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March 2012

India Defined Benefit Funding Study

An analysis of pension and gratuity in the India market

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INTRODUCTION

Milliman's India office conducts an annual study of the pension and gratuity obligations of the 26 public sector banks in India to report the major trends with regard to these obligations. The main aim of the study is to educate and create awareness about the state of employer-sponsored retirement programs and foster a healthy dialogue among policy builders, employers, employees, and the general public about the future of retirement plans in India. This is our first such publication.

The following report is divided into two sections: the Pension Study, which contains details about the state of funded pension plans sponsored by the 26 public sector banks, and the Gratuity Study, which contains details about the funded gratuity plans of the same 26 public sector banks.

The funded ratio of the 26 pension plans fell to 68% in FY 2010-2011 from 83% in FY 2009-2010.The aggregate pension deficit increased from approximately Rs 10,100 crores in FY 2009-2010 to Rs 37,300 crores in FY 2010-2011.

2011 INDIA PENSION FUNDING STUDY

The 26 public-sector banks examined in this study registered historical highs in their projected benefit obligation (PBO) due to allowing the election of the pension option (2nd option[1]) for employees who had not opted for the pension scheme earlier. During the year, the total PBO increased almost 98%, from around Rs 59,500 crores to more than Rs 117,600 crores. The 2nd option accounted for 58% (nearly Rs 34,300 crores) of the total increase in PBO. The figures are skewed for the seven largest public-sector banks, as measured by the PBO, contributing almost 72% of this increase.

If we remove the impact of the 2nd option, the total PBO of these 26 banks increased by around 40%. The seven largest public sector banks were responsible for 61% of this increase in total PBO. This 40% increase can be attributed to several factors, such as the accrual of extra year of service, aging of plan population, liabilities transferred in from other trusts, adverse demographic experience, and changes in economic assumptions.

The reasons noted above also led to record levels of pension expense in 2010-2011, an approximately Rs 21,100 crores charge to earnings (up from approximately Rs 5,900 crores in 2009-2010).

FIGURE 1: 2011 PBO

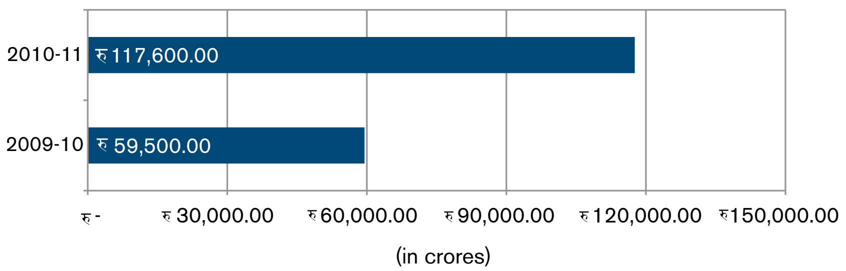
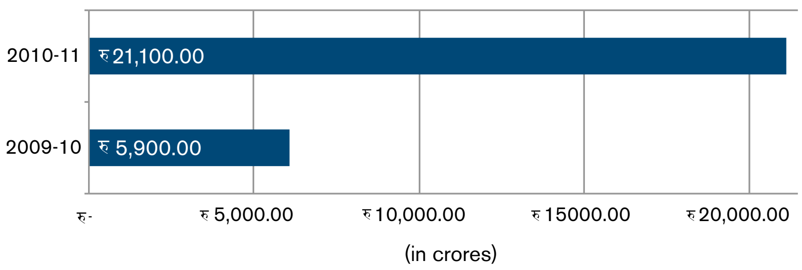


FIGURE 2: 2011 EMPLOYER EXPENSES

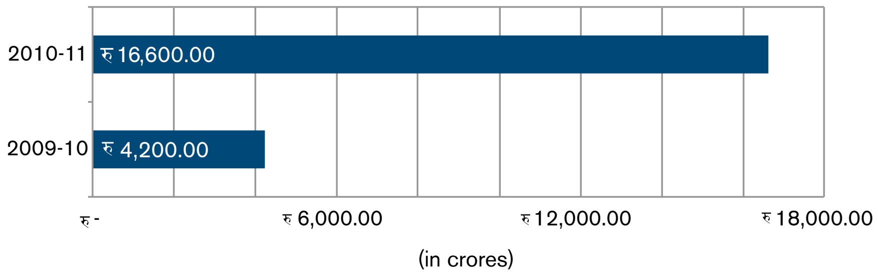


1 2nd option refers to re-opening of the pension plans to employees who had not exercised their pension option in 1995, per the judgment of the Hon. Supreme Court of India.

