Pensions and Annuities Seminar

Co-hosted by Chile, New Zealand, Russia and Singapore

Disclaimer: The views, opinions, findings, and conclusions or recommendations expressed in this Working Paper are based on those of the presenting speakers. They do not necessarily reflect the views of any of the co-sponsoring economies. The paper is presented not as policy, but with a view to inform and stimulate wider debate.
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APEC Pensions and Annuities Seminar

Executive Summary

At a seminar held in Singapore on 8-9 November 2007, representatives from a number of APEC economies, international financial institutions, and from the private sector discussed factors that could enhance the impact of pension and annuity markets within a comprehensive savings policy. This work built upon previous APEC work on the role of savings policy in supply side capital market development.

Policy Context

All APEC economies are facing a structural demographic change as a result of ageing populations, though the impact will be felt earlier in some economies than in others. This presents many challenges for decision-makers and their policy advisers. One of the most important is the funding and sustainability of superannuation arrangements. Many APEC economies have been or are active in this policy space, and their experiences offer a rich source of information to support sharing of good practice and capability building across the spectrum of issues from policy design and implementation to the regulation and supervision of markets and participants.

A consistent trend within all economies is the replacement of defined benefit schemes – which guarantee either a lump sum on retirement, or a post-retirement income stream, and often both – with defined contribution schemes where the management of accumulated benefits post-retirement is often the responsibility of the individual. As these schemes mature, and move from the accumulation to the decumulation or withdrawal phase, policy design of post retirement policy and products, such as annuities, is becoming increasingly important. Annuities markets remain underdeveloped in many APEC economies.

Finally, the increased role of the private sector in the delivery of savings policy means that the sustainability and credibility of public policy is intimately tied to the performance of private sector providers. This has major implications both for the regulatory and supervisory environment within which pension and superannuation providers operate, and for the quality of their governance and management.
Key Themes

Against this background, the 2007 APEC Pensions and Annuities Markets Seminar focused on:

- governance, accountability and regulation of public and private pension funds and the life insurance industry, including the regulation of investment policies;
- approaches to risk based supervision in insurance companies and pensions funds;
- experience from both developed and developing economies in expanding the market for post-retirement (annuity) products; and
- how to ensure that annuity guarantees will be delivered upon, through assessing the solvency of annuity companies and their asset-management performance.

A copy of the seminar programme is attached at Annex 1. The list of seminar participants is attached at Annex 2.
1 Introduction

An introduction to the substantive business of the workshop was provided by Dr Alberto Musalem, Chief Economist, Centre for Financial Stability, Argentina.

Dr Musalem began by reviewing the key messages from the 2006 APEC Savings and Capital Market Development Dialogue held in Hanoi on 1 September 2006. These included:

- In response to aging populations, there has been a move away from pay-as-you-go pension schemes, which meet the cost of pension payments from current tax income, towards fully funded pension schemes that pre-fund pension payments. APEC economies have sought to pre-fund the cost of an ageing population through a range of institutional mechanisms that range from public sector investment funds to individual defined contribution savings accounts, which are managed by private sector pension funds.

- As a result of ongoing reforms, there has been a growth in long-term, or contractual, savings within most OECD and emerging economies. As illustrated below, in some countries the proportion of private pension savings now exceeds total GDP.

(Private Pension Funds + Insurance) / GDPOECD and Emerging Economies: 2001-2006 (in %)

Dr Musalem observed that this increase in domestic savings can have positive benefits for capital market development and can also support firm and economic growth through an increase in the supply of investment funds.

Other indirect benefits include increased awareness of the need to save and reducing free riding behaviour whereby individuals expect their retirement income to be met by public sector pensions and adapt spending patterns accordingly.

Dr Musalem found that one dollar of pension savings raises national savings by between 0 and 20 cents and that national savings rises by 0.3-0.5 percentage points for each year that the funded pension scheme operates (Bebczuk & Musalem, 2006).
2 Governance, accountability and investment policy

The second session of the workshop focused on governance, accountability and the investment policy of public and private pension funds.

2.1 – New Zealand case studies

In the first part of the discussion, Dr Brian McCulloch and Peter Martin from the New Zealand Treasury provided, respectively:

- an explanation of the policy rationale for, design, and governance of the New Zealand Superannuation Fund,

- an overview of KiwiSaver, New Zealand’s new workplace based voluntary retirement scheme. KiwiSaver uses automatic enrolment of new workers, capped tax credits, and employer contributions to encourage New Zealanders to save more for their retirement.

2.1.1 – New Zealand Superannuation Fund

In common with most economies, New Zealand’s population is aging rapidly (see below).

