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Pension Pressures Will Weigh On 15 Largest U.S. Cities' Budgets

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Table Of Contents

Survey: Key Takeaways For The 15 Largest Cities

Trends Among The Largest Pension Plans

Pension Reform Is A Recurring Theme But Not An Instant Panacea

Some Cities Will Experience More Pressure

Pension Risks Factor Into City Credit

Cities With Recent Pension Developments

Pension Pressures Will Weigh On 15 Largest U.S. Cities' Budgets

U.S. cities have varying legal, governance and benefit structures and operate in different legal and economic environments, so there's no one-size-fits-all measure for assessing their pension risk. Regardless of structure, most municipal pension plans experienced the market downturn in 2008-2009 and have not been able to recover to funded levels seen in the early 2000s. Weak market returns in 2015 and 2016 have not made that recovery any easier. In addition, many plans are lowering assumed long-term rates of return in light of weak market performance, which contributes to declining funded ratios. A survey by S&P Global Ratings of the 15 largest (by population) U.S. cities reveals some common trends and key factors related to net pension liability per capita and funded ratios. As many of the largest cities in our survey currently exhibit high combined fixed costs for pension, other post-employment benefits, and debt service, we believe these trends could be a source of future budgetary pressure.

Pension reform has been an increasing area of focus for city management and highlights the importance of plan governance in managing and maintaining a sustainable approach to funding future liabilities. The majority of the largest cities in our survey maintain their own plans without a significant liability in statewide cost-sharing plans, which provides them with potentially greater autonomy to manage their own liability. However, as we see with Chicago, Dallas, and Houston, the state sometimes plays a critical role in determining the level of autonomy local governments can exercise in adjusting benefit management and reforming their own plans. More broadly, as states continue to deal with fixed-cost increases that outpace revenue growth, we believe there is potential for some states to shift more of the cost onto local governments in the future. These cost shifts could occur due to the withdrawal of traditional state support for cost-sharing plan contributions on behalf of local governments(see "Connecticut's Proposed State Budget Could Lead to Significant Local Government Budgetary Uncertainty," published Feb. 16, 2017) or as state plans change actuarial assumptions that could increase required contributions for local participants.

Overview

- Median net pension liability per capita exceeds median debt per capita for the largest cities;
- Most of the largest cities have high fixed costs with pension, other post-employment benefits, and debt service expenditures in excess of 20% of expenditures;
- GASB funded ratios for the largest city plans declined between fiscal 2014 and fiscal 2015; and
- The median weighted funded pension ratio aggregated across plans totals 70%, with Chicago an outlier at only 23% funded.

Despite the increasing costs, many of these largest cities benefit from relatively deep and diverse economic bases. Furthermore, some cities are experiencing revenue growth or have the capacity to raise revenue, as we have seen with a recent property tax increase in Phoenix to offset rising pension contributions or the dedication of a half-cent sales tax to shore up underfunded pension plans in Jacksonville. This revenue flexibility helps to offset the impact of higher pension liabilities. Significantly, most of the largest cities have a robust and strong management framework, which we

believe is an asset in managing expenses and growing liabilities. In cases where growing pension liabilities have been unmanaged and weak planning has failed to stem potential budgetary pressure, we have incorporated this risk into our credit ratings. Over the past 12 months, S&P Global Ratings has downgraded or assigned negative outlooks on ratings for three of these 15 largest cities to reflect near-term budgetary pressures and reduced financial flexibility related to rising pension liabilities and carrying costs.

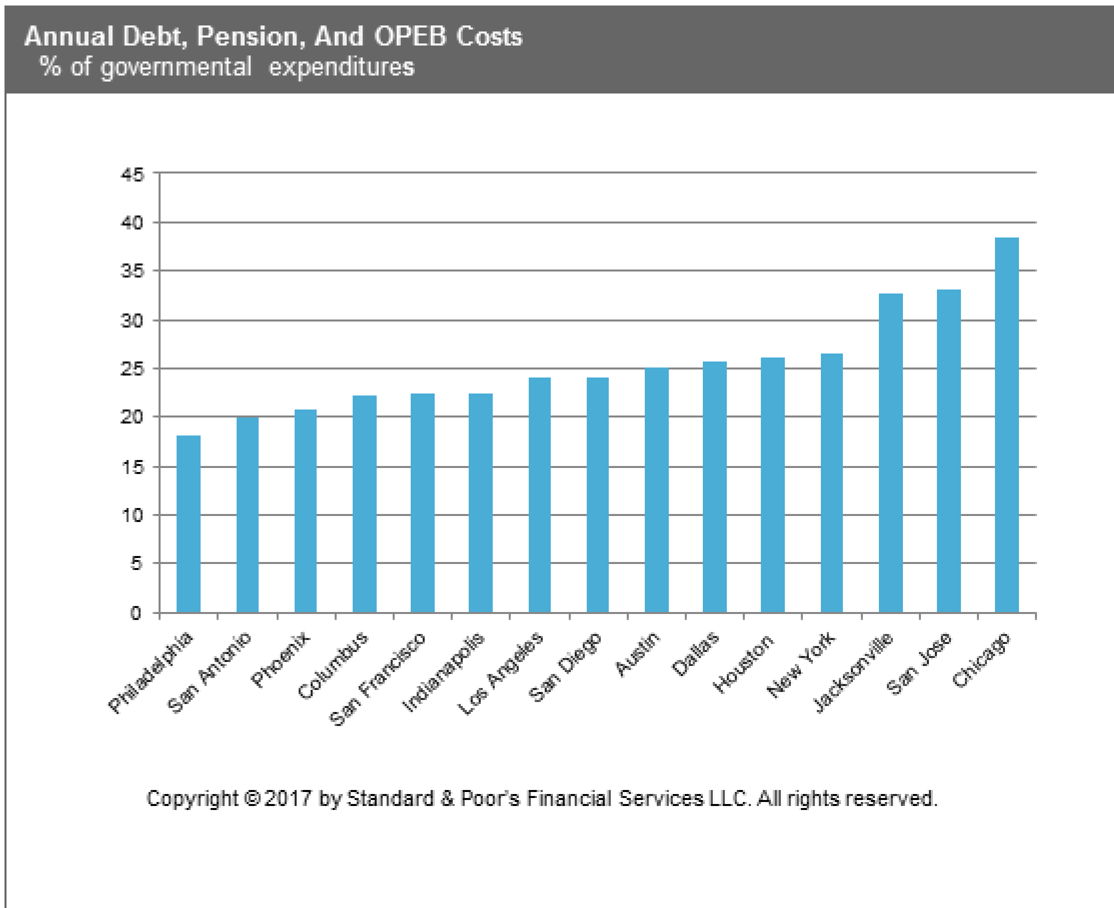
Notwithstanding their respective strong economies, recent rating downgrades and a negative outlook for both Dallas and Houston reflect near-term budgetary pressure, partly driven by rising pension costs. Although the two cities have proposed pension reform to help address these challenges, implementation is subject to state approval. Furthermore, the recent revision of Philadelphia's rating outlook to negative is based on ongoing pension cost pressures in light of the city's already low budgetary reserves and structural imbalance. We will continue to monitor cities' budget flexibility and ability to manage their long term liabilities and fixed costs. (See sidebar, "Pension Risks Factor Into City Credit".)

