, the country's interest rates on long-dated bonds are lower today than when Japan's debt was first downgraded in 1998. In contrast, Russia

defaulted in 1998 when government debt was only 12.5% of GDP. Today, despite the media spotlight, Greece does not even appear to have the worst fiscal problems.

While statistics are of little help in predicting defaults, past instances of default tended to occur in similar circumstances, which can be sorted into several groups. Some defaults occurred due to circumstances beyond a borrower's control, such as the drying up of foreign credit following an investment boom and bust, leaving a country unable to refinance or repay debts. Others occurred because countries borrowed excessively during a credit boom, which pushed their cost of borrowing well below rates that would have compensated investors for their risk of default. Defaults have also occurred due to political reasons, such as when a government was unable or unwilling to raise taxes or cut spending to repay debts. In general, though, when money has been spent wisely it is likely to be repaid. One important point is that past crises tended to involve emerging rather than developed economies. The current crisis is thus different in many respects and is more global in nature. Market dynamics are also complex; the notional value of sovereign derivatives outstanding is enormous, and private sector debts are also at unprecedented levels.

Deeply indebted countries have not always succumbed to inflation or default. In the case of Britain during the nineteenth century, strong economic growth improved the country's finances. In addition, since much of the debt was incurred fighting wars, spending was more easily reduced once hostilities ended. The debt was mainly held domestically and by bondholders well

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represented politically, reducing the government's ability to inflate or default. But Britain is not the only example; several other developed countries have accomplished similar feats. In recent examples, including Scandinavia and Canada in the 1990s, countries improved their finances through higher taxes and reduced spending, and were boosted by strong economic growth. Like Britain, the public debt of those countries was largely held domestically and was not denominated in a foreign currency. It is also not coincidental that these countries boasted excellent sovereign credit histories and stable political regimes.

Public finance is like a Ponzi scheme: as long as new creditors can be found to roll over existing loans and provide fresh funds, the debt juggernaut can continue. If capital markets remain open and the perception of a government's creditworthiness remains, there is no problem, and the cycle will continue. However, current fiscal deficits are not simply a result of the global financial crisis; they appear to be structural in nature. The largest structural deficits currently belong to the United Kingdom, United States, and Japan at 10%, 9%, and 7% of GDP, respectively. Complicating matters further, many developed countries' governments have large contingent liabilities that do not appear in official statistics. According to the Bank for International Settlements, without a substantial change in fiscal policy and age-related spending, ratios of debt-to-GDP will soon exceed 300% in Japan, 200% in the United Kingdom, and 150% in the United States.

For today's indebted sovereigns, past precedents in which debtor nations turned to inflation rather than default may be more relevant. Inflation is attractive politically, as reducing the value of the currency in which debt is repaid is the path of least resistance. Under a fiat monetary system, in which the government or central bank controls the money supply, inflation will always be preferred to default. The maintenance of a stable price level

is no longer the main priority of policymakers. Contemporary central bankers have gone to extreme lengths to avoid deflation, and quantitative easing is a monetary experiment fraught with danger. History has shown that all great inflations have originated with the monetization of debt, something the United States, the United Kingdom, and, recently, the European Union are all guilty of. The current crisis has been marked by private sector deleveraging and deflationary pressures, but it is clear that, at some point, central banks will have to reverse crisis policies.

When is a tipping point reached in the relationship between creditor and borrower? Japan may serve as a cautionary tale. Japan's high savings rate and large domestic financing of government debt have made its fiscal problems very local. As demographics worsen, Japan's household savings rate should decline, limiting the capacity of the Bank of Japan and commercial banks to acquire more bonds. The odds that Japan could soon face trouble following the global financial crisis are increasing. Most Japanese debt is relatively short term—the face value of the bonds that need to be rolled over in 2010 equals half of the country's GDP. The situation in Japan could be the first example of the sovereign crisis truly affecting a large, developed nation, regardless of the country's past success or failure dealing with debt crises.

The way for the developed world to get out of this debt crisis is unclear, and the past provides mixed examples of exits. This crisis is different from any case, as the scale and interconnectedness of the problem are substantial. What is certain is that the debt will weigh on growth in the near future. In the meantime, sovereign credit performance depends on many unknowns, including political will and the pace of economic growth. Current yields in most advanced economies are at very low levels and only under a Japan-style prolonged deflationary period would they offer any chance of a reasonable return. For most

other outcomes, long-dated government bonds offer limited upside with a potentially uncapped downside.

