Oil and Gas 2014 Retirement Benchmarking

Major Integrated Subsector
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Executive Summary

This report shows that the average oil and gas company continues to provide valuable retirement programs, with many committed to defined benefit plans despite headlines in the media. The picture, however, varies greatly depending on the subsector within oil and gas and by company. The Major Integrated Subsector highlighted in this report remains firmly committed to defined benefit pensions and, combined with defined contribution benefits, has the highest average level of retirement benefits of any oil and gas subsector.

In this report, we present data that compares major integrated oil and gas companies to each other. We have also presented high-level information comparing each key subsector within the oil and gas industry, since major integrated oil and gas companies compete for talent with other oil and gas subsectors and operate within multiple subsectors. Our analysis focuses primarily on the following large companies in the Major Integrated Subsector: BP, Chevron, ExxonMobil, Royal Dutch Shell, and Total.

This report has the following primary sections:

Retirement Design Benchmarking for U.S. Salaried Employees

This section focuses on the entire program that will provide retirement income to U.S. employees, including pension and savings plans. This includes a history of defined benefit plan changes over the last 15 years, breakdown of the status of defined benefit plans, types of retirement plans including cash balance, and estimated costs. The following design trends stand out within the Major Integrated Subsector:

- All major integrated oil and gas companies have a defined benefit plan open to new hires
- 3 of the 5 major integrated companies have hybrid plan designs like cash balance plans
- Average long-term spend for major integrated companies is 13.3% of pay with less than a 2% range from the highest to the lowest company
- Major integrated oil and gas companies spend more on retirement than any other industry subsector

Financial Benchmarking for Global Defined Benefit Plans

This section focuses only on the financial aspect of defined benefit plans. On a global basis, the total defined benefit obligation of the Major Integrated Subsector averages about 20% of market capitalization, with wide variations between companies. While this is significant, it is small compared to headline grabbers like Ford and GM, with benefit obligations that exceed 200% of market capitalization. The following financial trends are apparent within the Major Integrated Subsector:

- There is a broad range of plan size and funded status
- Defined benefit plans are material obligations and considerations for major integrated companies
- Funded ratios improved to about 84% as of December 31, 2013, a 9% increase over the prior year
- Asset allocations suggest a trend toward de-risking, as all major integrated companies have increased their fixed income allocations
Retirement Design Benchmarking for U.S. Salaried Employees

The analysis in this section covers the design of the entire retirement program for U.S. salaried employees.

Most Companies Have Moved to Hybrid Design or Plan Closure

Over the last 15 years, oil and gas companies have followed the high-level general industry trends of moving to hybrid designs like cash balance or closing/freezing their defined benefit plans but with two main differences: (1) more oil and gas companies have moved to hybrid designs and (2) fewer have closed or frozen their defined benefit plans. The summary below shows the changes to the defined benefit plans for oil and gas companies. Shifts to hybrid plans slowed for oil and gas companies while they were being challenged in the courts from 2003 through 2006 and then accelerated after Congress validated hybrid designs in 2006. The other noteworthy aspect is that only four oil and gas companies closed or froze their defined benefit plans after the financial crisis started in 2008, while many more general industry companies closed or froze their defined benefit plans. Oil and gas companies who have kept their defined benefit plans for new hires appear committed to these types of programs despite the higher cost volatility. These sponsors are showing the beginnings of a trend towards de-risking as discussed later in this report.

The chart below shows major changes to oil and gas company defined benefit plans over the last 15 years, with changes to hybrid plans in shades of green above the timeline, and plan closures and freezes in shades of orange below the timeline.

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<th>Change to Hybrid Design</th>
<th>Closures and Freezes</th>
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*RDS - Introduced an annual choice plan in 1998, allowing employees to choose annually between a traditional final average pay benefit and a pension equity (hybrid) benefit. Eliminated pension choice for new hires in 2013, with new hires earning pension equity (hybrid) benefits.

**TOT - Closed traditional plan in 2006, then adopted a new hybrid plan in 2013; cash balance plan with market-based interest credits.

Major Integrated companies are in red bold letters.

<table>
<thead>
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<th>Number of Oil and Gas Companies Changing Their Defined Benefit Plans</th>
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<tbody>
<tr>
<td>No Plan = 28</td>
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<tr>
<td>Major Changes = 28</td>
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<tr>
<td>No Change = 11</td>
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</tbody>
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Definition: All Employees

New Hires Only

Closed

Frozen

Defined benefit plan perfect storm

Very high cost period for DB Plans

Pension Projection Act passed in August 2006 with tighter funding rules but also validation of hybrid plans

Court challenges to Hybrid Plans
Many Companies Sponsor Hybrid Defined Benefit Plans

Many companies in the United States have either frozen or closed their defined benefit plans to new hires, but the rate and general changes have varied by industry despite what the media implies. Oil and gas companies, and especially the Major Integrated Subsector, have not shifted away from defined benefit plans as much as general industry. Overall, 21% of large corporations sponsored defined benefit plans for new hires in 2014 (i.e., open plans), only down 1% since 2013. In contrast, 39% of large oil and gas companies and 100% of companies in the Major Integrated Subsector sponsor defined benefit plans that were open to new hires in 2014. Within the Major Integrated Subsector, 60% of open plans are hybrid plans, such as cash balance plans.
Retirement Programs for New Hires Have an Average Long-Term Cost of 13.3% of Pay