IN SPITE OF A RECORD LEVEL OF EMPLOYER CONTRIBUTIONS, PENSION FUNDED STATUS STILL DECREASED

These 26 banks contributed approximately a record Rs 16,600 crores to their pension plans in 2011 as compared to approximately Rs 4,200 crores in 2010-2011. Even if interest rates remain at the same 2010-2011 levels (or lower) through 2012, it is estimated that the cash contributions and associated pension cost should increase by the end of 2012 financial year.

FIGURE 3: TOTAL 2011 ER CONTRIBUTION



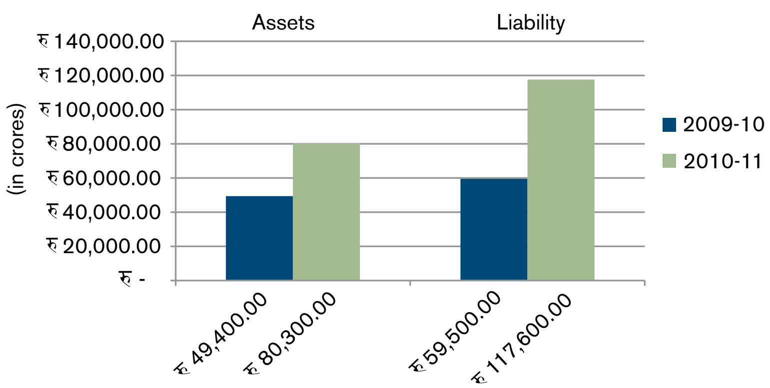
WHO ARE THE 26 BANKS?

Our study covers 26 public-sector banks with funded defined benefit pension plan assets for which a 2010 and 2011 annual report was released by December 2011.

This is Milliman's first annual study of the financial reports of the 26 public sector banks that sponsor funded defined benefit pension plans. As a group, these banks had pension plan assets of more than Rs 80,300 crores at the end of March 2011.

The funded ratio of the 26 pension plans fell substantially during 2010-2011, reaching 68%. The aggregate pension deficit of approximately Rs 10,100 crores in FY 2009-2010 increased by approximately Rs 27,200 crores during FY 2010-2011, reaching a very high level of almost Rs 37,300 crores.

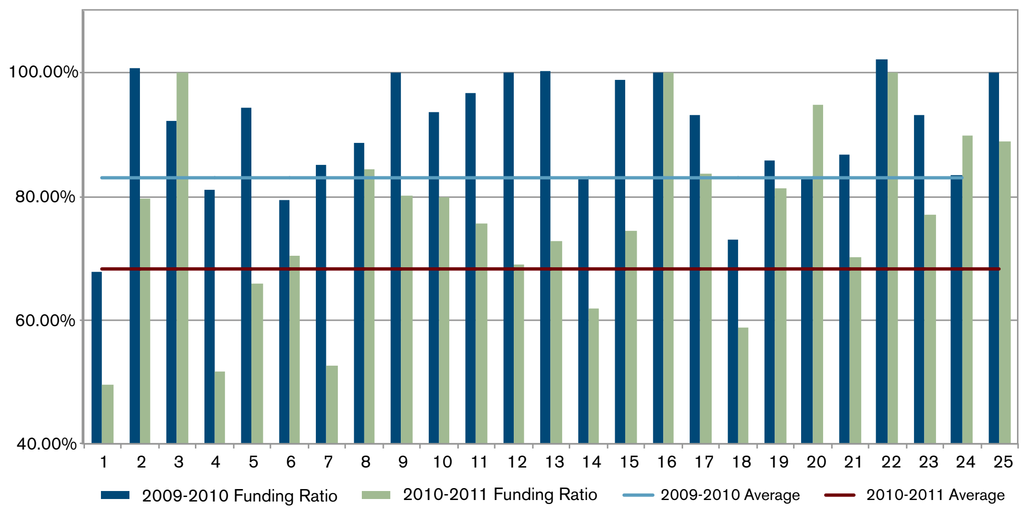
FIGURE 4: PLAN ASSETS AND LIABILITIES



For their 2009-2010 fiscal year, PBO funded ratios of the 26 plans ranged from a low of 68% to a high of 102%. For the group, the funded ratio decreased to an average of 68.3% from the prior year's 83.0%. In 2010-2011, PBO funded ratios of the 26 ranged from a low of 49% to a high of 100%.

The funded ratio deteriorated because increased employer contributions were still not sufficient to offset the impact of an increase in total PBO and lower-than-expected investment returns.