Survey: Key Takeaways For The 15 Largest Cities

Pension crowd out

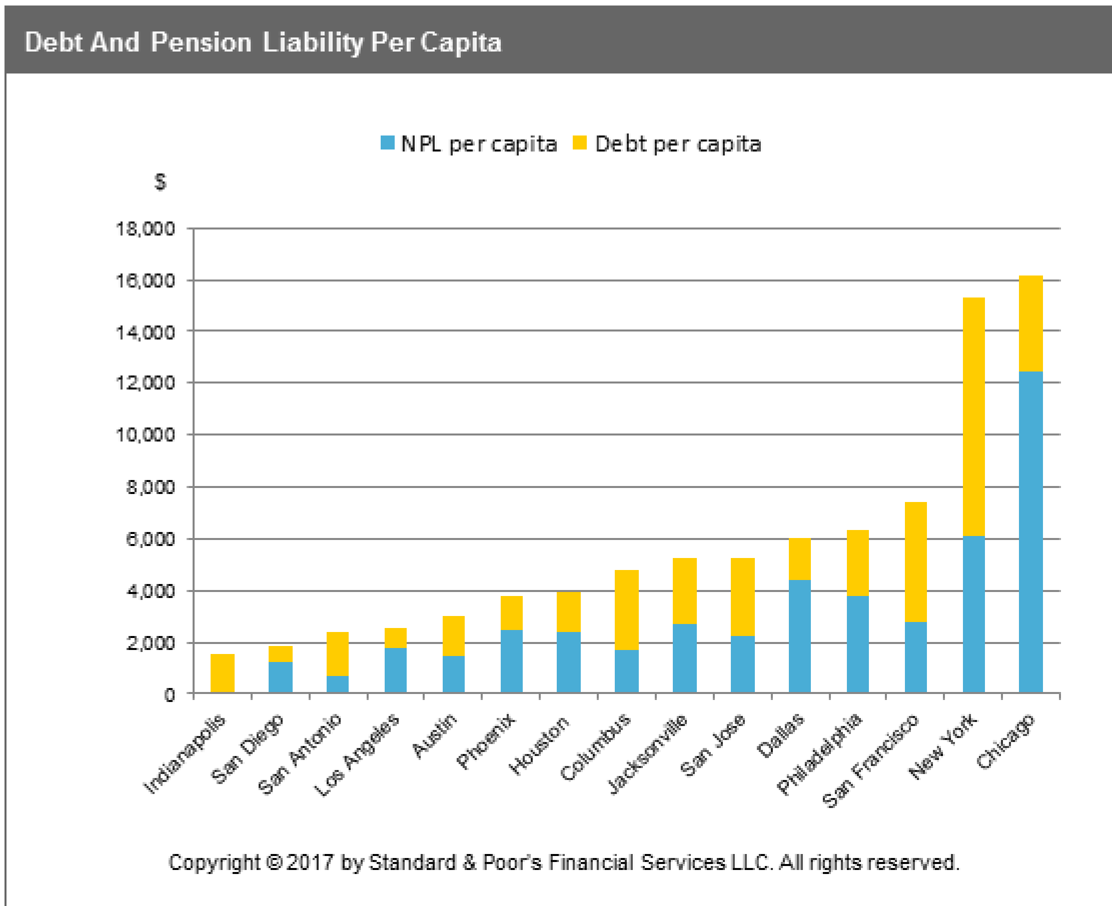
Pension, other post-employment benefits, and debt service spending is crowding out discretionary spending for some cities as fixed costs exceed 25% on average (see chart 1). Notably, Chicago, Jacksonville, and San Jose each have a carrying charge in excess of 30%. As we expect these costs to increase in the near term, we likewise expect there will be additional pressures on city budgets. Identification of revenue sources to support pension costs, such as seen in Jacksonville, Philadelphia, and Phoenix, could be an option in supporting these higher costs. On the other hand, in cases where fixed costs approach a very high proportion of budget to materially reduce fiscal flexibility, local governments that lack forward-looking policies and budgetary planning to address these challenges could see their credit ratings adjusted downward.

Chart 1



In addition to budgetary pressure from rising annual pension costs, pension debt could be crowding out other long-term investments. As of fiscal 2015, these 15 cities have a median net pension liability (NPL) per capita of $2,361 compared to a median debt per capita of $1,675 (see chart 2). As cities pay more for deferred compensation than capital projects, challenges will continue to arise as governments consider how best to deliver services to residents and keep up with their capital needs.

