TD Bank Financial Group

Special Report

TD Economics
www.td.com/economics

October 27, 2010

THE NIFTY-FIFTY NO MORE: AN INDEPTH LOOK AT STATE FISCAL FINANCES

HIGHLIGHTS

- The Great Recession left a great hole in state finances. The TD State Vulnerability Index marked Illinois as the most financially vulnerable, followed by New Jersey and Rhode Island.
- States are not expected to default on debt, provided the economy continues to expand as expected. The struggle with budget gaps is expected to persist for the next 3-to-4 years. Closing budget gaps will continue to shave GDP by roughly 0.2 percentage points each year.
- But budget gaps are only one part of the problem and will ultimately right themselves alongside an improving job market
- The same cannot be said for long-term liabilities, which have been the true casualty of the recession and budget wars
- Illinois, Kansas, Oklahoma, Rhode Island and Connecticut are the worst 5 ugly ducklings on pension funding shortfalls.
- The solutions to long-term liability are more difficult, and could place these states in a lower competitive position, with lower GDP growth in the long term.

Craig Alexander
SVP & Chief Economist
416-982-8064

Beata Caranci
AVP & Deputy Chief Economist
416-982-8067

Christos Shiamptanis
Economist
416-982-2556

The Great Recession has left a great hole in the finances of state budgets. In spite of the extraordinary measures taken by many states to cut expenditures, the lagging nature of tax revenues coupled with the slow economic recovery means that many will continue to face budget shortfalls for another 3-to-4 more years. However, as long as the job market continues along the road to recovery, even at a painfully slow pace, state budget gaps will self correct and eventually cease to be a problem.

The same cannot be said for what has been left in its wake – heavily underfunded long-term liabilities. In particular, pension plans and health care liabilities became the 'Sophie's Choice' of the recession, with many state governments pressured to divert new contributions away from these plans in order to address the near-and-present risk of budget shortfalls. The situation was made worse by the poor market performance which caused investment returns to grossly underperform projections embedded in the plans. By some estimates, more than half of state pension programs will run out of money by 2028.[1] Long-term liability shortfalls pose a future risk to America, as legislative and contract restrictions make it very difficult for state governments to rein in expenditures or make funding adjustments. The task of closing the funding gaps will force a number of state governments to critically look at limited options that essentially boil down to some degree of reform within the plans themselves and/or changes to the state tax system. In addition, states with the greatest funding shortfalls are at risk of being in a lower competitive position relative to neighboring states, which, in turn, could dampen economic growth on a long-term basis.

STATE FISCAL HEALTH

High Vulnerability
Low Vulnerability

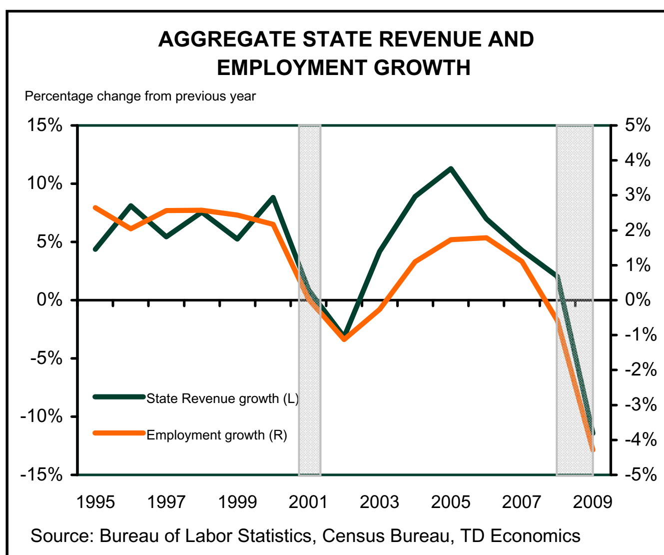
Source: TD Economics, Economy.com

To evaluate the vulnerability of states, we developed the TD State Vulnerability Index for both the near-term cyclical and long-term structural financing needs of each state. Aggregating the indicators, we find Illinois to be the most financially vulnerable state, followed by New Jersey and Rhode Island. We will now walk through the fiscal challenges and how states ranked on our vulnerability index.

TD State Vulnerability Index

The mix of cyclical and long-term challenges differ greatly among US states, as does the depth of the problem within each of these categories. These two components of near- and long-term challenges are not independent events. The worse the cyclical impact on a state, in terms of large budget gaps and high unemployment rates, the more likely a state is to defer or under-contribute into pension and health plans, thereby exacerbating long-term issues that leave a state more financially vulnerable. So, in order to provide a single, comprehensive perspective of financial risks, we developed the TD State Vulnerability Index that ranks the states from worst (1) to best (50). In other words, this is a top-10 list you do not want to be on.

Included among the cyclical (or near-term) measures are budget gaps, the gap in unemployment rates from trend rates, tax revenue growth rates and whether a legislative supermajority is needed to pass a budget or change taxes. Looking at each one of these in turn, budget gaps capture the misalignment between expenditures and revenues, giving us an indication of the degree to which a state may need to cut spending and/or raise taxes. This, in turn, acts as an additional drag on an already weak economic recovery. The unemployment rate and tax revenue patterns are closely intertwined as the former is a leading indicator for the latter. Once tax revenue growth is impeded, state governments must then consider adjustments to expenditures and/or use reserve funds to balance budgets. Finally, the supermajority criterion is included to gauge the flexibility and speed at which a state can adjust revenues and expenditures when budget funding is deteriorating. While supermajority conditions can certainly help restrain expenditures during good times, they can obstruct or slow needed adjustments during periods of revenue deterioration.



10 Most Vulnerable States

Rank	State	TD Index
1	Illinois	93.4
2	New Jersey	84.4
3	Rhode Island	83.2
4	Nevada	82.8
5	Connecticut	81.0
6	South Carolina	76.7
7	Kentucky	75.3
8	Massachusetts	73.4
9	Hawaii	70.4
10	California	70.3

Source: TD Economics

The long-term challenges faced by states are captured in the TD State Vulnerability Index via unfunded retirement liabilities, debt levels and bond ratings. Unfunded retirement liabilities are included to capture ever growing imbalances between a state's retirement assets and liabilities. On-balance sheet debt is also key in revealing the actual (or current) level of indebtedness for each state, and thus interest and rollover payment obligations. Finally, bond ratings are included to gauge the cost of borrowing. States with low ratings naturally pay higher interest rates for debt, which in turn, accelerates debt accumulation.

Putting the short-term and long-term issues together reveals that Illinois topped the TD State Vulnerability Index for having the worst financial position, followed by New Jersey. Illinois captured this unenviable position with the largest unfunded pension liability coupled with one of the largest budget gaps in the country. In 2008, the five pension systems in Illinois had only 54% of the necessary assets on hand to meet their long-term obligations. Meanwhile, the 2010 budget gap was the fourth largest in the country at 44% of the total budget, and Illinois is expected to have the second largest gap in 2011. Similar factors exist for New Jersey. In 2008, New Jersey had the highest retiree health care liability of $68.9 billion alongside a 2010 budget gap of 40% – the fifth largest in the country – which is expected to narrow in 2011, but still rank as the third largest gap that year.

In contrast, according to our vulnerability index, the states with the least financial woes are South Dakota and North Dakota. South Dakota has one of the best funded pension programs at 97% of the needed assets, whereas North

Dakota weathered the near-term cyclical challenges with flying colors. In 2010, North Dakota was one of only two states that did not have a budget gap and it is not expected to have one in 2011. Also, second quarter data indicate that North Dakota is the only state in which tax revenues have already returned to, and exceeded, pre-recession levels.

Near-term cyclical issues

If we recalculate the TD State Vulnerability Index with an eye towards only the cyclical challenges, the rankings shift. Six of the ten states on the overall index remain on the near-term top-10 list, but South Carolina, Kentucky, Massachusetts and Hawaii drop out. Taking their place are Arizona, Florida, Georgia and Maine.

