

Multiemployer Pension Plans Respond to the Financial Crisis

Judith F. Mazo and Eli Greenblum

September 2011

PRC WP2011-15

Pension Research Council Working Paper

Pension Research Council

The Wharton School, University of Pennsylvania

3620 Locust Walk, 3000 SH-DH

Philadelphia, PA 19104-6302

Tel: 215.898.7620 Fax: 215.537.3418

Email: prc@wharton.upenn.edu

<http://www.pensionresearchcouncil.org>

The authors express their appreciation to The Segal Company for data on which this analysis is based. All findings, interpretations, and conclusions of this paper represent the views of the authors and not those of the Wharton School or the Pension Research Council © 2011 Pension Research Council of the Wharton School of the University of Pennsylvania. All rights reserved.

Multiemployer Pension Plans Respond to the Financial Crisis

Abstract

Multiemployer pension plans cover union-represented participants who work for two or more employers. Plan assets and liabilities are pooled, so the risks and rewards are experienced by the group as a whole. Union and employer representatives collaborate in setting plan policy, defining benefits, and overseeing investments and operations; each side has an equal say. This chapter describes how, spurred by the Pension Protection Act's new requirements and flexibility, multiemployer plans are adapting to the crisis with a mix of benefit reductions and employer contribution increases aimed at stabilizing their finances, rather than phasing out their defined benefit programs – at least for now.

Judith F. Mazo

The Segal Company

judy@jmazo.com

Eli Greenblum

The Segal Company

egreenblum@segalco.com

Multiemployer Pension Plans Respond to the Financial Crisis

Judith F. Mazo and Eli Greenblum

Multiemployer pension plans cover workers under collective bargaining agreements including one or more unions and at least two employers. Negotiated employer contributions to stand-alone trust funds are managed by boards of trustees, on which employers and employees are equally represented; almost all multiemployer plans are subject to the Taft-Hartley Act as well as the Employee Retirement Income Security Act (ERISA) and the Internal Revenue Code (IRC). These plans are distinctive both in terms of their administrative logistics and the extent to which covered employee preferences influence plan design and operations. This chapter offers a description of the plans themselves and the rules governing their financing. Next we analyze the impact of the financial crisis on a subset of multiemployer plans – the 400+ plans whose actuarial valuations are handled by the Segal Company – with special focus on a subset of 107 plans classified as being in critical funding status for the 2010 plan year that had adopted rehabilitation plans by the time of the study.

We show that the Pension Protection Act of 2006 (PPA), as supplemented by temporary relief legislation in 2008 and 2010, has had an overall beneficial effect on these multiemployer plans and enabled most of them to navigate to a relatively secure financial position, as determined under the funding rules for multiemployer plans. The sacrifices made by employers and participants in these efforts suggest that multiemployer defined pension plans continue to enjoy support from those they cover, plus their employers' cooperation in keeping the plans going.

Methodology

The total number of multiemployer defined benefit (DB) plans in the US has dropped from about 2400 in 1980 to 1600 in 2009, largely due to plan mergers. Yet over the same period, the number of participants in multiemployer plans has grown somewhat, reaching 10.4 million by 2008, but the demographics have also shifted dramatically. In 1980, 76 percent of multiemployer pension participants were active workers, a share that dropped to 45 percent by 2008, according to the Pension Benefit Guaranty Corporation (PBGC 2009). As the largest actuarial and benefits consulting firm in the United States working with multiemployer plans, the Segal Company's clients represent about 25 per cent of those plans, covering roughly 30 percent of multiemployer plan participants nationwide. The information provided below is based on published annual surveys of plan funded status information as measured under PPA, completed by Segal Company actuaries in connection with the required annual certifications, as well as an unpublished in-depth survey of plans classified as critical for 2010.¹ The Segal Company's database covers virtually all types and sizes of multiemployer pension plans, in all geographic areas, industries, and levels of financial stability. The plans covered represent the broadest and most complete picture available of this country's multiemployer plans.² Our review of the data is supplemented by observations based on illustrative experiences of assorted plans with which we work.³

What are multiemployer plans and why do they have special rules?

The core definition of a multiemployer plan is straightforward: it is a plan to which two or more employers are required to contribute, under one or more collective bargaining agreements. Beyond that simple statement lie many variations. For example, these funds may range from 50-100 active workers and include 2-4 contributing employers in a locality, to

hundreds of thousands of participants and thousands of employers covering large geographic regions. Likewise, assets may range from \$15 million to \$20 billion; however, the typical size ranges from 1,000 to 5,000 participants, with assets of about \$100-\$500 million. In some industries, a fairly large number of employers may contribute under one or a few collective bargaining agreements to which they all subscribe, while in others there may be as many labor agreements as there are contributing employers, or even more (if companies contribute under separate agreements with respect to separate facilities). Some plans cover metropolitan areas, cities, or even smaller jurisdictions, while many are statewide. Beyond some very large regional plans (e.g., the Teamsters' Central States and Western Conference Pension Funds, the two largest multiemployer plans which together cover people in diverse industries working from the southeastern US to the Pacific coast), many unions co-sponsor national funds as well as those with more targeted coverage. Predictably, the size and shape of fund coverage reflect the size and shape of the industries in which the participants work and the evolution of union representation in those industries. Most multiemployer groups have DB plans, many also have defined contribution (DC) plans (called 'annuity funds') and a fairly small subset of those include 401(k) arrangements. Many multiemployer pension plans facing financial problems have reduced future benefit accruals, but few have completely frozen accruals.

Ordinarily, covered workers are all represented by the same local union, or by locals affiliated with the same international union. Multiemployer plans are found throughout the economy, notably in the construction industry, entertainment, trucking and transportation, longshore, retail, mining and manufacturing, food service, hospitality, health care, building service, communications, and the garment trades. More than half of the nation's multiemployer funds are in the construction trades, whose funds cover roughly 35 percent of all multiemployer-

plan participants. Multiemployer pension plans are usually paired with multiemployer funds that provide health coverage, life insurance and other welfare-type benefits, which are also financed through fixed employer contributions.

Understanding that there are exceptions at each general point, commonly found general characteristics of multiemployer funds have led to the development of special rules to accommodate their special circumstances. Most notably, virtually all multiemployer plans are set up as trusts structured under the Taft-Hartley Act, operated by joint management-labor Boards of Trustees as stand-alone entities operationally independent of the contributing employers and the unions that represent their participants. The Trustees, as plan sponsors, have full responsibility for managing the assets and administering the benefits, including the duty to make sure the plan meets all applicable legal requirements. For the great majority of plans, they are also responsible for designing the benefit formulas.

Typically, participating employers contribute the amounts negotiated under their bargaining agreements, say \$2 for each hour that participants work in covered service. The plan trustees, working with their professional advisors, determine and set the benefits, while the unions and employers independently negotiate over the flow of contributions. While the employers' most salient obligation is to contribute as defined in their labor contracts, because the plans promise participants a fixed benefit these are classified as DB plans under ERISA and the Internal Revenue Code. Contributing employers are often small businesses that might not provide pension or health coverage on their own. Also employees often work for short periods before moving on to similar jobs with different contributing employers. The employers compete with each other and with non-contributing companies for contracts and customers.