"Concerning the American Repudiation Gene" by James Grant, Grant's Interest Rate Observer, June 25, 2010

With yields so low, municipal bond investors appear somewhat complacent given a myriad of possible concerns surrounding the market (e.g., persistent fiscal deficits of local governments). One possible reason is the relative stability of the municipal bond market. Indeed, defaults on general-obligation bonds were virtually nonexistent in the past 40 years. However, the exemplary post–World War II record of the municipal bond market obscures a checkered history. Thus, risks for investors are to the downside, and should a well-known name unexpectedly default, it could trigger a serious disruption in the market.

Municipal bond investors appear somewhat complacent (e.g., yields remain quite low) given a myriad of possible concerns surrounding the market, including persistent fiscal deficits and huge post-retirement employee pension benefits. At least five major U.S. cities, for instance, have publicly considered filing for Chapter 9 bankruptcy protection. Meanwhile, several state constitutions, including Illinois and New York, make state pensions senior to bond debt.

One possible reason for investor complacency is the relative stability of the municipal bond market. Indeed, the volatility seen in stock, commodity, and even Treasury markets is much greater than that of municipal bonds. However, as in any market, past is prologue until, suddenly, it is not. Put differently, there is a significant danger that, should there be a sizable bankruptcy, investors may shift their thinking about the risk in the market. Given that there have been minimal defaults since the Great Depression, most buyers view munis as having no chance of default. The older, wealthier people who, by trend, disproportionately own municipal bonds think of them as having virtually no risk.

This is early similar to the late, great bull market in U.S. residential real estate and the AAA-rated mortgage tranches it collateralized. In 2005, there had not been a nationwide decline in housing prices in living memory, leading to the mentality that there could not possibly be one. It made no difference that collateralized debt obligations priced at par offered negligible upside but 100 points of downside. The analogy, however, only goes so far. For instance, the recovery on defaulted municipal bonds between 1970 and 2009 averaged 67 cents; however, for today's municipals, like yesteryear's mortgage-backed securities, the downside looms larger than the upside. For starters, there may be too many municipal bonds. Today's \$2.8 trillion of outstanding municipal debt amounts to 19.4% of GDP, a new high and up from 14.6% in 2000.

Yet municipal bondholders appear not to worry. Federal tax rates are more than likely to increase, and Chapter 9 is a costly and time-consuming procedure. Further, while defaults in the market as a whole are rare, those in general-obligation bonds are virtually nonexistent. Between 1970 and 2009, there were just 54 defaults of all types of municipal bonds rated by Moody's. With 60,000 rated issues in that time horizon, the average cumulative default rate after ten years of issuance amounted to just 0.09%.

However, the exemplary post–World War II record of the municipal bond market obscures a checkered history. Although the country and the banking system bear little resemblance to those in the second half of the nineteenth century, debtors and creditors of the 1870s had a moral compass

not much different than today's. Governments and counties lent their credit to railroads in the late 1860s and 1870s, just as they lent to the builders of sports stadiums in the 2000s. The Civil War, however, ravaged their debt-serving capacity. The Panic of 1873 brought on a depression, and many cities, states, and counties decided not to pay their debts. In the worst of the depression of the 1870s, 20% of the market was in default, compared to 11.1% at the bottom of the Great Depression. Further, once in default, a certain number of bonds remained so for years on end. If we seem less willing to default on a public debt, it may be because the Federal Reserve (which was not created until 1913) has pushed the temptation to do so into the future by way of its massive dollar printing.

Today, the fiscal condition of the states remains shaky despite the improvement in economic conditions. Indeed, the previous recession generated the steepest decline in state tax receipts on record. As a result, states continue to face large gaps, even after the deep spending cuts over the past two years. At least 46 states face shortfalls for fiscal year 2011 (which began on July 1 in most states). And without massive subsidies from the federal government, the states would be even deeper in the red. The 2009 stimulus package earmarked \$135 billion to \$140 billion for the states over two-and-a-half years, or 30% to 40% of projected shortfalls. But now it is very likely the assistance will stop before state budget gaps have abated. If more funds are not appointed for future assistance to the states, yields could face some upward pressure, as local governments are forced to find sources for additional revenue.