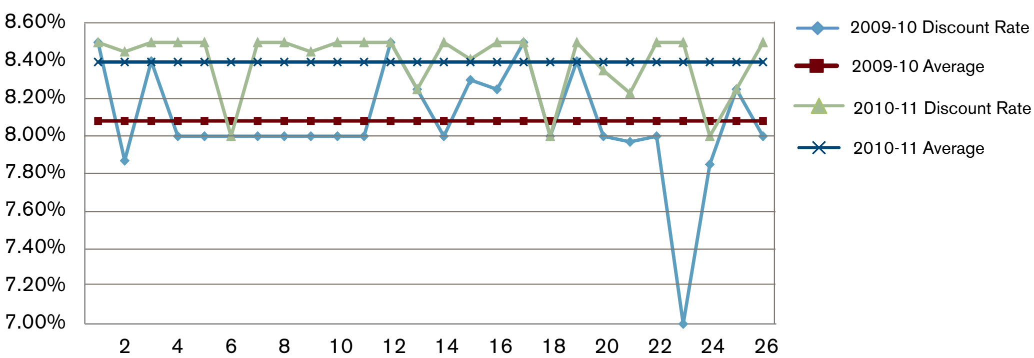
FIGURE 5: CHANGE IN FUNDING



DISCOUNT RATES USED TO MEASURE PLAN LIABILITIES INCREASE IN 2010-2011

The average discount rates increased from 8.1% to 8.4% in 2010-2011. Based on the movement of Government of India bond yields during 2011-2012, it is expected that the discount rates would more or less remain in the range of 8% to 9%.

FIGURE 6: DISCOUNT RATE DISTRIBUTION

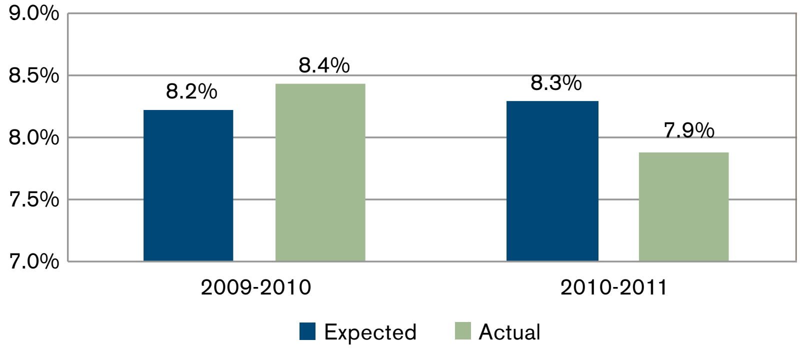


ASSET PERFORMANCE

The average actual investment return on pension assets for the banks' 2010-2011 fiscal year was 7.9%, which was 0.4% below the average expected rate of return (as stated in the employee benefits disclosures in the annual reports of these 26 banks) of 8.3%. The average actual investment return on pension assets for the banks' 2009-2010 fiscal year was 8.4%, which was 0.2% above the average expected rate of return (as stated in the employee benefits disclosures in the annual reports of the 26 banks) of 8.2%.

Overall, the banks maintained their expected rate of return (8.3% for 2010-2011 as compared with 8.2% for 2009-2010). Only four banks in the group continued to assume an expected rate of return for 2010-2011 that is at least 9%. Asset allocations have not changed significantly, so we do not expect any significant change in expected returns for 2011-2012.

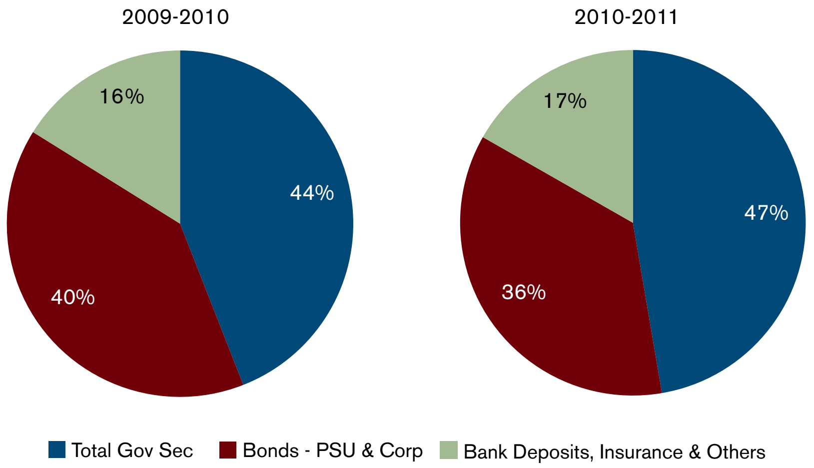
FIGURE 7: CHANGE IN PERFORMANCE 2009-2011



ASSET ALLOCATION

As the pension fund asset allocations for these 26 are prescribed by regulations, there were only minor changes in asset allocation during 2010-2011. Overall, the banks studied invested 47% of their pension fund assets in government securities (up from 44% in 2009-2010) and 36% in corporate bonds (down from 40% in 2009-2010). The remaining 17% of pension fund assets were invested in other asset classes (up from 16% in 2009-2010), including insurer managed funds, bank deposits, and cash equivalents.