Without the intra-industry standardization and portable pension coverage that

multiemployer plans provide, few of the participants would have access to a DB plan or the tenure with any one employer to earn reasonable pensions, given their transitory employment. Consistent with minimum standards set in ERISA and the Internal Revenue Code, most plans require a worker to have 1000 hours of service with the employer sponsoring the plan during a 12-month period (a year of service) to be eligible for plan coverage and vesting credit, and between 1000 and 2000 hours during a 12-month period for a full year's benefit credit.⁴ A multiemployer plan participant may work for a single employer for 20, 50 or 150 hours during a given year, but will earn years of vesting and accrual credit by combining the service performed for all employers contributing to the same multiemployer plan. Regardless of which or how many employers a participant worked for, his or her pension is owed by the plan, backed by the industry. Contributing employers may come and go, but whoever is obliged to contribute in a given year will be funding a portion of the plan's accumulated liabilities to all of its participants over time, not just the benefits being earned by its own workers.

Retirement benefits in a multiemployer plan are rarely based on an employee's pay. Rather the pension is usually a specified dollar amount per year of covered service (e.g., \$80 per month times years of service), or a specified percentage of the total that employers are required to contribute based on the participant's work (e.g., a monthly benefit equal to two percent of total required contributions, so a participant with 1500 hours of service in a given year at a \$1.00 hourly contribution rate would accrue a \$30 monthly benefit). Often the benefit formula is a combination, reflecting changes in the formula over time. For example, a plan may provide a monthly benefit that is the sum of \$28 per year of service prior to 1980, \$49 per year of service from 1980 through 2003, and two percent of contributions required from 1/1/2004. Some plans have a uniform benefit formula for all participants, while others offer a variety of benefit

formulas that correspond, for example, to varying contribution rates under the different collective bargaining agreements.

Multiemployer pension plans hardly ever pay out benefits prior to early or normal retirement (except for death or disability), since ‘termination of employment’ other than for retirement is not a meaningful concept in these kinds of continuous-coverage group pension plans. Multiemployer pension plans generally pay pensions as life annuities: few of them offer lump sum options, and those that do usually offer only a small portion of a participant’s benefit as a lump sum. Retirees make up a relatively large proportion of the participant base for many multiemployer plans in part because the plans reserve most or all of the benefits earned for the provision of ongoing streams of retirement income.

Several pertinent points emerge from our overview. First, because multiemployer plans are the product of collective bargaining, the funding and other regulatory requirements must accommodate bargaining realities, where stability in pension and other costs is paramount.⁵ Moreover, since employers cannot be compelled to contribute beyond what they have agreed to in collective bargaining, the required funding generally cannot change during the term of a collective bargaining agreement. Inasmuch as many plans have a multitude of bargaining agreements that expire and renew at varying times, and as the bargaining process cannot accommodate sharp or unanticipated expense shocks, predictability in pension funding requirements is essential, over time, beyond the standard three to four year duration of a single bargaining agreement. When the parties negotiate pension contributions, the amounts are explicit alternatives to increases in wages, health contributions, or other elements of compensation, so the employees often view the contributions as ‘their money.’ If they do not believe the trade-off is

worth it, they might reject the agreement, which could throw the plan's funding arrangements into disarray.

The fact that the plans are run for union-represented groups also means that policymakers have not worried that these plans might be used to maximize tax advantages for employers, especially since both the Taft-Hartley Act and ERISA bar employers from recovering surplus assets after a plan termination. Moreover the plans are egalitarian, providing essentially the same benefits for all employees with the same patterns of service under the plan, so there is no question of discrimination in favor of the highly paid. Due to the Taft-Hartley structure, with an independent operation run by a Board on which the employers and the employees have equal representation, the entire cost of plan administration must be paid out of the plan's assets, with funds that would otherwise be dedicated to paying benefits.

In most cases, union trustees are also union officers elected by the membership to their union position, and as politicians they are highly sensitive to the will of the voting membership (which sometimes includes retired as well as active workers). Trustees, in turn, are alert to the fact that the employees and the employers can ultimately express their sentiments about how the plan is being run, by negotiating to reduce or cut off contributions.⁶ Accordingly, multiemployer plan strategies tend to reflect their stakeholders' preferences subject to the demands of governing federal law.

In our judgment, the finances of multiemployer plans are typically more stable than those of single employer plans sponsored by the kinds of small and medium-sized employers because of the broader multiemployer contribution base. By definition, a multiemployer plan does not depend on the fortunes of one company. Often when a local multiemployer plan does begin to falter, it is merged into a larger, stronger plan covering people represented by the same

international union. On the other hand, when a multiemployer plan actually fails that tends to be because of the failure of the industry that has supported it, and the losses to participants and to the pension guarantee system can be large because they include liabilities accrued by the industry over time, not just by people working for the current cadre of contributing employers.

How do funding rules address multiemployer plans?

Distinctions for multiemployer plans have been part of the ERISA minimum funding rules and termination insurance program since the start. As experience under ERISA has developed, the differences between the regimes governing single employer and multiemployer plans have widened. That history can be instructive.

1974-80: The post-ERISA years. The US Internal Revenue Code has long included special rules to allow multiemployer plans to function as pools rather than a cluster of individual employer plans, and to rely on negotiated contribution rates for funding and deduction purposes. Thus, among other things, IRC s. 413(b) provides that employer contributions are considered to be deductible if the amounts expected to be contributed would have been within the deduction limits. This protects the employers if, for example, there is more covered work than anticipated, resulting in the employers' contributing more to the plan, in the aggregate, than would normally be deductible.

When the pension plan termination insurance program was designed, Congress was initially uncertain whether it was needed by or appropriate for multiemployer plans. When ERISA was passed, no multiemployer plan had ever terminated, and, because of their broad contribution bases, these plans were expected to be able to cover all of the benefits they promised without government help. Accordingly, the initial multiemployer guarantee program

was an experiment: from 1974-77, the PBGC had discretion to insure benefits under terminated multiemployer plans, and very little financing for it (\$0.50/participant annual premiums, vs. \$1.00/participant for single employer plans).

Early experience. Rather soon after ERISA was passed, three multiemployer plans sought PBGC protection. These covered milkmen in New York, milkmen in New Jersey, and cap makers in St. Louis. This made clear that there was a role for a government guarantee of multiemployer pensions, and although it was rarely likely to be invoked, the aggregate pension claims could be large compared to claims then typical under terminating single employer plans. Experience during that discretionary period also disclosed one of most serious threats to these plans' survival and the guarantee program: like employers sponsoring single employer plans, employers contributing to multiemployer plans could be liable to the PBGC for the underfunding of a terminated plan that PBGC took over. Accordingly, it was in an employer's interest to leave a multiemployer plan when plan funding first showed signs of weakening. This, of course, would aggravate the plan's problems as fewer and fewer employers would be left to carry the funding load. It would also stress established labor relations, as employers had only three ways to get out of a multiemployer plan: with the union's agreement (which was likely to mean an agreement to end pension coverage for that group and substitute a DC plan), by persuading the employees to oust the union, or by going out of business.

