

Fostering Long-term Investment and Economic Growth

Summary of a High-Level OECD Financial Roundtable

by

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As the OECD is celebrating its 50th anniversary, member countries are exiting from the biggest post-war financial and economic crisis and are trying to put their economies back onto strong, sustainable footing. While financial reforms should provide for a better, more sustainable balance between stability and growth, measures to strengthen the savings-investment channel should foster sustainable growth and development. These issues were explored at a High-Level OECD Financial Roundtable and are summarised in this article. Covered are the topics of financial reform to foster stability and long-term growth, the contribution of institutional investors to long-term growth, and creating a better environment for the financing of business innovation and green growth. With strained public sector finances, private capital needs to fill the funding gap for infrastructure and other long-term projects. Appropriate regulatory incentives to overcome short-termism, as well as risk-sharing arrangements e.g. via public-private partnerships, are needed in order to encourage market-based, long-term investment and risk capital financing. Better transparency, information and investor education can also play a role in enhancing long-term savings and investment.

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I. Background and overview

A special dialogue with the private financial sector on how to strengthen the savings-investment channel and foster sustainable growth and development

As the OECD is celebrating its 50th anniversary, member countries are exiting from the biggest post-war financial and economic crisis and trying to put their economies back onto strong, sustainable footing. While financial reforms should provide for a better, more sustainable balance between stability and growth, measures to strengthen the savings-investment channel should foster sustainable growth and development. To explore these issues, the OECD Committee on Financial Markets (CMF) held a special Financial Roundtable session on “Fostering long-term investment and economic growth”¹ in 7 April 2011. This dialogue with the private financial sector gathered high-level representatives from a variety of financial firms and academia, and on the occasion of the 50th Anniversary of the OECD, designated keynote speakers were invited to present the topics, followed by general discussions.² An issues note provided some topical background for the event and is summarised in Box 1. The following topics and issues for discussion were proposed and covered in three rounds:

Three rounds of discussion

- *Financial reforms to foster stability and long term growth:* What have reforms achieved so far or are expected to achieve in terms of making the financial system more resilient, and striking the right balance between stability and long-term growth? What further reforms (especially regarding capital requirements, accounting and taxation) are needed to set the ground for longer-term investment?
- *The contribution of institutional investors to long-term growth:* How to engage institutional investors in long-term investments. Which reforms are needed to change their “mindset”, e.g. with regard to their role as shareholders? How to engage clients of institutional investors for the longer run.
- *Creating a better environment for financing business, innovation and green growth:* How to foster investments in long-term assets such as infrastructure? What is the role of banks and capital markets in SME financing? How to support innovation financing (venture capital, private equity)?

The following sections summarise the presentations and discussions. Some of the key points that emerged from the meeting are provided in the remainder of this section.

Financial reforms are needed to foster stability and long-term growth

Since the crisis, deteriorating public finances, household deleveraging and differing speeds of recovery are posing challenges for global financial markets and are putting constraints on long-term investments. There could even be a credit crunch since investment demand is projected to increase.

Regulatory reforms in response to the crisis have progressed (e.g. Basel III), and there is good reason for regulators to be more conservative (e.g. higher capital requirements) – without unduly burdening the financial sector. Further reforms and improvements in supervision are needed in order to make the financial system more resilient to shocks. Finance should help to better allocate capital but should not be an end in and of itself.

Box 1. Promoting longer-term investment by institutional investors: selected issues and policies

In OECD countries, the main institutional investors – pension funds, insurance companies and mutual funds – held over USD 65 trillion at the end of 2009. Emerging economies generally face an even greater opportunity to develop their institutional investing sectors as, with few exceptions, their financial systems are largely bank-based. The main institutional investors in these countries are Sovereign Wealth Funds, which held over US\$4 trillion at the end of 2009. The growing clout of institutional investors has brought about a transformational change in financial systems. Traditionally, these investors – in particular the pension funds, life insurers and mutual funds that operate in retirement savings systems – have been seen as sources of long-term capital, with an investment horizon that is tied to the usually long-term nature of their liabilities. Institutional investors also reduce reliance on the banking system, acting as shock absorbers at times of financial distress.

However, concerns about the short-termism of these supposedly long-term investors and shortcomings in how they have been exercising their voice in corporate governance have led to calls for more “responsible” and longer-term investment by institutional investors, in particular by the pension funds, life insurers and mutual funds that operate in retirement savings arrangements. Long-term investors could provide benefits by (1) **acting in a counter-cyclical manner**, since as shareholders they can have direct and ongoing input into **environmental and other longer-term risks of investment and risk management strategies**; and (2) **playing a more active role in the financing of long-term, productive activities that support sustainable growth, such as cleaner energy, infrastructure projects, and venture capital**.

Moving from the current mindset to a longer-term investment environment requires a new “investment culture”. The market, by its nature, is unlikely to deliver such a change. Hence, major policy initiatives in a variety of areas are needed:

- i. **Reforming the regulatory framework for institutional investors:** policy makers need to promote greater professionalism and expertise in the governance of institutional investors. Collaboration and resource pooling can also be encouraged, in order to create institutions of sufficient enough scale to implement a broader investment strategy as well as more effective risk-management systems that take into account long-term risks. Regulators also need to address the bias for pro-cyclicality and short-term risk-management goals in solvency and funding regulations, and relax quantitative investment restrictions to allow institutional investors to invest in less liquid, long-term assets.
- ii. **Encouraging institutional investors to be active shareholders:** policy makers should remove regulatory barriers, allowing institutional investors to engage in active share ownership. They can also reduce the burden of active engagement (particularly for smaller investors) by encouraging collaboration via investor groups and can support national or international codes of good practice and issue guidance themselves of how they expect institutional investors to behave. In order to ‘nudge’ investors to follow such guidance, supervisors can shift the focus on their investigations, enquiring as to the turnover of funds, the duration of mandates given to external managers, how fees are structured, and voting behaviour.
- iii. **Designing policy frameworks that are supportive of long-term investing:** the general investment policy environment for long-term investments often lacks transparency and stability. Government support, such as long-term policy planning, tax incentives and risk-transfer mechanisms may be required to engage investors in less liquid, long-term investments, such as infrastructure and venture capital.
- iv. **Addressing knowledge gaps and behavioural biases:** retail investors need support to help them meet their long-term investment goals. Regulators should also become better acquainted with long-term risks and new financial instruments. In order to achieve these objectives, governments and other stakeholders should support information collection, public awareness and financial education campaigns that promote long-term investment and risk management.

Source: OECD (2011), *Promoting Longer-Term Investment by Institutional Investors: Selected Issues and Policies*, discussion note prepared for the Eurofi high-level seminar on the benefits and challenges of a long-term perspective in financial activities, held in Paris on 17 February 2011; a revised version is published in this issue of *Financial Market Trends*.