Half of the states on this list have legislative supermajority conditions (Nevada, Arizona, California, Florida and Rhode Island). California offers a good example of how a supermajority condition can obstruct needed changes when economic conditions deteriorate. According to the Federal Reserve Bank of San Francisco, in fiscal year 2009, California had a budget gap of 37% as a share of its total budget, while Oregon recorded a 7% gap. If per capita expenditures had been held constant at their 2007 levels as revenues declined, California and Oregon would have ended up with roughly the same budget gaps of 20% in 2009. However, this did not occur because Oregon enacted some important tax increases, reduced expenditure growth and used its rainy day funds very early in the economic downturn. In contrast, California could only enact limited tax increases and barely slowed expenditure growth – the impact of which was made worse by the fact that the state had nothing in its rainy day fund prior to the Great Recession. California's limited policy response reflected institutional constraints on the lawmakers ability to change fiscal policy. Tax increases in California must be approved by a 2/3 majority of the legislator. Meanwhile, voter propositions seriously limited the legislator's ability to restrain spending growth in many areas.[2] However, the supermajority condition is not an automatic excuse for larger budget gaps, as South Dakota and Arkansas also have the condition and yet managed to post one of the best rankings on the near-term vulnerability index. (Full state rankings are provided in the appendix)

States on our top ten list were certainly not alone in the battle of financing budget gaps – expenditures greater than revenues – which by law must be closed in relatively short order. The Great Recession left a great hole in the finances of all states, such that in fiscal year 2009 (July 1, 2008 – June 30, 2009 for most states), 45 states had a budget gap, and by 2010 this had risen to 48 states. In aggregate, budget gaps reached $110 billion in 2009, and grew to $191 billion

10 Most Vulnerable States (Based only on near-term indicators)

Rank	State	TD Index
1	Nevada	100.0
2	Arizona	98.9
3	Illinois	83.4
4	California	78.9
5	New Jersey	77.6
6	Connecticut	65.7
7	Florida	63.5
8	Georgia	62.3
9	Maine	60.0
10	Rhode Island	59.9

Source: TD Economics

10 Highest Unemployment Rate* Deviations from the Trend

Rank	State	%
1	Nevada	9.6
2	Michigan	7.4
3	Florida	7.3
4	Rhode Island	6.5
5	California	6.4
6	Indiana	5.9
7	South Carolina	5.6
8	Georgia	5.5
9	Ohio	4.9
10	Arizona	4.9

* September 2010

Source: Bureau of Labor Statistics, TD Economics

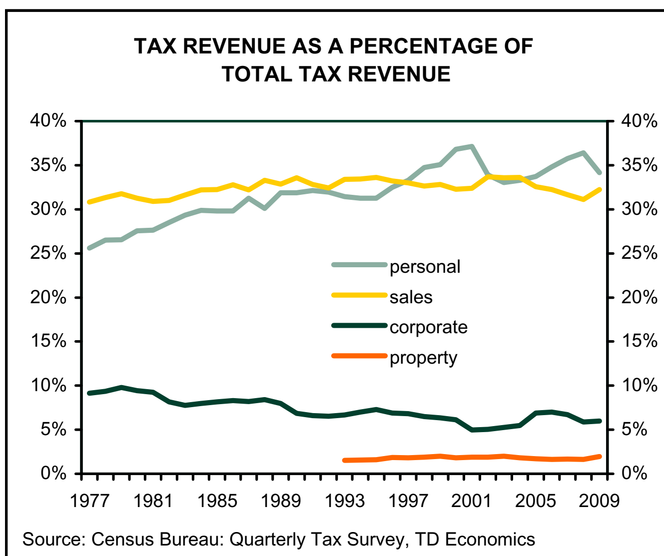
What is North Dakota's Secret?

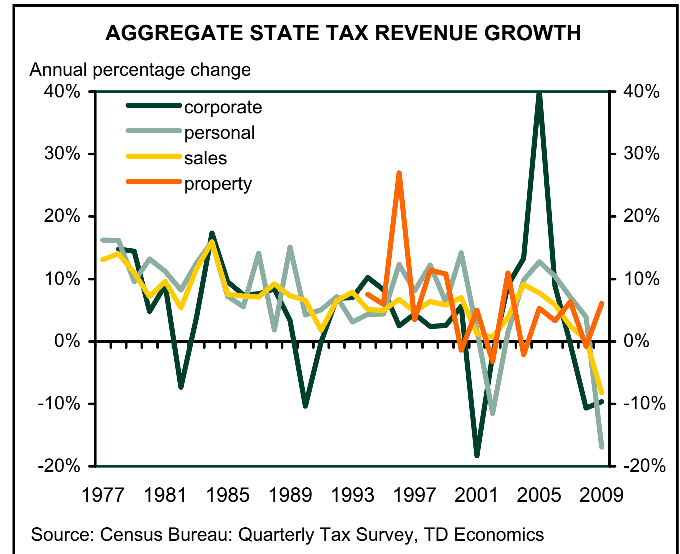
The recession almost missed North Dakota. Unemployment rate peaked at 4.4% in August 2009, but recent job gains fully offset the small number of job losses seen during the recession. Currently, North Dakota maintains the lowest unemployment rate nationally at 3.7%, which is almost 6 percentage points below the national average. The housing market in North Dakota was resistant to the economic downturn. While housing prices were falling around the country, they edged up in North Dakota. The state's dependence on natural resources like agriculture and energy proved to be the main reasons that North Dakota did not tip into a deep recession. On the revenue side, North Dakota's tax base depends more on sales and sales-like taxes. General sales taxes account for 26% of its tax base and motor vehicles excise taxes which are very similar to sales taxes accounts for another 10%.

in 2010 – the largest gap on record. Federal funds from the American Recovery and Reinvestment Act (ARRA) are estimated to have helped states close roughly one-third of their total budget gaps in both fiscal years. However, to close the remaining gaps, painful choices are being made. Among other things, states have reduced health care benefits, cut child care and afterschool assistance programs, laid off state employees, reduced payments to retirement funds, cancelled contracts with vendors, increased tuition fees, implemented furlough days, and raised taxes.

A collapse in revenues was the main culprit behind budget deterioration. State revenues depend heavily on employment growth and during the recession, unemployment rates soared by a record 5.7 percentage points across the US, with many states like Nevada and Michigan, seeing even greater deterioration. The loss in workers left states with less revenue from personal income and sales taxes, while revenues generated from corporate income taxes fell in lockstep with falling profits. In 2009, state personal income tax revenue declined by 17%, corporate income tax revenue sank by 10% and general sales tax revenue slumped by 8%.

In spite of the collapse in home prices, aggregate property tax revenues actually increased by 8%, which some might find counterintuitive. Property taxes have been resilient for predominately two reasons. First, the home assessment values used to calculate property taxes lag home market values. It takes approximately three years for property taxes to reflect changes in housing prices. Second, many states have legislative limits on the assessment value of a home. Once again taking California as an example, the median price of a home was $233,000 in 2000. This had appreciated to $482,000 by 2007 (an average of 11% per year). However,





California has an assessment growth limit of 2% per year, which in turn implies that the taxable assessment value of the home in 2007 was only $267,600. So when the house market collapsed and the market value of the home fell to $277,000 in 2009, homeowners did not enjoy a property tax reduction because the average home was still over the assessed value. Even when home prices are falling, policymakers can still raise property tax rates. While California has the lowest assessment growth limit, there are 19 other states, including Florida, Oregon, New Mexico, and South Carolina, that have some type of an assessment limit.

In spite of the resiliency of property taxes, they are not a key source of revenue for most states and thus did little to prevent budget gaps from emerging. In aggregate, they generated only 2% of all state revenue in 2009. However, in Vermont where property taxes account for almost 40% of the tax revenue base, the state's total revenue experienced the smallest declined.

Pick your poison on tax structure

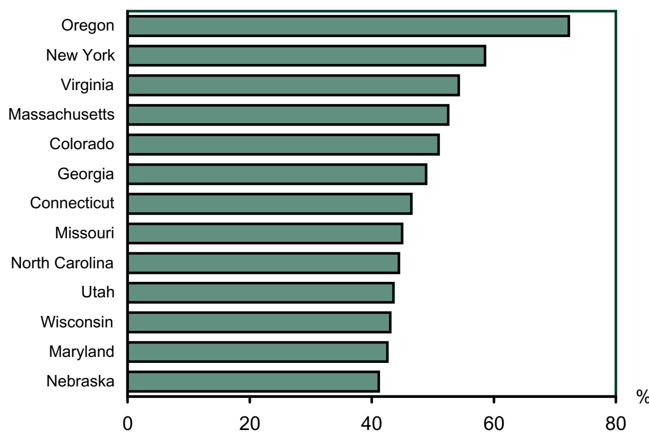
The two major sources of state revenues are personal income taxes and sales taxes, which together generated 66% of all state revenue in 2009. However, states rely on these revenue streams to varying degrees. In 2009, personal income tax revenue as a share of total tax revenue ranged from 0% in Nevada to 70% in Oregon. Similarly, sales tax revenue as a share of total tax revenue ranged from 0% in Delaware to 60% in Washington.