FIGURE 8: ASSET ALLOCATION



Overall allocations to government securities increased in 2010-2011. Four banks increased their government securities allocations by more than 10%. Only two banks had a decrease of more than 10% in their government securities allocations in 2010-2011.

Overall allocations to corporate bonds decreased in 2010-2011. Two banks decreased their corporate bonds allocations by more than 10%. Only one bank had an increase of more than 10% in its corporate bonds allocation in 2010-2011.

Overall allocations to other asset classes increased slightly in 2010-2011. Three banks increased their allocations to other asset classes by more than 10%, while three other banks had a decrease of more than 10% in their other asset classes allocations.

WHAT TO EXPECT IN 2011-12 AND BEYOND

Plan sponsors were still responding to 2008's asset losses when they were hit with the reopening of their pension plans (2nd option). Thus, we feel that most plan sponsors will still be facing increases in pension expense and contribution requirements over the next few years.

As the funded status of most plans has deteriorated over the past year, it is recommended that plan sponsors develop comprehensive funding policies to achieve the desired funded status. Plan sponsors should also review their investment policies to address any issues related to asset-liability mismatch. We believe that plan sponsors should balance long-term goals with potential short-term risks that can adversely impact the bank's cash flow, balance sheet, and earnings. Pension fund sponsors should consider employing pension risk management practices through liability-driven investing and risk-budgeting (risk-allocation) techniques.

Over the next few months, we will increase the scope and coverage of this study, extending it to include funded and unfunded obligations of 61 public sector companies which form part of the Bombay Stock Exchange's PSU Index. Later in 2012, we will further expand the study to cover companies that form part of Bombay Stock Exchange's BSE-100 Index.

Our India Defined Benefit Funding Study will be an annual publication, and we plan to develop an India Defined Benefit Funding Index (an index showing the impact of changes in discount rates and asset returns on estimated funded status of defined benefit plans) which will be updated quarterly.

2011 INDIA GRATUITY FUNDING STUDY

The 26 public-sector banks covered in this study registered historical highs in their projected benefit obligation (PBO) primarily due to the regulation requiring an increase in maximum gratuity payable limit (from Rs 350,000 crores to Rs 1 million crores). During the year, total PBO increased by 52%, from more than Rs 15,700 crores to approximately Rs 23,800 crores. The increase in the gratuity ceiling accounted for 42% (approximately Rs 6,600 crores) of the total increase in PBO. The figures are very much skewed for the seven largest public sector banks, as measured by the PBO, contributing almost 59% of this increase.

If we remove the impact of the increase in the gratuity ceiling, the total PBO of the 26 banks increased by about 10%. This 10% increase can be attributed to several factors, such as accrual of extra year of service, aging of plan population, demographic experience, and changes in economic assumptions.

The reasons noted above also led to record levels of pension expense in 2010-2011: an approximately Rs 5,700 crores charge to earnings (up from approximately Rs 400 crores in 2009-2010).

The funded ratio of the 26 gratuity plans fell substantially during FY 2010-2011, to 77% from 98% in FY 2009-2010.

The aggregate gratuity deficit of approximately Rs 400 crores in FY 2009-2010 increased to Rs 5,400 crores.

FIGURE 9: TOTAL PBO

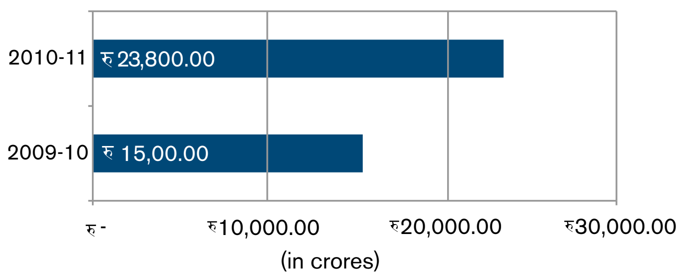
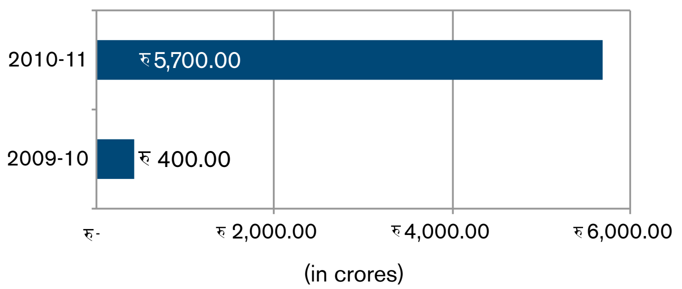