Chart 2

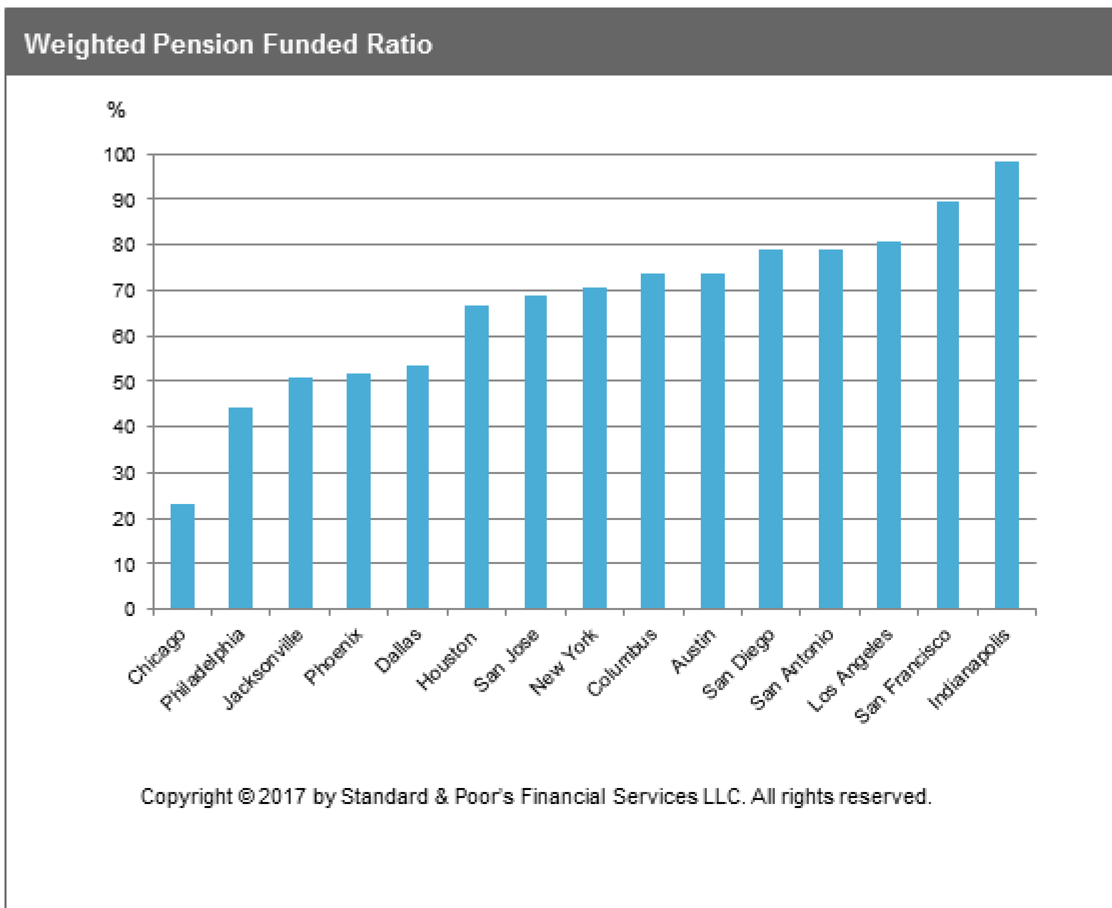


Funded ratios run the gamut

The median weighted pension funded ratio of 70% for the 15 cities underlies a wide range of positions, with Chicago only 23% funded across all plans and Indianapolis the most well-funded at 98% (see chart 3). Given weak market returns in 2016, we believe funded ratios reported in fiscal 2016 are likely to look worse for most cities.

In light of expectations for low future interest rates and market returns, we have noted more plans reducing their long-term rate of return assumptions. The median assumed rate across the largest plans for the 15 largest cities was 7.5%, in line with national trends. Based on a National Association of State Retirement Administrators (NASRA) survey of 127 state and local plans nationwide, almost 75% reduced their assumed investment return since fiscal 2010 bringing the average assumed rate of return to 7.5% from 7.9% (NASRA Issue Brief: Public Pension Plan Investment Return Assumptions, February 2017). Our survey also shows that for 12 of the 15 largest cities, one or more plans in which they participate have lowered their return assumptions since 2014. We view these steps toward more conservative actuarial assumptions favorably, however, acknowledge their effect on growing pension contributions. As pension funded ratios continue to decline whether through underfunding, benefit structures, changes in assumptions, or poor market returns, the effect will be increased annual costs for most cities.

Chart 3



Funding policies are not all created equal

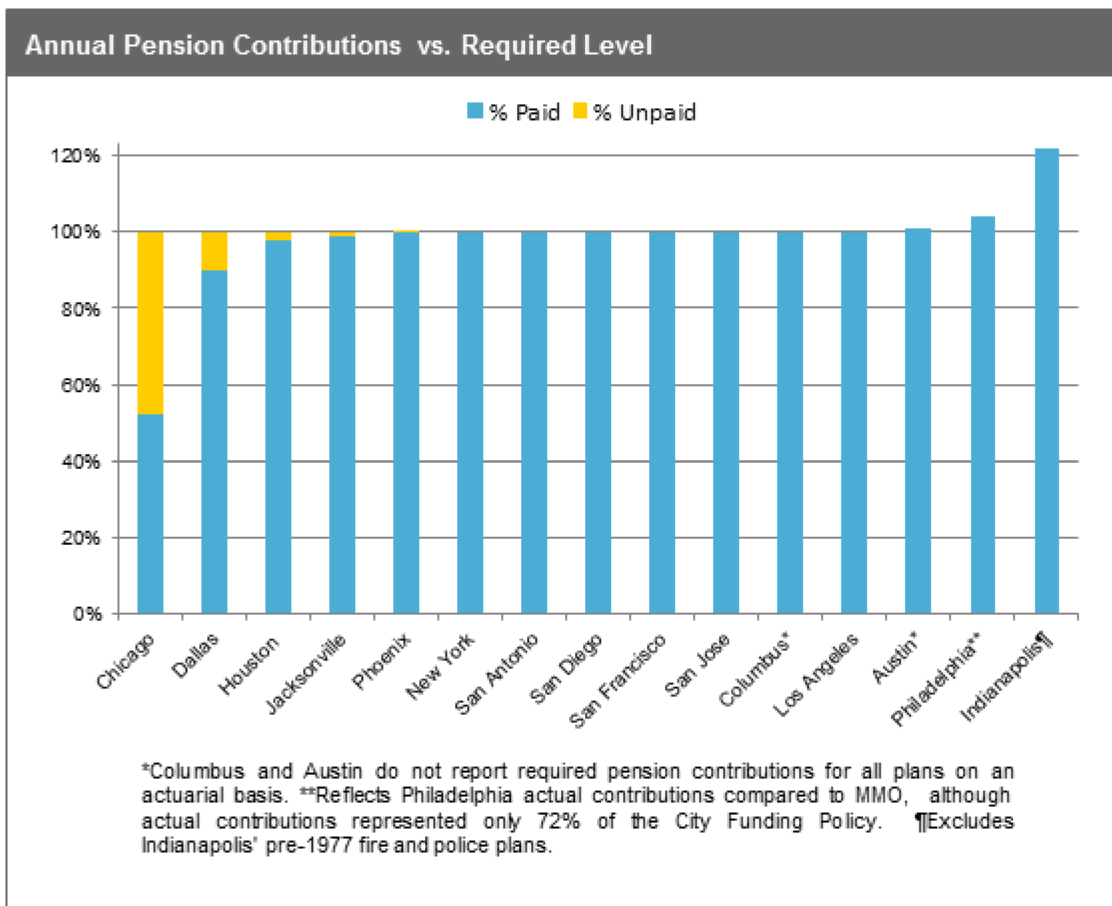
Most of the cities in our survey paid their required contribution based on funding policies that use an actuarially determined level across plans. However, we note that not all of the largest cities have made annual pension contributions to all plans at actuarially determined levels.

