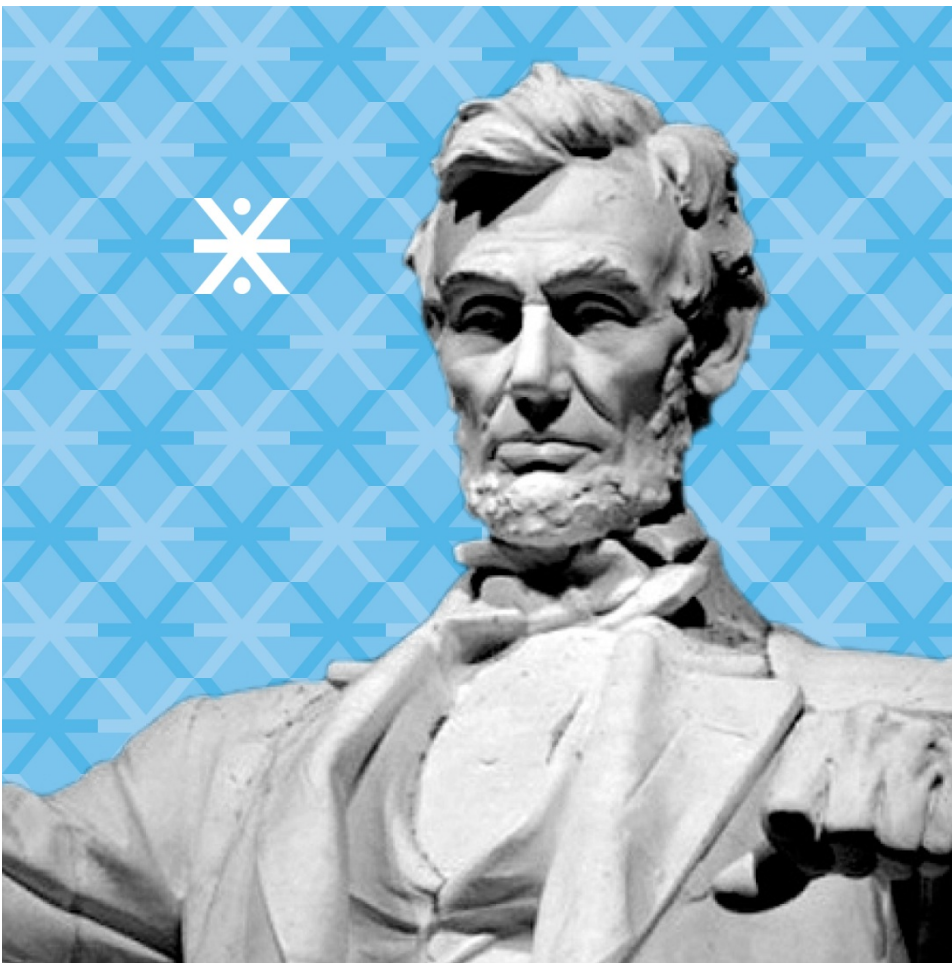


**U.S. Department of Labor (DOL), Employee  
Benefits Security Administration (EBSA)**  
Meeting Notes

Technical Working Group Meeting #4: Subject  
Matter Expert (SME) Meeting to Discuss  
Working with the Form 5500 and Plan Sponsor  
Data Sets

Friday, January 10, 2014, 1PM – 4PM



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## Participants

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**SMEs:** Adam Cobb (UPenn Wharton), Quinn Curtis (UVA School of Law), Bill Even (Miami University), David Macpherson (Trinity University), and Irina Stefanescu (Federal Reserve Board of Governors)

**Summit Consulting, LLC (Summit):** Amy Deora, Sejla Karalic, Albert Lee, Orit Ronen, Randall Ronsberg, and Shane Thompson

## I. Introduction

The purpose of this document is to summarize the major points of the discussion that took place during the Plan Sponsor Data Technical Working Group (TWG) meeting between EBSA, Summit, and external subject matter experts (SMEs) that have worked with the Form 5500 data and external Plan Sponsor data sets. Specifically, this document will outline the discussion as it pertained to:

1. SMEs' research performed using Form 5500 data and outside data sources and the related data issues;
2. Other external data sources of interest;
3. Suggested indicators of financial and operational performance of sponsors and plans; and
4. The experts' Form 5500 wish list.