Early multiemployer funding reform. In 1977, Congress extended the discretionary-coverage period to allow for the in-depth study of multiemployer pension plans that had not been done in the lead-up to enactment of ERISA. It concluded that adapting the PBGC guarantee program to fit multiemployer plans would be futile unless the law also addressed the 'last-man-standing' psychology that was propelling employers to exit multiemployer plans or press for their

termination. Ultimately, the Multiemployer Pension Plan Amendments Act of 1980 (MPPAA) introduced the concept of withdrawal liability. Complex and controversial, this law generally imposes liability on an employer that withdraws from a multiemployer plan for a *pro rata* share of the plan's underfunding. The more underfunded the plan is when the employer leaves, the higher its withdrawal liability is likely to be.

Withdrawal liability created a major incentive for employers to push to get their multiemployer plans well funded and to keep them there. MPPAA also revamped the pension guarantee program for those plans, making the PBGC the financier of very last resort. Instead of guaranteeing unfunded benefits when a multiemployer plan terminates, the PBGC does not step in with financial support until the plan becomes insolvent and lacks cash to pay currently-due benefits at the guaranteed level. Just about all multiemployer plans terminate when there are no employers left to contribute, because all of them have either gone out of business or otherwise are no longer obligated to contribute to the plan.⁷ When that happens, plan Trustees continue to administer the plan, collecting withdrawal liabilities, managing assets and paying benefits, until the funds are used up. That is the point at which the plan can draw on PBGC for financial assistance.

The multiemployer benefit guarantees themselves were also redefined and re-set at a low level. Initially this was a maximum of \$234/year per year of service, or an annual pension of \$7,020 for a retiree who had worked under the plan for 30 years. This was not indexed for inflation. Congress has increased the guarantee level once, in 1999, and today the maximum is \$429/year for each year of service, or \$12,870 a year for someone with a 30-year career under the plan. The other especially notable MPPAA change was the introduction of special funding rules for multiemployer plans nearing or at bankruptcy (IRC ss. 418 – 418E), which authorized

benefit reductions and required that benefit payments be cut down to guaranteed levels. As it turns out, this plan reorganization concept hardly ever comes into play, mainly because it focuses on plans that do not have enough assets to cover their liabilities for current pensioners. While this may have been a concern in 1980 shortly after the ERISA funding requirements took effect, at this point, when multiemployer plans start running short of funds, it tends to be due to investment losses that erode the reserves being held for future retirees.

1980-2008: The multiemployer pension plan amendments act. While funding and guarantee programs for single employer plans were changed repeatedly over the next quarter century, multiemployer rules stayed essentially the same. The 1976 ERISA rules continued to govern multiemployer plans' minimum funding requirements. Following a flurry of protest and litigation, including several trips to the US Supreme Court, employers adapted to withdrawal liability and learned to take it into account in business planning. Only a few small plans applied for PBGC financial assistance and the multiemployer guarantee fund consistently ran a surplus. During the 1990s, most plans faced the challenge of overfunding, and looked for ways to be sure the employers could take a tax deduction for their pension contribution. The Multiemployer Pension Plan Amendments Act (MPPAA) helped establish this period of repose. After the intensity of the 1979-80 legislative battles, neither Congress nor the Administrations had much appetite for re-igniting the withdrawal liability controversy, so multiemployer plans were routinely exempted from whatever funding changes were enacted. But the real reason why the MPPAA reforms seemed to work so well was that multiemployer plans were prominent among those benefiting from the general prosperity of the 1990s. By and large, plan investments did well, there was plenty of work for participants, and employers made profits, so withdrawal liability and statutory minimum funding requirements drew little attention.

During the 1990s, negotiated contributions generally kept rolling in to multiemployer pension plans even when the new money was not needed for plan funding. Some plans allowed unions and employers to negotiate short-term ‘contribution holidays’, and in some cases the bargaining agreements redirected the flow of contributions to the health plan or the annuity fund. But unions were typically reluctant to propose or agree to interrupt the rhythm of continuous pension contributions because restarting them at a later date would be costly from a negotiating perspective: the union would have to trade other benefits just to re-establish the practice of employer contributions. Most plans were amended during that period to increase benefits, sometimes repeatedly, in order to absorb the additional funds and assure that employers could deduct their plan contributions.

This era of general contentment and overabundance came to an abrupt end when the investment markets crashed in 2000-02. Mature multiemployer plans with many retirees and declining numbers of active participants had become highly leveraged, living off the earnings from the very considerable reserves they had built up. When those investment gains turned into losses, funding levels declined and withdrawal liability flared back up, reawakening employer suspicions. The median investment performance of multiemployer plans in the Segal Advisors Multiemployer Universe was 3.5 percent in 2000, -3.4 percent in 2001 and -8.2 percent in 2002.⁸ Since the plans’ typical actuarial earnings assumption was 7-7.5 percent, this translated into actuarial losses ranging from 4 percent in 2000 to 15.2 percent in 2002. Some plans saw funding deficiencies looming and turned to IRS for help under ERISA relief provisions (mainly amortization extensions), but the agency was swamped with funding-waiver pleas from troubled single employer plans and relatively unfamiliar with the intricacies of multiemployer funding. In fact, the IRS did not start acting on multiemployer plan relief requests until 2005.

The Pension Funding Equity Act of 2004 provided a little breathing room for single employer plans but not for multiemployer plans. By mid-2004, most multiemployer plans seemed to be treading water well enough to avoid the catastrophic terminations that workers and the PBGC had faced in the airline and steel industries, so the multiemployer sector did not command policymaker attention. Nevertheless, some plans were significantly damaged and were facing imminent minimum funding crises. In 2005, several major employers and employer associations, unions and multiemployer plans banded together to advocate for a substantive update to the multiemployer funding rules that would be compatible with the character of the plans and the industries that support them. This coalition's work with Congress led to the development of the multiemployer provisions of the Pension Protection Act of 2006.

2008–Present: The pension protection act. Enacted in the summer of 2006, the Pension Protection Act (PPA) funding rules took effect with the start of the 2008 plan year. This Act made a few changes in the mechanics of the ERISA funding standard account and related rules, which continued to apply to multiemployer plans. New benefits and benefit increases are now amortized over 15 rather than 30 years, and any short-term benefit increases must be funded as quickly as they will be paid.⁹ Unlike single employer plans, multiemployer pension plans can continue to use long-term investment return assumptions chosen by their actuaries and employ traditional actuarial methods of smoothing changes in asset values to temper the impact of investment market fluctuations. PPA also increased the limits on deductible contributions, to help pension plans build reserves without penalizing contributing employers.

Longer-term perspectives: The zones

For multiemployer plans, the principal PPA innovation was to require trustees and bargaining parties to look past the plan's financial status as of a given valuation date, to take a measure of where it is headed. If the funding is projected to deteriorate to specified levels over a seven-year horizon, the trustees must adopt a formal corrective plan with annual monitoring and adjustments specified to stay on course. The law provides new tools to help trustees bring plan liabilities and assets into balance. Additional reporting to participants and employers, as well as to the government, provides extra transparency and accountability.

Specifically, the law characterizes a multiemployer plan as 'endangered' if its funding percentage (ratio of assets to liabilities, both measured on an actuarial basis) is below 80 percent, or if it is projected to have an accumulated funding deficiency in the funding standard account within seven years (as established under the ERISA rules, with the PPA modifications noted above). If both are true, the plan is considered 'seriously endangered.' 'Critical status' indicates more serious problems: a projected funding deficiency within four or five years or pending near-term cash-flow difficulties. Colloquially, endangered status is called the 'yellow zone' and critical status is the 'red zone.' Following the Homeland Security theme, a plan that is neither endangered nor critical is said to be in the 'green zone,' although there is no official classification for a plan that looks healthy according to these metrics.