The choice of tax structure within a state could exacerbate the rate at which revenues deteriorate during an economic downturn. Within the mix of the various revenue streams, tax revenues from personal and corporate incomes

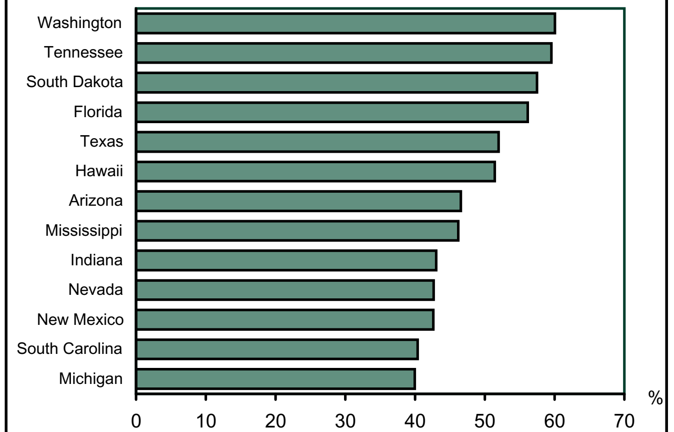
Do all states collect all type of taxes?

There are some states that do not rely on either personal income tax or corporate income tax or sales tax. In particular, there are five states, Alaska, Delaware, Montana, New Hampshire and Oregon that do not collect sales taxes. There are four states, Nevada, Texas, Washington and Wyoming that do not collect corporate income taxes. Although Texas does not have a corporate income tax, it imposes a tax on corporate gross receipts as opposed to profits. Also, there are seven states, Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming, which do not collect personal income taxes. In addition to the seven states, New Hampshire and Tennessee do not tax wages or salaries, but they do tax dividend and interest income.

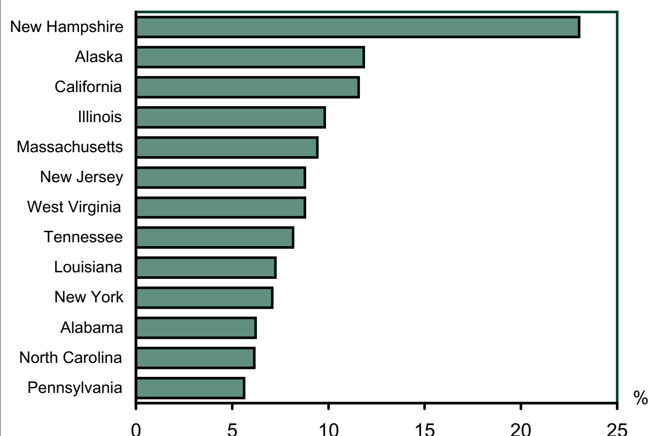
Texas and Washington have neither corporate nor personal income taxes, their sales taxes account for more than half of their total tax revenue. Alaska has neither sales nor personal income taxes, and depends a lot on petroleum taxes, whereas New Hampshire relies heavily on corporate and property taxes.



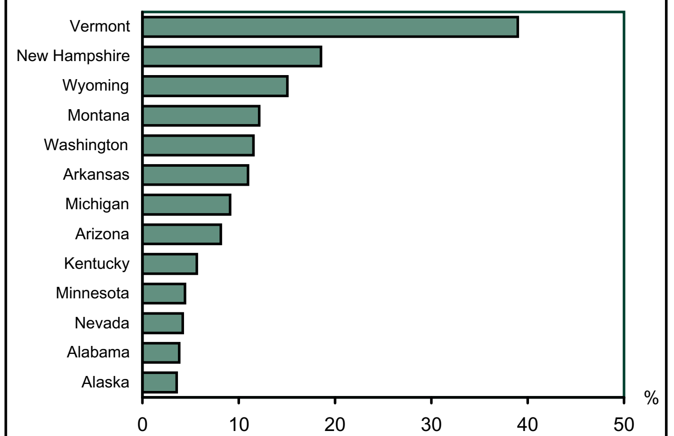
Source: Census Bureau: Quarterly Tax Survey, TD Economics



Source: Census Bureau: Quarterly Tax Survey, TD Economics



Source: Census Bureau: Quarterly Tax Survey, TD Economics

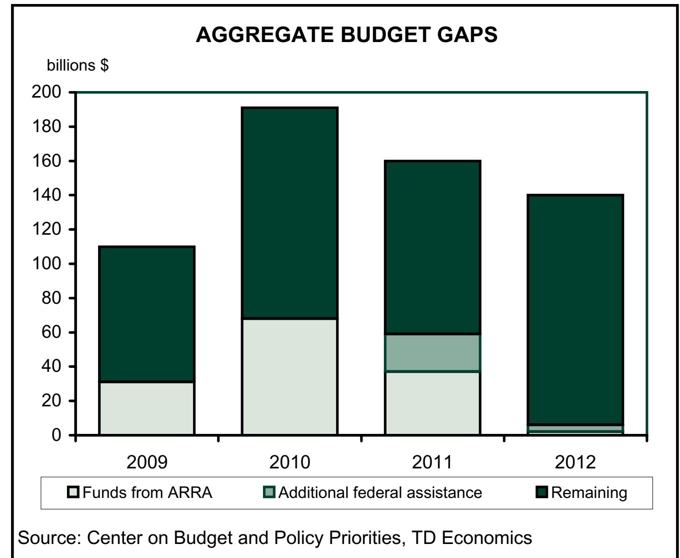


Source: Census Bureau: Quarterly Tax Survey, TD Economics

are more sensitive to economic cycles than sales taxes. That is, personal and corporate income revenues tend to fall more during recessions. We find that a 1 percentage point decrease in employment growth, on average, decreases corporate income tax revenue growth by 3.0 percentage points, personal income tax revenue growth by 2.6 percentage points and sales income tax revenue growth by 1.7 percentage points. Thus, state finances in Oregon and New York, which depend heavily on personal income taxes, and state finances in New Hampshire and Alaska, which depend heavily on corporate income taxes, are more vulnerable during periods of economic downturns than other states.

Among the worst 10 state rankings within our Near-Term TD State Vulnerability Index, 7 states have higher-than-average reliance on personal or corporate taxes. Between the two tax revenue measures, a heavy reliance on personal income taxes in this cycle presents a particular challenge. More than 8 million jobs were lost during the recession, and the job market recovery has been painfully slow. We do not anticipate that the US economy will recoup all the jobs lost until the end of 2013, meaning that while income tax revenues were swift to deteriorate, it will be a long road to return to pre-recession levels.

The good news is that there are some built-in relief valves on the expenditure front related to the natural forces of the business cycle that will reduce expenditure pressures as employment recovers. For instance, during the recession, rising unemployment increased spending on unemployment benefits and assistance to low-income families. Moreover, when workers lost their jobs, they also lost the health care coverage provided by their employer, which then resulted in a 6.0% increase in Medicaid enrollment in 2009. As employment recovers, these expenditure pressures will dissipate. Nevertheless, fiscal discipline will have to remain the order of the day as budget gaps persist for 3-to-4 more years. Overall expenditures grew by 2.9% in 2009 even though states significantly cut back discretionary spending in areas of elementary and secondary education, Medicaid, higher education, corrections, public assistance, transportation and other areas. As the economy recovers, there may be growing public cries to reverse some of these expenditure cuts, which could make it politically unpopular to remain steadfast towards fiscal discipline.