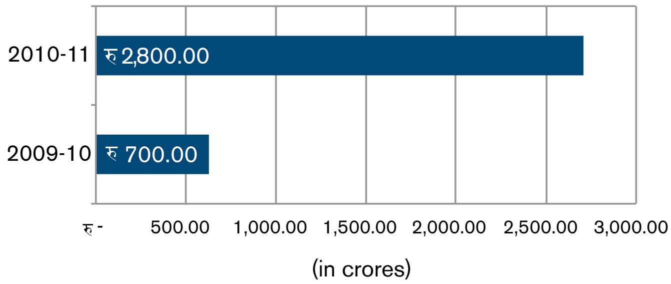
FIGURE 10: EMPLOYER EXPENSES



IN SPITE OF A RECORD LEVEL OF EMPLOYER CONTRIBUTIONS, GRATUITY FUNDED STATUS STILL DECREASED

The 26 banks contributed approximately a record Rs 2,800 crores to their gratuity plans in 2010-2011; this is an increase of more than 310% from 2009-2010. Even if interest rates in 2011-2012 remain at the same 2010-2011 levels (or lower), it is estimated that the cash contributions and associated costs should increase by the end of this year.

FIGURE 11: EMPLOYER CONTRIBUTION



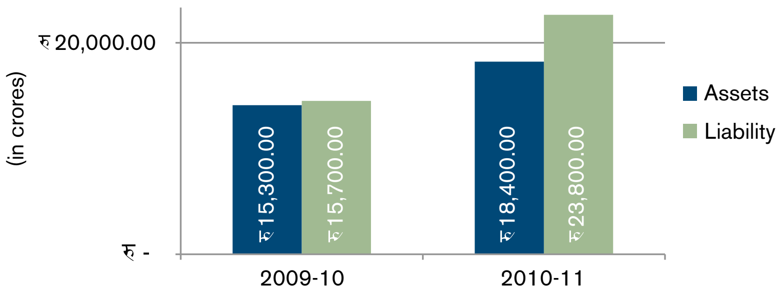
WHO ARE THE 26 BANKS?

Our study covers 26 public sector banks with funded defined benefit gratuity plan assets for which a 2010 and 2011 annual report was released by December 2011.

This is Milliman's first annual study of the financial reports of the 26 public sector banks that sponsor funded defined benefit gratuity plans. As a group, these banks had plan assets of more than Rs 18,400 crores at the end of March 2011.

The funded ratio of the 26 gratuity plans fell substantially during 2010-2011, reaching 77%. The aggregate gratuity deficit of approximately Rs 400 crores in FY 2009-2010 increased by approximately Rs 5,000 crores during FY 2010-2011, reaching a very high level of more than Rs 5,400 crores.

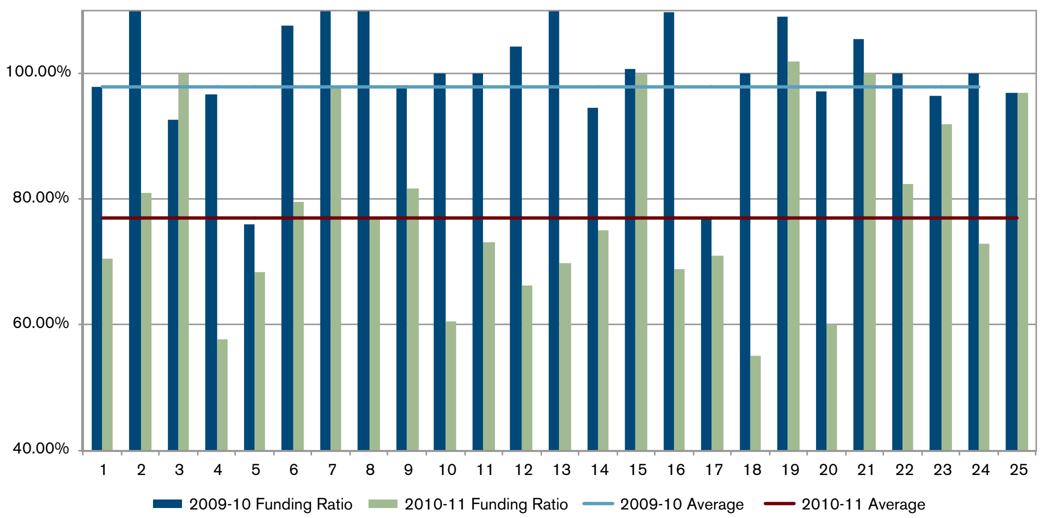
FIGURE 12: PLAN ASSETS AND LIABILITIES



For their 2009-2010 fiscal year, PBO funded ratios of these 26 banks ranged from a low of 76% to a high of 148%. For the group, the 2010-2011 funded ratio decreased to an average of 77% from the prior year's 98%. In 2010-2011, PBO funded ratios of the 26 ranged from a low of 55% to a high of 102%.

