Special Comment

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Employee Pension Costs Pressure State and Local Governments

Ratings for Some Municipalities May Be Affected

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Analyst Contacts:

Dallas 1.214.220.4350

Douglas Benton 214.220.4381
Vice President – Senior Credit Officer

New York 1.212.553.1653

Ted Hampton 212.553.2741
Assistant Vice President – Analyst

Jack Dorer 212.553.1332
Team Managing Director

Robert Kurtter 212.553.4453
Team Managing Director

Chicago 1.312.706.9953

Ted Damutz
Vice President – Senior Credit Officer

Summary

A broad deterioration in funding levels for public sector pensions is adding to fiscal pressure on some state and local governments and could contribute to negative rating actions for select issuers in the next several years. The reduction in funding levels is largely driven by significant investment losses in pension plans throughout 2008 and early 2009 – losses which for certain issuers came on top of longer-term demographic pressures. The problem for some issuers will be exacerbated by decisions by select governments to defer pension contributions during periods of budgetary stress.

Greater credit stress will be felt by both the government issuers that entered this cycle with marginal funding levels as well as those that face inflexible regulatory or legal pension funding requirements. Despite the recent strong performance of the equity markets since March 2009, asset losses from earlier periods continue to weigh on plan asset valuations. Historically, stock market volatility posed pro-cyclical economic risks. Funding pressure could partially ease if there is a continued rapid rise in equity market values and rising rates lead to actuarial reduction in accrued liabilities through the application of a higher discount rate.

In evaluating the strength or weakness of a rated issuer's retirement system, we begin with a review of the funded ratio to assess the extent to which a government has set aside resources to meet its pension obligations. Our focus is on four key factors: the level of benefits, investment results, reporting assumptions, and the constitutional and legal requirements such as those covering funding levels and funding mandates. Subsequent Moody's research will amplify the findings here and focus on specific pension issues and their role in the rating process.

Employee Pension Costs Pressure State and Local Governments

In this report, we examine the impact of management decisions on the viability of pension programs and the resulting credit implications. These management decisions may include reductions in plan contributions to meet a current budget, whether to under-fund a pension plan, and the making of a contribution that is less than a municipality's annual pension cost. This report also identifies "red flags" that may warn of potential fiscal distress, such as changing actuarial firms or committing limited municipal resources to new pension funding due on some future date.

Size of Pension Woes Reflect Management Decisions

Some municipalities have successfully navigated the choppy waters of pension funding by taking a fiscally conservative approach to fulfilling pension plan funding requirements. West Virginia and the City of San Francisco, as well as a group of Connecticut cities are recent examples of credit-positive proactive management approaches. In contrast, the past actions of other municipalities have created longer-term structural pressures. Pension funding levels have been a key factor in a number of downward rating actions in recent years, including the lowering of the Aaa ratings for the cities of Indianapolis, Indiana; Evanston, Illinois; and Omaha, Nebraska to Aa1. On the state level, both Illinois and New Jersey have struggled recently with their massive pension obligations, resulting in negative rating pressure for those states. (For additional information about these pension systems and the impact of management decisions on the ratings of sponsoring municipalities, please see the Appendix).

Public Pension Impacted By Four Key Factors

To assess the financial commitment of a public pension plan's obligation to provide for the benefits promised, we begin by assessing the funded ratio, which is calculated by dividing legally segregated plan assets by the plan's calculated liability. This ratio assessment illustrates the extent to which a government has set aside resources to meet its pension obligations as they come due in the future. Each municipality (state or local government) may have separate plans for different groups of employees, such as uniformed (police and fire) workers, teachers or general government employees.

There are four key factors that drive the outcome of a plan's funded status – level of pension benefits, investment results, reporting assumptions, and constitutional & legal environment. These factors are described in greater detail below.