## II. Research Performed Using Form 5500 Data and Outside Data Sources and Related Data Issues

### David Macpherson and Bill Even

- A. One study examines the union effect on risk-adjusted plan performance.<sup>1</sup>
  1. Pension structure significantly alters the union effect on performance.
    - i. Risk-adjusted returns are lower for multi-employer defined benefit (DB) and defined contribution (DC) plans, especially DB plans.
    - ii. There is no evidence of a negative effect on participant directed DC plans.
    - iii. If DB plans continue to decline in popularity and participant direction continues to grow among DC plans, any negative effect of unions on pension performance will diminish over time.

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<sup>1</sup> Even, William, and David MacPherson. "What do unions do to pension performance?" *Economic Inquiry* 52, no. 3 (2014): 1173-1189.

2. Form 5500 data were used to construct the dependent variable, rate of return: income/assets + 1/2 contributions.
    - i. Ran a regression to get its risk-adjusted net returns for every plan.
    - ii. The estimated coefficients from the first stage were used to examine the impact unions have on pension performance.
  3. Study data and related issues
    - i. Used Form 5500 data from 1988 to 2008.
    - ii. Form 5500 listed negative asset values or extremely large asset values between filings (extreme swings between end-of-year and beginning-of-year assets).
- B. Another study tried to determine whether pension investments in employer stock are sensitive to the underlying risks, and to see what the effect of employer stock holdings is on pension portfolios.<sup>2</sup>
1. Found that pension investments in employer stock were less likely when the stock option increases risk without increasing returns and when workers are risk-averse or unable to offset risk.
    - i. For example, firms with older workers tend to invest less in employer stock.
  2. Also found that pension funds adjust their asset mix in response to employer stock holdings and that those holdings have negative effects on risk-adjusted returns.
    - i. Calculated risk adjusted returns for each pension plan.
      - Employer stock holdings of less than 50% have small effects on performance.
      - Large concentrations in employer stock (over 50%) are bad for performance and especially bad for workers who have little other savings (e.g. firms with predominately low-income workers).
  3. Study data and related issues
    - i. Matched Form 5500 data from 1990 through 1998 with financial data on stocks from the Center for Research in Security Prices (CRSP) using CUSIP. Then merged that data with Current Population Survey (CPS) data on industry-specific estimates of the age distribution and average incomes of workers using 3-digit industry and plan size (number of participants).
    - ii. Restricted to plans with publicly traded sponsors and plans with more than 100 participants.
    - iii. Merging with Form 5500 was fairly good.
      - Some differences may exist between number of plan participants (Form 5500) and firm size (CPS).
      - Industry codes differ on the Form 5500.
        - a. NAICS and SIC codes do not perfectly align, used the first 2-3 digits.

#### **Adam Cobb**

- A. Examined changes in retirement plans offered by large firms over time.<sup>3</sup>

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<sup>2</sup> Even, William E., and David A. Macpherson. "The causes and consequences of pension investments in employer stock." Working paper, 2005.

- B. Was interested in organizational changes that influence companies to make changes to their retirement plans (e.g. switching from a DB to DC plan).
  - 1. Found empirical evidence that changes in ownership structure matter to the type and generosity of benefit plan offered.
    - i. For example, if a firm is taken over in a leveraged buyout by an active or passive financial investor, the plan gets less generous as the firm seeks to maximize shareholder value.
    - ii. Fewer employees are covered in either DB or DC retirement plans when the largest owner in a firm is an active financial investor (e.g. a hedge fund).
    - iii. Firms where the majority owner is a passive investor (e.g. a mutual fund) tend to have fewer DB pension plans, but those firms have greater levels of DC participation.
- C. Study data and related issues
  - 1. Form 5500 data quality from 1980 to 1990 is low.
  - 2. In general, Form 5500 data are not set up well for panel analysis.
  - 3. Plan sponsor EINs may change over time, which makes it difficult to merge Form 5500 to Compustat, which makes retroactive changes to EINs.
  - 4. From 1999 to 2000, one third of the data elements were eliminated from the Form 5500.
  - 5. The data element field names change over time.
  - 6. Merging with Compustat
    - i. Compustat has the GVKEY unique identifier which never changes over time.
    - ii. Subsidiaries may have their own EIN and it is difficult to identify the parent company.
  - 7. Data in Compustat
    - i. Information on plan sponsor profitability and financial stress.
    - ii. The data are only available for public companies; ideally one would receive data from the IRS on company financials for public and private companies that sponsor benefit plans.
    - iii. Compustat data can be accessed via Wharton Research Data Services (WRDS), which also has data on corporate governance.
      - Links to S&P Capital IQ ExecuComp database via GVKEY, which has information on corporate governance.
      - Links to Thomson Reuters SDC Platinum database for information on mergers and acquisitions.