All else equal, over the next 40 years this shift will lead to fiscal challenges as the cost of social services – especially health care and superannuation provision – rises relative to government revenue. In response, in 2001 the New Zealand government established the New Zealand Superannuation Fund (NZSF) to partly pre-fund the cost of providing New Zealand Superannuation. The NZSF currently holds around NZ$15 billion in assets. It receives around NZ$1.5 billion in capital contributions annually and is expected to grow to about $110 billion in 2025.

In his presentation, Dr McCulloch explained that, to avoid repeating the international record of poor financial performance of public funds, design of the NZSF focused on:

- clarity and certainty around ownership of the fund’s assets, its funding, and withdrawal provisions;

- its management by an independent body, overseen by a board with the necessary professional expertise to guide the development and implementation of a long-term investment strategy; and
• operating under explicit commercial objectives, the [Board] must invest the Fund on a prudent, commercial basis and, in doing so, must manage and administer the Fund in a manner consistent with –
  » Best-practice portfolio management
  » Maximising return without undue risk to the Fund as a whole; and
  » a robust and transparent reporting and accountability regime.

Much of this design was included in the formal legislation under which the NZSF is established.

2.1.2 – KiwiSaver

KiwiSaver is a voluntary, work-based saving scheme that was first announced by the New Zealand Government in 2005, but formally launched in July 2007 with a number of additional incentives to encourage uptake and continued active membership.

In his presentation, Peter Martin described the original model, including the auto-enrolment and opt-out provisions, kick-start payment to new members, fees subsidy, eligibility, contribution rates and withdrawal. He then went on to explain the changes to the design that were introduced in 2007, specifically:

• A member tax credit, of up to NZ$20 per week, for all members aged 18 and over;
• Compulsory employer contributions, of up to 4% of salary and wages, for employees who enter KiwiSaver, with these contributions phased in over a 4 year period; and
• The employer tax credit, again up to NZ$20 per week, to partially offset the cost of compulsory employer contributions.

These changes are illustrated below.

Other aspects of KiwiSaver covered in the presentation were the regulation and governance of KiwiSaver providers in the private sector, portability provisions, investment choices including allocation to default providers, and the mortgage diversion and first home subsidy provisions of the scheme. Mr Martin concluded by noting that, in its first few months of operation, KiwiSaver uptake was running at levels well ahead of forecast. [Note: In its first full year of operation, over 700,000 people joined KiwiSaver, more than twice the number originally forecast.]
2.2 – Governance, accountability and investment policy

In his presentation, Bruce Pflaum, Managing Director Asia, Russell Investments considered the potential benefits of improved governance standards on the performance of pension funds throughout the APEC region.

Mr Pflaum noted that a common weakness in both public and private pension funds is to confuse management with governance, which dilutes the strategic input of the governing board. Management’s role is to ensure that the Fund is run effectively, whereas governance has the higher level objective of ensuring that the fund is run properly i.e. that it has clear objectives and is doing the right things in order to achieve them. Evidence of confusion between management and governance might include:

• unclear objectives;
• changing investment policies and beliefs;
• insufficient or inefficient delegation;
• ambiguous accountability; and
• short-term planning horizons.

Mr Pflaum used the following model to illustrate the correct division of duties at different levels of a pensions fund’s operations:

**Corporate governance: the division of duties in a pension fund**

<table>
<thead>
<tr>
<th>Fiduciary Level</th>
<th>Policy</th>
<th>Strategy</th>
<th>Operations</th>
<th>Execution</th>
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<tbody>
<tr>
<td>&quot;Governing Board&quot;</td>
<td>Decides</td>
<td>Oversees</td>
<td>Delegates</td>
<td></td>
</tr>
<tr>
<td>&quot;Managing Committee&quot;</td>
<td>Recommends</td>
<td>Decides</td>
<td>Oversees</td>
<td>Delegates</td>
</tr>
<tr>
<td>&quot;Operating Staff&quot;</td>
<td>Supports</td>
<td>Recommends</td>
<td>Decides</td>
<td></td>
</tr>
<tr>
<td>&quot;Implementing Investment Managers&quot;</td>
<td>Supports</td>
<td>Recommends</td>
<td>Decides</td>
<td></td>
</tr>
</tbody>
</table>

Mr Pflaum suggested that good governance should:

• encourage all parties to focus on key priorities;
• protect long-term policy and strategies from ad-hoc revision;
• provide continuity and discipline through difficult periods; and
• demonstrate clear thinking and planning.
2.3 – Governance of pension funds in Latin America

Solange Bernstein, the Chilean Superintendent of Pension Fund Administrators, presented on pension fund governance in Chile.