1. Level of Pension Benefits

At a fundamental level, there are two basic forms of retirement benefit structures – defined contribution and defined benefit. Defined contribution plans stipulate only the amounts to be contributed by an employer and do not specify the amount of the benefit that will ultimately be received by the employee. In contrast, defined benefit plans specify the amount of benefit to be provided to the employee after the end of employment. Defined benefit plans, which have become less common in the private sector due to relatively high contribution costs for employers, remain prevalent in the government sector. In addition, the level of employee participation in retirement plans is notably higher in the public sector versus the private sector. A 2007 Bureau of Labor Statistics survey noted that 86% of government employees participate in a retirement plan vs. only 50% in private industry. Because of the confluence of these two factors, any single government's pension obligations can become sizeable over its extended period of existence due to the compounding effects of the obligation to fund a prescribed benefit level promised to a retirement-engaged employee populace. Additionally, post-retirement health benefits continue to be broadly available in the public sector, while the private sector has significantly reduced those benefits over the past decade.

2. Investment Results

One of the most critical factors affecting all pension funding levels for the near term is the impact of the precipitous drop in the valuation of capital markets globally and the resulting impact on plan asset investment returns. From the highs in 2007, broad equity indices such as the Standard and Poors 500 declined by more than 50% before beginning a rebound in March 2009. Given the historical exposure of pension plans to the

equity markets, the value of pension assets have followed suit resulting in widespread under-funding, although individual plan results vary according to asset allocation decisions and assumptions incorporated into reporting methods. The impact of investment results on public pensions is two-pronged, as they affect both pension assets and liabilities.

With respect to pension assets, we have observed thus far in 2009 that preliminary reported pension funding levels are reflecting significant deterioration, given the sizeable negative market returns for calendar 2008 and the first quarter of 2009. For example, the City of Dallas has reported that its public safety employee plan had a negative return of 25% for the most recently concluded fiscal year, while Rockland County, N.Y., will have a 40% increase for its pension contribution to the statewide plan in the coming 2010 fiscal year because of the funding gap created by investment performance. As a result of this relatively widespread impact, realistic expectation for future returns may be recalibrated in this current environment. However, the recent rebound in the markets is likely to have a positive effect on plan funding levels going forward.

Discount Rate

The second dimension to the pension investment return discussion is its application in discounting liabilities. The funded ratio is highly sensitive to the discount rate assumptions, which affects liabilities - the higher the discount rate the lower the reported liability and vice versa. Accounting standards presently promulgated by the Governmental Accounting Standards Board (GASB), which are utilized extensively by state and local governments, prescribe that the rate utilized for valuing the assets in the future is also the same rate employed for discounting the plan liabilities. This rate is utilized in converting the projected future benefit payments to retirees into their discounted present value. The rational for this approach, under current reporting standards, is that plan sponsors (i.e. governments) tend to exist in perpetuity and therefore the assumed long-term rate of return on the assets, which have been set aside to fund the benefit payments, will be achieved. The rate is based upon the specific types and mix of investments held by the pension fund and their inherent risks. GASB recently began the formal process for reconsidering this conceptual framework and may, in the future, have differing rates for valuing the pension assets and liabilities.

Discount Rate: GASB vs. FASB

For statement issuers which report under GASB accounting standards, primarily state and local government debt issuers, the discount rate used is based upon an assumed long term rate of return on the assets set aside to fund the benefit payments. This assumed rate is based on the specific type of investments held by the pension fund and their inherent risks.

Issuers which report using Statement of Financial Accounting Standard 87 “Employers' Accounting For Pensions” *(FAS 87)* use a different methodology when calculating discount rates. Under FAS 87 the assumed discount rates should reflect the rates at which the pension benefits could be effectively settled. When estimating those rates employers can use information such as the current prices of annuity contracts which could be used to effect settlement of the obligation published by the Pension Benefit Guaranty Corporation. Alternatively employers may also look to rates of return on high-quality fixed-income investments currently available and expected to be available during the period to maturity of the pension benefits. High quality bonds are defined as those rated Aa or higher.

This fundamental difference in the FASB versus GASB viewpoint stems from the FASB view that pension liabilities are a terminating obligation. This differing perspective is derived from the constituency GASB serves, which are governmental entities that generally survive in perpetuity. However, in contrast, FASB entities, primarily those in the corporate arena, can and have ceased to exist.

3. Reporting Assumptions

Much of the information externally reported by public pension plans is encapsulated in financial statements prepared in accordance with generally accepted accounting principles. Those standards have evolved over the years but their foundation is contained in GASB Statements 25 and 27 which have been in effect since 1997. Statement 25 is applicable to the financial reporting of the pension plan sponsor while 27's guidance is for the financial statements of employer participants. These standards are not designed to be mutually exclusive as the provisions contain iterative reporting dimensions and many state-level governments are both sponsors and participants in the plans. In addition to the investment return assumptions noted above, the decisions made regarding smoothing, amortization period, and the actuarial cost method can result in widely varying outcomes.