A new regulatory framework, as well as new accounting rules, tax incentives and new financial instruments for financing infrastructure could help to foster long-term investment and overcome the problem of short-termism.

However, short-termism and speculation as such should not be condemned, since they help provide market liquidity and function as helpful correctives. Restoring confidence in financial markets lost during the crisis is crucial for private investors to resume the provision of risk capital. Enhanced transparency, improved governance and more active shareholders are important elements in this effort.

The contribution of institutional investors to long-term growth

Institutional investors can play a major role in fostering long-term investment and growth. While financial markets need actors with different investment horizons in order to function well, long-term investors have the potential to act counter-cyclically and to play a key role in crisis recovery strategies.

The regulatory framework can certainly contribute to fostering investors' long-term orientation by providing the right incentives; however, more direct measures should also be used, such as long-term performance measurement systems and long-term compensation schemes. Stakeholders should also be made aware of the advantages of a long-term investment strategy, and shareholders' active engagement with their companies should be promoted. Cooperation among long-term investors through a "Long-term Investors Club" would also contribute to developing such an investment culture.

A long-term orientation by institutional investors is hampered by the liability side of their balance sheets, as their clients (the savers) require liquidity and threaten to withdraw funds often based only on short-term performance. Investor education (especially in regard to retirement savings), appropriate information and transparency, as well as new tax incentives could help to foster a long-term orientation among savers.

Pension funds are "natural" long-term investors, as they seek assets that match the duration of their long-term liabilities. Therefore, a "perfect match" for at least a portion of pension savings is infrastructure investments; such investments can promote productivity and efficiency in both the public and private sectors, and foster the type of economic growth that can address the environmental challenges to come.

Creating a better environment for financing business, innovation and green growth

Given astute and stable regulation, targeted measures, and a proper incentive system (including tax incentives), private capital can be mobilised to help close the infrastructure funding gap, which is actually widening since fewer public funds are available to finance the infrastructure needs arising in many economies.

It is also necessary to encourage institutional investors to be active shareholders of infrastructure projects. This could be achieved by developing the infrastructure-specific skills of asset managers, as well as resource pooling via long-term infrastructure funds that are managed by professional infrastructure developers.

Infrastructure investments, often characterised as a public good, tend to have very-long time horizons and operational uncertainties that cannot easily be assessed and monetised; thus, they tend to require more extensive policy intervention. Given their unique attributes, one promising approach to raising capital for infrastructure investments is through public-private partnerships (PPPs).

Financing of innovations that improve economies' competitiveness and generate growth is another important area for long-term investment. Public-private partnership funds, like the European Investment Fund (EIF), shoulder some of the risks associated with small and midsize enterprises (SMEs); they can thus promote entrepreneurship, technology, innovation, growth, employment, and regional development.

II. Financial reforms to foster stability and long-term growth

1. *Financial reforms to foster stability and long-term growth*³

Financial stability and growth are not mutually exclusive

After the Pittsburgh G-20 call for strong, balanced and sustainable growth, the focus of the global community seems to have shifted mostly towards financial and fiscal stability. But stability and growth are not mutually exclusive. Robust and sustainable growth requires financial stability and long-term fiscal consolidation; but financial stability and fiscal consolidation both require robust and sustainable growth.

A challenging framework for global recovery

The financial crisis had a significant impact on the public finances of most advanced countries throughout the world. The post-crisis framework for global recovery is very challenging and characterised by deterioration in fiscal balances in both advanced and emerging economies, accompanied by an increase in public debt in advanced economies in particular. Emerging economies are ahead of advanced ones in what appears to be a two-speed recovery.

The shift in global savings, and a widening savings-investment gap could lead to a credit crunch

A major shift in global savings has taken place, as savings rates in developed countries have declined during the past 30 years, while those of the emerging economies have risen strongly – with oil-exporting nations posting the strongest growth in savings. At the same time, global investment demand is estimated to increase to about 25% of GDP by 2030 – levels previously attained only before 1980. If savings do not increase in line with investment demand, the resulting savings-investment gap could lead to a credit crunch.

Rising investment demand for infrastructure and real estate

A major driving force behind the projections of increasing global investment demand are the relatively low capital stocks in China, India and other emerging economies. Investment is expected to double by 2030, with infrastructure and real estate, both typical long-term investments, reaching about USD 4 trillion and USD 5 trillion, respectively.

Rebalancing of global savings could reduce imbalances in infrastructure

The rebalancing of global savings could lead to a different resource allocation, reducing the imbalance between emerging and advanced countries in terms of their infrastructural and technological endowment. This could produce, in the meantime, more robust growth in advanced countries and the potential for revenue gains, more technology transfers and innovation diffusion in the emerging ones.

Levels of long-term investment need to increase globally, supported by appropriate regulation

Advanced, as well as emerging, economies should increase their level of long-term investment and compete in the global financial markets for private and public-private resources to finance this. There is a general need to enlarge the worldwide share of financing for long-term capital investment at the expense of short-termism and speculation. In order to better match long-term savings with long-term capital investment, new regulatory frameworks that are friendlier to long-term investment should be adopted on a national, regional and global level.

The overall regulatory setting has often provided unfavourable incentives for long-term investment

So far, the overall regulatory setting has often provided unfavourable incentives for long-term investment. In particular, accounting rules that are appropriate for investment banks and trading activities are not very relevant, promote short-termism and therefore sometimes penalise long-term investors. The new Basel III capital and liquidity requirements will probably discourage long-term banking and financial initiatives. Moreover, the IASB mark-to-market philosophy is particularly damaging for long-term investments, attributing instant market pricing to assets whose value takes a longer time horizon to ascertain; and the European Solvency II Directive will discourage insurance companies and pension funds from investing in infrastructure assets, not allowing them to properly match long-term liabilities on their balance sheets with long-term assets.

Long-term investors face liability and governance constraints that need to be lifted

While OECD figures show institutional investors' assets at USD 65 trillion in 2009, long-term investment of these assets is facing liability and governance constraints, allowing only a small part to be available as long-term capital. But if enough investors with a long-term horizon were active on financial markets, they could act as shock absorbers, as they did in the past. While institutional investors are starting to invest directly in core infrastructure assets and are increasingly becoming familiar with this asset class, it is estimated they are investing only around 2% of their assets, on average, in infrastructure, much below their balance sheet potential for long-term investment, estimated at USD 7 trillion. Equity demand for infrastructure is likely to increase, but if the supply of capital does not follow suit, this may result in an infrastructure "equity crunch".