Chile’s mandatory savings scheme uses private sector pension fund administrators to manage contributions over the individual’s working life. The scheme’s pay-as-you-go predecessor, which was deemed to be fiscally unsustainable, was replaced during widespread Chilean pension reforms in the 1980s.

Ms Bernstein noted good governance of savings funds is essential as “unlike other industries [Chilean pension] companies manage savings, which in many cases are mandatory”.

As a result, Chile has adopted the International Association of Pension Fund Supervisors’ (AIOS) Supervision and Governance Standards.

Some general corporate governance principles, which Ms Bernstein discussed, included:

- the accountability and competence of the governing body;
- the importance of appropriate internal controls;
- segregation of duties; and
- transparent disclosure of relevant information.

2.4 – Regulating investment policies of private funds

Hemant Shah, from the IMF, said that the move away from defined benefit (DB) schemes towards mandated defined contribution plans has been driven by many factors, but the most common reasons have been the short term fiscal sustainability of fully funded schemes and concerns about a rising fiscal burden associated with demographic change.

Mr Shah went on to suggest that the investment outcomes of mandated schemes could be improved through more efficient regulation. Reform could address restrictions placed on investments by pension funds that limit their ability to diversify or achieve high returns. Common examples of restrictions are limits on the proportion of investments held offshore relative to domestic investments or define the share of the pension fund’s assets that may be invested in equities.

These restrictions are usually motivated by a desire to reduce risk or to stimulate domestic capital markets, but the general effect has been to reduce either long term returns or the ability of the pension fund to diversify asset specific risks, protecting the value of savings from a downturn in any specific market.

Mr Shah also noted that pushing too much money into domestic capital markets that are underdeveloped has at times led to unsustainable increases in the price of domestic assets.
3 Governance of the life insurance industry

The third section of the workshop looked specifically at governance in the insurance industry. Case studies from Canada and the U.K. were discussed.

3.1 – Corporate governance of life insurance in Canada

Lawrie Savage presented on Canada’s corporate governance and supervisory frameworks, which were adopted following a series of corporate collapses in the 1980s. He explained that many companies in Canada’s insurance industry in the 1980s abandoned previous underwriting standards, began to underprice risks, and ignored the need for reinsurance to gain business growth. As a result, there were twelve corporate failures in the early 1980s.

In response, Canada adopted a new system based upon corporate governance, and risk based supervision that relies on auditors and private sector actuaries for information. Boards and senior management have been made more accountable for the operation and sustainability of their firms and are required by regulation to adopt sound business and financial practice.

Canada’s supervisory regime

Mr Savage noted that the overriding purpose of Canada’s current framework is to maximise the chance that institutions will follow sound business and financial practice in carrying out corporate objectives. Enforcing good business practice reduces the risk of problems occurring rather than dealing with them once they have happened.

The role of governance, which seeks to define responsibilities clearly and hold individuals accountable, has been vital in enforcing the uptake of good business practices. The Canadian governance standards specify that the board is responsible for:

• Resolving conflicts of interest;
• Disclosure of consumer information;
• Prudent investment policies; and
• Establishing an audit, conduct review, and corporate governance committee.
3.2 – How opaque is the life insurance industry?

In his introduction, Chris Daykin, the former UK Government Actuary, noted that the insurance industry is in the business of providing long-term financial promises that are, by their nature, difficult to quantify, describe, and understand. The operation of insurance relies on trust that governance arrangements adequately balance the interests of key stakeholders, such as shareholders, policyholders, management, intermediaries, and regulators.

The traditional regulatory response has been to encourage market discipline by requiring increased disclosure of financial information, such as the methodologies used to value guarantees, but this information is not necessarily meaningful to an average policyholder with limited financial expertise.

Mr Daykin explained that the UK requirements for information disclosure operate through a number of channels including: actuaries; auditors; regulators; and other commentators such as the financial press.

In the UK, the traditional single appointed actuary model, which oversaw the risks and returns of insurance contracts and monitored financial adequacy and resilience, has been replaced with a model that requires three actuaries representing the different interests. The head actuary advises the board of directors, the with-profits actuary advises on the interests of the policyholders and the reviewing actuary works with the auditor who is hired by the shareholders. In practice each of the three actuaries may also be independently peer reviewed to strengthen monitoring at the firm level.
4 Risk based supervision in Insurance Companies and Pension Funds

The focus of session four was risk-based supervision, with case studies from Canada and Australia.