When a plan goes into the yellow zone, contribution reductions and benefit increases are restricted. The trustees must come up with a Funding Improvement Plan ('FIP') designed to close the underfunding gap by at least one-third over a 10-year period (for most seriously endangered plans, the goal is a 20 percent improvement over 15 years). This must include schedules of benefit changes and, if necessary, contribution increases, to be presented to the

employers and unions so they can choose a solution for their group through collective bargaining. The FIP must be re-evaluated each year by the trustees, and adjusted if needed to stay on schedule.

A plan in the red zone must be addressed with more serious solutions. When a plan goes into the red zone, in addition to enforcing restrictions on reducing contributions and increasing benefits, the plan must stop paying lump sums and similar front-loaded benefits to new retirees. Trustees must adopt a rehabilitation plan that aims at getting the fund out of critical status within a 10-year period. This includes offering the bargaining parties schedules of benefit cuts and contribution increases that are calibrated to achieve this improvement, for them to select through bargaining. To give parties a full opportunity to deal with the plan financial challenges through bargaining, the law starts the funding improvement and rehabilitation periods at the beginning of the plan year following the expiration of the bargaining agreements covering 75 percent of the active participants. As a practical matter, this often gives plans an extra two or three years to recover. Also, the Workers, Retirees, and Employers Relief Act of 2008 allowed multiemployer plans that were in endangered or critical status in 2009 to extend their recovery periods by three additional years.

Benefit reductions under a rehabilitation plan can include the reduction or elimination of ‘adjustable benefits’ that are ordinarily protected from cutback, including recent benefit increases, early retirement subsidies, and other benefit features – but not the accrued benefit payable at normal retirement age. Moreover, these benefit reductions are ignored when computing withdrawal liability. For active workers, future accrual rates cannot be cut below one percent of contributions unless the union and employers negotiate a deeper reduction as part of a package that is acceptable to the trustees. Employers that contribute to a red-zone plan are

subject to a contribution surcharge (initially five percent, going up to 10 percent after the first plan year) until they agree to an acceptable schedule of contributions and related benefit adjustments under the rehabilitation plan. However, there are no penalties on employers if a red zone plan actually has a funding deficiency, as long as the parties are living up to their red-zone obligations and the fund makes progress as expected under the rehabilitation plan. The rehabilitation plan benchmarks can be revised if it turns out that the original program was too ambitious, but the ultimate goal remains the same: emergence from critical status by the end of the rehabilitation period.

If the trustees determine that, after exhausting all reasonable measures, a multiemployer plan will not be able to recover within the statutory period, they must adopt a recovery program that may take longer but is likely to work. If they believe that they cannot reasonably turn the situation around even with extra time, they must design a plan to forestall insolvency. The statutory provision authorizing these alternative approaches is often called the ‘safety valve.’

The PPA goes into effect

The PPA funding rules first took effect as of the start of the 2008 plan year. The first round of zone certifications was delivered on or before the March 29, 2008 deadline for multiemployer plans whose plan year coincides with the calendar year. Results were about what had been expected (Segal 2007, 2009a,b; 20a0, 2011a-c). After all, the PPA was enacted because the stock market plunge at the start of the century had knocked a number of pension plans back on their heels. Many of the plans had already taken action by reducing future accrual rates, recommending contribution increases, or both. Enactment of the PPA added an additional incentive during 2007, as some boards reined in benefits and pressed the bargaining parties for

contribution increases so that their plans could avoid a certification of yellow or red. In the survey of plan year 2008 results, 78 percent of the plans were 'green', that is, neither endangered nor critical (Segal 2008). That meant that, at a minimum, they were more than 80 percent funded and were not faced with an imminent minimum funding deficiency. Twelve percent of the plans were classified as yellow, usually because they were on their way out of danger but had to continue exercising contribution and benefit discipline in order to avoid going into a troubled zone.

In that first year, fewer than 20 percent of the multiemployer plans had funding ratios below the 80 percent funding mark. In many cases the yellow-zone plans only needed what were called 'no-action' funding improvement plans. The discipline they had imposed in the prior few years was projected to be enough to carry them out of endangered status within the statutory time frame without the need for additional special action. Plans that were classified as red were usually expecting it. After PPA was enacted, most of the plans in that initial group had been alerted to what they were facing, and many had already started planning for it well before the law took effect (Segal 2008).

Plans are not allowed to reduce adjustable benefits of participants who retire before they are given notice that their pension plan is in the red zone and warned that benefits may be cut. Because the law was passed in 2006 and the zone rules did not take effect until 2008, plans whose financial struggles were widely known were concerned that the advance-notice requirement could trigger a run for the door, with participants retiring at their earliest opportunity to avoid possible cutbacks. Accordingly, PPA authorized plans that believed they would be in critical status to give the warning early. Ultimately, only a handful of plans took advantage of this opportunity. The funds certified as critical initially were generally plans that were

overloaded with retirees and terminated vested participants, which had been grappling with funding challenges for years. For the 2008 plan year, 10 percent of the surveyed plans were in the red zone (Segal 2008).

The market crashes: 2008-09

Stock values had already begun to fall in the spring of 2008, with losses picking up speed over the summer; in late September, both the equity and bond markets plunged and the nation's financial system was in turmoil. The sudden, severe drop took a heavy toll on many pension plans. Even though multiemployer plans had funding rules that provided mechanisms to smooth out volatility, the impact of the asset crash on plans' zone classification was immediate and dramatic because the asset plunge was so severe. With typical portfolio losses in the 20-25 percent range, this resulted in actuarial losses of roughly 25-30 percent. Bleak employment projections used in the zone status determination process exacerbated the decline in the number of green-zone plans.

The Worker, Retiree, and Employer Recovery Act of 2008.

Employers grew concerned about the pension claims on their cash flows attributable to the combined asset drop and unfunded liability spike. Moreover, multiemployer plan sponsors worried about the disruption to their industries that could be triggered by the drastic cuts in benefits and increases in contributions that the PPA rules might force them to adopt. Benefit cuts and contribution hikes might also become unnecessarily severe if the crisis proved to be short-lived and would be difficult to unwind once bargaining agreements had been amended and benefit reductions had been put into place.

Before the official start of the rehabilitation or funding improvement period, during what the law labels the funding improvement or rehab plan ‘adoption period’, benefit increases are not allowed. During the formal correction period, plan amendments increasing benefits are allowed only if they are funded with new money and do not slow down the plan’s recovery process. Also during the adoption periods, negotiated contribution rates cannot be reduced, directly or indirectly; this restriction continues to apply to yellow-zone plans throughout the funding improvement period.