Further reforms include tax incentives, better corporate governance, and mechanisms for (PPP) project financing

Regulatory reforms conducive to long-term investment should involve not only accounting standards and prudential principles, but also: (1) tax incentives; (2) better (sectoral) regulating mechanisms for project financing initiatives; (3) better corporate governance (including compensation) systems; (4) new long-term financial instruments that source from both public and private funds (perhaps drawing from the recent European experience with equity funds, such as Marguerite and InfraMed, and EU project bonds); and (5) credit-enhancing mechanisms to lower the risk and decrease the cost of long-term initiatives in strategic sectors, such as infrastructure, energy and technology.

2. Creating resilient and efficient financial markets: where do we stand?⁴

Flaws in the regulatory system exacerbated the crisis

The pre-crisis regulatory framework was characterised by many flaws and weaknesses that have now been recognised. For example, the Basel II rules were based on the principle of delegated supervision via allegedly sophisticated bank internal models. Some of the main flaws of that approach were model uncertainty, data problems (small samples), pro-cyclicality of capital

requirements, largely neglected liquidity risk, as well as endogenous risk. While many of these flaws were known, they were not acknowledged, and later exacerbated the crisis, leading to massive bank bail-outs and other unprecedented monetary and fiscal support measures; while helping to stem the crisis and attenuate its negative effects, these measures also carried large opportunity costs.

Finance should not be a purpose in and of itself

Post-crisis financial reforms have tried to address some of the shortcomings of the previous regulatory framework, and are based on the premise that finance should help to improve the allocation of capital but should not serve a purpose in and of itself. The new regulatory framework should be able to provide financial stability while supporting long-term growth.

International co-operation on reforms is important

Given the structural interdependence of economies and their regulatory frameworks, international co-operation is important in this effort, since reform policies need to be mutually consistent and joint action is needed to maximise welfare and avoid regulatory arbitrage. This is why the co-ordinating role of the G20 – and the FSB in the area of financial reform – is important. The CMF, in this context, can contribute to this effort, and should also look at issues beyond narrow financial ones, for example, financial education and consumer protection.

Higher capital requirements are needed for the financial system to be self-insured

Reforms underway are heading in the right direction; however, they need to go further, fostering self-insurance via higher capital and liquidity requirements and a leverage ratio such that the tax payer does not have to “pick up the bill” when things go wrong. There are good reasons for regulators to be more conservative. As academic studies have shown, higher capital requirements do not necessarily imply a higher user cost of capital (the usual industry argument against higher requirements).

Further reforms should address systemic and macro issues, including SIFIs and non-banks

Micro-prudential policies need to be complemented by macro-prudential measures, and fallacies of composition can be avoided by more fully taking into account the systemic and macro aspects. To avoid the “public sector being taken hostage”, the implicit guarantees for systemically important institutions should be addressed via resolution plans, higher capital ratios, and the regulation of non-banks. Institutionalising the macro-dimension of supervision via the European Systemic Risk Board and the US Financial Stability Oversight Council (created by the Dodd-Frank Act) is important. However, these institutions should not be seen only as warning devices but also as able to take action on those warnings.

3. Lessons from the financial crisis⁵

Crisis was driven by the underpricing of risk and the lack of transparency

Low interest rates, search for yield and the underpricing of risk, as reflected in 15 years of falling risk premiums, were the driving factors at the origin of this crisis. While confidence in the financial sector and the health of its balance sheets was still strong, asset bubbles were building up; when the real estate market bubble started to deflate, bad loans increased. As financial engineering had distributed risk more widely, a lethal spiral was set in motion, and the loss of confidence in financial markets made funding markets dry up. Lack of transparency regarding toxic assets (*i.e.* not knowing “who carries the monkey”) was one of the major problems as the crisis developed.

Stabilisation involved massive government intervention; cheap money was the cause, but also the cure of the crisis

Since the risks were temporarily absorbed by governments, and central banks provided a flood of funding for the banking system, an even greater crisis was averted. While this restored market confidence, the redistribution of losses to governments has become protracted. Given the fundamental role of the financial sector in the economic system, there was perhaps not much of an alternative to the bail-out of private-sector risk takers, *i.e.* to merging weak public finances with the even-weaker banking sector balance sheets. In the end, cheap money was the cause, but also the cure of the crisis. Alternative solutions were not tested in this crisis, but they need to be developed in order to avert such crises in the future and their contagion of public finances.

Clear guidelines for implementing bank resolutions are crucial

Going forward, banks need to be prepared to fail. Bank resolution needs a clear “game plan”, being aware that time is of the essence, and bearing in mind that government money should not be at risk. Equity holders should be first in line as they have been paid to take this risk. Furthermore, subordinated funding should also carry its share of the risk, while depositors should be protected up to a reasonable limit.

Current long-term fiscal burden does not allow for another large-scale bailout

The banking sector problems have put public finances under stress, and are adding to the long-term fiscal burdens of increasing health care and retirement costs. Sovereign issuers at the core of the sovereign debt crisis (*e.g.* Greece, Ireland) should consider their options and realise that the “waiting game” is not always the best solution, in particular if interest rates are well beyond the economic growth rate.

Regulation needs to restore confidence in the financial markets

Regulatory reforms underway, like Basel III, Solvency II, Dodd-Frank and EU Derivatives regulation, should help to restore confidence that was lost in the last crisis. These reforms will also have to include shadow banking (as current proposals do), even though markets may find ways to circumvent such new regulations. Restoring confidence in financial markets is crucial in order for private investors to provide risk capital. However, return expectations may have to be lowered; the hype of 2005-2007 is probably not the right benchmark level. Risk should be compensated based on to the current risk appetite of the investor.

Pension fund balance sheets are not healthy enough to provide risk capital

Institutional investors can take part in providing risk capital, but only in so far as their balance sheets are healthy. In this regard, pension funds are perhaps not well-placed to take on this role as their balance sheets are weakened by large liabilities, the real, high levels of which are hidden by accounting rules (like banks’ weaknesses were hidden some years ago). The real risk capacity of pension funds – and institutional investors more generally – is therefore likely to be overestimated. Improving accounting transparency should thus be one of the major goals of financial reforms.

Improving governance by active ownership is not easy

Improving the governance of financial institutions is another major goal, as the lack of good governance was one of the root causes of this crisis. This was mainly due to the lack of “active” ownership by a huge, diversified investor base the size of which turned ownership into a public good (“if you are owned by everybody, you are owned by nobody”). There is no easy solution to this problem; nevertheless, current reform efforts should create incentives for investors to act as owners, not just as “investors”.

4. Discussion

The sustainability of pension systems bears watching

Not only the sustainability of public finances bears watching but also the sustainability of pension systems, where future sources of stress are building up. There are risks in private pension funds due to changes in assets and liabilities resulting in widening funding gaps, but the biggest risks lie in public pension funds that have only liabilities and no assets.