4.1 – The Canadian model

Lawrie Savage’s second presentation to the workshop focused on risk-based supervision in Canada.

The regulator’s focus is on developing prudent business strategy, effective management, and sound internal controls rather than on finding legal breaches through counting and checking.

Mr Savage noted that risk based supervision aims to:

• identify areas of high risk;
• work to reduce risk by working at prevention;
• focus resources where the risk reduction will have the highest impact; and
• utilise self assessment through auditors and actuaries.

There are some common systemic and company specific areas where supervisors may look. In general both pension and insurance companies face six broad systemic risks: credit, liquidity, operations; market; economy; and compliance risk.

Examples of company specific risks could include asset quality, capital adequacy, or management expertise. Regulators also need to consider factors specific to an industry. For example regulators may examine an insurance company’s reinsurance management, adequacy of claims, or actuarial provisions.

Mr Savage explained that the results of this risk assessment are given a relative ranking and the supervisory agency chooses to focus on companies that fall within the upper percentiles of a chosen financial ratio or qualitative measure.

4.2 – Australia’s risk assessment framework

Superannuation funds in Australia are regulated by the Australian Prudential Regulation Authority (APRA). The Deputy Chair of APRA, Ross Jones, described APRA’s risk management framework.

Australian superannuation funds use a trust model. Regulation and supervision by APRA focuses on the performance of trustees.

APRA concentrates its effort on areas of high risk by taking account of the probability of default and the estimated impact of that default. Each entity is assessed against three criteria,
which are weighted according to their significance to the overall risk profile of the entity. They are:

• the inherent risks facing the institutions that arise from its products, services, strategies and appetite for risk;

• the effectiveness of management and controls in mitigating these risks; and

• the extent of capital available to meet any unexpected losses.

The overall risk profile of the firm and an impact assessment of the firm’s importance within financial markets are combined to determine an overall priority as to where APRA places its attention.

APRA may also take steps to contain the risk presented by a firm in financial distress, examples include replacing management, freezing assets, or closing the entity to new business.
5 Developing markets for retirement products

Session five of the workshop looked at different experiences of the development of annuity markets.

5.1 – Annuities in the United Kingdom

Chris Daykin presented on the UK annuity markets, which are relatively well developed by global standards. In the UK, pension schemes are becoming predominantly defined contribution schemes, and there are restrictions on how the benefits may be paid out from such schemes. Twenty five percent may be taken as a tax-free lump sum and the balance may be maintained in a fund for a while, but the balance must be annuitized at the latest by age 75.

Compulsory annuitization has encouraged the development of annuities markets, but annuities are still not trusted. The difficulty in estimating life expectancy and a perceived lack of flexibility (for instance if one dies early) has led to a dislike of the mandatory annuitization requirement.

Individuals in the U.K. perceive annuities to be costly and restrictive. However, the government thinks they are fairly priced and competitive and there is increasing responsiveness of the market to price annuities according to the potential annuitant’s risk profile.

5.2 – The annuity market in Australia

John Piggott, Professor of Economics and Director of the Australian Institute for Population Ageing Research, Australian School of Business, University of New South Wales explored the reasons why Australia, which has a large pool of long term savings, has relatively underdeveloped annuity markets. Australia’s retirement policy is built on two pillars: a targeted state pension (the first pillar); and compulsory work place based defined contribution retirement savings accounts (the second pillar).

There is very little demand or interest in annuity products in either government, industry, or in the general population. Low demand has meant that annuities remain speciality products that are comparatively expensive. The bequest motive, a desire to leave savings behind for the next generation, was felt to be one factor influencing low demand. In addition, all tax and means-test incentives which favoured an annuity over a lump sum have recently been removed.

The persistent attractiveness of housing as an investment (60% of Australia’s wealth is in housing) has also limited demand for annuities. However, Professor Piggott predicted that over time financial innovation in products such as reverse mortgages would ‘unlock’ this wealth for use in retirement.

The desire to supply annuities was also low due to concern about unanticipated increases in longevity, which could potentially reduce the profitability of annuities, and the difficulties in reinsuring this risk.
5.3 – Retirement income products and annuity markets lessons from
developed and emerging markets

Greg Brunner, a consultant at the World Bank, presented on the decumulation phase of
savings, which begins once the individual retires. He specified three broad options:

- lump sums;
- phased withdrawals; and
- annuities.

Mr Brunner noted that lump sums bear the risk of early depletion of funds. Phased withdrawals
ration savings, but do not insure against longevity, which could lead to insufficient funds
later in life. The advantages of lump sums, as a way to partly manage the risk of outliving
savings, are that they are simple, easy to understand, can be offered by any institution, and
do not require a capital buffer.