In particular, as depicted in chart 4, Columbus and Austin met required contributions in fiscal 2015. However, required contributions do not use an actuarially determined basis across all plans. In Chicago, pension contributions that are made based on statutory levels, but fall short of actuarially determined amounts, have contributed to its relatively weak pension funded ratio across plans. In fiscal 2015, Chicago funded only 52% of an actuarially determined level comprised of an employer normal cost as well as level dollar amortization of the unfunded actuarial accrued liability over 30 years. Recent and proposed amendments to the statutes relating to Chicago's four pension plans include higher required employer contributions. A proposed statutory amendment pertaining to the municipal employees' and laborers' plans seeks a five-year ramp-up to actuarially calculated contributions structured to achieve 90% funding in 40 years; this is similar to what is already in the statutes for the police and fire plans.

We believe funding policies based on actuarially determined levels will usually reflect better funding discipline than required annual contributions that have no actuarial basis. However, even when derived actuarially, the underlying

assumptions plans use for funding pensions can cause significant variance in required annual contribution costs. For example Philadelphia has funded more than a Minimum Municipal Obligation (MMO) level set by state law, which has an actuarial basis using a 30-year layered amortization schedule, but as of fiscal 2015 had only funded 72% of a second established funding policy (City Funding Policy), which used a shorter amortization schedule. The city has recently adopted a new funding policy to include sales tax revenue dedicated to pension costs which will add to the MMO funding levels beginning in fiscal 2018.

Chart 4



Trends Among The Largest Pension Plans

Drilling down to the cities' largest pension plans, measured by fiscal 2015 contribution, all but one of the largest plans saw a drop in the GASB funded ratio between fiscal 2014 and fiscal 2015 reflecting relatively weak market returns in fiscal 2015 (averaging 1.6%) and recent GASB reporting standards that incorporate market valuation of assets. On average, funded ratios for the largest plans fell year-over-year by about 4% in fiscal 2015. In some cases, changes in actuarial assumptions also contributed to funded ratio declines. Chart 5 highlights the respective plan's net pension liability and funded ratio as well as the respective single discount rate used to calculate the net pension liability. The median GASB single discount rate used to estimate the respective plan net pension liability was 7.25%, ranging

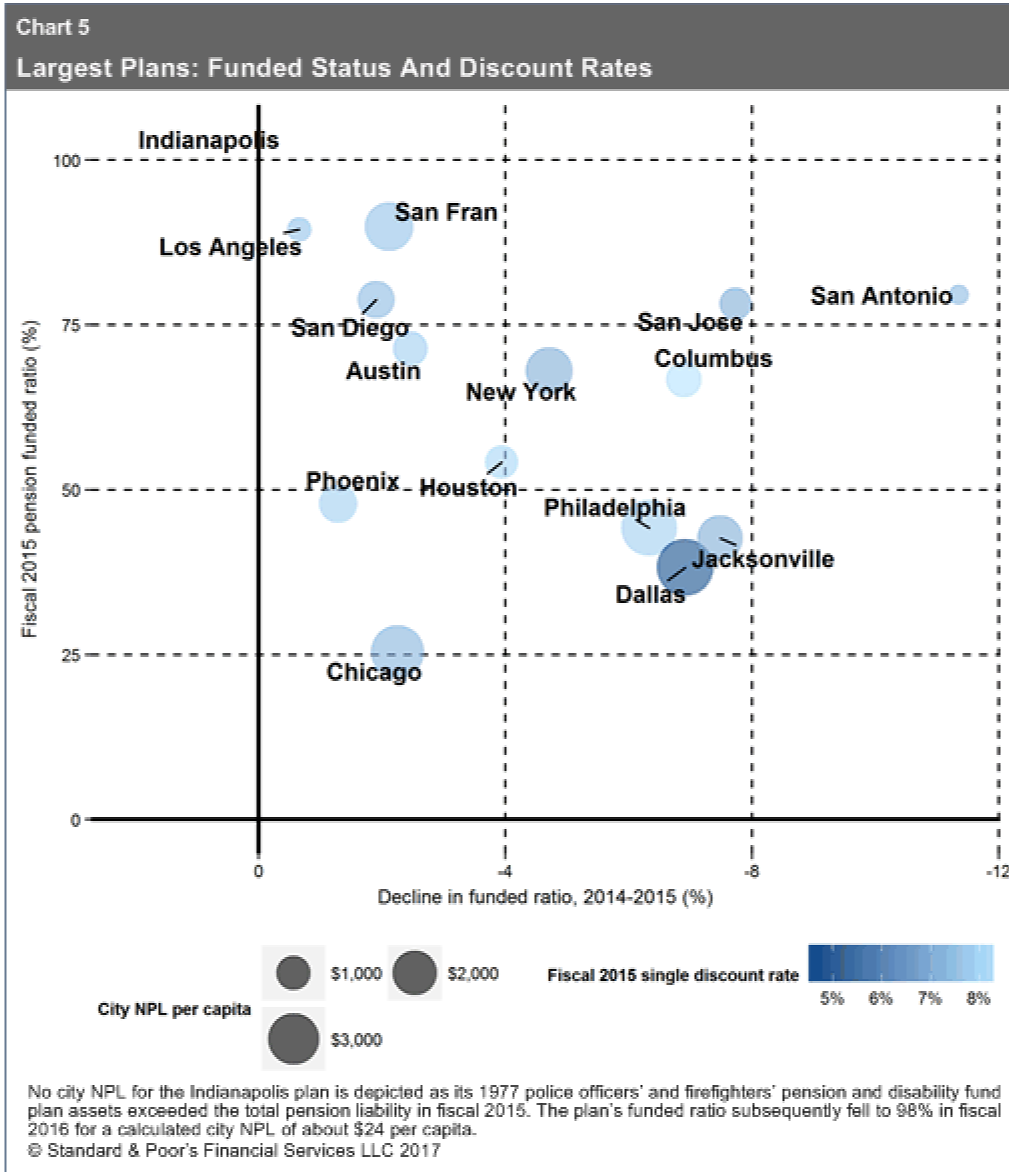
between 4.54% and 8.25%.