Congress responded to these concerns by passing the Worker, Retiree and Employer Recovery Act (‘WRERA’) in December of 2008. For multiemployer plans, the intent and effect of the WRERA relief provisions was to give trustees and bargaining parties some breathing room, to take stock of what had happened and come up with a strategy for repairing the damage. Under WRERA, multiemployer plan trustees had additional options for the 2009 plan year.¹⁰ Regardless of their actual status in 2009, they could stay in the zone status in which they had been classified for 2008 (the ‘freeze’). If they were in the yellow or red zone in 2009 and chose to accept that status rather than to freeze at a higher 2008 level, they could add three years to their statutory recovery periods. That meant that, instead of aiming to get out of the red or yellow zone by, for instance, 2019, their deadline would be 2022. This might enable them to use less drastic corrective measures in the early years. Also, if they had been in the red or yellow zone for 2008 and they chose the freeze, they could skip the otherwise-required annual update to their Funding Improvement or Rehabilitation Plan and wait to adapt their remedial program until they had a clearer picture of the plan’s and the employers’ financial situation.

Where multiemployer plans ended up. Indeed, the plan classifications did shift dramatically from 2008 to 2009. As measured by the actuaries, the share of plans whose funded status put them in the red zone jumped from 10 percent to 30 percent, while 32 percent of the plans met the tests for endangered, or yellow-zone, status. For 2009, plans in the green zone still represented a plurality, but their share of the total dropped by more than half, to 38 percent (from 78 percent in 2008). These were classifications based solely on the statutory tests for endangered and critical status.¹¹ For more than 150 plans (or almost half of those that had been green in the 2008 database), the indicators of zone status had deteriorated to the point that they dropped to yellow or even red for 2009. Yet WRERA gave the trustees the opportunity to freeze their 2008 status and stay in the green zone for one more year, and 88 percent of those plans elected to do so. As a result, the final *official* zone count for the 2009 plan year, taking into account trustees' freeze elections, was 75 percent green, 11 percent yellow and 14 percent red. In addition, 40 percent of the plans in the yellow or red zone in 2009 chose to accept the offer under WRERA and take three extra years to recover, and roughly 75 percent of the plans classified as endangered or critical in 2008 chose the WRERA freeze for 2009, to avoid imposing deeper benefit cuts or requests for higher contributions.

Toward recovery. As investment markets started to rebound in 2010, the funded classification of multiemployer pension plans generally followed suit. The zone line-up for the 2010 plan year reflected the country's tentative economic recovery. When compared to the 2009 status (as determined by the actuaries and ignoring the WRERA freezes): 53 percent green, 18 percent yellow, 29 percent red (see Table 1). Notably, nearly all of the improvement from 2009 to 2010 in the share of green zone plans seems to be due to the recovery of plans that had been labeled

endangered (yellow zone) the prior year. By contrast, there was little change in the proportion still in critical condition, which dropped one percentage point from the 30 percent level in 2009.

Table 1 here

We believe that this is largely due to three factors. First, since a plan can be assigned to the yellow zone based solely on its funded percentage, it is easier to flip into and out of endangered status due to transient events than it is to enter and exit the red zone. This suggests that mechanical metrics do not necessarily reveal much about a plan's financial vigor – the extent to which its income stream is keeping up with its benefit payment commitments, and whether that outlook is improving or declining -- so the yellow-zone tests can yield a fairly large proportion of false positives or false negatives. The funded percentage used in these tests is based on the plan asset values used by the actuary for plan funding. The asset smoothing process (spreading out recognition of the impact of actual performance) and the ability to switch smoothing methods also contribute to the variances between plans' financial outlook and how they score on the yellow-zone tests.

Second, the law deliberately makes it hard to get out of the red zone. Instead of just reversing the triggers that put it into critical status, a plan cannot emerge from the red zone unless its actuary projects that it will meet the minimum funding standards for at least 10 years. The goal was to keep plans from bouncing into and out of the red zone and having to start and stop the rehabilitation process repeatedly. And the third factor distinguishing the red zone is more important: in addition to other negative financial indicators, by definition, plans in the red zone are facing either a funding deficiency or insolvency within the next 10 years. This is about more than fluctuations in asset values that can put a plan's funded ratio a few percentage points on one side or the other of a fixed cutoff point. The economic disruption of 2008 had abiding

consequences for many of the industries supporting multiemployer plans, beyond driving down plan assets. Of greater concern has been the relentless recession and corresponding plunge in the availability of work for so many multiemployer plan participants, especially in the construction industry.

When employers have enough business, they hire covered workers and contribute to their pension plans based on measures of covered work as set out in their bargaining agreements (usually on a per work-hour or work-week basis). As covered hours have fallen substantially, however, year-to-year improvements in the plans' equity portfolios may not be sufficient to propel troubled plans back to financial health. For example, since 2008, some multiemployer plans have reported employment declines of 30 percent or more, especially in the construction industry which represents roughly half of the plans. This feeds back into the zone certification via the trustees' projections of future industry activity, which the actuary looks to in projecting the possibility of a funding deficiency or insolvency in the coming years. Regardless of the performance of plan assets, in a number of instances trustees are projecting a slow recovery to pre-2008 levels, if they expect an industry recovery at all.

Multiemployer plans in critical status for the 2010 plan year. Of the 373 multiemployer plans for which 2010 financial and zone-related data had been tabulated as of the date of this writing, 107 critical status plans had formally adopted Rehabilitation Plans by the end of that year. The principal purpose of the special multiemployer PPA rules was to identify struggling plans, give their sponsors tools and flexibility to fix them and make them responsible for doing so. Here we look at how the rules are working for this subgroup of multiemployer plans.

Plan Characteristics. Like the universe of surveyed plans, these red-zone plans are distributed throughout the country, range in size from very small to very large, and cover people working in

a broad range of industries (Tables 2 and 3). Of these, 21 percent had been in critical status in 2008 when PPA went into effect, and 63 percent were in fact in the green zone for that year. For 62 of the plans, 2010 was the first year that their status was officially red. This was generally because they took the WRERA option to retain their 2008 green or yellow zone status for 2009. Two-thirds of these otherwise red zone plans elected the freeze. Moreover, a few were surprisingly well funded, including one that was more than 100 percent funded (Table 3). This is another example of the shortcomings of using the ratio of assets to liabilities as of a given date as an indicator of plan strength.

Tables 2 and 3 here

Red zone plans. While the law identifies a subcategory of endangered plans deemed to have multiple problems but not yet in the critical category, labeling them ‘seriously endangered’ (colloquially, ‘deep yellow’ or ‘orange’) and subjects them to somewhat different requirements,¹² there is no such formal ranking among critical status plans. In fact there is some sorting among those in the red zone, as the trustees make decisions about fashioning a rehabilitation plan, which is due roughly eight months after a plan’s initial certification as critical. The *de facto* subcategories are plans that believe they can recover within the specified time frame (called here ‘bright red’); plans that expect to emerge from red over a somewhat longer period (‘dark red’); and those (‘rusty red’) plans that have basically given up and are focused on forestalling insolvency, which is the minimum required by PPA’06. The statutory provision directing trustees of red-zone plans to pursue alternative goals if they determine that, after ‘exhausting all reasonable measures,’ their plans could not recover within the standard time frame – or at all – is referred to as ‘the safety valve.’ Of the red zone plans described here, roughly 63 percent have created rehabilitation plans that, in the view of the trustees and

bargaining parties, should enable the plans to exit the red zone by or before the end of the standard 10-year (or 13-year, if that option was chosen under WRERA) rehabilitation period. Four of these have so-called ‘do-nothing’ rehabilitation plans, that is, no additional contribution increases or benefit reductions are needed, beyond what was already agreed to in the bargaining agreements before the plans went into critical status, to carry them out of the red zone.