Annuities are a more complex tool and are attractive as they aid the individual in managing
their income after retirement and insure against longevity risk. However, despite the
attraction of annuities, voluntary annuity markets are relatively underdeveloped in most
APEC economies. This is partly attributable to the tendency of individuals, who may lack
financial understanding, to underestimate longevity risk (literally that they will outlive their
savings), and display financial short-sightedness (myopia).

Mr Brunner also discussed financial sector regulation.

5.4 – Developing annuity markets in Chile

Solange Bernstein then explained how Chile handles the transition between the accumulation
and decumulation phases of savings.

Pension choice, as of September 2007

Chile actively restricts lump sum payments in favour of either phased withdrawals or
annuitisation. Currently about 62% of savings are used to purchase an annuity.

Annuities are complex products and, as a result, individuals with limited financial expertise
may struggle to compare products and make an informed decision when they retire.

Ms Bernstein noted that Chile has implemented an electronic market for annuities, called
the SCOMP, to facilitate comparison of semi-standardised products. The SCOMP facilitates
effective decision making by allowing individuals to obtain all relevant information.
6 Assessing the Solvency of Annuity Companies

The closing session of the workshop focused on issues associated with assessing annuity providers’ solvency.

6.1 – Assessing the solvency of annuity companies

Craig Thorburn, from the World Bank, discussed the difficulties that are involved in assessing the solvency of annuity companies.

Individuals entrust their life savings to an annuity company and, in return, they receive a long-term promise that the company will pay them a series of regular payments for the remainder of their life. The solvency of insurance/annuity companies affects the willingness of individuals to entrust their savings to a company, yet the solvency of insurance companies is difficult to assess.

In order to remain solvent annuity companies must ensure that they can meet obligations that may not fall due for decades. Traditional accounting techniques, which are predominantly backward looking, have struggled to quantify the present value of guarantees or what assets are required in order to reach a set value years in the future.

Unexpected events in financial markets or changes in factors that impact on longevity can have a large impact on the value of an insurance company’s balance sheet. A growth in liabilities or a reduction in the value of assets can cause the firm’s capital to evaporate, which can lead to insolvency.

An insurance company’s balance sheet: Capital provides a buffer

Estimation of the current or future solvency of annuity companies relies on the estimation of a range of outcomes and probabilities by an actuary. Actuaries must be involved in pricing, new business plans and strategy, and dividend policy. Anything that could affect the solvency of the firm may require the actuary’s attention.

Mr Thorburn also discussed the aspect of regulation including Basel II.

6.2 – Managing assets to support annuity guarantees

Douglas Fore, Director of Analytics for one of the largest US superannuation providers, TIAA-CREF Investment Management, discussed the issue of long-run solvency from the perspective of an annuity provider.
Annuities involve payout guarantees, and providers need to be able to meet current demands and those that will arise at future dates. The nature of these guarantees will determine the asset selection of providers. For example, the need for predictable cash flows to meet current payments will place limits on the extent to which the asset manager can invest in equities. Other limits on asset allocation will be imposed by regulatory authorities from a prudential standpoint.

For the asset manager, the challenge is to maximise returns subject to these internally and externally imposed constraints.

Mr Fore went on to discuss tools used by asset managers to manage risk, including derivatives and other complex financial products, and the importance of top class credit analysis by asset managers to ensure that their ability to service guarantees is protected.
ANNEX 1: Meeting Agenda

8-9 NOVEMBER, 2007

APEC Pensions & Annuities Markets Seminar

Held as part of the APEC Finance Ministers’ Dialogue on Savings Policy and Capital Market Development.

Day one

SECTION ONE: INTRODUCTION AND WELCOME
CHAIR: Peter Martin - Director, New Zealand Treasury

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<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker/Institution</th>
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<tbody>
<tr>
<td>9:00</td>
<td>Welcome address</td>
<td>MR NG WAI CHIONG, Deputy Secretary Singapore MOF</td>
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<tr>
<td>9:08</td>
<td>Introductory Address</td>
<td>ALEXANDRA SAENNOVA</td>
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<tr>
<td>9:18</td>
<td>Savings, capital markets, and the role of governments</td>
<td>PETER MARTIN</td>
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<td>10:30</td>
<td>Coffee Break</td>
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SECTION TWO: GOVERNANCE, ACCOUNTABILITY AND THE INVESTMENT POLICY OF PENSION FUNDS
CHAIR: David Cowen, Senior Economist IMF