Dallas Police and Fire Combined Pension Plan (DPFCP) assumed the lowest 4.54% single GASB discount rate as of December 2014 (further adjusted to 3.95% in December 2015) and results in the second lowest reported funded ratio among the largest cities' respective largest plans. We find the lowest funded ratio in fiscal 2015 across the largest plans is Chicago Policemen's Annuity and Benefit Fund at 25%, down from 26% in fiscal 2014. In addition, the plan assumes a 7.15% rate (incorporating a 7.25% actuarial assumed rate and an assumed municipal bond rate of 3.34% after the projected asset depletion date as required by GASB reporting standards). The highest assumed discount rate among these largest plans is 8.25% based on the long-term assumed rate of return used by the Ohio Police and Fire Pension Fund, in which the City of Columbus participates. Houston's Municipal Employees' Pension System (MEAPS) also assumes a relatively high 8% GASB single discount rate to measure its net pension liability, incorporating a higher actuarial assumed rate of return of 8.5%. MEAPS subsequently lowered its assumed rate of return to 8% and Houston has proposed lowering the assumed rates substantially further to 7% while changing the amortization approach as well as proposed pension reform to help mitigate a spike in the city's NPL (see below for more on Houston).

While San Antonio's Police and Fire Pension Plan remains among the five best-funded plans of our survey, the plan funded ratio saw the largest year-over-year decline in fiscal 2015 with the lowering of the assumed discount rate to 7.25% from 7.5%. The Indiana Public Retirement System's 1977 Police Officers' and Firefighters' Pension Fund, in which Indianapolis participates, uniquely reported an improvement in its fiscal 2015 funded ratio to 103% from 101% in fiscal 2014. The funded ratio improved despite a negative 0.07% market return due primarily to changes in actuarial assumptions underlying its total liability estimate as well as contributions that exceeded benefit payments. Subsequently, the funded ratio fell to 98% as of fiscal 2016 as a result of estimated liability growth and a thin 1.22% investment return. Likewise, the funded ratio for the DPFCP declined further in fiscal 2016 to 28% due to weak investment returns as well as a reduction in its assumed blended discount rate under GASB reporting (see below for more on Dallas).

Chart 5

Largest Plans: Funded Status And Discount Rates



No city NPL for the Indianapolis plan is depicted as its 1977 police officers' and firefighters' pension and disability fund plan assets exceeded the total pension liability in fiscal 2015. The plan's funded ratio subsequently fell to 98% in fiscal 2016 for a calculated city NPL of about $24 per capita.

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Pension Reform Is A Recurring Theme But Not An Instant Panacea

Many local governments have enacted reform to make future pension costs more affordable. This is often in the form of reducing benefits for new employees, increasing employee contributions, or putting new employees on defined contribution plans. In addition, some local governments have also attempted to reduce cost-of-living increases. However, not all pension reform efforts have survived legal challenges and court rulings have rolled back those deemed unconstitutional. Since the pension reform is limited to new employees in the majority of situations, we note that changes in liabilities may not be immediately realized and will have more of an intermediate to long term impact.

Some Cities Will Experience More Pressure

As plans are pressured to adopt revised actuarial assumptions such as updated mortality estimates and lower rate of return assumptions in the face of weak market returns, we believe weakening funded ratios and rising contributions could further strain some city budgets already burdened with proportionately high fixed costs. We believe those cities that have demonstrated a commitment to funding long-term liabilities with realistic actuarial assumptions or demonstrate expenditure flexibility through active management of liabilities and successful reform initiatives when needed will be better positioned to weather the increasing costs.

Largest Cities' Pension Liabilities And Ratios

City	Weighted pension funded ratio (%)	Pension NPL $/capita	Debt, pension and OPEB carrying charge (% of gov exp)	Largest plan (by required contribution)	Rating (implied GO)	Outlook
Austin	74	1,482	25	City of Austin Employees' Retirement and Pension Fund	AAA	Stable
Chicago	23	12,427	38	Policemen's Annuity and Benefit Fund	BBB+	Stable
Columbus	74	1,679	22	Ohio Police and Fire Pension Fund	AAA	Stable
Dallas	54	4,423	26	Dallas Police and Fire Pension System Combined Plan	AA-	Negative
Houston	67	2,361	26	Municipal Employees' Pension System	AA	Negative
Indianapolis	98	66	22	1977 Police Officers' and Firefighters' Pension and Disability Fund	AA	Stable
Jacksonville	51	2,689	33	Police and Fire Pension Plan	AA	Stable
Los Angeles	81	1,788	24	LA Police and Fire	AA-	Stable
New York	70	6,115	26	Teachers' Retirement System of The City of New York	AA	Stable
Philadelphia	44	3,778	18	Philadelphia Board of Pensions and Retirement	A+	Negative
Phoenix	52	2,500	21	Public Safety Personnel Retirement System	AA+	Stable
San Antonio	79	729	20	San Antonio Fire and Police Pension Fund	AAA	Stable
San Diego	79	1,256	24	San Diego City Employees' Retirement System (SDCERS)	AA	Stable
San Francisco	90	2,764	22	San Francisco City and County Employees' Retirement System	AA+	Stable
San Jose	69	2,264	33	Police and Fire Department Retirement Plan	AA+	Stable