The funded ratio deteriorated because increased employer contributions and better-than-expected investment returns were still not sufficient to offset the impact of an increase in total PBO.

FIGURE 13: CHANGE IN FUNDING



IMPACT ON PBO PER EMPLOYEE

The average PBO per employee increased by approximately 52%, from Rs 218,100 in 2009-2010 to Rs 331,100 in 2010-2011.

The primary reason for this rise was the increase in the gratuity ceiling, which caused the average PBO per employee to increase by almost 41% (approximately Rs 89,100 per employee). If we remove the impact of the increased gratuity ceiling, the average PBO per employee increased from Rs 218,100 in 2009-2010 to Rs 242,000 in 2010-2011 (an increase of approximately 11%).

FIGURE 14: AVERAGE PBO PER EMPLOYEE 2010-11

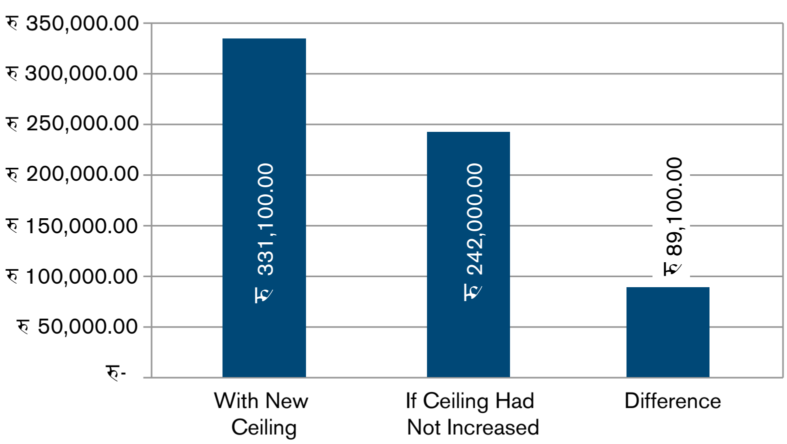
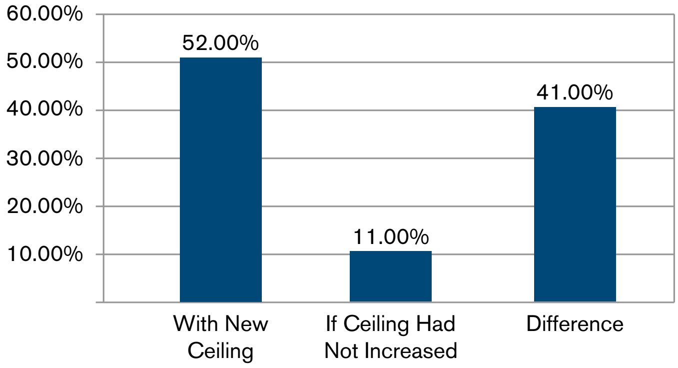
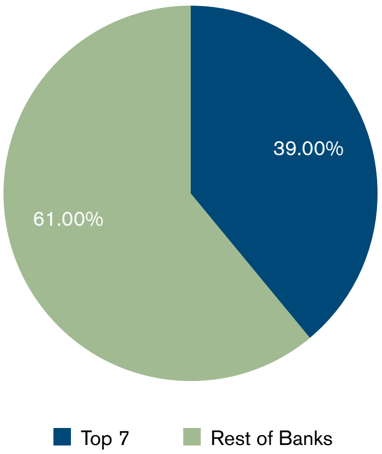


FIGURE 15: AVERAGE PBO PER EMPLOYEE INCREASE 2010-2011



The seven largest public sector banks contributed 39% of the total increase in PBO; due to the new gratuity ceiling. The remaining 19 banks account for 61% of the total increase in PBO due to new gratuity ceiling.