Companies in the Major Integrated Subsector are expected to spend 13.3% of payroll on average on retirement programs in the long-term, based on the retirement design in place for new hires, with a long-term cost range of 12.7% to 14.2%. About one half of the costs are associated with the defined benefit plan on average.
The Major Integrated Subsector is expected to spend 13.3% of pay, which is more than the 9.1% of pay that the oil and gas industry is expected to spend in total on retirement. The major integrated companies spend the most on their retirement programs, while the services subsector spends the least.

Except for the major integrated companies, each oil and gas subsector has a wide range of retirement program costs. For the Major Integrated Subsector, the range is 12.7% to 14.2% of pay.
While defined benefit plans remain a significant part of the retirement programs in the industry, the changes that have occurred have followed the national trend of shifting costs from defined benefit to defined contribution plans, particularly for new hires. Such shifts have been implemented primarily through lowering defined benefit costs by transitioning from traditional defined benefit to hybrid defined benefit plans, such as cash balance plans, often offset by enhancements to the 401(k) plan.
Target Retirement Age Based on Employer Plan Design

The design of an employer’s retirement program is a big factor in how well prepared their employees are for retirement. Even with the generous retirement benefits available within the oil and gas industry, employees need to share the responsibility by saving on their own, especially if they want to retire early. According to Aon Hewitt’s Real Deal Analysis, an employee needs to accumulate 11 times final pay (after Social Security) at age 65 to expect to have sufficient assets to get through retirement. That equates to contributing 15% of pay every year over a 40-year career. However, retirement expectations in oil and gas tend to be earlier than age 65. To retire at age 62, for example, an average employee needs 20.9% of pay contributed between the employee and his or her employer over a 37-year career.

The chart below gives one perspective on how plan designs within the oil and gas industry provide for and encourage adequate retirement income. The horizontal axis shows the total expected company contribution (defined benefit and defined contribution) assuming the maximum 401(k) match. The vertical axis shows the likely employee contribution given the encouragements of the plan design (maximum contribution to receive the full match or the high end of auto-escalation). The intersection of these two points shows the likely retirement age with sufficient assets for an average career employee.
Financial Benchmarking for Global Defined Benefit Plans

The analysis in this section covers key financial variables for all of the global defined benefit plans of the referenced companies.

Three Dimensions of Pension Risk

The chart below shows three key dimensions in managing defined benefit plans and their risks. The size of each bubble represents the ratio of each company’s global Projected Benefit Obligation (PBO) as of 2013 fiscal year end to each company’s market capitalization as of December 31, 2013. Larger bubbles mean higher risks. Therefore, this is usually the most important dimension. The Major Integrated Subsector, represented in red in the graph below, had a PBO to market capitalization ratio that ranged from 7.6% to 38.3%. Analysts generally start paying more attention to this ratio when it exceeds 20%.
The second key dimension shown in the vertical axis is the funded status of each company’s global defined benefit plans, measured as aggregate Plan Assets divided by aggregate Projected Benefit Obligations. A lower funded status represents higher future cash costs. The funded status for the Major Integrated Subsector ranged from 68% for ExxonMobil to 96% for Shell.

The third key dimension, represented by the horizontal axis, is the unrecognized loss divided by PBO. This is important because a higher unrecognized loss represents higher future accounting costs from ongoing amortization and/or future settlement charges. The accumulated unrecognized loss for the Major Integrated Subsector ranged from 0% to 28% of the PBO. Companies reporting under International Financial Reporting Standards, such as BP, Shell, and Total, do not maintain an Unrecognized Loss and are therefore shown as 0%.

Large Disparity in Materiality of Defined Benefit Obligations Across Major Integrated Companies

Defined benefit plans are a material form of debt in the Major Integrated Subsector. On average, the subsector’s Projected Benefit Obligation (PBO) was 19.6% of market capitalization as of December 31, 2013, with BP and Shell well above the average, and Chevron, ExxonMobil, and Total well below the average.
Retirement Expense Has Significant Effect on Net Earnings

The combined annual expense of defined benefit and defined contribution plans varied significantly from 5% of net earnings for Total to 17% of net earnings for Shell.