## Quinn Curtis

- A. Study measured the relative costs to investors of limited investment menus, fund- and plan-level expenses, and investor allocation mistakes.<sup>4</sup>

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<sup>3</sup> Cobb, J. Adam. "From the 'Treaty of Detroit' to the 401 (k): The development and evolution of privatized retirement in the United States." PhD diss., The University of Michigan, 2012.

<sup>4</sup> Curtis, Quinn, and Ian Ayres. "Measuring Fiduciary and Investor Losses in 401 (k) Plans." 7<sup>th</sup> Annual Conference on Empirical legal Studies Paper, 2012.

1. Found that costs consume more than 23% of potential excess return that investors might have earned if they invested optimally without menu restrictions or fees.
  - i. Losses were especially high in smaller plans.
  - ii. More than a quarter of the losses due to investor mistakes are attributable to fee issues.
- B. Constructed a series of optimal portfolios based on expected risk and return.
  1. Using these optimal portfolios, were able to express the loss associated with menu limitations, fees, and investor allocation mistakes as losses relative to the risk premium on a global optimum portfolio.
    - i. Allowed authors to determine how much plans are deviating from that ideal.
- C. Study data and related issues
  1. Constructed a sample of plans that only offer publicly listed mutual funds (approximately 3500 funds) using BrightScope data.
    - i. BrightScope data only starts in 2009.
    - ii. Drew fee and return information from CRSP Mutual Fund database.
    - iii. The Form 5500 only includes menu information in pdf format.
  2. Most smaller companies have wrap fee agreements, so mainly looked at large plans.
    - i. It is difficult to know the all-in plan cost if the plan has a wrap fee arrangement.
  3. There is no information on share classes.
    - i. Assumed lowest-cost share classes.
  4. It is possible to retrieve information on plan menus from SEC 11-K filings which are available for publicly-listed companies that offer their own stock to plan participants.

#### **Irina Stefanescu**

- A. One paper examined how pensions affect corporate structure decisions.<sup>5</sup>
  1. Firms are substantially more leveraged when their pension assets and liabilities are brought back to the balance sheet.
  2. The average value of tax shields from pension contributions is about one-third as large as the value of interest tax shields for firms with DB pension plans.
    - i. Incorporating pensions into firms' balance sheets shows that conservatism of debt policy declines by about 30% for firms with pension plans.
  3. Show that firms consider their pension assets and liabilities in determining their leverage ratios.
  4. Study data and related issues
    - i. Studied all publicly traded firms in Compustat from 1991 to 2003.
      - About a fourth of the firms have DB pension plans.
      - Matched Form 5500 data using CUSIP up until 1998, after that CUSIPs were unavailable.
- B. Another study looks at how DB plan freezes affect employee overall compensation.<sup>6</sup>

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<sup>5</sup> Shivdasani, Anil, and Irina Stefanescu. "How do pensions affect corporate capital structure decisions?" Review of Financial Studies 23, no. 3 (2010): 1287-1323.

1. Tried to examine whether plan participants are financially hurt when a plan freezes its DB plan and transitions to a DC plan.
    - i. Estimated counterfactual DB accruals to actual increases in 401(k) and other DC contributions to calculate lost accruals.
      - Ultimately, 3% of payroll was lost after freezing a pension plan.
    - ii. Accrual losses are initially largest for older participants; however, over time middle-aged participants' losses are the greatest.
  2. Study data and related issues.
    - i. Used Form 5500 data on DB plans from 1999 to 2007 and linked it with Compustat data by sponsor name and EIN.
      - Looked at 10-K filings to get a list of subsidiaries to plan sponsors on the Form 5500, since they may have different EINs than parent companies in Compustat.
- C. Third project looked at 401(k) plans to determine if mutual fund families that act as trustees display favoritism toward their own funds.<sup>7</sup>
1. Found that poorly-performing funds are less likely to be removed from and more likely to be added to a 401(k) menu if they are affiliated with the plan trustee.
    - i. Participants do not undo this affiliation bias through their investment choices.
  2. Study data and related issues.
    - i. Hand-collected plan menus from SEC 11-K filings, which are filed by plans that offer sponsor stock to participants, and merged with CRSP information on investment returns.
      - Ultimately collected information on about 13,000 plans.
      - Plan investment menus contained funds from different fund families.
        - a. Identifying the trustee was difficult as was identifying the plan fiduciary.
      - There was no information on a fund's share class, so it was inferred.
      - No information on fund share class was available.
        - a. Combined information on all available share classes of each fund in CRSP into fund-level variables.