Smoothing

In valuing pension plan assets, GASB accounting standards allow for the use of "smoothing" whereby significant annual changes in fair values are muted through a process of averaging the actual returns over a period of several years. The result is that in years of extreme swings in market values, such as the wholesale declines in calendar 2008 for various asset classes, an extreme change in funding levels and required contributions is deferred. While the accounting standard does not prescribe an acceptable time period, generally assumed practice, as well as discussion during the consideration of the accounting standard, was a three-to five-year period. However, notable exceptions to this practice include the California Public Employee Retirement System (CalPERS), which utilizes a 15-year period while Cincinnati recently increased from a five-year period to 10 in order to adhere to locally prescribed funding level requirements.

Amortization Period

Given the long-term nature of these obligations, the accounting standards provide for the liability in excess of plan assets (also known as UAAL-unfunded actuarial accrued liability or the unfunded accrued benefit obligation) to be amortized over a 30-year period. The GASB standards initially provided for a 40-year period in a phased-in approach that subsequently reverted to 30 in 2007. Clearly, shorter amortization periods increase the annual contribution rate requirement when all other assumptions remain equal while longer amortization periods decrease the required annual contribution rate. Additionally, while the limit for actuarial calculations is 30 years, the standard provides for "open" and "closed" periods. An open period signifies a rolling or evergreen timeframe such that the use of a 30 year amortization period could continue indefinitely, whereas a closed period indicates that remaining amortization declines over time.

Actuarial Cost Methods

Existing GASB accounting standards provide for six methods of actuarial valuation including entry age, attained age, unit credit, aggregate, frozen entry age, and frozen attained age. The latter three methods have proven problematic for transparency in financial disclosure as the "frozen" methods provide for less allocation of the present value of the pension obligation to past periods of service while the aggregate method does not assign any of the present value of the pension obligation to past periods. A result of selecting the aggregate cost method is that the plan's financial disclosure will not result in the reporting of a pension funding schedule and thereby no funded ratio is disclosed. However, a recent accounting standard now requires surrogate assumptions and disclosure utilizing another actuarial method when the aggregate cost method is the primary method selected.

The lack of standardization in assumptions and reporting methods makes comparisons difficult. Selection of or change in the valuation method can have a significant and material impact on employee and employer contribution levels, as well as overall funding ratios. The comparability among entities even within a single state can be problematic if municipalities are allowed flexibility in selecting key assumptions and actuarial methods. Additionally, those municipalities that chose to change their methods from one year to the next thwart the ability of external readers of the pension disclosure to obtain an understanding of the multi-year trend in addressing pension funding. This is symptomatic of not having the prescribed dogmatic reporting approach derived from federal oversight in private sector plans versus those in the public sector.

4. Constitutional & Legal Environment

Private-sector pension plans are created by and subject to federal statutes such as ERISA, while the public pension plans were created and have evolved under a mosaic of constitutional, statutory, and case law that is oftentimes unique to the state of origin. Evidence of this variability can be found in research on the various state approaches to protecting the benefits granted public-sector employees. Nine states have constitutional provisions guaranteeing pension rights; 20 states have explicit statutory guarantees; 18 have court-developed common law rights; and three approach the issues in other ways. Additionally these provisions also vary by the plans within a given state. For example, Louisiana has a guarantee provided by the state constitution for four "state" systems but not for nine "statewide" systems.

While the assurance of the benefit has been clearly contemplated by the states, the requirement to fund these obligations as well as the oversight can be a different matter. For some states, the obligation to fund can be incorporated into the constitutional provisions while in others it may be subject to appropriation and thereby at risk during periods of budgetary stress. Oversight of local government plans by the state will also play an important role in its prioritization of required funding. For example, in Massachusetts all local government plans must meet an actuarial full-funding target of 2028 or be subject to dissolution into the state run pension plan.