Source: Center on Budget and Policy Priorities, TD Economics

The sting of budget gaps to linger

The struggle with budget gaps is expected to persist for several years, even though the US economy will steadily expand throughout this period. In general, state revenue growth lags real GDP growth. The post-2001 recession cycle provides a good guide for what states may be up against in the coming years. That cycle was also marked by an excruciatingly slow job market recovery. From when the recession was declared officially over, it took two-and-a-half years for aggregate state revenues to return to pre-recession

Budget Shortfalls as a % of budget

2010				2011		
Rank	State	%		Rank	State	%
1	Arizona	65.0		1	Nevada	54.0
2	California	52.8		2	Illinois	41.5
3	Nevada	46.8		3	New Jersey	38.3
4	Illinois	43.7		4	Arizona	36.6
5	New Jersey	40.0		5	Maine	34.7
6	New York	38.8		6	North Carolina	30.3
7	Rhode Island	34.8		7	Vermont	30.2
8	Kansas	33.9		8	Connecticut	28.9
9	Alaska	28.9		9	Georgia	26.2
10	Georgia	28.8		10	Minnesota	26.0

Source: Center on Budget and Policy Priorities, TD Economics

Why do States have to close their gaps now?

Unlike the federal government, all states except Vermont are legally required to balance their budgets – revenue should equal expenditure. However, this requirement mainly refers to the operating budgets and not the capital budgets. The operating budgets include recurring annual expenditures on health care, education, welfare, wages and support to the local governments; whereas the capital budgets include expenditures for highways, local roads and public buildings. This requirement is designed to prevent states from borrowing to cover their current operating budgets or carrying deficits into the next year. It provides discipline and prevents states from building up long-term debt burdens. Therefore, under this requirement, states are forced to cover the current operating costs in the current fiscal year. On the other hand, the costs of infrastructure can be spread over generations because future generations will also benefit from it. Therefore, when it comes to capital expenditure, states borrow money by issuing long-term bonds.

levels. States continued to struggle to close budget gaps well into 2005 – four years after the recession ended.

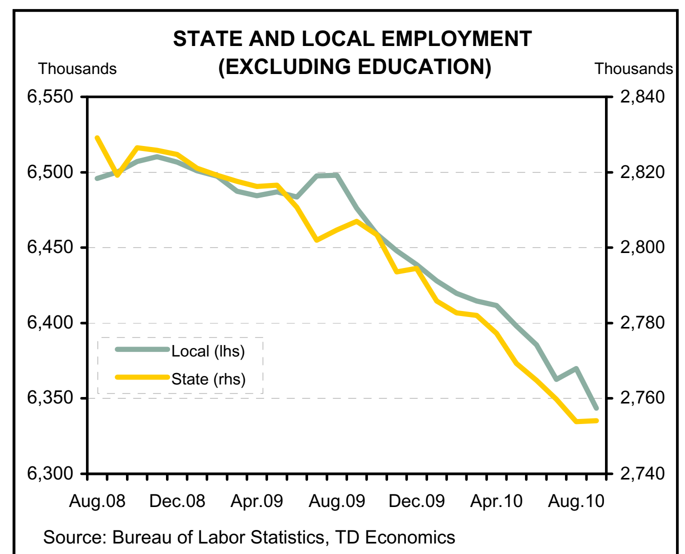
Estimates for this cycle by the Center on Budget and Policy Priorities (CBPP) show budget gaps across all states of $160 billion in 2011, followed by an additional $140 billion in 2012. Although CBPP does not provide estimates beyond 2012, we are willing to bet that budget gaps will persist beyond that period based on the slow job recovery and the fact that synchronized financial-induced recessions tend to see recoveries that proceed at roughly half the pace of non-financial recessions.[3] What's more, it is uncertain whether further federal funding will be made available to help bridge financing gaps beyond 2012, especially given that the Federal government has its own fiscal troubles to deal with. ARRA spending is estimated to help close 23% of the total budget gaps in 2011. Additional federal aid passed in August 2010 will extend a further $26 billion to the states which will help close another 14% of the total budget gap in the fiscal year 2011. However, that leaves $101 billion still unaccounted.

The knock-on effects of funding gaps

Closing these gaps will adversely impact economic growth and employment. We find that spending cuts and tax increases undertaken to close the budget gaps shaved roughly 0.2 percentage points off real GDP growth in each year of 2009 and 2010, and it will continue to shave GDP growth over the next 2 years by roughly the equivalent amount. The impact on the economy is particularly noticeable on the job front. Since the peak in August 2008, a total of 63,000 state jobs have been lost. Excluding the education sector, which had job gains over the recession period, state payrolls contracted by 75,000. However, the greater casualty of the state-budget war has been local governments. Prior to the recession, on average, 30% of the local government revenues came from intergovernmental transfers. Payrolls at local governments have been scaled back by 353,000 positions since the recession took hold, and while jobs in local governments are roughly three times the amount of those at the state level, this still amounts to more than twice the percentage decline of that seen at the state level. Unfortunately, we do not think the bleeding in jobs at the state and local levels is done yet. It's possible we will see substantially more cuts over the next two years.

Light at the end of the tunnel

Up until now the tone has been rather dire, but there is one crucial point that we hinted at above that needs to be reinforced – a cyclically driven deterioration in state budgets ultimately self-corrects. As long as employment improves – and thus by extension incomes, profits and sales – tax revenues will rebound. And, there is preliminary evidence that this process is already underway. In aggregate, total tax revenue in the second quarter of 2010 was up 0.9% on a year-over-year basis. Sales tax revenue rose by 4.9%, which indicates more people are spending. On a state level, 32 states reported increases in total tax revenue, compared to 17 in the previous quarter. This list should continue to broaden with every additional quarter of economic growth. However, the road ahead to budget repair is long, as total revenues



Source: Bureau of Labor Statistics, TD Economics

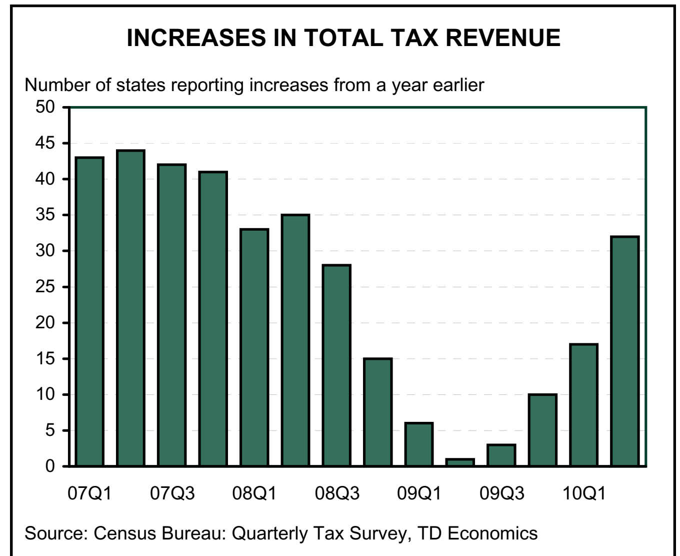
The Last Default – Arkansas 1933

The last state to default on its debt was Arkansas during the Great Depression. Like most defaults, the lead up to this event started years earlier. In 1927, the state took over the task of building highways from local authorities because locals were building more roads than they could afford, which then ballooned the state's debt. Debt accumulation was exacerbated even more by the severe flood in 1927, the stock market crash in 1929 and the Great Depression. Arkansas piled up so much debt that the debt service was bigger than the state's total budget. Eventually, the state could not keep up with its payments and in 1933 defaulted on its bonds. With the federal government's help and the introduction of a new sales tax, Arkansas dug itself out of the economic hole and eventually paid all its creditors in full.

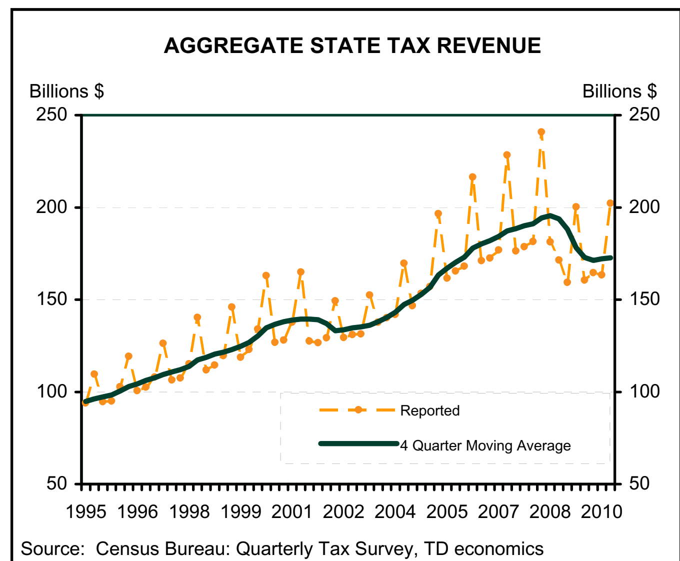
Looking ahead, we do not expect any state to default. For one, the economic backdrop is one in which state revenues from personal income, corporate income and sales taxes will continue to improve – which alleviates most of the budget gap pressures. Second, the federal government will most likely provide a helping hand to the states on the brink of default to prevent contagion risks. Finally, under the provisions of the US constitution, states cannot file for bankruptcy and debt service is covered by statutory provisions. This in turn implies that general obligation bond holders can sue the state for failing to repay them. Although outright default on a state's bonds is highly unlikely, states can still do debt restructuring or delay debt payments. But according to major rating agencies, debt restructuring and delaying debt payments are forms of default. Although we do not anticipate any state to default on its debt, some local municipalities – like counties, cities, school districts, government hospitals and housing developers – can default and, depending on the state, file for bankruptcy. If this were to occur, it would likely be limited.

are still 19% below the peak in the second quarter of 2008.