Shareholder-value model vs. the stakeholder model; SMEs tend to have longer-term orientation

Despite some criticism of the shareholder-value model (in which profits are driven by short-term shareholder interests), the data presented seem to indicate that the US (where the shareholder value model is prevalent) seems to be performing better than other economies where the stakeholder-value model is more dominant. However, any causal relationship the data may imply is not that straightforward, and may not hold for economies with a large share of SMEs. SMEs that are not listed and do not depend on public shareholders are normally more longer-term oriented and perform well over time, in terms of profitability and also in terms of employment, where they are major contributors.

Lack of active ownership by pension funds is a problem not easy to overcome

As shown by OECD work on corporate governance, there is a real problem in that institutional investors, in particular pension funds with large concentrated holdings, are not actively engaged as shareholders. This may also imply a problem of governance at the level of the pension funds themselves. It was also noted that there was a lot of “box-ticking” and proxy voting by pension funds, and not real engagement as owners. However, most of the time pension funds’ investments in large companies are relatively small, and therefore their votes do not carry much weight anyway. But again, active ownership needs to be promoted, even though there is no easy solution for how to do this. Networks of institutional investors could help in these efforts.

Bailing out bondholders buys time in a crisis, but is not a good long-term solution

It is debated whether bondholders should participate more in the losses of the debt-issuing company (and therefore take a bigger interest in the corporate governance of the companies to which they lend); however, this option is not always available in the middle of a crisis (as it was not in September 2008 when Lehman crashed and the crisis erupted). In such cases, saving the bondholders buys time, but this cannot be done indefinitely.

Speculation can play a positive role as a warning and disciplining device

In pointing out that investments in subprime securities could be regarded as longer-term investments, a commentator stressed the potentially positive role of speculation as a warning and disciplining device. The danger of making investments for the long term is that such warning signs may be overlooked, and changes in circumstances and technology that would require reallocation of assets may not be taken into account. Speculators have often been able to warn of problems way ahead of regulators or institutions as well as most model-based analytical tools (as models usually break down when a crisis hits). One has to be aware that there are many “unknown unknowns” and since one cannot be sure when the next crisis will hit, one has to be prepared to react. It is also noteworthy that speculators such as hedge funds – which tend to be better at pricing risk – were not bailed out during the latest crisis, and many of them collapsed without systemic effects.

The insurance sector proved resilient in the crisis and should not be overburdened by new regulation

It was highlighted that a financially solid government – the lender of last resort – is a prerequisite for long-term investment. The crisis was, in principle, caused by too much credit, which had been created by the failure of regulation and mismanagement in the banking system. The insurance sector, however, has fared well during the crisis (Box 2). In non-life insurance, there are now even some indications of overcapitalisation, and the life insurance sector has also recovered very forcefully. The main responsibility of life insurance companies and pension funds is to deliver on their promises, without specific regard to long-term investments, and one should not overburden these institutional investors with such additional obligations. Another, related point is that institutional investors also have to heed the call of investors now demanding higher liquidity (the new “paradigm”), mostly a precautionary reaction to the crisis.

Box 2. Comment on long-term investment: the insurer’s point of view

Thomas Hess, Chief Economist Swiss Re

I want to make a few points in the context of long-term investments and insurance.

1. We appreciate that the role of insurers and pension funds as long-term investors is highlighted by the OECD. We fully agree that insurers and pension funds are natural investors in assets such as private equity, venture capital funds, infrastructure projects, etc., given that many of the liabilities insurers hold assets against are long-term. We also fully agree on the importance of long-term investment for growth and the welfare of our societies.

2. At the same time, it has to be made clear that the primary role of insurers is to provide insurance cover for individuals and corporations, and thereby help the insured to cope with the risks they face. At the risk of stating the obvious, I cannot resist mentioning that the first priority of insurers and pension funds is: we have to deliver on the promises made to policyholders. When insurers invest, it therefore has to be seen in this context. Insurers are only able to take long-term risks if they are able to cope with it, without compromising on their solvency.

3. Fixing regulatory bugs would favor long-term investments. Many observers are surprised how little long-term investment risk insurers assume. For insiders, this is hardly a mystery. The reason often boils down to regulation: when pro-cyclical elements of regulation “force” insurers to sell risky assets at the worst possible moment, one should not wonder why insurers avoid such risky assets. (Similar issues can arise in relation to accounting standards.) Also, state-enforced, asymmetric profit-participating schemes (life policy holders share in profits but losses have to be absorbed by shareholder capital) are clearly disincentivising insurers to take investment risk. Another problem is the double taxation of equity capital, which disincentivises the holding of equity capital. This reduces risk appetite in general, and for long-term investments, in particular.

4. After the massive crisis our societies are more vulnerable. Even highly rated government bonds and senior bank debt may be not classified as genuinely “default-free” anymore, and perhaps this is correct. Another development is that interest rates are currently kept extremely low in order to stabilise banks and the economy. Both developments have serious consequences for insurers, which are relying on safe assets and have given some kind of return guarantee. Both developments basically lower insurers’ risk appetite for long-term investments.

5. I believe the worst outcome of the financial crisis would be to extend further regulation on the insurance sector. (Specifically, systemic risk regulation for insurers must be avoided; insurers did not cause the crisis; they have not aggravated it, and they are not responsible for the recessionary impacts.) Such regulation would only force insurers further into low-returning government bonds.

6. In summary, the right way ahead would be to free up insurers from unnecessary restrictions and make sure that government bonds are genuinely “safe” assets again in the future. Coupled with a stable macroeconomic environment, this will allow insurers to continue to remain pivotal investors in long-term assets, which will be beneficial to society as a whole.

Source: Written statement by Thomas Hess, Chief Economist Swiss Re, based on his comments delivered at the OECD High-Level Financial Roundtable on Fostering Long-Term Investment and Economic Growth on 7 April 2011.

The role of life insurers and pension funds as long-term investors could be diminished by new regulations

Meanwhile, current regulations and accounting rules are pushing insurance companies into procyclical behaviour. This should be corrected, keeping in mind that during this crisis insurance companies showed much less procyclical behaviour than other market participants. Pension funds and life-insurance companies are natural long-term investors in that their liabilities are long-term, but if risk-based regulation comes into play, more procyclicality will be created. While the new Solvency II regime is positive in that it emphasises risk management, it may force insurers into procyclical behaviour, selling assets at the trough of their valuation – and not fostering their role as long-term investors.

Some other regulatory and tax rules also distort investment decisions

Furthermore, the new regulation will lead insurers into holding more government bonds – which currently cannot be seen as absolutely safe investments (at this juncture, equity is probably safer than Greek government bonds). Insurers' investment decisions are also curtailed by the requirement to rely on ratings agencies' ratings rather than their own judgements. And, most tax systems still distort financing decisions and create excessive leverage by favouring debt over equity financing; most countries put a double tax burden on equity. This double taxation of shareholder equity was also one of the drivers of the crisis.

