



Pension Funding Index

Lance Burma

Practice Leader (elect) - Milliman

US

Meeting the Challenges of Change

14th Global Conference of Actuaries

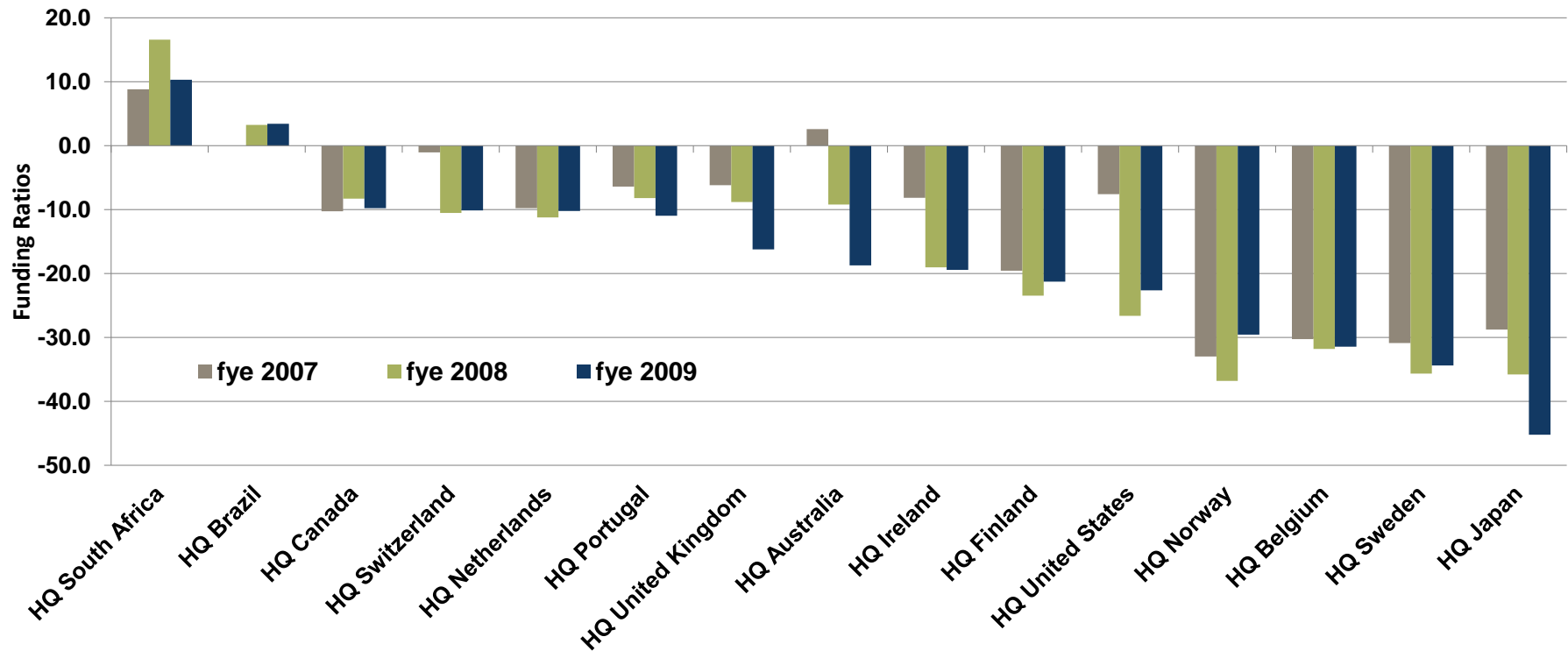
19th – 21st Feb, 2012 | Mumbai, India

Unfunded Pension Liabilities

- 60% of OECD pension assets are in DB or other plans which offer return or benefit guarantees*
- Below is a graph depicting median funding level of the aggregate defined-benefit obligations
 - Of 2100 publicly traded companies
 - As published in their Annual reports as of their fiscal years ending 2009, 2008 and 2007.
 - Companies are grouped by country of domicile

(* www.oecd.org/els/social/pensions/PAG)

Unfunded Pension Liabilities



(* www.oecd.org/els/social/pensions/PAG)

Unfunded Pension Liabilities

- Pension obligations have started to impact the share price of many companies e.g. General Motors (around \$22 billion*)
- Pension obligations as a value of a company's market cap **:ul>- Goodyear - 67%
- Lockheed Martin - 39%
- CSC - 37%
- Whirlpool - 33%
- Ford Motors - 32%

* As on Dec 31, 2010
** per Credit Suisse (US)

Pension Funding Index

We need a tool that can help various stakeholders such as; employers, employees, government agencies, unions, investors, credit rating agencies etc. better understand the quantum & extent of the pension puzzle.