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<th>Time</th>
<th>Session Title</th>
<th>Speaker/Institution</th>
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<tbody>
<tr>
<td>10:45</td>
<td>Governance, accountability, and the investment policy of public pension funds</td>
<td>PETER MARTIN &amp; BRIAN McCULLOCH, Directors, the New Zealand Treasury</td>
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<tr>
<td>11:35</td>
<td>Governance, Accountability, and Investment Policy</td>
<td>MR BRUCE PFLAUM, Managing Director Asia, Russell Investments</td>
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<tr>
<td>12:15</td>
<td>Questions and concluding remarks from the panel</td>
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<tr>
<td>12:40</td>
<td>Lunch – Club Chinois</td>
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<tr>
<td>14:00</td>
<td>Governance within private pension fund industry</td>
<td>SOLANGE BERNSTEIN, Chilean Superintendent of Pension Fund Administrators</td>
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<tr>
<td>14:40</td>
<td>Regulation of Investment Policies of Private Mandated Funds</td>
<td>HEMANT SHAH, Deputy Division Chief Capital Market Development and Financial Infrastructure Division, International Monetary Fund</td>
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<tr>
<td>15:20</td>
<td>Questions and concluding remarks from the panel</td>
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<td>15:45</td>
<td>Coffee break</td>
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SECTION THREE: GOVERNANCE OF THE LIFE INSURANCE INDUSTRY
CHAIR: Greg Brunner, Consultant, the World Bank

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<th>Time</th>
<th>Session Title</th>
<th>Speaker/Institution</th>
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<tbody>
<tr>
<td>16:00</td>
<td>Governance in the insurance industry</td>
<td>MR LAWRIE SAVAGE, President Lawrie Savage &amp; Associates</td>
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<tr>
<td>16:40</td>
<td>How opaque is the life insurance industry?</td>
<td>MR CHRIS DAYKIN, U.K Government Actuary (To retire in 2007)</td>
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<tr>
<td>17:20</td>
<td>Questions and concluding remarks from the panel</td>
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<tr>
<td>18:30</td>
<td>Evening cocktail function – Pool Terrace</td>
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APEC Finance Ministers’ Process
Dialogue on Savings Policy and Capital Market Development.

Day two

SECTION FOUR: RISK BASED SUPERVISION: INSURANCE COMPANIES AND PENSION FUNDS
Chair: John Piggot- Professor, University of New South Wales

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>09:05</td>
<td>Risk based supervision of insurance companies and pension funds</td>
<td>Mr. Lawrie Savage, President, Lawrie Savage &amp; Associates</td>
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<tr>
<td>09:45</td>
<td>The Australian risk assessment framework</td>
<td>Ross Jones, Deputy Chairman, Australian Prudential Review Authority (APRA)</td>
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<tr>
<td>10:25</td>
<td>Questions and concluding remarks from the panel</td>
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<td>10:35</td>
<td>Coffee</td>
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SECTION FIVE: DEVELOPING THE MARKET FOR RETIREMENT PRODUCTS
Chair: Mr. Beskrovny Alexandr, Federal Financial Markets Service

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<th>Topic</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>11:00</td>
<td>The market for retirement products in OECD countries: performance and issues</td>
<td>Mr. Chris Daykin, U.K Government Actuary (To retire in 2007)</td>
</tr>
<tr>
<td>11:40</td>
<td>The annuity market in Australia</td>
<td>Professor John Piggott, Faculty of Commerce and Economics, University of New South Wales</td>
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<tr>
<td>12:20</td>
<td>Lunch – Club Chinois</td>
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<tr>
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<td>Developing annuity markets in Chile</td>
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<td>Coffee</td>
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</table>

SECTION SIX: ASSESSING THE SOLVENCY OF ANNUITY COMPANIES
Chair: Yves Guerard, Secretary General, International Actuarial Association

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:40</td>
<td>Assessing the solvency of annuity companies</td>
<td>Craig Thorburn, Program Leader – Senior specialist, Financial Systems Oversight, The World Bank</td>
</tr>
<tr>
<td>16:20</td>
<td>Managing assets to support annuity guarantees</td>
<td>Douglas Fore, Director of Analytics, TIAA-CREF Investment Management</td>
</tr>
<tr>
<td>17:00</td>
<td>Questions and concluding remarks from the panel</td>
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<tr>
<td>17:25</td>
<td>Chair’s concluding address</td>
<td></td>
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<tr>
<td>17:35</td>
<td>Finish</td>
<td></td>
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8-9 November, 2007, Orchard Parade Hotel, Singapore
To register for the APEC Pensions and Annuities Seminar please visit:

www.treasury.govt.nz/apec/seminars/ or email apecseminar@treasury.govt.nz
### ANNEX 2: APEC Seminar Participants List