Pension Risks Factor Into City Credit

Our methodology for rating cities and counties incorporates annual pension costs, trends in liabilities, and management policies within our assessment of a local government's debt and contingent liabilities. Very high debt and contingent liabilities that affect our view of management or stress other credit factors, such as expected structural budgetary performance or liquidity, could result in rating pressure. Our review of local government pension risks includes the magnitude of the impact of required contributions on the budget, forward looking analysis to determine potential increasing costs and changes in liabilities, trends regarding a plan's history of funding progress, liabilities, and policies, and managerial action as to what steps will be taken to address these liabilities. In addition, if local governments are deferring or underfunding required pension payments, we may adjust expenditures to reflect the amount of the pension underfunding to maintain analytic consistency and inform our view of credit fundamentals. Credit deterioration is mitigated for cities and counties that base estimated liabilities on conservative assumptions and maintain proactive funding discipline with a defined plan to manage pension costs.

Cities With Recent Pension Developments

Chicago: Recent and proposed statutory changes to funding while pension stress persists

Pension liabilities are a clear credit weakness for Chicago, which stands out with the highest pension liability per capita and lowest weighted funded ratio among peers. Chicago's combined debt service, required pension and actual OPEB contributions represented the highest share of budget among the largest cities at 38% of total governmental fund expenditures in fiscal 2015. Of that amount, 26.2% represented required contributions to pension obligations. The city only made 52% of its annual legally required pension contribution in fiscal 2015 and while its fiscal 2017 operating budget appropriates more toward pension contributions, amounts budgeted still fall significantly short of the actuarially determined contribution levels. For each plan, the contributions will ramp up starting in 2018 over a five-year period until reaching the actuarially calculated contribution amount in the sixth year.

Chicago contributes to four retirement plans, of which the largest include the Municipal Employees' Annuity and Benefit Fund (MEABF) and the Policeman's Annuity and Benefit fund (PABF). MEABF's fiduciary net assets represent only 20% of the total plan liability as of December 2015 and PABF is only slightly better funded at 25%. Since MEABF projects fiduciary net assets will not be available to make all projected future benefit payments to current plan members beyond 2023, the reported liability assumes a blended discount rate of 3.73%. The PABF reported liability uses a higher 7.15% blended discount rate (including a 7.5% long term assumed rate of return and a municipal bond rate of 3.57%); however, there remains risk that the assumptions are optimistic and could lead to future budget gaps.

Chicago is addressing its pension obligations for all four of its plans and the Illinois General Assembly recently approved a bill to address a funding benefit reform plan for the laborers' and municipal employees' plans. The bill is awaiting the governor's signature. Furthermore, the city council recently approved a new water/sewer tax to support larger planned contributions into the municipal employees' pension plan in the next five years. Notably, the city is

unable to change pension benefits for its existing employees due to state constitutional constraints, but has increased contribution requirements for new employees.

Philadelphia: New funding policy expected as funded ratios creep lower

In our opinion, Philadelphia's large pension obligation is a credit weakness. Philadelphia's combined required pension, OPEB, and debt contribution totaled 18% of total governmental fund expenditures in fiscal 2015. Of that amount, about 12% represented required contributions to pension obligations.

Philadelphia has historically produced two required contribution calculations annually: one based on its Minimum Municipal Obligation (MMO), which is the city's minimum required contribution under state law, and the other based on the city's decades-old funding policy (City Funding Policy) that is also actuarially determined but amortizes its pension unfunded actuarial accrued liability much more rapidly than the MMO. The city's actual $577.2 million contribution in fiscal 2015 only represented 72% of the City Funding Policy level, but covered 103.8% of the MMO. Although the city consistently contributed more than 100% of the MMO to the city plan since fiscal 2006, the plan's funded ratio has declined from 51.6% in fiscal 2006 to 44% in fiscal 2015. This decline has been largely attributable to investment losses and reductions to the assumed earnings rate. Additionally, the city recently adopted a Revenue Recognition Policy to ensure that contributions remain higher than the MMO. The Revenue Recognition Policy includes the MMO plus additional revenue from a new sales tax and tiered contributions. This new policy recognizes that those payments will be made on top of the MMO rather than replacing it and will be used by the city to determine its funding levels in the future.

We believe the city has taken steps to accelerate the full funding of its pension, which is due to occur in 2039, by actively seeking, and indeed obtaining, material pension reforms through collective bargaining. The city's pension board approved lowering the assumed rate of return further to 7.7% from 7.75%, which follows regular reductions in the assumed earnings rate over the previous decade and is a positive step toward more conservative actuarial assumptions in our opinion, although it will increase future required contributions and reduce the funded ratio. The city expects collections from a permanent 1% increase in the sales tax rate, effective July 1, 2014, to benefit the pension fund after school district distributions and certain debt service payments. The city is projecting that this will result in an 80% funded pension plan at the end of 13 years. Nevertheless, we are concerned that these efforts may fall short of bringing stability to the pension system over time given recent market performance and other factors that could result in continued weak funded levels and increased budgetary pressures.

Phoenix: Managing budgetary performance despite rising pensions

The majority of city employees participate in two main pension plans. The City of Phoenix Employees' Retirement Plan (COPERS) is a single-employer defined benefit plan that covers non-safety employees. Public safety employees participate in the Arizona Public Safety Personnel Retirement System (APSPRS), which is a multiple-employer statewide retirement system.

Phoenix's combined required pension, OPEB, and debt contribution totaled 21% of total governmental fund expenditures in fiscal 2015. Of that amount, about 11% represented required contributions to pension and OPEB obligations, which we consider high. Although the city made its full required pension contribution at actuarially determined levels as required by its charter, its fiscal 2015 weighted funded ratio is low at 52% and fell further to 44%

in fiscal 2016.