Such a tool will also

- Create a higher profile for the actuarial industry
 - The general public will be more aware of the role of pension actuary
- Help policy makers understand emerging trends for pension liabilities
 - Encourage a healthy debate on DB vs. DC

Pension Funding Index

- What is Pension Funding Index
 - Index measuring & projecting the funding ratio of various pension plans.
 - In US, our monthly index projects the funded status for pension plans included in the Milliman Pension Funding Study (US)
 - Study of 100 largest listed companies with DB plans
 - In India, our quarterly index projects the funded status for pension plans included in the Milliman Pension Funding Study (India)
 - Study of 26 Public sector banks with funded DB plans

Pension Funding Index

- Data Sources
 - Pension Funding Study
 - Annual reports of plans being reported
 - Assumptions on impact of interest rates on assets as well as obligations (based on Milliman's proprietary pension modeling software)
 - Publically available information such as cost of living indices¹, number of employees² etc.

1. Used for US Pension Index
2. Used for Indian Pension Index

Pension Funding Index

- Uses
 - The Index is used to
 - Highlight the effect of market returns on plan assets
 - Impact of interest-rate changes on plan liabilities.
 - Pension Funding Index offers an ongoing assessment of the often volatile movements that have come to characterize pension funding across the globe

Pension Funding Index

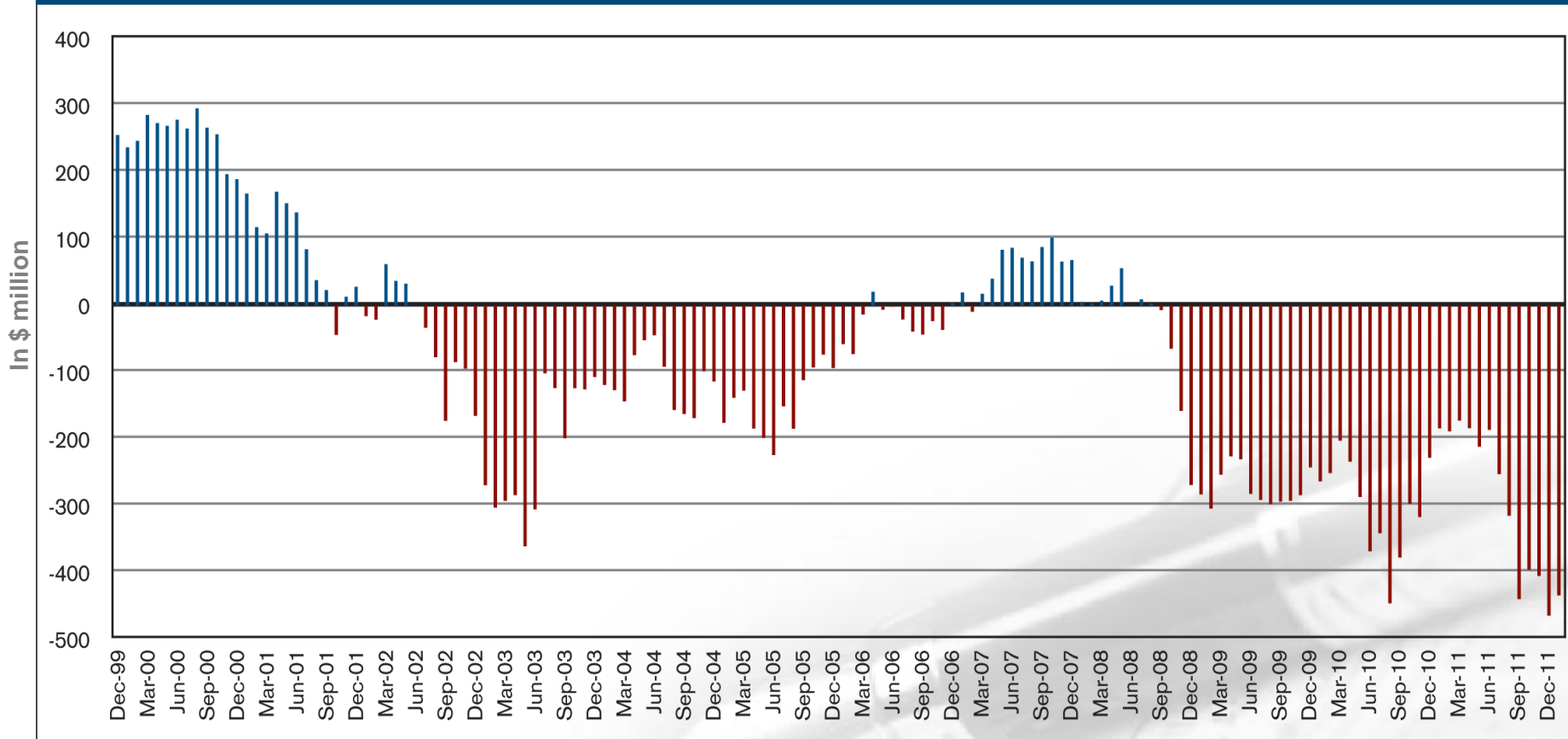
- Uses
 - As stated before
 - Encourage the employers, government agencies and the general public in fostering healthy pension related debates, such as
 - DB or DC
 - DB & DC
 - Pension Funding rules
 - Pension Reforms
 - Proactive measures to ensure security of pension promise