<table>
<thead>
<tr>
<th>Economy</th>
<th>Name and Institution</th>
</tr>
</thead>
</table>
| ARGENTINA         | Dr Alberto Musalem  
                    | Senior Economist  
                    | Centre for Financial Stability                                                      |
| AUSTRALIA         | Mr Ross Jones  
                    | Deputy Chairman  
                    | APRA Australia                                                                     |
|                   | Dr Andre Moore  
                    | Manager, Superannuation and Insurance Unit,  
                    | Australian Treasury                                                                |
|                   | Professor John Piggott  
                    | Professor of Economics and Director of the Australian Institute for  
                    | Population Ageing Research  
                    | Australian School of Business  
                    | University of New South Wales                                                      |
| BRUNEI DARUSSALAM | Ms Huda Idris  
                    | Ministry of Finance                                                                  |
|                   | Mr Adi Marhain Lehman  
                    | Ministry of Finance                                                                  |
| CANADA            | Mr Yves Guerard  
                    | Secretary General  
                    | International Actuarial Association                                                 |
|                   | Mr Lawrie Savage  
                    | President  
                    | Lawrie Savage and Associates                                                        |
| CHILE             | Ms Solange Bernstein  
                    | Superintendent  
                    | Superintendent of Pension Fund Administrators                                        |
| CHINA             | Mr Donghui  
                    | Deputy Director  
                    | Social Security Department, MOF                                                      |
| CHINESE TAIPEI    | Li Hui Wang  
                    | Section Chief  
                    | Financial Supervisory Commission                                                    |
|                   | Shien Wang  
                    | Director  
                    | Securities and Futures Bureau  
                    | Financial Supervisory commission                                                    |
| HONG KONG         | Ms Charmaine Lee  
                    | Manager  
                    | Mandatory Provident Fund Schemes Authority                                           |
|                   | Ms Amelia Leung  
                    | Manager (Investment Regulation)  
                    | Mandatory Provident Fund Schemes Authority                                           |
|                   | Mr William Mak  
                    | General Manager Asia  
                    | ABN-AMRO Mellon Global Securities Services                                           |
|                   | Mr Peter Ryan-Kane  
                    | Director  
                    | Credit Suisse Asset Management                                                       |
|                   | Mr Wing-Shing Wong  
                    | Insurance Office  
<pre><code>                | Office of the Commissioner of Insurance                                             |
</code></pre>
<table>
<thead>
<tr>
<th>Economy</th>
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</table>
| INTERNATIONAL FINANCIAL INSTITUTIONS | Mr Greg Brunner  
World Bank                                                                 |
|                             | Mr David Cowen  
Senior Economist  
International Monetary Fund                                                     |
|                             | Dr Hermant Shah  
Deputy Division Chief  
IMF                                                                        |
|                             | Dr Craig Thorburn  
Program Leader  
World Bank                                                                       |
| INDONESIA                   | Mr Johannes Basuki  
Division Head  
Pension Fund Bureau                                                             |
|                             | Mr Djoko Dalijono  
Director of Human Resources Development  
PT Taspen Persero Indonesia                                                        |
|                             | IENE Muliati, Fsa  
Vice President II  
Society of Actuaries of Indonesia                                                  |
|                             | Mr Karsidi  
General Manager of Treasury Department  
PT Taspen Persero Indonesia                                                        |
| INDONESIA                   | Mr Moch Muchlasin  
Subdivision Head  
Pension Fund Bureau                                                              |
| KOREA                       | Mr Yoon-Kyung Kim  
Director  
Ministry of Finance and Economy                                                     |
|                             | Mr William, Sung-Won Park  
Branch Manager/ Vice President  