When we look at the various dynamics of state budgets, we are not overly concerned about the near-term aspects of state financing, unless a double dip recession ensues. Likewise, the odds of a state defaulting on debt are steadily decreasing, unless the US economy contracts again. But, while a cyclical deficit will self-correct over time, what is left in its wake is of great concern. When the economy returns to more "normal" activity and budget gaps disappear, long-term state fiscal problems will remain. With states having been forced to immediately deal with closing budget gaps, they have effectively traded the present for the future, as large long-term funding shortfalls have emerged. Once the budget gaps cease to be a problem, the challenge will be for a growing number of states to get their houses in order when it comes to pension and retiree health benefits. Balancing budgets in the future will include some combination of siphoning off a greater share of existing revenues to fill the gaping hole on long-term liability obligations, while also making some concessions for these programs that could result in raising taxes and/or altering the benefit programs. By extension, states that will need to backfill the largest amounts of underfunded liabilities – such as Illinois, Kentucky, Rhode Island, Massachusetts and Connecticut – are most at risk of having less funding or room to maneuver in other areas, like wages, education and infrastructure. Ultimately, this could put these states in a less competitive position with other states and result in lower rates of economic growth.



Source: Census Bureau: Quarterly Tax Survey, TD Economics



Source: Census Bureau: Quarterly Tax Survey, TD economics

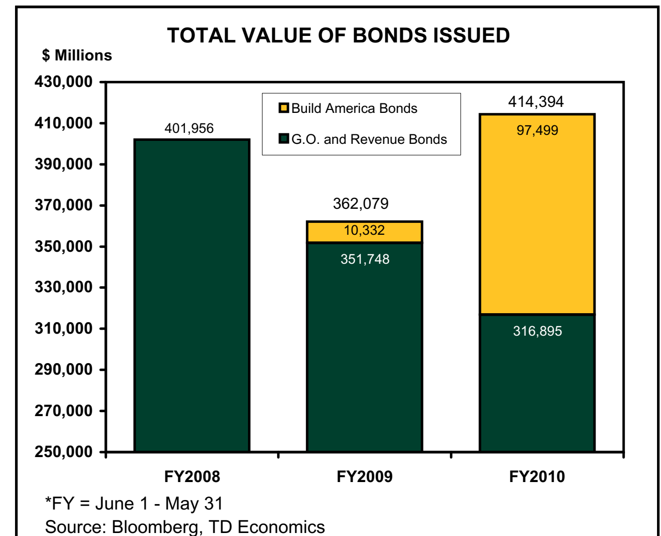
The elephant in the room: long-term liabilities

So, how a state addresses the funding shortages on liabilities matters, but that approach will depend on the type of liability obligations at hand. Looking at the latter first, states have two types of debt, (a) on-balance sheet debt reflecting bond issuances to fund capital investment and (b) off-balance sheet debt that represents unfunded retirement liabilities.

In terms of on-balance sheet debt, on average, this grew from 6% of Gross State Product (GSP) in 2000 to 17% of GSP in 2008, with Massachusetts, Kentucky and Rhode Island topping the list with 25.4%, 24.5% and 24.1%, respectively. Data on debt is only available to 2008, but it looks to have increased since then. In particular, the ARRA in 2009 and 2010 provided incentives that encouraged states to take on more debt through Build America Bonds. Under the program, states incur lower financing costs because the federal government pays 35% of the interest payments. In aggregate, states issued $414 billion bonds in fiscal year 2010 up from the $362 billion bonds (+14%) in fiscal year 2009. The Build America bonds now constitute 23.5% of total state bond issuances. However, this debt does not necessarily constitute a negative development, especially if substituted for a more expensive funding source, as it is typically directed towards productive uses that support long-term economic growth and provide services to future generations – i.e. infrastructure, schools, roads, bridges, water and sewer treatment plants, hospitals, courthouses, environmental and energy projects.

The second source of government obligations is state retirement benefits and this is the real elephant in the room. State retirement benefits are made up of two key components: pensions and retiree health care benefits. In the past decade, pension programs have seen growth in liabilities sharply outpace the assets needed to fund them, such that in aggregate, the pension asset-to-liability ratio has declined from 103% in 2000 to 84% in 2008 – though this still remains above the 80% benchmark that the U.S. Government Accountability Office and many public sector experts view as acceptable to meet future costs. However, funding levels vary widely across states. In 2008, only three states – Florida, New York and Washington – had more than 100% funding levels. Unfortunately there were 22 states with funding levels below the 80% benchmark, with Illinois in the worst shape at only 54% of the needed assets. Illinois has consistently failed to make the necessary contributions towards its pension plans.

For the majority of the states, however, the recent recession does not get all the blame for the gaping funding holes that now exist. Underfunded pensions were a budding prob-



*FY = June 1 - May 31
Source: Bloomberg, TD Economics

10 Highest On-Balance Sheet Debts*

Rank	State	% of GSP
1	Massachusetts	25.4
2	Kentucky	24.5
3	Rhode Island	24.1
4	New York	23.6
5	South Carolina	23.4
6	Pennsylvania	21.4
7	Alaska	20.8
8	Colorado	20.1
9	Washington	20.0
10	Michigan	19.7

* FY 2008 State and Local Government Debt
Source: US Census Bureau, TD Economics

10 Lowest State Pension Funding Levels*

Rank	State	%
1	Illinois	54.3
2	Kansas	58.8
3	Oklahoma	60.7
4	Rhode Island	61.1
5	Connecticut	61.6
6	Massachusetts	63.0
7	West Virginia	63.6
8	Kentucky	63.8
9	New Hampshire	67.8
10	Hawaii	68.8

* FY 2008. Funding levels indicate the % of assets relative to liabilities
Source: The Pew Center on the States, TD Economics

lem earlier in the decade, exacerbated by the 2001 recession. The value of many plan assets was reduced due to a combination of under contribution at that time alongside lower rates of returns on the existing asset base, as stock markets plummeted and interest rates were driven sharply lower. However, as we mentioned earlier, it was not until 2005 that revenue and expenditure growth re-aligned and short-term funding gaps ceased to be a problem. Unfortunately, that did not leave much time for states to work on backfilling shortfalls in long-term obligations before the 2008 recession struck, which caused the worse deterioration in revenues on record. This compressed business cycle certainly left states that were already on the margin worse for wear. The end result was almost a decade of under-contributions for an increasing number of states.

Although we only have access to aggregate data up until 2008 for state retirement benefits, we can be sure that funding levels worsened for many states because they were focused on closing budget gaps instead of contributing to pension programs. Moreover, most pension funds would have experienced large investment losses. In 2008, state pension plans experienced a median 25% decline in their investments. Data for the fiscal year 2009 indicates that investment losses continued, with the S&P500 having retreated 31%. For instance, in Illinois, 88% of the decrease in the pension's 2009 net assets was due to investment losses and the remaining due to under-contribution. Similarly, the decrease in net assets due to investment losses was 77% in New Jersey and 66% in Connecticut.

The degree of under contribution and under performance in asset returns is making many wonder what will be left for future retiree generations if immediate action is not taken to shore up funding. One study showed that most states assume an aggressive rate of return (RoR) on pension fund assets of 8%. As a result, more than half of the state pension programs will run out of money by 2028.[1] The 8% RoR assumption is artificially inflating asset growth projections considering that the average annual return on the S&P500 index between 2001 and 2009 was -3%, while 10 year Treasury bonds yielded a mere 4.3%. If average asset returns are projected to be only 6%, states funds are still predicted to be depleted by 2024. This means that most of the growth in pension funds will have to come from greater contributions, because it is unlikely investment returns will do the heavy lifting.