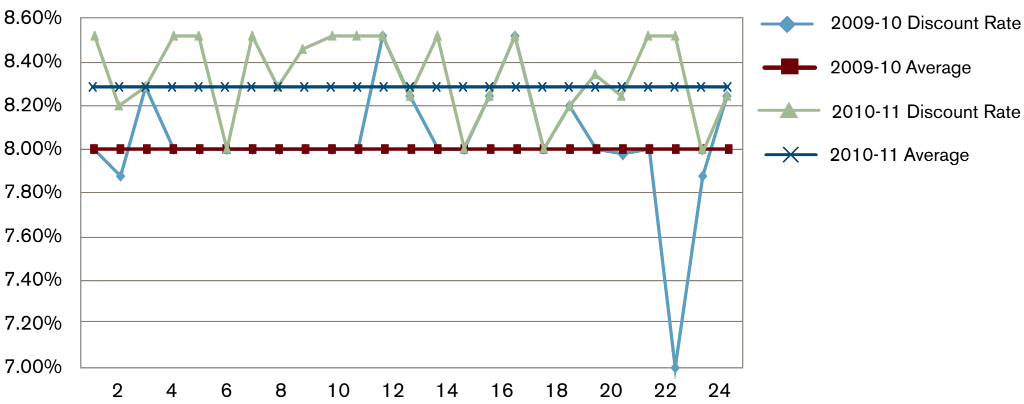
FIGURE 16: IMPACT ON PBO PER EMPLOYEE DUE TO NEW CEILING



DISCOUNT RATES USED TO MEASURE PLAN LIABILITIES INCREASE IN 2010-2011

The average discount rates increased from 8% to 8.3% in 2010-2011. Based on the movement of Government of India bond yields during 2011-2012, it is expected that the discount rates would more or less remain in the range of 8% to 9%.

FIGURE 17: DISCOUNT RATE DISTRIBUTION

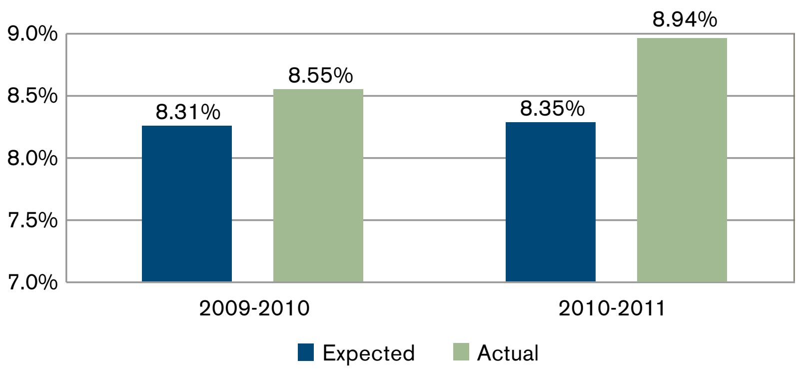


ASSET PERFORMANCE

The average actual investment return on gratuity assets for the banks' 2010-2011 fiscal year was 8.94%, which was 0.59% above the average expected rate of return (as stated in the employee benefits disclosures of the annual reports of the 26 banks) of 8.35%. The average actual investment return on gratuity assets for the banks' 2009-2010 fiscal year was 8.55%, which was 0.24% above the average expected rate of return (as stated in the employee benefits disclosures of the annual reports of the 26 banks) of 8.31%.

Overall, the banks maintained their expected rate of return (8.35% for 2010-2011 as compared to 8.31% for 2009-2010). Only five banks in the group continued to assume an expected rate of return for 2010-2011 of at least 9%. Asset allocations have changed slightly during 2010-2011; however, we do not expect any significant change in expected returns for 2011-2012.

FIGURE 18: AVERAGE ASSET PERFORMANCE



ASSET ALLOCATION

There were some changes in asset allocation during 2010-2011, particularly changes in assets allocated in insurer-managed funds and other asset classes. Overall, the banks studied invested 39% of their gratuity fund assets in government securities (unchanged from 2009-2010), 29% in corporate bonds (down from 32% in 2009-2010), and 24% in insurer-managed funds (up from 15% in 2009-2010). The remaining 8.0% of gratuity fund assets were invested in other asset classes (down from 14% in 2009-2010), including bank deposits and cash equivalents.