State Street Bank & Trust Company Seoul Branch                                        |
| MALAYSIA                    | Mrs Junaidah Mohd Said  
Deputy Director  
Central Bank of Malaysia                                                             |
|                             | Mr Shakir Sofian  
Manager  
Central Bank of Malaysia                                                             |
| MEXICO                      | Mr Gandara Meney de la Peze  
Economic Advisor  
Insurance, Securities and Pensions Unit  
Ministry of Finance and Public Credit of Mexico                                       |
| NEW ZEALAND                 | Mr Craig Fookes  
Analyst  
New Zealand                                                                            |
|                             | Mrs Carmen Mak  
Director  
APEC Secretariat                                                                       |
|                             | Mr Peter Martin  
Director  
New Zealand Treasury                                                                    |
|                             | Dr Brian McCulloch  
Director  
New Zealand Treasury                                                                    |
<table>
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| PAPA NEW GUINEA | Mr Wayne Golding, OBE  
President  
Manufacturers Council of PNG |
| PHILIPPINES   | Mr Rexes J. Alcayde  
Bank Officer II  
Supervision and Examination Department I  
Bangko Sentral ng Pilipinas (BSP) |
| RUSSIA        | Mr Beskrowny Alexandra  
Head of Division  
Department of Regulation and Control for Collective Investment from the Federal Financial Markets Service |
|               | Mr Malyshev Fedor  
Division Head  
Federal Financial Markets Service |
|               | Mr Pashko Ignatii  
Division Head  
Russian Central Bank |
|               | Mr Korischenko Kirill  
Deputy Head  
VTB Bank |
|               | Ms Dostovalova Natalia  
Deputy Director  
VTB Bank |
|               | Ms Oksana Shpakovskaya  
Deputy Division Head  
Federal Insurance Supervision Service |
|               | Mrs Alexandra Smirnova  
Division Head  
Ministry of Finance |
|               | Mr Muharbi Ulbashev  
Deputy Director  
Federal Insurance Supervision Service |
|               | Ms Lebedinskaya Yelena  
Russian Economic Expert Group |
| SINGAPORE     | Ms Margaret Ang  
Co-Head of Asia Pacific Ex Japan  
Janus Capital Asia Limited |
|               | Mr Mark Chen Chin Kang  
Associate( International Relations)  
Ministry of Finance |
|               | Mr Frederick Choo  
Head (International relations)  
Ministry of Finance |
|               | Mr Ng Wai Choong  
Deputy Secretary  
Ministry of Finance |
|               | Mr Soo Hoon Haun  
Managing Director – Emerging Markets  
Great Eastern Life Assurance Co Ltd |
|               | Ms Lee E E Jia  
Assistant Director  
Central Provident Fund Board |
|               | Miss Jasmin Lau  
Associate  
Ministry of Finance |
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<th>Economy</th>
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</table>
| SINGAPORE - continued | Ms Serene Lee  
**AVP, Group Risk Management**  
Great Eastern Life Assurance Co Ltd |
|             | Ms Seah Kwee Lim  
**Senior Executive**  
Central Provident Fund Board |
|             | Miss Yap Lay Ming  
**Associate**  
Ministry of Finance |
|             | Mr Bruce Pflaum  
**Managing Director ASIA**  
Russell Investments |
|             | Mr Ronnie Tan  
**Head, Group Risk Management**  
Great Eastern Life Assurance Co Ltd |
|             | Mr Premraj Thuraisingam  
**Senior vice President and Chief Agency Officer**  
Manulife (Singapore Ltd) |
|             | Ms Irene Yeo  
**Deputy Editor**  
Asia Insurance |
| SPAIN       | Mr Miquel Angel Caballero  
**Head of Pensions and insurance**  
BBVA |
| THAILAND    | Miss Pavinee Angvasith  
**Head of Investment Management/Provident Fund Business**  
TISCO Asset Management Company Ltd |
|             | Miss Supanee Chantaramas  
**Director of Savings Promotion Policy Section**  
Ministry of Finance |
|             | Mrs Navarat Jiamkitrung  
Business Development  
Bangkok Bank Pcl. |
|             | Mrs Chuensumol Prsakulsak  
**Fund Manager**  
Bangkok Bank Pcl. |
|             | Mrs Kanda Siripanich  
**Director of Social Welfare Policy Analysis Section**  
Ministry of Finance |
|             | Miss Araya Thirakomen  
**Managing Director/Head of Provident Fund Business**  
TISCO Asset Management Company Ltd |
| UNITED KINGDOM | Mr Chris Daykin  
**Former Government Actuary** |
|             | Ms Liona Chen  
State Street |
|             | Ms Jenny Lor  
State Street |
|             | Ms Sharon Morin  
State Street |
|             | Ms Noel Tan  
State Street |
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</table>
| THE UNITED STATES | Ms Clay Berry  
Deputy Director  
International Monetary Policy Office  
US Department of the Treasury |
|                  | Dr Douglas Fore  
Director  
TIAA-CREF |
| VIETNAM          | Mr Nguyen Dang Khoa  
Official  
International Cooperation Department  
Ministry of Finance |
|                  | Mr Nguyen Phu Hung  
Official  
Banking and Financial Institutions Department  
Ministry of Finance |