Many critical-status plans that are aiming to recover try to get thoroughly out of red and into the green zone, because advancing just to endangered status - the yellow zone – means they would have to recapitulate the whole process of notices, formal planning and monitoring, and they would have even less flexibility in managing their plan benefits and contribution rates than they do in critical status. Also, they are required under PPA to develop a decent margin of protection from slipping back into red in the near future, and they usually want to do whatever they can to avoid a re-start of the red-zone ordeal in case there is another reversal of the fortunes of the plan or the industry. Like the critical status plans generally, the plans on track to get out of the red zone within the standard 12-15 years do not fit any particular profile in terms of size, industry or geographic area. As Tables 2 and 3 indicate, there is a surprising variety in their funded percentages, which range from 40-108 percent, averaging 71 percent. Fifteen of these plans were funded at 80 percent or better.

Virtually all of the plans in this group that were eligible to do so chose to add the extra three years to their Rehabilitation Periods. Excluding the four ‘do-nothing’ plans, 85 percent offered the bargaining parties at least one optional package of benefit reductions and contribution increases in addition to the mandatory default schedule, which emphasizes benefit reductions. In most cases (63 percent) the choice was between the default schedule and one preferred option. Some offered two or even three alternatives to the default, and one rehabilitation plan had as

many as 14 options from which the parties could select in bargaining. Particularly with plans maintained under a small number of bargaining agreements, positions taken by the employer and union representatives on the boards of trustees can be a good preview of the reactions of the bargaining parties. The expectation is that the parties will elect the preferred option, which may have been informally pre-negotiated before the trustees officially settled on schedules. In the more typical situation, trustee-level discussions supported by actuarial modeling can address questions from the employer and union perspectives so that less time is needed for the official collective bargaining process. This phenomenon also appears where there may be numerous contracts but a few dominant employers or employer associations. Prompt adoption of an acceptable schedule enables the employers to avoid or minimize the contribution surcharges that go into effect roughly shortly after a plan's red-zone status is certified.

In considering the interaction of trustee decision-making and collective bargaining, it is worth recalling that plan trustees and bargaining parties are often the same people wearing different hats. The fact that, as trustees, they reach decisions that are designed to be acceptable to both sides in their labor-relations capacity is the rationale for the 'two-hat' concept under ERISA and the Taft-Hartley Act. Plans would soon fail if their trustees had to ignore the practical effects of plan benefits and costs on the employers and workers whose support is necessary to keep the plans going. The standard approach is for the trustees to work their way to a few consensus solutions. In many industries the default plan may be too extreme to be acceptable to either side, but it is put together at the end of the process because the law requires that it be offered. Sometimes the parties take special steps to make the default plan especially unappealing, with deep benefit cuts and a sharp first-year contribution increase, in order to assure widespread agreement on the preferred schedule. For example, in one case contributions were required to

increase in the first year by 23 percent under the preferred schedule but 186 percent under the default. The differential was due in part to the fact that the default required the full increase to go into effect the first year, while the preferred allowed it to be phased in over a number of bargaining cycles. (All of the groups bargaining with regard to that plan accepted the preferred schedule.)

If a plan's funded positions and the industry's financial positions were static, phased-in contribution increases would end up with a higher eventual rate, as compared to an earlier but higher increase - like paying the same dollar-amount of debt in long-term or short-term installments. But of course these real-life circumstances will vary from time to time and the bright-red plans, by definition, are expected to recover - perhaps before the higher contribution rates would fully phase in.

The rehabilitation plans that these boards of trustees designed (again, other than the 'no-action' ones) mix and match contribution increases and benefit reductions in a wide variety of combinations, corresponding to the wide variety of circumstances in which the different plans must make their way back to financial stability. The preferred schedules called for contribution increases in the first year ranging from 4.4-97 percent, averaging 23 percent, but most of the increases are clustered in the 6-15 percent range. All of the preferred schedules for these plans cut adjustable benefits -- primarily early retirement subsidies -- for then-current active participants and all future retirees. In addition, roughly 30 percent of the bright-red plans would reduce future accrual rates as part of the preferred schedules under their rehabilitation plans. These benefit reductions ranged from 7-75 percent, with a high degree of variation.

Reductions in future benefit accrual rates are more common among multiemployer plans wrestling with funding issues than these figures show, since this type of benefit cut is often made

outside of the rehabilitation plan. In the four years before going into critical status, one-third of the bright-red plans had cut future accrual rates, either directly or by a plan amendment excluding recent contribution increases from the benefit formula.

The default schedules for these plans also displayed wide variation. Only 28 percent of the default schedules called for no initial increase in contribution rates, because - as required by PPA - the remedial plan could be fashioned solely based on benefit reductions. For the other bright-red plans, the initial year default contribution rate increases for bright-red plans ranged from 1-186 percent, with an average increase of 37 percent (the 'interquartile range' was 10-50 percent, meaning half of the plans required a default increase in that range, while one-quarter each were above and below).

For some 30 percent of the bright-red zone plans, the default schedule required a higher contribution rate increase than the preferred alternative, for the reasons discussed above. For four of them, the preferred schedule cut future accruals more deeply than the default schedule. That may have been due to the one percent floor on permitted default-schedule reductions in future accrual rates. Thirteen of the 67 bright-red plans, including all those with 'do-nothing' rehabilitation plans, offered only one schedule, the default. Four of those plans aim to repair their funding positions without contribution rate increases, relying instead on reductions in adjustable benefits and future accrual rates. Three of these plans offer only the default schedule, both to preserve their tradition of providing a uniform benefit formula for all participants (a strong incentive for many plans, both to maintain equity among bargaining groups and to simplify administration, especially where employees move from employer to employer) and to avoid provoking influential employers who have expressed opposition to the DB format.

'Dark red' plans: Safety-value plans with extended red-zone exit goals. Twelve of the plans in the sample – about 11 percent of those in critical status for 2010 – have determined that, even after 'exhausting all reasonable measures' they could not emerge from that status within the time allotted by the statute. Rather than forcing the plan into the standard mold to the point that, in their trustees' judgment, their plans or industries would be severely damaged, those plans have set a longer-range goal for their rehabilitation. Seven of them have set target emergence dates in 14–19 years, two in 21–28 years and three in 30 or more years. Seven of these dark red plans are in the transportation industry, three in construction and two in retail trade. One is quite small, with only \$6 million in assets; four are fairly small, with \$23-\$77 million in assets, and the remaining seven are standard size for local/regional multiemployer plans, with assets ranging from \$133-\$272 million. On average their funding ratio as measured for this purpose is 67 percent, with the actual percentages running from 56-78 percent. All have adopted rehabilitation plans that call for a combination of benefit reductions, including adjustable benefit cuts for active and retiring participants, and contribution rate increases. One of these plans offers only the default schedule, nine offer the default plus one option, and two of the plans offer two alternatives to the default. For two of the plans the default schedule calls for a significantly higher initial contribution rate increase than the alternatives, while in six plans the initial default and preferred schedule contribution increases are the same or fairly close (within one percentage point). In six cases the rehabilitation plan does not call for cuts in future accruals, either under the default or the preferred schedule. In the others, the accrual-rate cuts are either the same or deeper under the default schedule.

