Update on the Funded Status of the United Nations Joint Staff Pension Fund

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In my 2011 article regarding the funded status of the United Nations Joint Staff Pension Fund (the "Fund"), I addressed the impact that the financial crisis had on the Fund and I also described three measurements used to evaluate the Fund's financial situation, namely the actuarial valuation, the asset liability management (ALM) study and the funded status or ratio. At the recent Pension Board session, held in July, two of these measures were updated and presented to the Board: the actuarial valuation results as of 31 December 2011 and the funded ratio as of the same date. In this article, I present these new results, as well as provide a discussion on the short and long term financial outlook of the Fund.

Actuarial Valuation

The practice of the Fund is to carry out an actuarial valuation every other year. The primary purpose of the actuarial valuation is to determine whether the current and estimated future assets of the Fund will be sufficient to meet its liabilities, with one of the key results being the determination of the contribution rate necessary to cover the cost of future benefits to be earned by employees and to pay for benefits already earned, that have not yet been fully funded.

The previous valuation results as of 31 December 2009 indicated that there was a small deficit of -0.38% of pensionable remuneration, meaning that the required future contribution rate was 0.38% higher than the current contribution rate of 23.7% of pensionable remuneration (which is paid one-third by employees (7.9%) and two thirds by the participating member organizations (15.8%)). As of 31 December 2011, the latest valuation results report a required contribution rate of 25.57% of pensionable remuneration, indicating that the deficit has increased to -1.87% of pensionable remuneration.

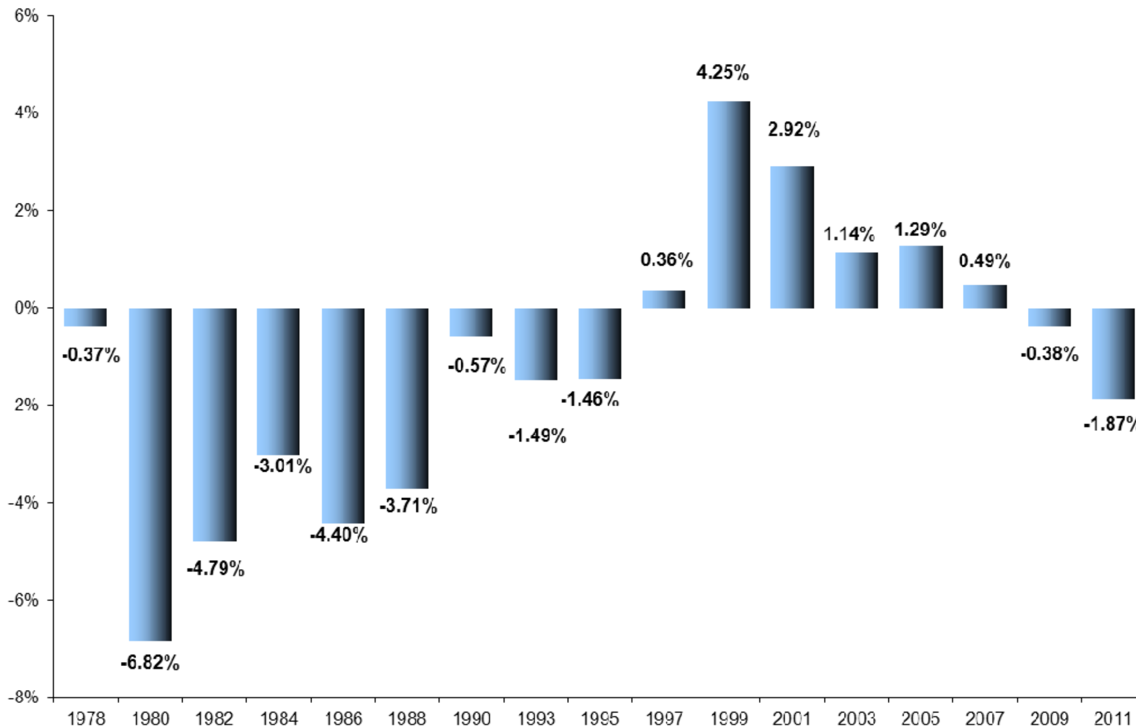
In order to complete the actuarial valuations, many assumptions must be made concerning the future. The assumptions represent the best estimate of what will occur, over time, with respect to the future real rate of return on assets, expected inflation, the rate of mortality and withdrawal, and the incidence of disability. The Consulting Actuary, working with the Committee of Actuaries and after consultation with the Investments Committee, develops the assumptions every other year, which are then approved by the Board and used in the next actuarial valuation.