Another Management Issue: Pension Obligation Bonds

One resource that municipalities have availed themselves of in recent years to address pension under-funding is the issuance of pension obligation bonds. The sale of pension obligations bonds converts the obligation from a soft liability that is malleable by changing economic conditions and/or reporting assumptions to a firm legal commitment codified in a bonded liability. A minor but noteworthy aspect of these types of bonds is that they are taxable because this type of issue is considered to be an arbitrage of an existing liability and therefore does not qualify for tax-exempt status. Moody's generally considers the issuance of pension obligation bonds as credit neutral from a ratings perspective as it is simply a change in the form of an obligation and the economic reality to service the obligation remains the same. This type of transaction can be beneficial for a municipality if pension returns exceed the cost of carrying the debt. However, the issuance of pension obligation bonds also introduces the risk that investment returns could fall below debt costs, which would exacerbate fiscal stress for the municipality.

Credit Impact of Pension Funding Levels

Immediate budgetary impacts are pivotal

For the near term, our focus will be upon collecting updated funding levels and assessing their immediate impact upon near-term budgeted resources. As municipalities encounter under-funded plans an important determinant for our analysis will be the magnitude of cash required to meet increased funding obligations relative to retained liquid resources along with the willingness and ability to access external resources to address this issue. Since much of the reported information regarding pensions is based upon accrual accounting concepts and is often dated by the time it is reported externally, we will want to address the timing of inflows and outflows on a budgetary and/or cash basis.

Red flags that could signal fiscal stress

Signs of fiscal stress for state and local governments created by pensions will generally lag other signs of stress caused by the recent recession. However, the pension-related impact on taxpayers will likely persist longer and will be compounded as unemployment approaches 10% and home values post declines of 20-30%. As a result of a confluence of these factors, we view certain indictors about tax revenue, pension funding and employee benefits as "red flags" that a municipality could be experiencing fiscal stress.

Materially under-funded status of pension plans

Municipalities that have a pension plan with a funding level that is significantly below a reasonable peer comparison will be considered to be exhibiting fiscal stress. While the quantifiable level of under-funding is a fluid conversation with many nuances, there will exist instances whereby a municipality has chronically under-funded its obligations over several years and enters the recent period in a financially weakened state. This fact pattern existed for Indianapolis and was a key factor in the rating decline from Aaa to Aa1 in April 2007. At that time the city's legacy pension plan funded ratio was 0% and the city had incurred bonded debt to cover annual pension payouts.

Overt reduction in plan contributions on a budget basis

As noted previously, much reporting for pensions is a historical view; therefore, the most sensitive near-term indicator of fiscal stress will be those changes in upcoming budgets. A reduction in plan contributions would not appear consistent with the challenging environment in which most pensions presently exist. The State of New Jersey case study in the Appendix exemplifies a municipality that made the decision to budget for significantly less than the required annual contribution in FY 2010.

Change in actuarial firms

While there may be sound business reasons for changing the actuarial firm providing pension funding analysis we have observed that some issuers do so in order to modify the outcome. Instead of an attempt to address a challenge they may be facing, we view such a change as, at best, a near-term deferral of fiscal responsibility. There can be, of course, sound business reasons for such changes and we would engage in discussions regarding those changes with rated issuers.

Change in plan assumptions

These would include changes in the discount rate, amortization period, smoothing timeframe, compensation increases, and actuarial cost methods. Moody's research from December 2006, on the largest cities' pension funding levels and key assumptions employed at that time provide a baseline for assessing changes to key assumptions. Some, such as the discount rate, will be driven by market forces and well- reasoned changes may be appropriate.

Recording and growth of a net pension obligation

GASB accounting standards require municipalities to record (or increase) an on-statement liability in those years in which a difference exists between a municipality's annual pension cost and its actual contribution. The recording of such a liability is an indicator that cash contributions may be required by the plan in the near future. An example of this occurrence is expanded upon in the State of Illinois case study in the Appendix whereby the NPO has shown significant growth over the years.