Pension funding ratios have declined in recent years, partly in response to investment performance and changes in plan actuarial assumptions. In 2016, state voters approved new changes to APSPRS that included increasing the retirement age for new employees and splitting employer and employee contribution rates at 50/50. The reform also introduced a CPI-based, cost-of-living adjustment to retirees, capped at 2% per year, to replace an existing Permanent Benefit Increase (PBI) formula that had siphoned a portion of extraordinary investment returns from the fund for retiree benefits. Additionally, the APSRS board lowered its assumed investment return to 7.5% from 7.85%, which contributed to a net decline in the plan's funded position to 42% in fiscal 2016. The effect of a decision by the state supreme court in late 2016 to overturn reform efforts the state had enacted in 2011 has not been factored into the most recent plan valuations. Although the actuarial report indicates the court's decision is not likely to have a significant impact on contribution rates, it could require the plan to make certain retroactive adjustments for prior PBI payments or member contribution refunds. The city has also made changes to COPERS benefits, including, in 2015, capping the annual salary eligible for pensions for new employees. In addition, the city changed plan assumptions with respect to mortality rates and amortization, which, together with recent investment performance, have had the effect of increasing contributions and lowering funded status.

The increased contributions will result in budgetary pressure in the medium term; however, for fiscal year 2017, the city council voted to increase the secondary property tax rate by 35 cents per $100 of AV: a 20% increase. Together with additional expenditure savings, the revenue increase--which may be used exclusively to pay GO debt service--will allow the city to reduce its subsidy for GO debt service and restore employee compensation and service cuts, fund public safety enhancements, and absorb some of the cost of increasing pension contributions over the next three years. We understand the city has incorporated expectations for increased revenue and expenditures related to pensions, compensation, and public safety into its five-year financial forecast.

New York City: Active management of pension costs despite large liability

New York City's required pension and actual OPEB contributions totaled 14.3% of total governmental fund expenditures in 2016. Of that, 10.9% represented required contributions to pension obligations, and 3.4% represented OPEB payments; this includes the additional $500 million the city deposited into the health benefits trust fund, which was not required. We have cited New York City's large pension and OPEB obligation as a credit challenge, and the lack of a plan that we think will sufficiently address the OPEB obligation. However, the city's retiree health benefits trust fund, which is a reserve against OPEB costs, has increased to a record high balance of $4 billion. Additionally, on a positive note, the city has been making its full annual required pension contribution and expects to continue doing so. The city's unfunded liability is being paid over the 15 year period between now and fiscal 2032 if all actuarial assumptions are met. Recent notable events include the city's recent five-year agreement with the Patrolmen's Benevolent Association (PBA), bringing more than 99% of its union workforce current. The agreement with the PBA is retroactive to 2012, and the agreement's cost over the contract period is consistent with that established with other uniformed unions. The city's labor reserve covers most of these costs (approximately $337 million through fiscal 2017).

Dallas and Houston: Road to reform leads through Austin

Both Dallas and Houston have acknowledged that the current structure of their pension plans is not affordable over the long term given the current benefit structure and contribution requirements. Both cities are in various stages of

reforming those plans to address benefits to members and adjust contribution rates. Texas has a combined 13 retirement systems specifically enabled by statute that fall under Vernon's Texas Civil Statutes. The plans are associated with the municipalities of Austin, Dallas, El Paso, Fort Worth, Houston, and San Antonio. Dallas and Houston's plans fall under this statute, with the exception of Dallas' employee plan which is governed by city code.

Dallas provides pension benefits to its employees via three separate retirement plans, of which the Dallas Police & Fire Pension System-Combined (DPFS) represents the largest by the city's share of the liability and required annual contributions. Over time, poorly performing investments, statutory defined maximum contribution rates, increases to benefits and features, as well as changes in plan assumptions such as a reduction in discount rate, all influenced a drop in the funded status of the DPFS system. The fund's fiduciary net assets represented only 28% of the total liability as of December 2015, compared to 38% as of December 2014. Most recently, in late 2016, the plan's assets fell sharply due to over $500 million in deferred retirement funds that were withdrawn from the plan through a deferred retirement option plan, exacerbating the plan's weakness. Overall, pension, debt, and OPEB costs represented just over a quarter of the city's governmental expenditures in fiscal 2015. The city and the board have said that they will continue to work to find a solution to the growing challenge, yet no definitive way forward has been agreed on to date.

Houston provides pension benefits to retirees through three plans, of which the employee and police plans are largest by liability and required contributions. The city and pension plans recently agreed to reduce the assumed rates of return, move to a closed amortization schedule, and benefit adjustments. A proposed cost corridor that sets a midpoint for the city's contribution rate, and proscribes required benefit adjustments or amortization changes for when the contribution rate moves above or below specific targets is an additional proposal for plan changes. The changes are being taken to the state legislature for formal adoption.

For more on recent pension trends and reform efforts in Dallas and Houston, see "Dallas and Houston Start to Address Pension Liabilities, But Substantial Work Remains," published Feb. 9, 2017.

Jacksonville: Voters support pensions through sales tax; negotiations continue

Jacksonville sponsors three defined-benefit pension plans, of which the police and fire pension plan represents the largest by the city's share of the liability and required annual contributions. The fund's fiduciary net assets represented only 43% of the total plan liability as of September 2015 and contribute to Jacksonville's relatively low overall weighted funded ratio of 51% in fiscal 2015.

Jacksonville is notable in that it benefits from the recent passage of section 212.055(9), Florida statutes, which authorize the levy of a half-cent sales tax to shore up underfunded pension plans. The pension liability surtax may be levied to address defined benefit retirement plans that are below 80% funded subject to several conditions. Voters authorized the surtax in August by a margin of 65%, though the tax will not take effect until after an infrastructure sales tax sunsets, which would be no later than 2030 but could be earlier if previously issued infrastructure bonds are retired. In addition, it requires the agreement of all six of the city's unions to certain defined reforms (including the closure of plans to new participants and an increase in employee pension contributions to 10% for all employees). While a positive step toward identifying dedicated revenue streams to fund the pension liability, the tax does not address short-term monetary commitments in that no new monies will be generated in the near-term. The tax will result in immediate reductions to required contributions due to the reset of the amortization bases to 30 years and the

recognition of the present value of future revenues as an asset to the participating pension funds. A lawsuit has been filed arguing the validity of the referendum language associated with the tax.