Changes in valuation results from year to year are due to the fact that actual experience never exactly matches what is predicted by the assumptions. In the long term, the assumptions should predict the "average" of the funding requirements determined each biennium. For the Fund, this "average" contribution rate is expected to be the current 23.7% of pensionable remuneration. In the short term, it is expected that the required contribution rate will be above or below this rate due to differences in actual experience compared to the assumptions. For example, the increases in

the required contribution rate determined by the actuarial valuations of 2009 and 2011 were primarily due to the actual real rate of return being less than the expected rate of 3.5% per year. A further factor in 2007 and 2009 that impacted the valuation results was the revision of the mortality rates to reflect the increase in life expectancy for active participants and retirees and beneficiaries.

The graph below provides a comparison of the actuarial valuation results over the past 33 years:

Difference between the Fund's actual contribution rate and the required future contribution rate determined in the actuarial valuations



Over the years, and as expected, the required contribution rate has fluctuated above and below the current contribution rate. There was an increasing trend from a -6.82% deficit in 1980 to the surplus of 4.25% in 1999. However, the trend since 1999 has been one of a declining nature. It should be noted that changes have been made in actuarial assumptions, the normal retirement age, certain benefit provisions and the contribution rates during this 33 year period, in order to reflect changes in demographic and financial expectations and to help ensure the long term financial viability of the Fund. It can also be noted that, in past years, the order of magnitude of the deficits, as well as the surpluses, has been much greater than the current -1.87% deficit.

The Committee of Actuaries, which advises the Pension Board, has historically recommended that no action be taken when the required contribution rate is within 2 percentage points of the actual rate; that is, the required rate is between 21.7% and 25.7%. In 2012 after reviewing the latest actuarial valuation results showing a deficit at the lower end of the 2 percent corridor, the Committee suggested that, while no immediate action needed to be taken, the Board should consider taking remedial actions now in order to avoid a continued deterioration of the actuarial deficit.

After being presented with these most recent valuation results at its July 2012 session and based on the comments of the Committee of Actuaries, the Pension Board decided to form a Working Group of Board members that, in consultation with the Fund's Consulting Actuary, the Committee of Actuaries, the Investment Committee, the Representative of the Secretary-General for Investments of the Assets of the Fund, and the Secretary/CEO, will consider possible measures to ensure the Fund's long-term sustainability. The Board directed its Working Group to focus on long-term sustainability, including governance, investment management, and asset-liability management.

As an immediate action, that has the potential to lower the funding deficit, the Pension Board considered an increase in the Fund's Normal Retirement Age for new entrants. Both the Fund's Consulting Actuary and the Committee of Actuaries noted to the Board in 2012 that increasing the Normal Retirement Age would offset the serious future impact that the increased longevity had on the Fund by improving the Fund's actuarial position. The proposed change would reduce the funding deficit by almost one percentage point. Specifically, the Board recommended to the General Assembly that it authorize the Board to decide to increase the Normal Retirement Age with effect no later than 1 January 2014.

Funded Status

Concurrent with the actuarial valuation of the Fund, the Consulting Actuary also calculates the liabilities for benefits accrued to date for current active participants, retirees and beneficiaries of the Fund. This liability represents how much money is needed should the Fund be terminated, and it is compared to the Fund's actuarial value of assets to determine the funded status or ratio.

With respect to its liabilities on 31 December 2011, the Fund was found to be adequately funded, as it had been for the past eleven valuations. The current funded ratio is 130 per cent, which was obtained by dividing the actuarial value of assets (i.e. $39,838 million) by the actuarial value of the accrued benefits (i.e. $31,394 million). Hence, there is a 30 per cent margin of assets over accrued liabilities. This is the ratio used in the Fund's Regulations as the guideline for whether the Fund's Member Organizations would be required to contribute additional monies to the Fund. If this ratio were to drop below 100%, Member Organizations would be required to contribute enough money to increase the ratio to 100%.