III. The contribution of institutional investors to long-term growth

1. Long-term investment to foster sustainable growth and financial stability⁶

Long-term investors help to complete and stabilise markets

Long-term investors can support sustainable growth and financial stability. Given the structure of their balance sheets, long-term investors have the capacity to smooth their resources over the medium and long term. They are not prone to the herd mentality and are able to retain assets in their portfolios in times of crisis, and in this way play a counter-cyclical role. Financial markets need investors with different views and investment horizons. While speculators play an important role (as was mentioned in the previous section), it is likely to be the long-term investors, evaluating assets at their long-term intrinsic value rather than marked-to-market, that have a stabilising effect on markets. Until a few years ago, it used to be common knowledge that insurance companies would buy equity in a downturn and hold it for the longer term. Unfortunately, this is not the case anymore.

Long-term investments contribute to economic growth in many ways

Long-term investors can make an important contribution to growth in various ways, most importantly by financing long-term projects, such as infrastructure. In Europe, for example, infrastructure needs in areas such as transport, energy, and climate change are estimated to be EUR 2 trillion by 2020. By investing for the long term, they are likely to implement a more responsible investment policy and to be more active investors, thus improving the governance of the enterprises they invest in. Long-term investments can also provide higher returns for long-term savings and pension plans, thus alleviating some of the funding gap that is widening due to low interest rates and an increased demographic burden.

While long-term savings are

Long-term savings are relatively abundant in Europe. In France, the savings rate is 16% of net available income, the main saving product being life insurance

relatively abundant in Europe, their share available for long-term investments is decreasing

contracts (EUR 1.4 trillion of technical reserves) with an average maturity between 10 to 12 years. This long-term orientation of savers is also reflected in the fact that even if early redemption options are offered, few savers are using them. However, the capacity of investors to use their assets for long-term investments is decreasing. According to a recent report by Oliver Wyman, in 2009 long-term institutional asset owners owned slightly under half of the world's professionally managed assets (around USD 27 trillion out of USD 65 trillion), but only 25% of their assets (USD 6.5 trillion) are being used for long-term investing. This is partly due to changes in strategies but also to short-term biases in regulations (accounting and prudential standards) and in market practices (delegated management, etc.).

The regulatory framework needs to provide incentives for long-term investments

Thus, one approach to reduce the long-term financing gap and encourage these institutions to invest in long-term assets is to make the regulatory framework more compatible with long-term investments. Accounting, prudential and fiscal rules have to take better account of the specificities of long-term investors' balance sheets and time frames and enable them to play a counter-cyclical role. Such incentives already exist regarding long-term government bonds, which in accounting terms can be assumed to be held to maturity (thus not marked-to-market) and have low capital charges. Such incentives should also exist for other types of long-term investment. Furthermore, as was pointed out in the previous section, taxation should also provide incentives to invest in longer and riskier assets. Overall, governments can play a vital role in setting the rules and creating the conditions that encourage the flow of capital from the world's savers into long-term investments.

Appropriate instruments of long-term investment can attract available savings

To direct savings into the funding of big infrastructure projects it will be necessary to develop innovative financial instruments that combine public and private resources. Project bonds are interesting in this respect, like those planned by the EU Commission to provide EU support for project companies issuing bonds to finance large-scale infrastructure projects. The Commission's key role would be risk-sharing with the EIB and other financial partners, enabling them to provide guarantees or loans to support such bonds. In this way, these new financial instruments could help markets to better play their role of channeling savings to productive investments.

Fruitful co-operation via the "Long-term Investors Club"

Co-operation among long-term investors should be enhanced to allow them to promote their business model. This is the aim of the "Long Term Investors Club" set up in 2009 by KfW, *Cassa Depositi e Prestiti*, EIB and *Caisse des Dépôts*. This club now encompasses 12 financial institutions representing the world's most important economic regions, with total assets of USD 3 trillion.

2. Long-term investment challenges for the asset management industry⁷

The asset management industry recovered well from the crisis

While the global asset management industry was severely hit by the worldwide financial crisis in 2008, thanks to the equity market upswing, it bounced back in 2009. Total assets under management (AuM) in Europe are estimated to have reached 100% of GDP at the end of 2009, up from 80% at the end of 2008. This percentage is above the EU average in the UK (209%), Belgium (136%) and France (131%), where asset management plays a relatively

larger role in matching the needs of savers and investors, both in domestic and international markets. In 2010, the European investment fund industry bounced back to the asset level reached before the global financial crisis, benefitting all categories of long-term funds.

More diversification and active asset allocation increased resiliency

The resiliency of the asset management industry can be explained by a more diversified industry and investors seeking greater diversification in asset classes, which now include new strategies and alternative assets besides traditional equities and bonds. Investment products with an element of active asset allocation have seen rising demand from defined-contribution plan members and retail investors. “Newcits” (UCITS compatible funds) are adopting absolute return strategies and are attracting interest both from institutional investors and from high-net-worth individuals. However, they have not yet been tested during a severe downturn, and concerns have been raised about their massive use of swaps, derivatives and leverage, as well as of “custom-made” eligible assets.

Asset managers should act as “stewards” of their clients’ interests

The asset management industry is a vital source of economic growth, as an intermediary in the savings-investment channel. The industry is also one of the most important providers of liquidity needed to ensure the smooth functioning of capital markets. Furthermore, the industry gives its clients access to a large range of instruments and markets to help them diversify their portfolios and achieve their investment goals. If properly pursuing their mandate, asset managers should be stimulating overall economic development by continuously monitoring and allocating financial resources to the most promising investments. In doing this, and in taking on the role of responsible investor, asset managers should also act as the “stewards” of their clients’ interest.

Short-termism may be overcome by more transparency, better communication and investor education

Since clients can withdraw their money on almost daily notice, however, the liabilities of mutual funds and asset managers are less “sticky” than those of pension or life insurance funds. This might lead to excessive short-termism or a herd mentality on the part of asset managers, who need to keep a close eye on the liquidity of their investments and may therefore forego higher-return opportunities. A sound governance framework, more transparency, better communication with clients and better management of their expectations may be needed to overcome this problem. But clients themselves, at the institutional as well as retail level, will also have to adopt more of a long-term view in order to appropriately evaluate the risk-return parameters of their portfolios.

3. *The perfect match – or the lost opportunity?*⁸

Infrastructure investments could be a perfect match for a significant portion of pension savings

Infrastructure investments have the potential to promote productivity and efficiency in both the public and private sector and to foster economic growth. Life insurance companies and pension funds naturally seek to invest in long-dated assets that match their long-term liabilities. To ensure decent returns, they often prefer real assets like infrastructure, and should thus be well-positioned to provide the capital needed for maintaining, renewing and expanding infrastructure and public real estate, and thereby perhaps also benefitting the environment.