Pension Funding Index

- In US for the past 12 years, Milliman has conducted an annual study of the 100 largest DB pension plans sponsored by U.S. public companies.
 - The Milliman 100 Pension Funding Index projects the funded status for pension plans included in our study, reflecting
 - the impact of market returns and
 - interest-rate changes on pension funded status, utilizing the most recently reported
 - Asset values,
 - Liabilities, and
 - Asset allocations of the companies' pension plans.

Pension Funding Index

FIGURE 1: MILLIMAN 100 PENSION FUNDING INDEX PENSION SURPLUS/DEFICIT



Pension Funding Study

- At Milliman India, we have compiled pension data of 26 public sector banks, which sponsor funded DB plans
 - The Pension Funding Study projects the funded status for pension plans, reflecting
 - Impact of market returns and
 - Interest-rate changes on pension funded status, utilizing the most recently reported
 - asset values,
 - liabilities, and
 - asset allocations of the companies' pension plans.

Pension Funding Study

- *Data Sources for India Pension Funding Study*
 - Annual reports of companies included in the Study
 - Publically available information such as
 - Inflation Rate
 - Government of India bond rates
 - Disclosures issued by Reserve Bank of India
 - Employee Provident Fund Organisation Annual report

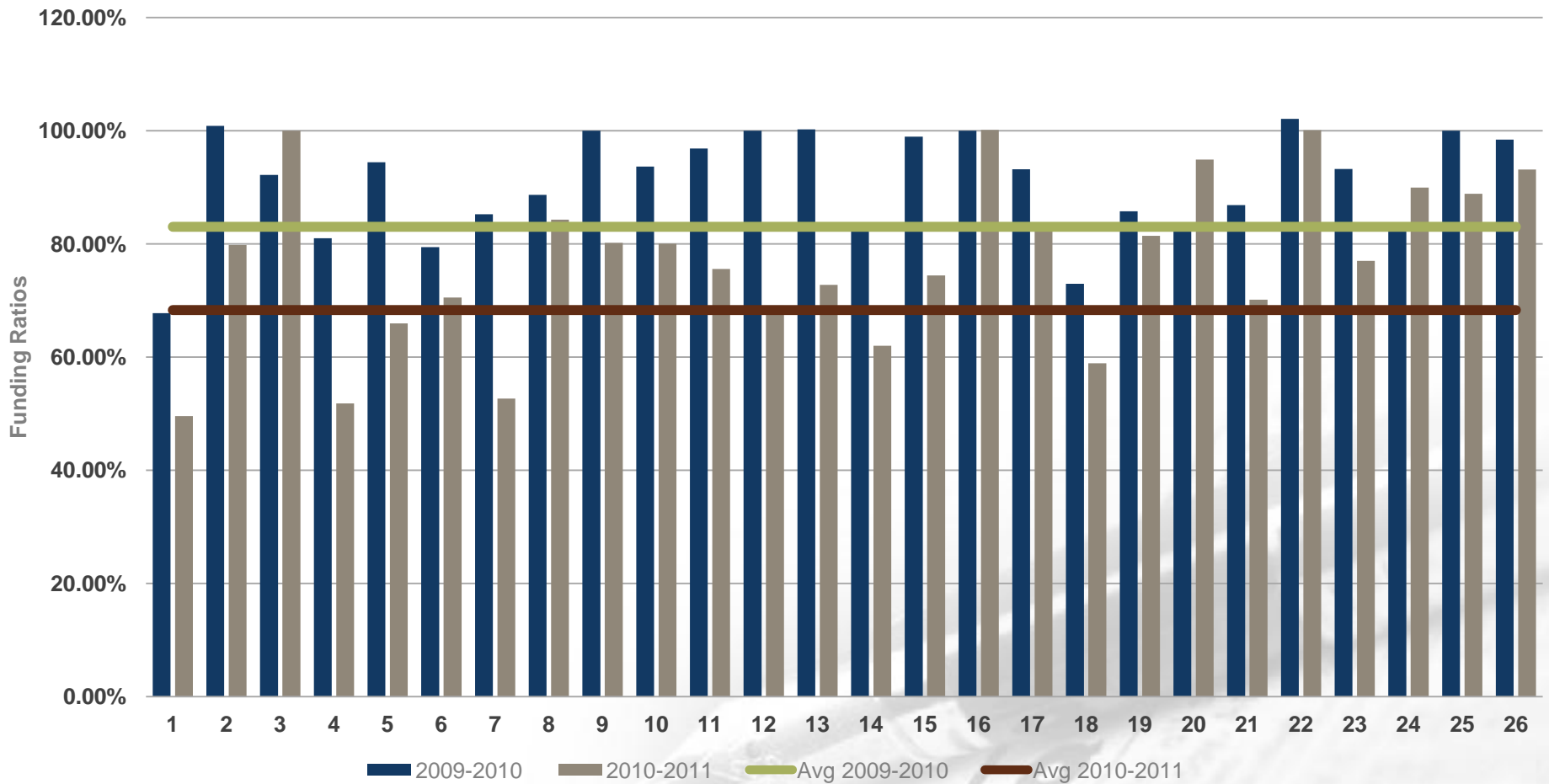
Pension Funding Study

- India Pension Funding Study[©] results*:-
 - Aggregate funded ratio of Milliman 26 fell substantially from 83% in FY 2009-2010 to 68% in FY 2010-2011.
 - The aggregate pension deficit of approximately Rs 10,100 crores in FY 2009-2010 had increased by approximately Rs 27,200 crores during FY 2010 – 2011, reaching a very high level of almost 37,300 crores.
 - If we remove the impact of 2nd option¹, the total PBO of Milliman 26, increased by around 40%.

1 - 2nd Option refers to re-opening of Pension plans to employees per Hon. Supreme Court on India's ruling