When the current system of pension adjustments is taken into account, whereby benefits are adjusted for future inflation, the funded ratio is below 100%.

The following table illustrates the funded ratios from 1990 to 2011, both with and without pension adjustments:

FUNDED RATIOS FOR VALUATIONS AS OF 31 DECEMBER 1990 – 2011											
	1990	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011
Without pension adjustments	131	136	132	141	180	161	145	140	147	140	130
With pension adjustments	77	81	81	88	113	106	95	92	95	91	86

The above funded status uses the actuarial value of assets and not the market value of assets. The actuarial value of assets is a 5-year smoothed value, which helps mitigate significant fluctuations in asset values when determining the required contribution rate and funded status of the Fund.

Cash flow

In order to put the actuarial valuation results in perspective, it is important to consider the cash flow projections for the Fund for the next 50 years, as calculated by the Consulting Actuary in conjunction with the actuarial valuation. As shown below, it is expected that the principal of the Fund will not be needed to make benefits payments during the next 50 years and likely well beyond that. The principal of the Fund was at $40 billion as of 31 December 2011.

PROJECTED CASH FLOWS (in $ billions) Includes Inflation Projections							
	2011	2016	2021	2031	2041	2051	2061
Contributions	2.1	2.9	3.7	5.7	8.6	13.3	20.3
Investment Income	1.5	4.0	5.6	10.0	15.9	23.3	31.7
Total	3.6	6.9	9.3	15.7	24.5	36.6	52.0
Benefit Payments	2.1	3.2	4.4	8.4	15.4	25.3	40.3

The cash flow projections above assume that the assumptions used in the 31 December 2011 actuarial valuation reflect exactly what will happen to financial and demographic data for the next 50 years, with no changes in the Fund's Regulations.

Long Term Outlook

What the cash flow projections show is that the Fund can meet its benefit obligations for many years in the future and the Pension Board and General Assembly have time to study the funding, investment and provisional changes that would best meet the needs of participants, retirees and beneficiaries, Member Organizations, and Member States by ensuring that the downward trend in the actuarial deficit is stopped and reversed. The cash flow projections also show that, in order to cover benefit payments, the Fund will begin to rely more and more on investment income and not just on contributions to the Fund. This development is not surprising for a maturing fund such as the UNJSPF. However, this means that increased attention must be paid to actual investment performance as compared to the Fund's investment return expectations.

In that respect, it is worth recalling the findings and recommendation of the Asset Liability Management (ALM) study, which were presented to the Board in 2011. An ALM study models and projects a pension plan's assets and liabilities under multiple economic scenarios (generally 1,000 to 10,000 simulations) with a horizon in the future of 30 or more years, in order to develop statistically based ranges of confidence of future actuarial valuation results. The 2011 ALM study recommended to the Secretary-General a slightly revised investment policy which had a high probability of reaching the objective of 7.5% investment return (or 3.5% in real terms) and therefore of maintaining or improving the funded status of the Fund under the current contribution rate of 23.7% of pensionable remuneration.

Key observations of the ALM study were:

- Under the current investment policy, the long-term annual investment return is expected to be 7.7%, while the expected return under the recommended strategy was 8.1% per year. This compares to the investment return assumption used in the actuarial valuation of 7.5% per year and the observed annualized investment return of 6.5% in the past 10 years.

- The Fund should reach 100% funded status under the current investment policy. However, under the recommended policy, the Fund would reach 100% funded status sooner and with less investment risk.

The Pension Board, Investments Committee and the Investment Management Division studied the ALM results and IMD has already begun implementing some of the suggestions.

Conclusions

In the short-term, the Fund's actuarial valuation results are definitely affected by the lower than expected investment returns and the volatility in the financial markets. However, as noted in my 2011 article, the ALM study shows that the expected long term investment performance under the current and recommended investment policies is projected to be equal to or above the investment return assumption used to establish the current contribution rate. That is, the Fund can weather investment fluctuations, which are expected and a normal part of long-term institutional investing.

Of course, there are many other factors that can affect the actuarial situation of the Fund. The Working Group on Sustainability will consider all of these other factors, as well the recommendations of the ALM study. The Group is directed to focus on the long-term sustainability working with the Fund's investment and actuarial advisors and I am confident that the conclusions and any possible measures developed from its work will ensure the Fund remains healthy for many years to come.