But short-termism must be overcome, preferably through regulation

However, as was also outlined in the Secretariat's background note (see Box 1), these institutional investors are much too oriented towards the short term, partly due to the nature of current regulation and accounting rules, as well as the lack of a shareholder culture. Regulators should be interested in changing that, and on not imposing further restrictions that impede long-term investment. Change needs to happen rather quickly, before IFRS4 and Solvency II specifications are finalised.

Capital needs are enormous and cross-border investments pose specific challenges

The capital required for infrastructure development and to meet environmental challenges is enormous. The Vision 2050 report by the World Business Council for Sustainable Development (WBCSD) estimates that about USD 40 trillion will need to be invested worldwide in urban infrastructure during the next 20 years, with clean water, heating/cooling and other energy areas as the largest components. A significant part of the investment is needed in emerging economies, while the pension funds' capital has so far mostly been accumulated in advanced economies; this presents a challenge for asset managers to invest in public infrastructure in geographically distant economies with different regulations.

Environmental challenges posed by infrastructure and other commercial real estate is huge

The environmental challenge of infrastructure and other commercial real estate is huge. About 40% of primary energy worldwide is used by residential and commercial buildings. Imposing stricter environmental regulations on all new entities, with a phasing-in period for all existing physical stock, will allow technologies to be adjusted over time, becoming more efficient and making the cost of environmental upgrades affordable. Since direct investment in early stage innovative technology is risky, diversification is key, and public subsidies could be used to attract private investors. Another, related mechanism could be mandatory contributions for new construction, thus creating an "equity tranche" in which pension asset managers could then participate in order to facilitate the project. Also, the pricing of ecosystem services into national accounts needs to be implemented. Governments must provide guiding principles and "raise the bar" and then let the market mechanisms work within the guidelines established.

4. Discussion

Inappropriate application of Basel-like rules to non-banks should be reconsidered

The regulatory environment should be adjusted to help overcome a bias towards short-termism. For this to occur, one also needs to distinguish between regulation concerning different classes of investors and regulation concerning different types of investments. For example, while the Basel III regulations *de jure* concern commercial banks, some parts have been carried over to Solvency II for the insurance industry, and Basel-like rules are *de facto* often applied by market participants to other investors to which these rules are not suited. Thus, while the "Pandora's box" of Basel III should not be re-opened, the extended application of its rules to other parts of the financial industry should be reconsidered, in particular as regards Solvency II. As it is an EU directive, it should, in principle, be relatively easy to change this into a Solvency III directive that addresses the needs of long-term investors through appropriate incentives. Furthermore, in implementing Basel III, the treatment of long-term investments secured by real collateral could be given special attention. In fact, the FSB chairman made this a point of further reflection at a recent meeting of the Long-

Term Investor Club. In implementing the Basel rules, the United States has taken into account the specificities of its financial sector and economy, so it is very conceivable that Europe could take into account the specific needs of the European economy when implementing Basel III, especially as regards long-term investment.

Policy intervention to address short-termism could include preferential dividend treatment for longer holding periods – as well as a financial transactions tax

Addressing short-termism through regulatory intervention may take time to implement and function effectively, and would most probably not work if done using a piecemeal approach. The preferential tax treatment of long-term investments may be a useful measure, for example, by tying dividend tax rates to the holding period of the underlying equity investment, with rates becoming more favourable the longer the holding period. Another measure could be the introduction of a financial transactions tax that could improve economic efficiency if it succeeds in curbing purely speculative, short-term investment behaviour. Such behaviour diverts resources to “treasure hunting”, instead of making them available for longer-term productive activities that benefit society. Such a financial transaction tax could encourage a long-term investment horizon and may also be compatible with sustainable and productive investments, such as those mentioned by previous speakers.

Regulation may also need to focus on inflation-adjusted cash flow and other criteria

Another factor that promotes short-termism was mentioned: the fact that most of the liabilities of institutional investors are somehow implicitly indexed to inflation, while few instruments offered on the asset side seem to provide a good hedge against inflation; hence the investment horizon is shortened. But infrastructure investments, as another speaker pointed out, usually provide a relatively good inflation hedge. As was noted later in the discussion, equities are not good at providing such a hedge; they are volatile and should be treated as such in investment strategies.⁹ Other, longer-term investments with more stable, and often inflation-adjusted cash flows, are available and should be used to hedge against inflation. It was also pointed out that pension providers have to deliver purchasing power; however, regulation focuses on nominal (not inflation-adjusted) terms. Therefore, regulations may need to focus more on the various aspects of real investments and returns, and in doing so foster a longer-term orientation.

Spot-curve valuation presents challenges

The valuation of pension fund liabilities based on a spot-curve (yield curve of zero-coupon, short-term debt) was mentioned as worthy of consideration.. On the asset side, investments may be needed that could mimic the spot-curve profile of the liabilities, characteristics that are more likely to be found in government bonds than in infrastructure investments. When spot-curve valuation is abandoned in favour of a longer-term view, then necessarily some kind of smoothing mechanisms need to be applied. But this would involve a general debate about accepting, or even promoting, such mechanisms.

Mark-to-market valuation can be useful

Another discussant, however, warned against abandoning mark-to-market valuation, as this would “turn off the light”, perhaps on something “we don’t want to see”, and hide otherwise valuable balance sheet information. This cannot be regarded as a useful way to overcome short-termism.

Risk concentration could pose a problem if a relatively large investment is a prerequisite for active shareholding

There were calls for investors to become more engaged in the companies they invest in, thereby improving their corporate governance; implicitly, these are calls against “outsourcing of market discipline to speculators and credit ratings agencies”. But the question arises whether, consequently, there could be a problem of risk concentration since large, “meaningful” investments may be required in order for shareholders to engage actively with the company. This may run counter to risk-based regulation and the goals of Solvency II. Preferential tax treatment and other regulatory measures to foster active shareholding could, in fact, even exacerbate this problem.

Liquidity is an important market component

A commentator suggested that the discussion should not be framed within the dichotomy of long-term vs. short-term (implying the former is good and the latter is bad), but rather that it should be acknowledged that short-term liquidity and diversity in time horizons are important components of well-functioning markets. The focus should be on the mismatch between the investment horizon (often linked to the long-term nature of liabilities) and the actual investment strategy. Often, investors confuse their objectives, which may be long-term oriented, with their strategies, and this may result in short-termism.