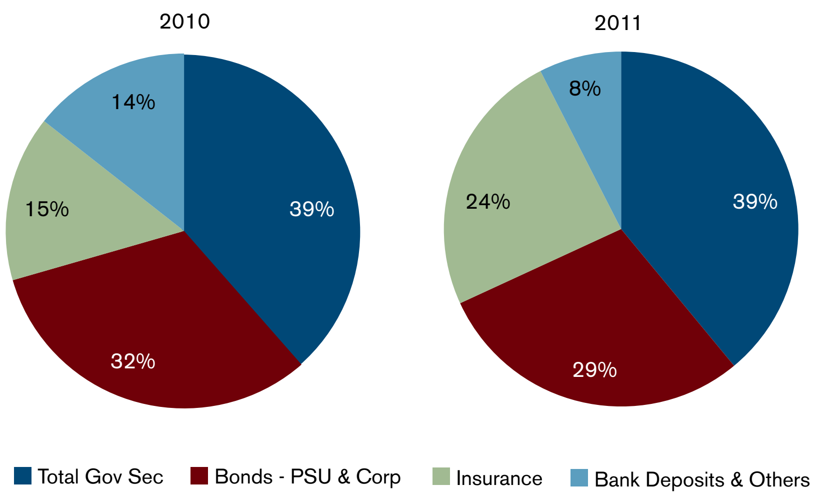
Overall allocations to government securities remained the same in 2010-2011. Two banks increased their government securities allocations by more than 10%. Only two banks had a decrease of more than 10% in their government securities allocations in 2010-2011.

Overall allocations to corporate bonds decreased in 2010-2011. Four banks decreased their corporate bonds allocations by more than 10%. Three banks had an increase of more than 10% in their corporate bonds allocation in 2010-2011.

Overall allocations to insurer-managed funds increased in 2010-2011. Four banks increased their insurer-managed funds allocations by more than 10%. No bank had a decrease in insurer-managed funds allocations in 2010-2011.

Overall allocations to other asset classes decreased in 2010-2011. Four banks decreased their allocations to other asset classes by more than 10%, while no bank had an increase of more than 10% in its other asset classes allocation in 2010-2011.

FIGURE 19: ASSET ALLOCATION



WHAT TO EXPECT IN 2011-2012 AND BEYOND

Plan sponsors were still responding to 2008's asset losses when they were hit with an increase in the maximum gratuity payable limit. Thus, we feel that most plan sponsors will still be facing increases in pension expense and contribution requirements over the next few years.

As the funded status of most plans has deteriorated over the past year, it is recommended that plan sponsors develop comprehensive funding policies to achieve the desired funded status. Plan sponsors should also review their investment policies to address any issues related to asset-liability mismatch. We believe that plan sponsors should balance long-term goals with potential short-term risks that can adversely impact the bank's cash flow, balance sheet, and earnings. Gratuity fund sponsors should consider employing gratuity risk management practices through liability-driven investing and risk-budgeting (risk-allocation) techniques.

Over the next few months, we will increase the scope and coverage of this study, extending it to include funded and unfunded obligations of 61 public sector companies which form part of the Bombay Stock Exchange's PSU Index. Later in 2012, we will further expand the study to cover companies that form part of Bombay Stock Exchange's BSE-100 Index.

Our India Defined Benefit Funding Study will be an annual publication, and we plan to develop an India Defined Benefity Funding Index (an index showing the impact of changes in discount rates and asset returns on estimated funded status of defined benefit plans) which will be updated quarterly.

ABOUT THIS STUDY

MILLIMAN 2011 INDIA PENSION FUNDING STUDY

The results of the Milliman 2011 India Pension Funding Study are based on the pension plan accounting information disclosed in the footnotes to the banks' annual reports for the 2010-2011 fiscal year and for the previous fiscal year. These figures represent the generally accepted accounting principles (GAAP) accounting information that public banks are required to report under Accounting Standard 15 (Revised 2005). In addition to providing the financial information on the funded status of their pension plans, the footnotes may also include figures for the banks' gratuity and unfunded plans.

Private banks and mutual insurance banks were excluded from the study. Milliman publishes a separate annual pension funding study and monthly pension funding index for the 100 largest U.S. defined benefit plans.

MILLIMAN 2011 INDIA GRATUITY FUNDING STUDY

The results of the Milliman 2011 India Gratuity Funding Study are based on the gratuity plan accounting information disclosed in the footnotes to the banks' annual reports for the 2010-2011 fiscal year and for previous fiscal years. These figures represent the generally accepted accounting principles (GAAP) accounting information that public banks are required to report under Accounting Standard 15 (Revised 2005). In addition to providing the financial information on the funded status of their gratuity plans, the footnotes may also include figures for the banks' pensions and unfunded plans.

Private banks and mutual insurance banks were excluded from the study. Milliman publishes a separate annual pension funding study and monthly pension funding index for the 100 largest U.S. defined benefit plans.

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Acknowledgments

The authors would like to thank the following people for their assistance in compiling the figures and editing the report for the Milliman 2011 Gratuity Funding Study: Zorast Wadia, Jeremy Engdahl-Johnson, John W. Ehrhardt, and Kevin Ferris. We would also like to thank Dr. K. Sriram for providing the initial thought and support for the study.

Milliman

ABOUT MILLIMAN

Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in healthcare, property & casualty insurance, life insurance and financial services, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe. For further information, visit *milliman.com.*

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