On top of the pension problems, states are also faced with financing constraints on retiree health care benefits, which represent the second component of unfunded retirement liabilities. Unfortunately, on average, states have set aside only 7% of the needed assets to fund future retiree health care liabilities. In 2008, there were only two states, Alaska and Arizona, with funding levels of more than 50%, and there were 21 states with absolutely no assets set aside, with New Jersey having the largest unfunded retire health liability of $68.9 billion. States did not start publically reporting retiree health care obligations until 2006, so it is not overly surprising that little progress has been made given that it was kept out of the spotlight until then. Additionally, it may have been the case that states were speculating that the new national health care program would affect state benefit coverage, and hence some may have resisted setting aside more assets to fund their retiree health care liabilities.

States With No Assets Set Aside to Fund Retiree Health Care Liabilities*

	State
1	Arkansas
2	Connecticut
3	Florida
4	Hawaii
5	Indiana
6	Iowa
7	Kansas
8	Louisiana
9	Minnesota
10	Mississippi
11	Montana
12	Nebraska
13	Nevada
14	New Hampshire
15	New York
16	Oklahoma
17	Rhode Island
18	South Dakota
19	Tennessee
20	Washington
21	Wyoming

* FY 2008.
Source: The Pew Center on the States, TD Economics

Although retiree health care funding levels are much worse than pension funding levels, states do not seem to be alarmed. This is because there are fewer legal barriers involved in changing health care benefits and increasing employee contributions than there are in changing pension benefits and contributions. As a result, retiree health care liabilities have a lower "safety" threshold than pensions. Nevertheless, it will still be a tall order to meet health obligations in the future given rising medical costs and ag-

10 Most Vulnerable States (Based only on long-term indicators)		
Rank	State	TD Index
1	Illinois	100.0
2	Kentucky	99.3
3	Rhode Island	98.7
4	Massachusetts	96.4
5	Connecticut	91.2
6	South Carolina	90.5
7	Hawaii	90.3
8	New Jersey	88.9
9	West Virginia	85.6
10	Kansas	80.0

Source: TD Economics

ing demographics. Alaska, New Hampshire and Vermont recorded the largest increases in the number of people above the age of 65 in the last decade and as this trend continues more broadly across America, it will put tremendous pressure on retiree health care demand and pension programs. For those states with little to no funding, it does raise the prospect that they will have to grossly reduce benefit payouts to aging baby boomers and/or dramatically increase contributions for the remaining working population who provide the funding for health-care benefit claims.

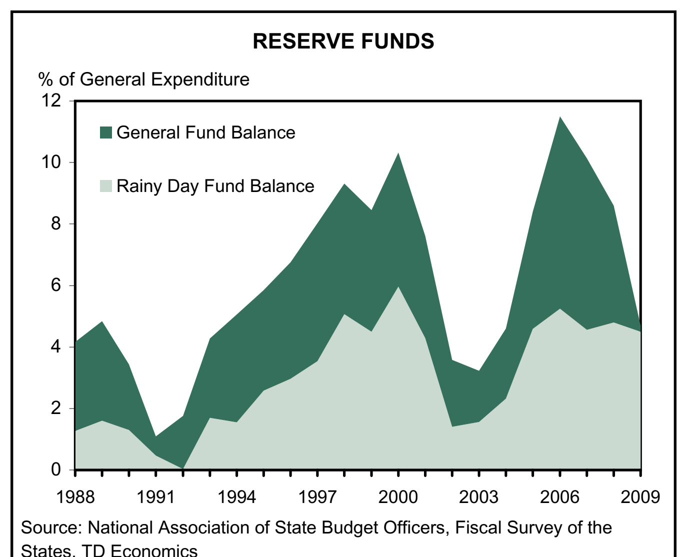
Changing of the guard

If we rank states in the TD State Vulnerability Index only according to their exposure on long-term liabilities (which includes both public sector retirement benefits and on-balance sheet debts), we find that Illinois grabs the unenviable top spot for the most at-risk state, followed by Kentucky. Illinois has the lowest pension funding level and it has set aside only 0.2% of the needed assets to fund future retiree health care costs. Whereas Kentucky has one of the lowest pension funding levels and the second largest debt-to-GSP ratio.

Solutions

As you are about to read, there are no easy answers to resolving the massive pension shortfalls that exist in a number of states. The approach, however, should be twofold. First, states must limit the risk of budget gaps re-emerging during another downturn – which will inevitably occur because business cycles are not solely marked by expansions. Even if a budget gap cannot be completely avoided, measures should be put in place to guard against the risk of incurring a large and extended period of budget gaps, which ultimately pressures states to under-contribute to long-term liabilities. Second, states will need to directly target future expenditure obligations within the pension plans by some combination of reform within state taxes and pension plans. There are no silver bullets. And, given that financial health varies dramatically across states, there is not a one-size-fits-all solution among the suite of policies options.

To avoid or limit the financial stress created by future budget gaps, reserve funds (which include both general fund balances and rainy day fund balances) have been cited as a key area where states can beef up contributions. These funds are intended to act as a buffer when revenues deteriorate. Fed Chairman Bernanke noted in a recent speech that “states should have taken more steps – and should do so in the future – to prepare for economic downturns.” At the end of 2006, state governments had set aside a total of 11.5% of their general expenditures in reserve funds. While this was a hefty share, by 2009 about half of the states had already used all or part of their rainy day funds to help close budget gaps. At the end of 2009, overall reserve funds had declined to 4.7% of general expenditures. However, this figure masks underlying weakness, as reserve funds are heavily concentrated in two states, Texas and Alaska. Removing them from the total, the balance for the remaining 48 states was only 2.7% of general expenditures, which is too low to cushion the forthcoming budget gaps in the next 3-to-4 years. So, given the depth of the recession, even the historically high levels of reserve funds proved insufficient to provide enough of a buffer, prompting Bernanke to note that some states “may wish to revisit their criteria for accumulating fiscal reserves. Building a rainy-day fund during good times may not be politically popular, but it can pay off



Source: National Association of State Budget Officers, Fiscal Survey of the States. TD Economics

during the bad times." Of course, this is easier said than done, as states that really need a rainy day fund – like New Jersey – are going to be the most challenged in building one.

As revenues continue to improve and budget gaps cease to be a financial strain, one approach to build up rainy day funds is to consider increasing, or removing, caps on the amounts that can be accumulated. Among the worst 10 state rankings within our near-term TD State Vulnerability Index, 9 states have legislative provisions that cap their deposits at levels that range from 5% to 15% of revenue or expenditure. Funding caps put a lid on how fast the rainy day funds can grow during good times and hence on the actual size of the fund. For instance, New Jersey with a funding cap of 5% of total anticipated general fund revenues accumulated $735 million in its rainy day fund, but this proved woefully inadequate to close a budget gap of $6.1 billion in fiscal year 2009. By the end of the fiscal year 2009, only 17 states had at least 5% of their general expenditure in rainy funds and, among the worst 10 state rankings within our near-term index, 4 states – California, Maine, New Jersey, and Nevada – had a zero balance, implying that these states will have to make more painful cuts and/or raise taxes to close the upcoming budget gaps. According to the CBPP and Government Finance Officers Association, states should aim for at least 15% of their general expenditure to provide adequate fiscal cushion.

In order to do so, states could prioritize deposits into the rainy day funds by including contributions directly into their budget. In states like Connecticut, Colorado, Georgia and Wyoming deposits come from a portion of the year-end surplus, which places rainy day funds last in line for receiving state funds. Budgeting for rainy day funds helps ensure that it is planned for within the expenditure profile of the state, and also helps protect against the possibility that it may be politically more popular to disperse a year-end surplus through a tax cut or spending boost. The year-end surplus could be an additional boost into the rainy day funds, but not the main deposit rule.