Government accounts should become more transparent to attract long-term investors

Traditionally, long-term investments have been backed by governments, since their relatively large balance sheets allow them to take on more long-term risk and to work within the confines of long pay-back periods. However, today government balance sheets are overextended in a number of countries, and for some of these countries debt issuance has become very expensive – despite the fact that global real interest rates are currently historically low and potentially supportive of growth. Part of the reason for the high financing costs of some governments is the opacity of their balance sheets, which makes it hard for investors to assess whether the purchase of a government bond would go towards financing transfers or investments (especially in infrastructure). There is also the problem of a public financing gap due to intergenerational transfers, *i.e.* future liabilities, as well as the maintenance costs of current infrastructure, which does not show up on government balance sheets but is information that investors may nonetheless want to take into account. Work by the OECD on these issues would be welcome.

IV. Creating a better environment for financing business, innovation and green growth

1. Investing in infrastructure: getting the conditions right¹⁰

Infrastructure improvements deliver agglomerative benefits

Promoting sustainable economic growth is a policy priority for OECD economies, and maintaining and building new infrastructure is crucial in supporting this goal. The renewal of economic infrastructure delivers agglomerative benefits by accelerating regional economic development, underpinning economic and industrial clusters and contributing to the healthy growth of cities. A Commission report on the future of London’s infrastructure highlighted the productivity gains from such agglomeration.

Infrastructure funds are

Macquarie’s Infrastructure and Real Assets (MIRA) business has played a lead role in the development of infrastructure as an investment class. The bulk of

attractive investment vehicles for pension funds and other institutional investors

its capital invested in infrastructure has been sourced from the global pension fund market – a good match as was pointed out by other speakers. Infrastructure investments are typically relatively low-risk and low-volatility, with regular, long-term revenue streams that are often inflation-linked, and the industry is well regulated. These characteristics are particularly appealing in the current environment, which offers historically low yields for other fixed-income investments such as government bonds. Infrastructure funds are thus attractive investment vehicles for pension funds and other institutional investors, since they provide diversified portfolios of infrastructure businesses.

A policy framework is needed to attract private capital for infrastructure projects

Infrastructure investment is expensive, and there is a backlog of ageing assets that need renewal in many advanced OECD economies, estimated at around USD 50 trillion through 2030 (OECD, 2007).¹¹ Given the poor state of public finances in many countries, the private sector will have to fill the large capital expenditure funding gap. In 2009, institutional funds globally had about USD 65 trillion in assets, and compulsory national or regional pension plans have the potential to accumulate large amounts of capital quickly. If the public sector provides the right framework for investment, the private sector will be able to contribute significantly to filling the gap.

Greater and better capital expenditure by infrastructure businesses can be facilitated by a “Regulated Asset Base” model

A first objective must be to facilitate greater and better capital expenditure by the owners of infrastructure businesses into their networks and assets. Many public sector organisations do not have a balance sheet and treat both operating and capital expenditure as fungible cash, making the latter vulnerable to cuts when budgets are tight – with negative long-term consequences. Introducing a balance sheet can improve the situation and allow for better assessment of what is necessary vs. unjustified expenditure. Combined with regulation via a “Regulated Asset Base” (RAB) model, this approach can provide a basis for securing returns for financial investors while also protecting consumer interests. First applied in the UK, the RAB model has also been implemented on the European continent, e.g. for European airports and the French toll roads: regulated price increases are subject to a capital expenditure requirement, thus helping to align business goals with wider public needs.

Regulators should recognise the relatively low risk level of infrastructure funds

A second objective is to unleash the existing capacity for more long-term institutional participation by not erecting unnecessary investment barriers for pension funds and other private institutions. In the UK, for instance, the level of infrastructure investment is estimated to be less than 1% of pension fund assets, compared with 8% to 15% in Australia and Canada. Infrastructure funds are classified as “alternative” investments because they are not yet well-understood and well-known. That knowledge gap can be overcome – and the OECD’s current work in this area is playing a valuable role in that regard. But it is also important that policy makers recognise the relatively low risk of infrastructure funds and take appropriate measures when finalising and implementing Basel III and Solvency II.

Avoiding the crowding out of private sector investment and frequent

But governments should also be wary of crowding out private sector investment through the intervention of publicly owned infrastructure banks and the like. Such public sector interventions should be confined to projects whose risks can realistically be managed only by the public sector. More importantly, while getting the regulatory framework right is crucial, governments should also

regulatory changes

avoid making frequent short-term changes to the regulatory framework or introducing *ad hoc* taxation that undermines confidence on the part of investors (as seen recently in some renewable energy programmes in Europe).

2. *How to foster investments in long-term assets such as infrastructure*¹²***Private sector resources can be mobilised to bridge the infrastructure funding gap***

The mobilisation of private-sector funding is essential in bridging the infrastructure-funding gap that is being generated by the dramatic increase in infrastructure needs at a time when most major OECD governments are managing heavy debt burdens. Governments can foster investment in long-term assets such as infrastructure by: (i) aligning financial regulation with infrastructure policy objectives; (ii) implementing targeted public financial support for strategic projects; (iii) promoting active involvement in the management of infrastructure investments by institutional investors; and (iv) creating a stable but demanding regulatory framework for project procurement that takes into account optimum risk transfer and the availability of funding.

With the right policy framework, investors can make retirement savings systems more sustainable and foster long-term growth

A carefully designed policy framework should encourage institutional investors (many of which have to match their liabilities to long-term assets) to take advantage of long-term investments, such as infrastructure, which can provide inflation-linked and stable cash flows. The implementation of such a framework could generate a double benefit for governments: fostering the financial stability of retirement-savings systems (which would be relying more on “tangible” assets) and enabling the development of strategic infrastructure projects that contribute to long-term growth.

Constraints on institutional investors’ asset allocation impede long-term investment

However, current regulations often prevent the realisation of such benefits. Many OECD countries have quantitative constraints on institutional investors’ asset allocation, including for infrastructure, and there are liquidity requirements that also strongly penalise infrastructure assets. Furthermore, financial regulation in several OECD countries, notably in continental Europe, does not provide for capital investment vehicles with the lifetime/duration required to implement long-term equity investment in infrastructure projects. And as was discussed by certain speakers, while it is important to agree on adequate valuation measures, the mark-to-market approach is potentially detrimental to long-term investment. Likewise, solvency regulations (like Solvency II in Europe) may lead insurers to lower their exposure to less liquid, long-term assets, such as infrastructure.

Capital markets and banks, once major sources of debt financing, are now constrained

Before the recent financial crisis, capital markets were a significant source of (project) debt financing, made all the more attractive by monoline insurers’ credit enhancements, especially in the UK and other European capital markets. Bank funding was abundant, with the provision of loans tailored to each project, very long tenors and low margins. The dramatic weakening in the credit ratings of the monolines as a result of the crisis saw such funds disappear. The resulting increase in the cost of interbank lending and the expectation of tighter regulations have constrained long-term debt funding by banks and also reduced the potential for loan syndication.