'Rusty red' plans: Critical plans aiming to forestall insolvency. Finally, there is a cluster of plans whose trustees – unquestionably in consultation with bargaining parties – have concluded that

there is no way their plans could recover, at least without demanding unreasonable sacrifices from the parties, which they believe would probably hasten the plans' failure. These rusty red plans are stretching to try to forestall eventual insolvency, which would force a reduction in benefit payments to PBGC-guaranteed levels. There are 28 such plans (26 percent of all of the rehabilitation plans in the sample) in a range of industries, most of which are dying or severely impaired, at least in the regions where the plans operate. These include eight in the printing/newspaper industries, seven in transportation, five manufacturing, only four construction, three entertainment (two of which cover people working in local movie theaters) and one in services. Only two expect to become insolvent within five years, another five before 10 years, 17 more within 20 years, and the remaining four expect that it will be 30 or more years until they run out of funds to pay benefits. At least one plan has set up its rehabilitation program to theoretically – and just barely – avoid ever running out of money.

These plans have undertaken several changes in their structure of late. All but one imposed adjustable benefit cuts; eight have preferred schedules that severely cut the benefit accrual rate (by at least 20 percent), while 11 others had already slashed benefits prior to the rehab process. The average first-year contribution rate increase is 21 percent in the default schedule, and 19 percent in the preferred, but this is heavily influenced by a few outliers. For the majority, these increases are in the 10-17 percent range. For those that apply these increases on a compounded basis over several years (as is generally the case in the preferred schedule when emergence is planned), this can amount to enormous increases over time. For example, if the rehabilitation plan schedule calls for a 10 percent contribution-rate increase every year during the rehabilitation period, a bargaining agreement calling for a \$2 hourly contribution rate for 2010 would have to be renegotiated to provide for a \$3.22 rate by 2015, and ultimately a contribution

of \$5.19 per hour starting in 2020. The average funding ratio is 67 percent, and only two were below 50 percent for 2010. Four have a funding ratio above 80 percent. As to asset size, four have less than \$10 million remaining, 12 others have less than \$80 million, eight more have between \$80-\$400 million, and four had at least \$600 million at the beginning of the 2010 Plan Year.

Whether all of these plans will inevitably proceed to fail is an open question. It is possible that some may recover with an industry turnaround, or that the more viable groups will be spun off and merged with plans in their industry whose prospects are better. Others may find that a mass withdrawal is more affordable for their participants and employers than a slow and hopeless decline. Currently there is a gap in the law between the MPPAA plan reorganization/insolvency rules and the PPA zone rules. For plans that are drifting into insolvency, with or without a mass withdrawal along the way, statutory amendments are needed to make the processes work together seamlessly. In the course of re-examining the end-of-life rules for multiemployer plans, Congress may also consider updating the level of the multiemployer benefit guarantees, as some multiemployer advocates have requested.¹³

A mass withdrawal typically requires union cooperation, unless all of the employers are going out of business. Negotiated withdrawals usually include a replacement retirement plan of some kind. This may be a DC plan but, if the employer has a very well funded single employer plan for the rest of its workforce, might include coverage under that plan. So the decision on a mass withdrawal is likely to be a mutual one, with both parties weighing the ultimate costs they would face. On the other hand, in some situations a plan that is on the ropes might have a chance at resurrection. While the rapid recovery hopes of a few construction funds in the Chicago area were dashed when the city lost its bid for the 2016 Olympics, the announcement of a different

large-scale project – say, the licensing of a nuclear power plant or building of the long-awaited third regional airport– could have the opposite effect.

Coda: Funding relief and 2011 funded status results. Following up on WRERA, in late June of 2010 Congress passed the Pension Relief Act ('PRA'),¹⁴ which (among other things) softened the recovery burden for multiemployer plans with reasonable expectations of moving into the green zone and stabilizing their ongoing funding status. It gave plans the option to amortize the 2008-09 asset losses over 29 rather than 15 years¹⁵ and to extend the smoothing period over which those losses are recognized in their actuarial value of assets. A plan is not eligible to use these tools unless it is projected to be solvent over the period that the relief would be in effect, based on contribution levels already bargained, so few of the 'safety-valve' red zone plans are likely to qualify. For other plans, the relief will enable them to improve their zone status or to impose less drastic recovery measures because it will not be as difficult to avoid a funding deficiency. Still other plans hope to use the relief as an opportunity to stabilize their finances, by adding margins to absorb adverse future experience.

Depending on the situation, in practical terms this could permit a plan to avoid the need for additional remedial actions, to preclude a plan from dropping back into the yellow or red zones and starting the rehabilitation process all over again, or, for plans that have always been green, to strengthen their buffer against endangered or critical status. At this point, it is too early to analyze the effect of that funding relief on the plans and on their zone status. The initial phase of the 2011 Segal survey covers 234 calendar-year multiemployer plans, for which 2011 zone certifications were completed by March 31. Of these, 66 percent (154 plans) elected some or all of the PRA funding relief. Coupled with continued favorable investment results, the plans appear to be continuing their climb back to a more comfortable financial status. Sixty-five percent of

them are now in the green zone, 11 percent are in the yellow zone and the share in the red zone has dropped to 24 percent (Segal 2011c).

Table 4 here

Conclusion

The Pension Protection Act of 2006 challenges the trustees, employers, and unions that manage and fund multiemployer pension plans to look at their plans' finances -- not just as of the start of each year, but also over a longer period, to project where the plans are headed. If the intermediate outlook does not look good, the parties must act to correct the trajectory based on metrics prescribed in ERISA and the Internal Revenue Code. PPA also gave trustees and bargaining parties flexibility to accomplish this, including the authority to cut early retirement subsidies and other protected benefits in order to bring plan assets and liabilities into a better balance. PPA provides a structure that enables trustees to devise plan remedies that fit within the industry and labor-relations framework on which the plan depends. Shortly after the provisions became effective, the financial crisis forced trustees and bargaining parties for most plans to confront this challenge in a meaningful way.

The experience of the multiemployer plans analyzed here indicates that PPA is doing the job for which it was designed, for those plans. Even in the face of the dramatic investment losses experienced in 2008-09, followed by the depressed level of employment in the construction and other industries where multiemployer plans are prevalent, a large majority of the plans appears to be succeeding. This might not have been possible under PPA as enacted, and it appears that the temporary extra help that Congress provided in WRERA and the PRA was essential. Nevertheless, one in four of the red zone plans – between 5-10 percent of all multiemployer

plans – has concluded that it is unlikely to recover, a conclusion that many would probably not yet have reached if PPA had not spurred them to confront their futures. It is possible that having the opportunity to plan for an orderly decline will enable the parties responsible for those plans to provide more retirement security for their participants than they would have had without that clear and inescapable warning that catastrophe was looming.