Recently, police and fire unions along with several of the general employee unions tentatively agreed to a defined contribution plan for all future employees. The proposal calls for significant raises for police and firefighters, a lump sum payout, addressing the 2015 reform law, as well as maintaining benefits for 10 years if certain standards are met.

A great deal would still need to be done to formally implement the plan including a formal vote on the proposal as well as draft and enact legislation. We also anticipate that city officials will develop formal financial projections and make those public.

California cities: Voters try to scale back benefits in some, but face resistance

San Diego has a defined benefit pension plan, the San Diego City Employees' Retirement System, and various defined contribution pension plans covering most of the city's employees. Following years of financial challenges and investigation into the city's misrepresentation of its pension liability, in May 2008, S&P Global Ratings reinstated its ratings on San Diego. In 2012, San Diego voters approved Proposition B, which closed the defined benefit plan and instead provided a 401(k)-style plan for new city hires (except sworn police officers). Proposition B is the subject of ongoing litigation before the California Public Employment Relations Board. If the city's appeal is unsuccessful, the litigation could repeal or unwind the implementation of some or all of Proposition B. While the city is currently unable to quantify the potential impact of this litigation on the pension liability, since the dispute only applies to nonsworn employees hired on or after July 20, 2012 any impacts would affect the long-term future pension liability and the annual contributions.

San Jose provides pension benefits and OPEBs through two single-employer defined-benefit retirement systems: Federated City Employees' Retirement System (FCERS) and Police and Fire Department Retirement Plan (PFDRP). In June 2012, San Jose voters adopted Measure B, which made significant changes to the city's retirement plans, primarily by requiring the creation of new defined benefit tiers for all future employees eligible for both FCERS and PFDRP, requiring some employees to make additional contributions, and also making changes to benefits for current (as of 2012) employees. Following passage of this law, significant portions became subject to legal challenge by the city's bargaining units. In November 2016, city voters passed Measure F, another retirement and retiree health care reform package that superseded the Measure B changes. Measure F was based on a settlement the city negotiated with its unions in 2015. While Measure F doesn't make any benefit reductions to current employee pensions, the measure provides for new, reduced-benefit tiers for new employees going forward, closes the defined-benefit retiree health care plan to new employees, retains voter-approval requirement for any new benefit enhancements, and forbids retroactive benefit enhancements.

Representing 96% of the city's required pension contribution in fiscal 2015, San Francisco Employees' Retirement System (SCERS) is the largest of the city/county's retirement plans. SCERS' most recent actuarial report published subsequent to the 2016 fiscal year-end, shows a significant one-year 153% increase in net pension liability to almost $5.5 billion, attributable to investment losses, changes in demographic and discount rate assumptions, and an appeals court ruling that struck down plan changes that city voters approved in 2011 to require fully funded pension levels before distributing supplemental cost-of-living adjustments for certain plan members. We expect the change in net

liability will result in a lower future plan fiduciary net position as a percentage of total pension liability. In addition, the city and county's five-year financial plan, most recently updated in December 2016, indicates increasing pension and OPEB contributions from the general fund through at least fiscal 2022 as a result of the change. According to the city and county's base case projection, employer contribution rates for SFERS will increase by $162 million (40%) by fiscal 2022. We believe these costs will continue to be a significant budgetary challenge for the foreseeable future.

Table 2

Largest Cities Primary Analysts

City	Primary analyst	Email
New York	Anne Cosgrove	anne.cosgrove@spglobal.com
Los Angeles	Jen Hansen	jen.hansen@spglobal.com
Chicago	Carol Spain	carol.spain@spglobal.com
Houston	Sarah Smaardyk	sarah.smaardyk@spglobal.com
Philadelphia	Linda Yip	linda.yip@spglobal.com
Phoenix	Sarah Sullivant	sarah.sullivant@spglobal.com
San Antonio	Sarah Smaardyk	sarah.smaardyk@spglobal.com
San Diego	Misty Newland	misty.newland@spglobal.com
Dallas	Andy Hobbs	andy.hobbs@spglobal.com
San Jose	Misty Newland	misty.newland@spglobal.com
Austin	Jim Tchou	jim.tchou@spglocal.com
Jacksonville	Hilary Sutton	hilary.sutton@spglobal.com
Indianapolis	Anna Uboytseva	anna.uboytseva@spglobal.com
San Francisco	Sarah Sullivant	sarah.sullivant@spglobal.com
Columbus	Errol Arne	errol.arne@spglobal.com

Survey Methodology

Our 2015 survey results incorporate reported pension liabilities under the Governmental Accounting Standards Board (GASB) statements 67 and 68, which took effect for employers and governmental non-employer contributing entities for fiscal years starting on or after June 15, 2013, and June 15, 2014, respectively. The statements change how pension liabilities are accounted for and reported in state and local governments' financial statements. The new standards also value pension plan assets to market and incorporate this volatility in year-to-year reported pension funded ratios. For cost-sharing multiple employer plans, GASB 68 bases the reported share of the plan liability on the government's share of required pension contributions to the plan in fiscal 2015. We believe the new GASB reporting standards provide for improved transparency and comparability of government-specific pension liabilities.

Our calculation of pension liabilities was derived from pension plan and city CAFRs reporting under GASB 67/68 standards and GASB 68 allocation reports currently available to us. We have combined information across multiple pension plans for each city and weighted the respective plans' fiduciary net position to total pension liability ratio by the city's proportionate share of the plan liability to calculate the weighted pension funded ratio. Where applicable, we used cost-sharing multiple employer pension plan CAFRs released within the city's fiscal 2015 and used the city's reported proportionate share of plan liabilities to calculate the city's NPL. We exclude component unit enterprise pension plans with annual pension contributions paid by non-governmental fund revenue.

Although most cities reported their proportionate share of respective cost-sharing plan net pension liabilities as of fiscal 2014, we assume the same percentage share applied to fiscal 2015 plan NPLs.

Chart 5 reflects information specific to the largest pension plan in which the city participates measured by the city's relative required annual contribution in fiscal 2015

We excluded Indianapolis' pre-1977 police and fire pension plans from the city's ratios since the state of Indiana passed legislation in 2008 to cover annual benefit payments on a pay-go basis for the city's pre-1977 fire and police plans, which are closed to new entrants.

Research assistance provided by Patrick Redman and Joshua Hanson

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