Aside from reforms to rainy day funds, another option being floated around is to consider whether a state has unused tax capacity. Some states have both low tax rates and a low tax-take relative to their state incomes and relative to neighboring states. New Hampshire, for instance, has neither personal income taxes nor sales taxes, and the total tax revenue as a share of GSP is 3.6% which is below the New England average of 6% and the Mid-Atlantic average of 5.3%. This leaves some room for taxes to rise before they impose a competitive disadvantage. However, caution must be used in this approach, as revenue-to-GSP can be an indicator of prosperity. A state with a lower revenue-to-GSP may reflect the lower income profiles of a state's residents. Thus, actual tax rates should be taken into consideration. For instance, in South Carolina, the revenue-to-GSP ratio is 4.4%, which is below the South Atlantic average of 4.9%. But South Carolina already has the highest top income tax bracket in South Atlantic at 7%, while its 6% sales tax rate is also one of the highest in the region.

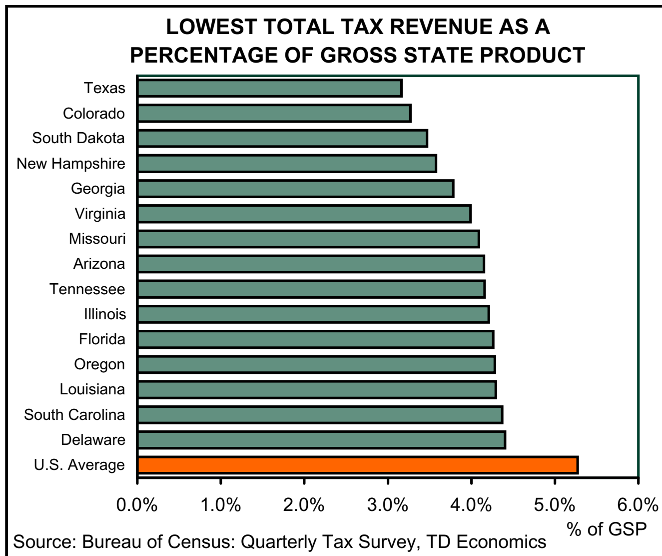
This leads us into another option of revisiting tax revenue composition when it is disproportionately skewed to one area. This is relevant from both a near-term and a long-term perspective. For one, states can try to focus more of their revenue streams on sources that are less sensitive to cyclical changes. As we demonstrated earlier, corporate tax revenues are more sensitive to economic cycles than sales and property tax revenues. Therefore, states like New Hampshire and Alaska that had budget gaps of almost 30% in 2010 and whose major source of revenue is through corporate taxes, could look into whether a more optimal strategy is to increase dependence on sales and/or property tax revenues.

Other tactics may be to broaden out an existing tax base.

Lowest Rainy Day Funds as a % of General Fund Expenditure

2008				2009		
	State	%			State	%
1	Arkansas	0.00		1	Arkansas	0.00
2	California	0.00		2	California	0.00
3	Kansas	0.00		3	Kansas	0.00
4	Montana	0.00		4	Maine	0.00
5	Wisconsin	0.00		5	Montana	0.00
6	Michigan	0.02		6	Nevada	0.00
7	Illinois	1.02		7	New Jersey	0.00
8	South Carolina	1.33		8	Ohio	0.00
9	Hawaii	1.37		9	South Carolina	0.00
10	Arizona	1.49		10	Wisconsin	0.00

Source: National Association of State Budget Officers, Fiscal Survey of the States, TD Economics



For instance, when it comes to sales taxes, Illinois taxes only 17 services while Iowa taxes 94.[5] Furthermore, raising tax revenues does not mean that all taxes have to increase. A government can increase one kind of tax and at the same time lower another, as long as overall tax revenue increases. For instance, the flat corporate income tax of 9.99% in Pennsylvania is the highest in the country. Pennsylvania could lower its corporate income tax rate to encourage investment within the business sector and increase its 6% sales tax rate since sales taxes are generally agreed to carry a smaller economic cost (as discussed earlier).

Aside from tax measures, states could take a closer look at asset sales or sale-leaseback arrangements. These funds could plug the upcoming budget gaps and/or help backfill pension shortfalls. Already some states, like Arizona, California, and Connecticut, are selling state office buildings, parking meters, roads and airports to the private sector. While privatization can result in more efficiency and profitability, asset sales to balance budgets or help fund pensions is not a sustainable solution. On top of that, the choice of asset sales needs to be well considered, as a state could be giving up long-term recurring income streams in exchange for quick cash. And, there is always the question as to whether states would receive the best bang for their buck if they are selling assets in a weak market.

Long-term issues need to be directly addressed

Even if measures are put in place to shore up budgets to cyclical movements, this will do little to solve the need to get existing retirement programs back in line with future obligations. This is particularly pressing for Illinois, Kansas, Oklahoma, Rhode Island and Connecticut, which have pension plans well below acceptable levels.

It seems that a logical first step is to put in place some sort of a binding funding requirement on states, especially in Illinois, New Jersey and Pennsylvania that made less than 60% of their annual required contribution towards their pension plans in 2008 – the three lowest contributions in the country. States like Arizona and Tennessee have statutes (or constitutional requirements) that dictate paying the full amount required each year. Florida's success in having a fully funded pension plan is certainly due to its consistent funding. If in a particular year, the state has an unfunded liability, it is obligated to incorporate a portion of this shortfall into the upcoming annual required contribution, so that the bill is paid off over time. And when Florida has a surplus, it is earmarked to pay for unexpected losses in the plan. With such measures, a state cannot avoid making the necessary pension contribution year after year.

While this may be a necessary first step for some of the more underfunded state plans, it is not a sufficient step. Many states still need to take more aggressive measures to close funding gaps, such as adopting less costly benefits for newly hired employees. For instance, New York has four tiers in its retirement system with different benefits for employees depending on the dates in which they were hired. In 2003, Oregon also adopted a tier-system with a lower benefit formula for new employees. These preventative actions proved to be beneficial and it's no coincidence that both states appear much lower on our Long-Term TD State Vulnerability Index, ranked 26th for Oregon and 31st for New York. While such moves were deemed necessary, there can be some embedded risks to this tactic, as less generous benefits may make hiring high-potential workers more difficult. As an example, a tier system within a state university pension benefit may make it harder for those universities to attract new talent relative to non-state universities. To level the playing field, state universities could find themselves having to offer higher wages to offset the reduction in benefits, bringing us full circle in trying to deal with escalating costs. Relative competitive position should be considered when weighing the options so as not to generate a negative feedback loop through unintended consequences. However, this may not be an option for some states with pension plans in dire straits. At the end of the day, given the pressing need to fund liabilities, a state pension plan may have no option but to accept the risk of attracting lower quality candidates relative to its competitors who have been more fiscally mindful.

Difficult to get to the heart of the matter

Once again, for the states at the top of our vulnerability index, the tactic of reducing pension costs for new hires is a necessary but probably not a sufficient condition, because the bulk of funding costs resides with the existing pension plan of existing employees. On the surface, it seems that the solution is to target these costs directly by considering some combination of increasing contribution rates, raising the qualifying year for early retirement and normal retirement, and modifying future inflation adjustments to payouts. Indeed, one study showed that raising the retirement age by one year would trim costs by 2-4%, reducing benefits in the event of early retirement would reduce costs by 2-5%, while a one percentage point cut in cost of living adjustments (COLAs) would slash costs by 9-11%.[6] However, doing any one of these measures is no easy task, let alone implementing all of them. In most states, existing retirement benefits are constitutionally or contractually protected. This inability to modify pension plans limits the array of possible solutions, or certainly makes it very difficult to evoke change within an existing plan. Because the legal restrictions on reducing pensions for existing employees is a barrier, the majority of pension reforms has been focused on new employees – the path of least resistance. Still, New Jersey Governor Chris Christie is giving it the old college try and has put forward a number of these measures. In doing so, he has already met strong resistance from unions. Likewise, Rhode Island increased the retirement age for both current and new workers in 2009. New employees will have to work until age 62, whereas current employees' retirement age will depend on the years of service. However, Rhode Island does not have the constitutional constraint that other states may face, and even so, unions contested the changes and filed a lawsuit in May 2010, arguing that vested contractual rights had been violated.