### III. Other External Databases

- A. Longitudinal Employer Household Dynamics (LEHD)
  1. Quarterly information on employment, job creation, earning, and other measures of employment flows by firm characteristics (geography, industry, age, size) and worker demographics (sex, age, education, race, ethnicity).
- B. Quarterly Census of Employment and Wages (QCEW)

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<sup>6</sup> Rauh, Joshua D., Irina Stefanescu, and Stephen P. Zeldes. "Cost shifting and the freezing of corporate pension plans." Working Paper: Stanford University, 2012.

<sup>7</sup> Pool, Veronika K., Clemens Sialm, and Irina Stefanescu. "It Pays to Set the Menu: Mutual Fund Investment Options in 401 (k) Plans." Working Paper, 2012.

1. Quarterly report on employment and payrolls.
  2. The QCEW program publishes a quarterly count of employment and wages reported by employers covering 98 percent of U.S. jobs, available at the county, metropolitan statistical area (MSA), state and national levels by industry.
- C. Any demographic data on plan participants would be interesting, since participant sophistication may be related to higher plan costs.
1. Summit's prototype risk ranking model controlled for industry effects and found them to be significant indicators of fiduciary violations.
    - i. This indicator captures some of the demographic characteristics of plan participants, which the TWG SMEs believe may be useful.
      1. For example, workers in the manufacturing industry may not be as sophisticated investors as financial services employees.
    - ii. Bill Even and David Macpherson used CPS data to capture worker demographics, so Summit could look into using that and other data sources in the future.

## IV. Financial and Operational Performance of Sponsors and Plans

The following list of indicators could be used to capture the financial and operational performance of plan sponsors and plans.

- Plan portfolio rate of return
- Firm profitability (credit ratings)
- Company bond interest rate information
- Riskiness of plan assets relative to expected returns
  - According to OE, whether excessive risk-taking with plan assets constitutes an ERISA violation depends on the background of the person investing the funds.
- Market-to-book ratio
- Percentage of operating income from pensions
- Firm's ability to generate cash flows
- Changes to dividend policy
- Assets-to-liabilities ratio
- Fund-by-fund option analysis
  - Encourage good options not just enable bad ones
- Plan portfolio options relative to similar peer group of plans
- Indicator for a closet index option
  - Closet index funds are mutual funds that are actively managed and thus charge higher management fees, but in reality track a benchmark stock index.
- Plan asset turnover

## V. Form 5500 Wish List

The following list of the Technical Working Group SMEs' desired Form 5500 data elements and changes is first sorted by frequency mentioned then in chronological order. The indented items were mentioned separately during the discussion, but can be filed under a broader category. The SMEs would like to have

the following information included in a structured data format (e.g. Excel), rather than an unstructured format (e.g. pdfs).

1. CUSIP<sup>8</sup> identifier field
2. Plan investment menu fund fee information and investment class information
  - a. Mutual fund tickers
3. Pre-filled fields
  - a. Pre-fill (check) that assets for the beginning of the year match assets from the previous year's filing
4. Comprehensive administrative expense information (e.g. complete information on fees paid to service providers for all plans)
  - a. Information on whether and which administrative expenses were paid by the plan sponsors
5. Indicator for whether the plan has a default option (e.g. Target Date Fund)
6. Identification of plan fiduciaries
7. Revenue sharing arrangement information
8. Rate of return on plan portfolio
9. Total payroll of plan sponsors
10. Tracking identifying information across time, e.g. asking if a plan filed the previous year and what as?
11. All-in plan cost
12. Attach disclosure to Form 5500 for all participant-directed plans

Below are the Summit staff's additions to the SMEs' Form 5500 wish list. There are only a couple of additions, since a lot of the Summit staff's wishes overlap with the TWG SMEs'.

1. It is difficult to distinguish between "0" and "missing" values of numerical fields in the Form 5500 data (e.g. variables with \_AMT suffixes like GOVT\_SEC\_BOY\_AMT and GOVT\_SEC\_EOY\_AMT).
  - a. It would be helpful if those filling out the form indicated whether a field was "Not Applicable" or "0" for that plan year.
2. Information on the amount of assets different service providers manage.
3. Service provider information for small plans (i.e. plans that file the Form 5500-SF).

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<sup>8</sup> A CUSIP is a 9-character alphanumeric code which identifies a North American financial security. The first six characters uniquely identify the issuer (i.e. plan sponsor).

U.S. Department of Labor  
Employee Benefits Security Administration  
Technical Working Group

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