Increases to prescribed future funding requirements

Public policy initiatives are sometimes undertaken to bolster the funding of committed future benefit obligations. Municipal officials may prescribe, for example, specific funding levels that need to be achieved over a given time period or by a particular date. When unfunded pension liabilities are large, such initiatives may cause pension contribution requirements to increase sharply for a period of time, potentially placing strain on a municipality's operating budget. Ultimately, however, the establishment of strong funding levels and disciplined pension funding practices can positively influence ratings. This was the case with the State of West Virginia, which in the mid-2000s embarked on a policy initiative to improve its pension system funding over a multi-year period. As discussed further in the Appendix, these corrective actions contributed to a recent change in the State's rating outlook from stable to positive.

Additional Research to Follow

Over the coming months, we intend to update our published research from December 2006 by conducting a review of the largest cities' pension liabilities along with those of the states. Additionally, we will refine our approach to incorporating the reported pension information into the rating process. Finally, the reporting of Other Post Employment Benefits (OPEB) in published financial statements has begun and we plan to publish our analysis of this data along with the approach to integrating this information into the rating process.

Appendix

Pension Case Studies

West Virginia reversal of inadequate contributions results in positive outlook

Strong funding levels and practices are viewed as positive credit factors that can offset other weaknesses. West Virginia is an example of an issuer experiencing upward rating pressure due to more prudent pension funding practices after years of being one of the lowest funded commonwealths or states in the nation (Puerto Rico is the lowest by far at 19%). West Virginia's history of very large unfunded pension liabilities was the result of years of inadequate contributions as well as overly conservative investing practices (the state did not authorize investment in equities until 1998). In 2005, the ratio of pension assets to actuarial liabilities for the Teachers' Retirement System was below 25%. At that time, the state began to take aggressive actions to reduce the size of the liability. Through a combination of applying surplus revenues and proceeds of tobacco revenue bonds, the state increased funding of the Teachers' Retirement System to 50% in 2008 as well as increased the overall funding ratios on its five retirement systems to a combined funding level of 80%. The state continues to use surplus revenue to fund the pension liabilities, applying an additional $11.8 million above the annual required contribution in fiscal 2009. While the Teachers' Retirement System is still not fully funded, the actions taken by the state to date have helped to reduce the overall liability. This corrective measure was one of the reasons for the August 2009 revision of the state's outlook to positive from stable on its Aa3 general obligation rating.

For San Francisco, pension funding is key to Aa2 rating

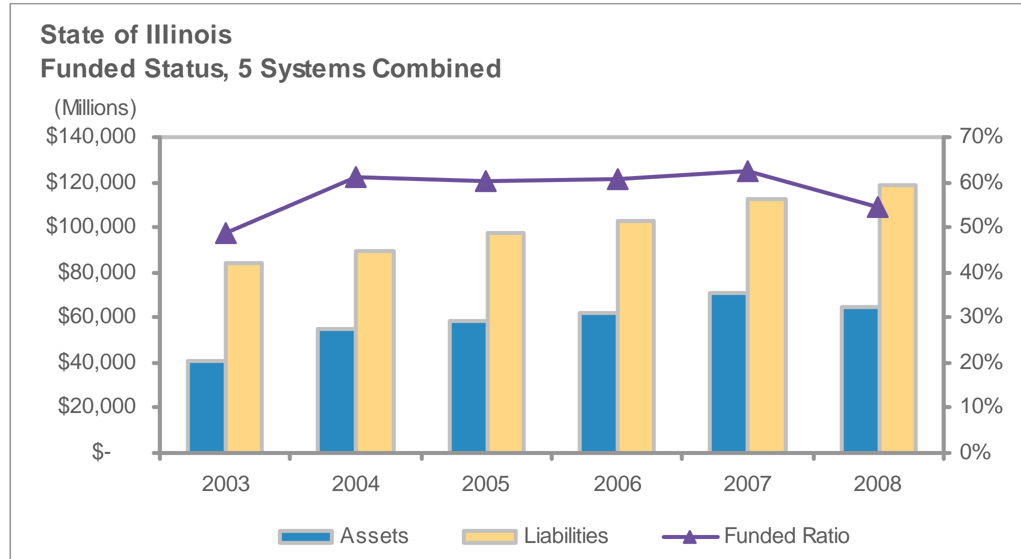
The City of San Francisco's pension funding is one of the key strengths supporting its strong Aa2 rating with a stable outlook. The relatively well-funded employee retirement system, like most investment funds, has suffered significant unrealized losses this past year. But, over-funded at 104% as of its June 30, 2008 actuarial valuation, the city started from a position of relative strength. It should also be noted that the pension system covers virtually all city employees, sworn and civilian.