DB and DC Expense as a Percentage of Net Earnings
Comparison for Major Integrated Companies
Pension Funded Ratios Improved During 2013

Pension funded ratios below 100% represent future, potentially substantial, cashflow requirements. Funded ratios for the Major Integrated Subsector, as well as for the S&P 500, have been volatile over the last 10 years due to underlying volatility in the financial markets. For the average S&P 500 company, plan assets covered nearly 100% of plan obligations (including nonqualified) at the end of 2007, but they covered about 90% at the end of 2013. The Major Integrated Subsector’s funded ratios have tracked closely to those of the average S&P 500 company. During 2013, the average funded ratio for companies in the Major Integrated Subsector improved from 75% to 84%. The improvements were attributable to lower PBOs from higher discount rates and higher than expected asset returns for many plans. Broadly speaking, we estimate that funded ratios decreased by about 5% during 2014.6
A major component of the funded status volatility was a result of plan asset return volatility, driven by stock and bond markets. In contrast, changes in the pension obligations in the funded status were primarily driven by changes in yields on high-quality corporate bonds. While plan assets recovered since the financial crisis in 2008, plan discount rates fell significantly from 2008 through 2012, which significantly increased pension obligations. Improvements to funded ratios at year-end 2013 were due mainly to higher corporate bond yields, although strong 2013 equity returns helped many companies. In 2014, discount rates have retreated to historical lows which has hurt the funded status of the average pension plan despite strong equity returns.

Individually, most major integrated plan sponsors generally saw 2013 asset returns in the range of 6% to 14%.
Asset Allocations Indicate a Trend Toward De-Risking

Many defined benefit plan sponsors have amended their investment policies to gradually reduce plan assets invested in return-seeking assets, such as equities, in favor of increasing plan assets invested in liability matching assets, such as fixed income securities with duration and cashflow profiles that more closely match those of their pension obligations. The objective is typically to at least partially "de-risk" pension plans, stabilizing balance sheet and expense volatility. In some cases, such policies will require implementation of an asset reallocation when the plan’s funded ratio improves above certain thresholds. De-risking is a current trend in reconciling long-term human resources objectives with short-term financial volatility.
Companies in the Major Integrated Subsector are clearly taking less risk today than 10 years ago. In some cases, this may be the result of specific de-risking policies, while in other cases it may simply be the result of a reassessment of the optional investment policy. More de-risking is likely as funded statuses improve.

The Major Integrated Subsector on average has tracked fairly closely with the de-risking trend of the average S&P 500 company. De-risking efforts tend to increase with improvements in funded status.
Balance Sheet and Earnings Show Vulnerability to Pension Risk Based on Current Policies

Pension plans often represent significant financial obligations that carry sizable risks. Balance sheet and earnings vulnerability can be significant. Below we have defined and computed balance sheet vulnerability to be the value at risk of one bad year in 20 years divided by market capitalization. This ranges from 1% to 8% for the Major Integrated Subsector in 2013. Earnings vulnerability is defined as the pension service cost plus amortized deficit of one bad year in 20 years divided by earnings. This ranges from 8% to 37% for the Major Integrated Subsector in 2013. Note that companies reporting under International Accounting Standards have reduced earnings vulnerability associated with their pension plans. These values are based on global operations and December 2014 capital market information.
Conclusion

Despite the prevailing headlines, oil and gas companies, and in particular major integrated companies, continue to provide valuable retirement programs, with all providing a defined benefit component for new hires. The cost of these retirement programs varies little, although the delivery approach differs widely.

Defined benefit plans are also a material obligation on the balance sheets of major integrated companies, with wide variations between companies. All of them are committing a larger portion of their pension investments to fixed income obligations, tracking with general industry.

Aon Hewitt’s Oil and Gas industry team has significant data, expertise, and experience specific to oil and gas companies. We are available to discuss the data and conclusions of this report and to assist you in developing strategies to achieve your human resource and financial objectives.

Footnotes

1 Aon Hewitt SpecSummary for U.S. Salaried employers, 2013 and 2014
3 Based on standard census data and standard assumptions that apply equally to all plans, including a 401(k) participation rate of 93% for $1 for $1 match up to 6% of pay and a 7.0% net asset return assumption for defined benefit plans
4 Aon Hewitt’s analysis, The Real Deal: 2012 Retirement Income Adequacy at Large Companies
5 All data in this section is based on publicly available company financial statements. The defined benefit information as reported by each company was used so it includes salaried plans, hourly plans, and potentially nonqualified plans in many cases.
7 Pension financials are based on 12/31/2013 disclosure information. Market capitalization, earnings, and risk figures are based on estimates of the December 2014 capital market environment.
Appendix

Glossary

De-Risking—Investment policies or practices to reduce plan assets invested in return-seeking assets, such as equities, in favor of increasing plan assets invested in liability matching assets, such as fixed income securities, with duration and cashflow profiles that more closely match those of the pension obligations.

Market Capitalization—Number of company common equity shares multiplied by the corresponding share price.

Projected Benefit Obligation—The present value of expected future benefit payments to plan participants reflecting current service but expected future increases in compensation as reported under ASC 715. The present value is based on a set of actuarial assumptions including a discount rate that reflects interest rates based on high-quality corporate bonds.

Pension Funded Ratio—Fair value of assets divided by projected benefit obligation as reported under ASC 715.

Unrecognized Loss—Past pension costs that have not yet been recognized in expense under ASC 715. Unrecognized loss accumulates as a result of actual plan experience differing from actuarial assumptions, including asset return, as well as decreases in discount rates which increase Projected Benefit Obligation. Until recognized in expense, Unrecognized Loss is a component of Accumulated Other Comprehensive Income.

Company Abbreviations

The companies individually cited in this report in the Major Integrated Subsector are:

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