If the above options are politically unfeasible, states can try riskier strategies and attempt to improve investment returns on their existing asset base through equity assets or leveraged portfolios that yield higher returns. This move can be very risky, but if feasible, a state can mitigate risk by sharing investment losses with employees by introducing defined contribution plans, in which the employees upon retirement receive the amount in the account and not a predetermined benefit level (i.e. defined benefit plans). To offer some protection to employees, states can still offer some guaranteed annual investment return, 5% for example. While the last two states that moved new employees to defined contribution plans were Alaska in 2005 and Michigan in 1997, more states are considering switching from defined benefit plans to defined contribution plans. However, labor unions are strongly against such a switch for new employees, which makes it highly unlikely that they would be receptive to this notion for existing employees. The bottom line is that for those states with highly underfunded pension plans, meaningful changes will either need to be supported by large reform and legislative changes or a buy-in of union members. There are no easy answers, and each state will have to tailor reforms to their specific needs.

Conclusion

The Great Recession severely crippled state finances and in response, states have made difficult choices to close huge budget gaps. More work needs to be done and governments will need to maintain a tight grip on expenditures, as budget gaps will likely persist for several more years. However, as long as the job market continues to recover, so too will tax revenues and state finances. For this reason, we do not anticipate one or more states defaulting unless a double-dip recession ensues that would result in substantial job losses. However, the data does not show this to currently be the case. In the first two quarters of this year, state revenues have been on the upswing. With time, budgets will right themselves.

The same is not true for long-term liability obligations for many states at the top of the TD State Vulnerability Index. The legacy of the budget gaps will live on in severely underfunded long-term liabilities, for which there are no easy solutions. Greater discipline needs to be imposed on funding these shortfalls, and if states do not take this initiative, financial markets will impose it through more punitive borrowing costs – ultimately making a state less competitive and hindering economic growth. Illinois, Kansas, Oklahoma, Rhode Island, Connecticut and Massachusetts are the six states with the greatest challenges ahead for pension funding. Ultimately, the task of closing these funding gaps could lead to significant reform with the plans themselves, changes to the tax system within a state, and possibly lower potential economic growth. It will be up to each state to tailor a strategy to succeed, but one thing is for sure...the piper must be paid. The task of making difficult choices will continue to exist long after budget gaps are closed.

Appendix

Overall Vulnerability Scorecard (From Worst to Best)		
Rank	States	TD Index
1	Illinois	93.4
2	New Jersey	84.4
3	Rhode Island	83.2
4	Nevada	82.8
5	Connecticut	81.0
6	South Carolina	76.7
7	Kentucky	75.3
8	Massachusetts	73.4
9	Hawaii	70.4
10	California	70.3
11	Arizona	69.5
12	Colorado	68.4
13	Maine	66.0
14	Oklahoma	65.5
15	Louisiana	65.1
16	Kansas	65.0
17	New Hampshire	64.3
18	Michigan	62.5
19	Mississippi	60.7
20	West Virginia	60.3
21	Alabama	60.2
22	Alaska	59.9
23	Oregon	58.6
24	Vermont	56.6
25	Pennsylvania	55.4
26	Minnesota	54.4
27	Missouri	53.9
28	Indiana	53.8
29	New York	53.0
30	Maryland	52.3
31	New Mexico	51.9
32	Washington	51.4
33	Florida	51.3
34	Georgia	50.6
35	Utah	49.4
36	North Carolina	45.5
37	Ohio	44.7
38	Montana	44.4
39	Wisconsin	43.5
40	Texas	43.5
41	Delaware	42.1
42	Virginia	41.6
43	Iowa	41.2
44	Nebraska	39.5
45	Arkansas	39.4
46	Wyoming	37.8
47	Idaho	37.5
48	Tennessee	36.2
49	South Dakota	33.5
50	North Dakota	22.9
Source: TD Economics		

Near-Term Vulnerability Scorecard (From Worst to Best)		
Rank	States	TD Index
1	Nevada	100.0
2	Arizona	98.9
3	Illinois	83.4
4	California	78.9
5	New Jersey	77.6
6	Connecticut	65.7
7	Florida	63.5
8	Georgia	62.3
9	Maine	60.0
10	Rhode Island	59.9
11	Colorado	57.4
12	North Carolina	56.5
13	Oklahoma	56.0
14	South Carolina	55.9
15	Washington	55.7
16	Louisiana	55.5
17	Vermont	55.5
18	New York	53.1
19	Oregon	52.7
20	Minnesota	50.1
21	Wisconsin	49.9
22	New Hampshire	48.7
23	Mississippi	47.0
24	Michigan	46.7
25	Missouri	46.4
26	Utah	44.8
27	Iowa	44.4
28	Delaware	44.0
29	Kansas	42.4
30	Pennsylvania	41.8
31	Maryland	41.7
32	Alabama	41.5
33	Hawaii	40.4
34	Virginia	39.6
35	Kentucky	39.2
36	Massachusetts	38.7
37	Alaska	38.6
38	Idaho	38.4
39	Ohio	37.3
40	New Mexico	35.8
41	Indiana	33.8
42	Wyoming	33.1
43	Texas	31.9
44	Tennessee	31.4
45	Nebraska	27.6
46	Arkansas	26.0
47	South Dakota	25.7
48	West Virginia	22.3
49	Montana	16.8
50	North Dakota	4.0
Source: TD Economics		

Long-Term Vulnerability Scorecard (From Worst to Best)		
Rank	States	TD Index
1	Illinois	100.0
2	Kentucky	99.3
3	Rhode Island	98.7
4	Massachusetts	96.4
5	Connecticut	91.2
6	South Carolina	90.5
7	Hawaii	90.3
8	New Jersey	88.9
9	West Virginia	85.6
10	Kansas	80.0
11	Colorado	75.8
12	New Hampshire	74.7
13	Alaska	74.1
14	Michigan	73.1
15	Alabama	72.7
16	Oklahoma	71.8
17	Louisiana	71.5
18	Nevada	71.3
19	Maine	70.0
20	Mississippi	69.8
21	Indiana	67.2
22	California	64.6
23	Pennsylvania	64.4
24	Montana	62.7
25	New Mexico	62.6
26	Oregon	62.5
27	Maryland	59.4
28	Missouri	58.8
29	Vermont	57.4
30	Minnesota	57.3
31	New York	52.9
32	Utah	52.5
33	Texas	51.2
34	Arizona	49.9
35	Ohio	49.6
36	Washington	48.5
37	Arkansas	48.4
38	Nebraska	47.4
39	Florida	43.2
40	Virginia	42.9
41	Georgia	42.8
42	Wyoming	41.0
43	Delaware	40.7
44	Tennessee	39.4
45	Iowa	39.2
46	Wisconsin	39.2
47	South Dakota	38.7
48	North Carolina	38.1
49	Idaho	36.9
50	North Dakota	35.5
Source: TD Economics		

Endnotes

1 Joshua Rauh ,"Are State Public Pensions Sustainable? Why the Federal Government Should Worry About State Pension Liabilities", Kellogg School of Management, Northwestern University, IL, USA

2 Jeremy Gerst and Daniel Wilson "Fiscal Crises of the States: Causes and Consequences" Federal Reserve Bank of San Francisco Economic Letter 2010-20, June 28, 2010

3 Craig Alexander and Beata Caranci, "U.S. Recovery is Tracking Traditional Experience After Financial Crisis Induced Recession", TD Economics, August 27, 2010.

4 "The Trillion Dollar Gap. Unfunded State Retirement Systems and the Roads to Reform", The PEW Center on State, February 2010.

5 Richard Mattoon, "Charting Illinois's Fiscal Future", Federal Reserve Bank of Chicago, Chicago Fed Letter 277c, August 2010.

6 Robert Novy-Max and Joshua Rauh, "Policy Options for State Pension Systems and Thier Impact on Plan Liabilities", University of Rochester, Kellogg School of Management and NBER, July 18, 2010.

This report is provided by TD Economics for customers of TD Bank Financial Group. It is for information purposes only and may not be appropriate for other purposes. The report does not provide material information about the business and affairs of TD Bank Financial Group and the members of TD Economics are not spokespersons for TD Bank Financial Group with respect to its business and affairs. The information contained in this report has been drawn from sources believed to be reliable, but is not guaranteed to be accurate or complete. The report contains economic analysis and views, including about future economic and financial markets performance. These are based on certain assumptions and other factors, and are subject to inherent risks and uncertainties. The actual outcome may be materially different. The Toronto-Dominion Bank and its affiliates and related entities that comprise TD Bank Financial Group are not liable for any errors or omissions in the information, analysis or views contained in this report, or for any loss or damage suffered.