Similarly, three Aaa-rated Connecticut cities, Stamford, New Canaan, and Greenwich, all were over 100% funded but, due to poor market returns, they now expect levels of funding to decline significantly. Greenwich's estimated funding ratio is approximately 85%, dropping from 101%. New Canaan's funding level had been 137% and although the city expects the funding level to decline, the system will likely remain over-funded. Stamford proactively funded an additional $1.2 million over its annual required contribution ("ARC") in the fiscal year ("FY") 2010 budget in efforts to maintain strong funding levels. The ARC is the amount determined through actuarial valuation that is required to be contributed to cover the current year's costs as well as to amortize a portion of the accrued, unfunded liability. While the vast majority of issuers face major hurdles, prudent management of the situation can significantly affect stability of the credit profile.

Illinois pension liability has contributed to rating decline

Illinois (general obligation bonds rated A1, on Watchlist for downgrade) has at times attempted to strengthen its pensions, but it has consistently paid less than the actuarially required amount, a practice that has dramatically increased its net pension obligation (or NPO — the cumulative amount of under-funding of the annual required contribution). The NPO of Illinois' five pensions rose to $19.2 billion as of the end of fiscal 2008, up 59% from $12 billion three years earlier. The aggregate funded ratio of the state's five pension plans

was as low as 49% in 2003. On average, state pension systems have had funded ratios of about 85% in recent years. Comparatively weak pension funding — the product of benefit enhancements as well as under-funding — was a significant factor in the state's April 2009 downgrade to A1 from Aa3. It is likely to remain a central consideration in rating actions affecting the state for many years.



Illinois enacted legislation in 1995 aimed at improving its pension funding. The law called for significant annual contribution increases during a 15-year phase-in period. However, it envisioned only partial amortization of the actuarial accrued liability (AAL), to a 90% funded ratio. Amortization was also projected over a 50-year period, rather than the shorter period (now 30 years) contained in external financial reporting under generally accepted accounting principles. Annual contributions under the law are supposed to increase during the phase-in period to a level percent of payroll. The law's impact has been weakened by amendments allowing reduced contributions in times of budget pressure, such as fiscal 2006 and 2007. The only year in which the NPO declined this decade was fiscal 2004, which followed the state's June of 2003 issuance of $10 billion of pension obligation bonds (POB). The full amount of bond proceeds from that issue was not allocated to amortize the liability; $2.2 billion effectively providing operating budget relief by reimbursing the state's general fund for fiscal 2003 and 2004 pension contributions. The state plans to issue about $3.5 billion of debt this year to help lessen its near-term funding burden. The governor had proposed various reforms, which were not enacted. The state is awaiting a task force report, due by November 1, on possible pension reform measures.

Pension pressures weigh heavily on New Jersey

On August 3, 2009, the outlook on New Jersey's Aa3 general obligation rating was revised to negative from stable in part due to mounting pension obligation pressures. The state's funded ratio for pensions was 70% as of June 2008, having declined from 101% in 2002. New Jersey's unfunded actuarial accrued liability (UAAL) for the pensions is approximately $23 billion, having increased from $19.2 billion in fiscal year 2007. In response to budget shortfalls, the state lowered the budgeted $1.1 billion in pension contributions for fiscal year 2010 and 2009 to $100 million and $106 million, respectively. The budgeted fiscal 2010 contribution is only 4% of the $2.5 billion ARC. The state's contribution for fiscal year 2008 was $1.1 billion, a significant drop compared with the ARC of $2.2 billion. For fiscal 2008, the rate of return on pension fund assets was a negative 2.9%. For fiscal year 2009, the estimated year-end return is negative 14.2%. The negative return for fiscal 2009 will cause the UAAL to continue to increase and the funding ratio to decline.

Moody's Related Research

Rating Methodologies:

- Moody's State Rating Methodology, November 2004 (89335)
- General Obligation Bonds Issued by U.S. Local Governments, October 2009 (119982)

Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

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Authors	Editor	Production Specialist
Douglas Benton	Joseph Cullen	Ida Chan
Ted Hampton		Wing Chan
Ted Damutz		

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