The PPA special multiemployer zone rules are set to expire (‘sunset’) at the end of the 2014 plan year, but they will remain in effect for plans that are in endangered or critical status at that point until they complete the course of their recovery. The law also calls on the Departments of Treasury and Labor and the PBGC to make a comprehensive study of the multiemployer funding rules – with particular attention to their impact on small employers – by the end of 2011. Congress will then have three more years to consider whether to extend the zone approach, introduce a different funding regime for multiemployer plans or just let the basic ERISA rules go back into effect. (Presumably the 2011 tri-agency funding study will be just the start of its fact-finding and policy deliberation on this subject.) Perhaps the most important innovation in the zone concepts is the re-introduction of risks to participants’ existing benefits when a multiemployer pension plan starts to falter. The notion that it is appropriate for the participants to bear some of the risk of adverse investment and other experience, even in a DB plan, appears to have been useful to many plans in developing their recovery path, and the possibility of going a step further is starting to gain some currency among policy experts. Proposals for formal mechanisms for rolling back participants’ accrued benefits when a DB plan comes under severe financial stress have been floated in various quarters, as a way to moderate employers’ financial exposure and thus revive their interest in sponsoring DB plans (Warshawsky, 2012). The experience of red-zone multiemployer plans, as it develops, may provide some insights into how

this kind of sacrifice affects participants' willingness to support the pension plan and whether it is an effective way to stabilize pension plans in the long run.

References

Pension Benefit Guaranty Corporation (PBGC) (2010). *Pension Insurance Data Book, 2009*.

PBGC. Summer.

Segal. (2009a). *Final Survey of Plans' 2008 Zone Status*. The Segal Group. Spring.

Segal (2011a). *Report of Results of the Survey of Calendar-Year Plans' 2011 Zone Status*. The Segal Group. Spring.

Segal (2011b). *Survey of Calendar-Year Plans' 2011 Zone Status*. The Segal Group. Winter.

Segal Advisors (2007) *Survey of Multiemployer Funds' Investment Performance: 2006 Results*. Segal Advisors. Spring

Segal (2008). *Survey of Multiemployer Pension Plans' Anticipated Zone Status and Funded Percentage under PPA '06*. The Segal Group. Winter.

Segal (2009b). *Survey of Plans' 2008 Zone Status*. The Segal Group. Winter.

Segal (2010). *Survey of Plans' 2009 Zone Status*. The Segal Group. Winter.

Segal (2011c). *Survey of Plans' 2010 Zone Status*. The Segal Group. Winter.

Warshawsky, Mark. (2012). 'Corporate Defined Benefit Pension Plans and the Financial Crisis: Impact and Sponsor and Government Reactions,' in Raimond Maurer, Olivia S. Mitchell, and Mark Warshawsky, editors. *Reshaping Retirement Security: Lessons from the Global Financial Crisis*. Oxford: Oxford University Press.

Table 1 Breakdown of multiemployer plans by certified zone status by percentage of plans in each: 2008-2010 zone

Zone	2008	2009	2010
Red zone	9	30	29
Yellow zone	11	32	18
Green zone	80	38	53

Source: Authors' computations from Segal (2008-11a-c); see text.

Table 2 Geographical and industry distribution of red zone and bright red zone multiemployer plans in 2010

Region	# Multiemployer plans	
	Red zone	Bright red zone
New England	10	10
Midwest	26	15
New York	28	18
West	22	11
Mid-Atlantic	12	7
South	9	6
Total	107	67

Industry	Red zone	Bright red zone
Construction	48	41
Entertainment	3	
Manufacturing	8	3
Printing	9	1
Retail	7	5
Services	10	9
Transport	21	7
Other	1	1
Total	107	67

Source: Authors' computations from Segal (2010); see text.

Table 3 Geographical and industry distribution of red zone and bright red zone multiemployer plans in 2010

Funded %*	# Multiemployer plans	
	Red zone	Bright red zone
20-30	1	0
30-40	0	0
40-50	6	5
50-60	13	6
60-70	30	17
70-80	38	24
80-90	15	11
90-100	3	3
100-110	1	1
Total	107	67

Note: *Assets as a % of accrued benefits.

Source: Authors' computations from Segal (2010); see text.

Table 4 Geographical and industry distribution of red zone and bright red zone multiemployer plans in 2010

Zone	Average funded %	Av. market value of assets (\$m)
Bright red (67)	71	467
Dark red (12)	67	132
Rusty red (28)	67	190
All plans in rehabilitation (107)	70	357

Source: Authors' computations from Segal (2010); see text.

Endnotes

¹ Four years of zone status information appears in Segal (2011a-c). The zone surveys for all years starting with 2007 (the first of which reports on projected zone status for 2008) are available on request through <http://www.segalco.com/publications/surveysandstudies>.

² One client, the Central States Pension Fund, is so large and so distinctive that it is omitted from the data base for the surveys to avoid distorting the results. Accordingly, its experience is not reflected in this analysis.

³ Because of client privacy commitments, we cannot identify the specific plans on which these analyses are based.

⁴ In addition, many plans for salaried workers use the ‘elapsed time method’ to determine eligibility, vesting and accrual credit. This enables them to avoid counting individual hours, if they credit a person with a year of service if he or she is employed by the employer at the beginning and end of a stated 12-month period. As with hours-based methods, employees whose jobs change frequently and who are likely to be working for different companies at the beginning and end of a year can fall between the cracks under this system even with substantial longevity in the industry.

⁵To date, multiemployer plans have generally not used liability-driven investments or similar strategies to avoid potential funding volatility. One reason is that funding rules for multiemployer plans do not require trustees to trade off higher returns on the participants’ assets in favor of stability in funding demands. The 2006 redesign of the single-employer funding rules, with the emphasis on market-based asset and liability measures and drastically reduced role for credit balances, sparked the current interest among corporate plan sponsors in using investment strategy as a buffer against volatility.

⁶ One notable example of this occurred in late 2006, when UPS negotiated with the Teamsters to exit the Central States Fund and cover its workers in a single employer plan.

⁷ This is called a termination by mass withdrawal. Although the law recognizes multiemployer-plan terminations that are initiated by the trustees through plan amendments, this rarely (if ever) happens.

⁸ As of December 2010, the funds in the Segal Advisors Multiemployer Universe represented \$65 billion; the average multiemployer investment allocation is 44 percent domestic equity, 25 percent fixed income, 11 percent international equity, 5 percent real estate and 15 percent other, such as cash or non-real estate alternatives. Typical policy constraints are 40-70 percent to equities.

⁹ In prosperous times, multiemployer plans are frequently amended to provide ‘13th checks’ – a one-time, ad hoc extra payment to retirees. These now must be fully funded in the year they are paid out.

¹⁰ The relief was actually available for the first plan year beginning on and after October 1, 2008, to include plans whose plan year began in the last quarter of 2008, which would be among the hardest hit by the market decline.

¹¹ Although the law only prescribes tests for endangered and critical status, IRS rules also require multiemployer plans’ actuaries to certify if the plan is not in either category.

¹² In some ways this distinction looks more important than it turns out to be in practice, as these seriously endangered plans usually drop into the red zone in short order.

¹³ By contrast with the multiemployer guarantee levels, which can only be changed by Congressional action, the single employer benefit guarantees are indexed to inflation on the same basis as social security benefits.

¹⁴ Officially, this is the ‘Preservation of Access to Care for Medicare Beneficiaries and Pension Relief Act of 2010.’

¹⁵ The bill’s proponents intended to provide for a 30-year extended amortization period, but it ended up at 29 years because of an apparent drafting error.