The current AAA yield, ranging from 2.7% to 3.8%, according to maturity, is not much higher than the one in place 60 years ago, but the market is much different. Back then, households owned just 27% of all tax-exempt debts, and commercial banks were the largest owner, at 40%. Presently,

however, commercial banks hold just 8% and households own two-thirds, divided between direct investments and mutual funds. If a well-known name were to unexpectedly default, it could set off a run for liquidity, given the change in ownership over the years. Tax-exempt mutual funds promise daily liquidity, similar to equity funds. However, the municipal market is comparatively illiquid. Indeed, it would be hard to turn great blocks of infrequently traded municipal bonds into cash if enough investors redeem shares.

At present, however, this appears to be a non-issue. Indeed, investors have been trying to get in rather than out of municipal bonds. Industry-wide, inflows rose by 5.3% in the first four months of 2010, following a 23% surge in 2009. Thus, it appears that the majority of investors see safety and soundness and will earn roughly 3.5% free of federal and (where applicable) state income tax. If they are wrong, nothing less is at risk than the peace of mind of the average well-to-do American given an unscripted crisis of state and local finance.

"U.S. State and Local Credit Risks Elevated, Conflated, Underappreciated" by Michael Zezas, Morgan Stanley, June 29, 2010

The municipal bond market has undergone significant technical and fundamental changes since the beginning of the credit crisis. The credit quality of state and local governments has declined, bond insurance has disappeared, and taxable Build America Bonds (BABs) have linked the market more closely to other global fixed income markets. Tax-exempt yields have remained stable in recent months, despite increased focus on weakening credit fundamentals, given strong technical support like reduced new issue supply and higher expected tax rates. Looking ahead, the relative strength of this technical support will continue to be important, given the unlikelihood of improved fundamentals in the near term.

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The global credit crisis kicked off a series of global economic events that ultimately resulted in a deep national recession, precipitating sharp declines in state tax revenues. States have long been accustomed to closing small budget gaps with temporary fixes, but this crisis has ushered in prolonged and substantial structural imbalances. Short-term measures that were sufficient in the past, such as payment deferrals, cash flow borrowing, and reserve drawdowns, are not proving scalable. Furthermore, the cumulative effect of such efforts is curtailing future financial flexibility. The nascent economic recovery has resulted in some increased revenues, but will be insufficient to correct fundamental imbalances, such as unfunded retirement commitments. This will require difficult political choices, and thus is fraught with execution risk.

Local governments have fared better than their state counterparts to date, though this is likely to change. Local governments are heavily reliant on property taxes, and this source of revenue may become strained over time, as real estate values drop and foreclosures rise. Further, since 2000, the ratio of GDP-to-property tax revenues has declined, while aid from states to local governments has increased. With both of these sources under

pressure, local governments also will have difficult choices to make.

Despite this worsening outlook for state and local finances, comparisons with other challenged markets, such of those of peripheral European sovereign debt, come up short. First, state debt is substantially lower than that of European sovereigns, with many states having cumulative debt of less than 10% of GDP. Second, state budget deficits of 2% or less of GDP are also very manageable. States also tend to have much smoother debt maturity profiles, meaning they are less susceptible to refinancing risks. Finally, the cost of servicing debt principal and interest payments is far lower for states than European countries.

While strains on local finances are increasing, there is little to suggest that a wave of municipal defaults is looming. Issuers face significant legal and institutional hurdles to try to use default or bankruptcy to reduce debt burdens. For example, most states will limit the ability of local issuers to even access bankruptcy courts unless they have gone through arbitration to try to find alternative solutions. Further, historical default rates are very low, so even a meaningful increase in defaults would not translate into a systemic problem. According to Moody's, the historical default rate for all municipal bonds was 0.09% between 1970 and 2009. Finally, aside from some highly publicized credits, municipalities as a group have actually done fairly well in keeping reserves and debt burdens level.

Despite these fundamentals, spreads between taxexempt and taxable municipal bonds have been moving in opposite directions in recent weeks. Tax-exempt spreads have returned to their post-2008 means and remain well below 2009 highs. In the taxable BAB market, however, spreads have increased over the past month, due to worries about fundamentals and in sympathy with wider spreads in global markets, such as those for peripheral European debt. This lack of cohesion suggests a potential danger for the tax-exempt market. If the increased supply of taxable bonds has kept tax-exempt yields low, any volatility in that market may have contagion effects. In the meantime, headline risks about current budget deficits and future unfunded obligations should be placed in context, but will continue to weigh on sentiment.

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