Pension Funding Study

India Pension Funding Ratios



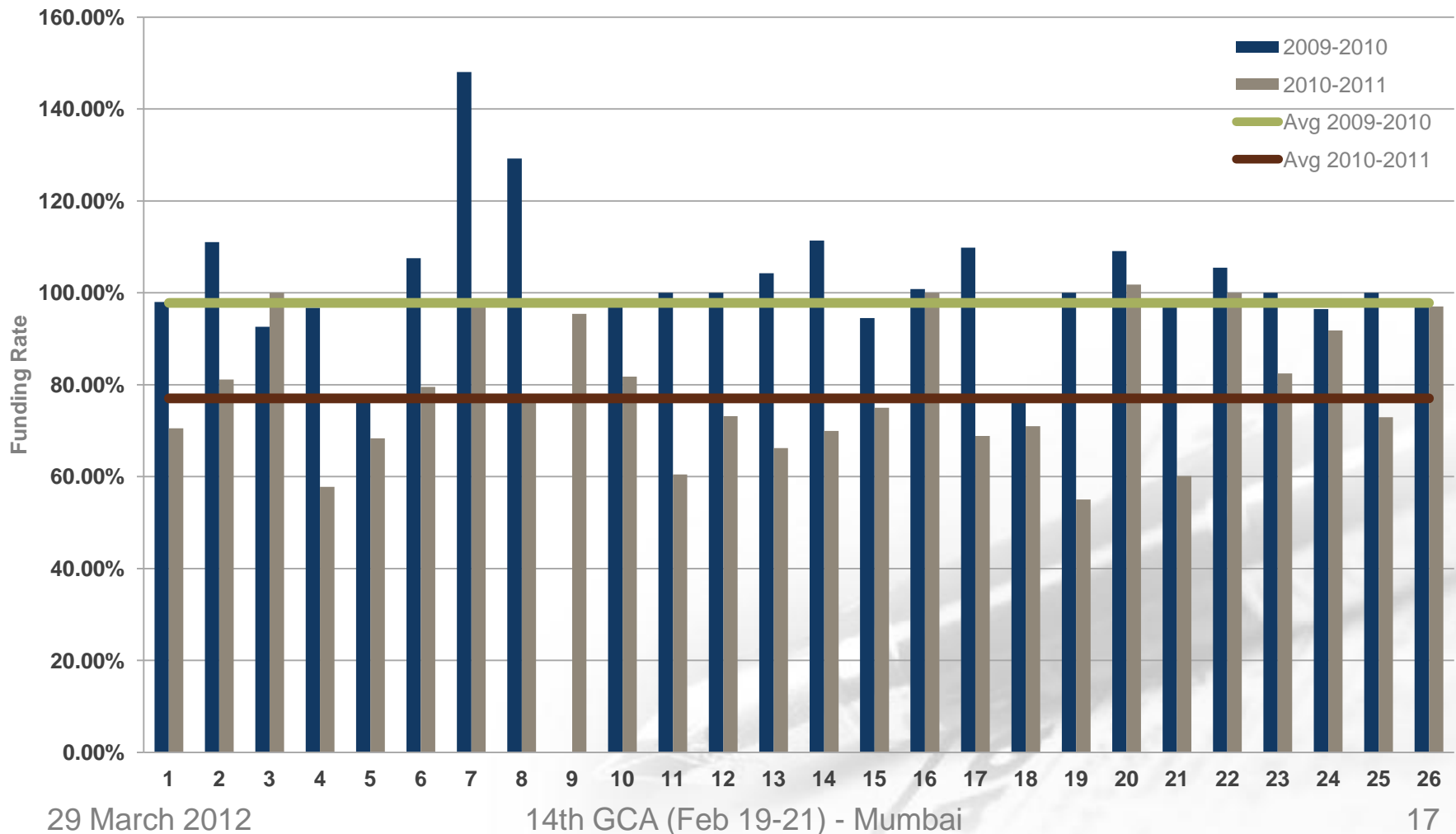
Pension Funding Study

- India Gratuity Funding Study[©] results*:-
 - Aggregate funded ratio of Milliman 26, fell substantially from 98% in FY 2009-2010 to 77% in FY 2010-2011.
 - The aggregate gratuity deficit of approximately Rs 300 crores in FY 2009-2010 had increased by approximately Rs 5,100 crores during FY 2010 – 2011, reaching levels of over 5,400 crores
 - If we are to remove the impact of increase in gratuity ceiling², the total PBO of Milliman 26 increased by about 10%.

2 – Increase in gratuity limits per Payment of Gratuity (Amendment) Act 2010

Pension Funding Study

Gratuity Funding Ratios



Pension Funding Study

- Challenges identified in India Pension Funding Study[©]
 - Lack of standardization of pension related disclosures
 - Not all companies provide uniform disclosures as required by AS 15 (Revised 2005)
 - Absence of Pension Funding rules
 - Lack of mandatory funding rules create a serious doubt on the promise of pension by an employer
 - Asset allocations
 - Additional regulatory flexibility is required, especially regarding equity investments

Pension Funding Study

- Future Plans

- Annual: Pension Funding Study[©]

- Currently a study of 26 public sector banks (both pension & gratuity plans)
 - Over 2012, to be expanded to
 - Stage A: 61 companies in the NSE PSU Index
 - » Pension plans,
 - » Gratuity plans, and if possible
 - » Other Post Employment Benefits (OPEB) plans
 - Stage B: India's largest 100 listed companies
 - » Pension plans, gratuity plans, and if possible OPEB plans

Pension Funding Index

- Quarterly: Pension Funding Index[©]
 - Available to public from end of Q2, 2012
 - Covering India's largest 100 listed companies
 - » Pension plans
 - » Gratuity plans, and if possible
 - » Other Post Employment Benefits (OPEB) plans

Pension Funding Study

For more information visit:

□ US Pension Funding Study ©

- www.milliman.com

□ India Pension Funding Study ©

□ India Gratuity Funding Study ©

- in.milliman.com

OR

- Email – ravi.shekhar@milliman.com

Pension Funding Index

Thank You

Milliman

Lance Burma, FSA, MAAA, EA
lance.burma@milliman.com