Targeted public measures can

Therefore, finding alternative long-term debt sources is critical, in terms of amount, maturity and pricing. Some OECD countries have implemented targeted

support private infrastructure financing

actions that have played a key positive role for infrastructure financing, such as the Transportation Infrastructure Finance and Innovation Act (TIFIA) and a tax exemption for private activity bonds (PAB) in the United States. In Europe, the European Investment Bank (EIB) has also been supporting infrastructure by allowing banks to adapt their lending capacity to longer maturities, and recently launching a consultation regarding an instrument aimed at facilitating access to project bonds by institutional investors. These experiences show that targeted financial support by the public sector can facilitate access to long-term debt for projects, matching long-term investors looking for stable cash flows with long-term assets such as infrastructure projects.

Multilateral institutions such as the OECD could play a key role in building an infrastructure management culture among asset managers

Developing an infrastructure management culture among asset managers, investors and also the public sector will be essential in order to ensure that these entities obtain the best value from infrastructure investment. Infrastructure assets require a whole-life costing approach to provide best value to the public, and specific skills are needed to invest in these less-liquid, longer-term assets. Leading multilateral institutions, such as the OECD, could play a key role building this culture and in educating the financial community in infrastructure sector challenges and specificities. Regulatory frameworks and guidelines that focus on asset preservation and development and include profit-sharing plans could provide the right incentives and help to align the interests of stakeholders.

Long-term policy planning, complemented by adequate regulation, is key to attracting private investors to infrastructure investments

Infrastructure investments require long-term policy planning. To be credible, strategic policy frameworks should exceed the duration of political cycles and be built on wide political consensus. Stable and accessible programmes for infrastructure projects and public-private partnerships (PPPs) are key in attracting private sector investors, complemented by adequate regulation. For example, the introduction of lock-up periods for equity within PPP contracts can enable the creation of stable companies by committed investors. Regarding concerns about profitability due to changes in the cost of services over time, benchmarking or market-testing procedures throughout the life of a project could be introduced, and more generally a demanding regulatory framework at project level should ensure that projects remain cost-effective.

3. Financing innovation and small businesses¹³***Lack of access to financing is hampering innovation***

Modern economies are increasingly reliant on innovation to improve their competitiveness and generate growth. However, surveys for the EU show that the lack of access to financing is one of the main factors hampering innovation activities in European enterprises. This and other weaknesses in the financing of innovation in Europe have been intensified by the recent economic and financial crisis, which could have a material adverse impact on economic growth if left unchecked.

Public funds have assumed an increased role in early stage innovation financing

Venture capital (VC) financing poses specific challenges. As less private venture capital became available during the crisis, public funds have assumed increased importance in the early stage financing of innovative enterprises. Government agencies, including the European Investment Fund, provided about a quarter of VC funds in Europe during 2009, and the absolute contribution of government agencies has increased by almost 80% over the past three years.

Economic uncertainty has also made the valuation of enterprises more difficult to assess, leading to an impasse between investors and entrepreneurs.

The EIB and EIF can play an important role in the financing of businesses, innovation and green growth by developing the next generation of PPP models

The European Investment Bank Group (EIB Group), consisting of the EIB and the European Investment Fund (EIF), plays an important role in the financing of businesses, innovation and green growth. While the EIB is very active in the funding of later-stage companies and projects, early stage SME financing is undertaken by the EIF, which uses its resources to share risk and catalyse private-sector funds and banks into increasing their investment in high-growth and technology driven enterprises. A wide range of financing solutions are being provided and are being further developed based on the following key building blocks: (i) The transformation of grants and subsidies into revolving financial instruments, with future models of public intervention involving a better combination of grants, equity co-investments, loans, guarantees and fiscal incentives; (ii) the structuring of those interventions to reflect the risk profile and the potential financial, social and environmental return; (iii) using public budgets to stimulate growth via private sector investment (the next generation of Public Private Partnerships – PPPs). Examples (all of them in their early stage of development) that further incorporate these building blocks are Project Bonds, risk-sharing instruments for innovation, and intellectual property financing.

Notes

1. Dialogue between the public and private sectors can provide an important contribution to policy making. The Roundtable discussions are informing subsequent work of the OECD in this area, not only by the CMF, but also, for example, by the Insurance and Private Pensions Committee (IPPC) and its Working Party on Private Pensions (WPPP). The IPPC and WPPP are focusing on the role of institutional investors, long-term investment and growth, and their work will also provide input for related projects within the G-20 framework.
2. Keynote speakers and discussants were invited to submit articles related to their interventions, published in this issue of *Financial Market Trends*.
3. This subsection summarises the keynote presentation by Franco Bassanini, President, *Cassa Depositi e Prestiti* (CDP); for more details, see his article (co-authored by Edoardo Reviglio) in this issue of *Financial Market Trends*.
4. This subsection summarises the keynote presentation by Hans-Helmut Kotz, Center for Financial Studies and Goethe-University Frankfurt; former Bundesbank Executive Board Member and Chair of the OECD Committee on Financial Markets.
5. This subsection summarises the keynote presentation by Lars Rohde, Chief Executive Officer, ATP; for more details, see his article in this issue of *Financial Market Trends*.
6. This subsection summarises the keynote presentation by Olivier Mareuse, Chief Financial Officer, *Caisse des Dépôts et Consignations* (CDC); for more details, see his article in this issue of *Financial Market Trends*.
7. This subsection summarises the keynote presentation by Gian Luigi Costanzo, Chairman, Generali Fund Management; for more details, see his article in this issue of *Financial Market Trends*.
8. This subsection summarises the keynote presentation by Frederic Ottesen, Senior Vice President, Head of Insurance Asset Management, Storebrand; for more details, see his article in this issue of *Financial Market Trends*.
9. This and related comments are further expounded in the short article by Zvi Bodie and Marie Brière in this issue of *Financial Market Trends*.
10. This subsection summarises the keynote presentation by Martin Stanley, Global Head of Macquarie Infrastructure & Real Assets and Senior Managing Director, Macquarie Group; for more details, see his article in this issue of *Financial Market Trends*.
11. See *OECD Infrastructure to 2030* at www.oecd.org/department/0,3355,en_2649_36240452_1_1_1_1_1,00.html.
12. This subsection summarises the keynote presentation by Thierry Déau, Founder and Chief Executive Officer, Meridiam Infrastructure; for more details, see his article in this issue of *Financial Market Trends*.
13. This subsection summarises the keynote presentation by Richard Pelly, Chief Executive, European Investment Fund; for more details, see his article (co-authored by Helmut Krämer-Eis) in this issue of *Financial Market Trends*.