

Financial Stability, Fiscal Consolidation and Long-Term Investment after the Crisis

by

Franco Bassanini and Edoardo Reviglio*

In the future there will be a global growing demand for long-term investment, both in mature and in emerging countries, to finance infrastructure, innovation, education, growth, environmental programs. Mature economies will also need to increase their share of long-term investment to exit from the recent crisis, to reinforce their growth rates and global competitiveness and to ensure public debt sustainability. Given the need to enlarge the amount of long-term financing worldwide, policy makers should create a prudential and accounting framework that encourages long-term investment with positive effects for growth and financial market stability. The paper then discusses regulatory issues related to the introduction of a new international and/or European regulatory framework that is more favourable or less penalising for long-term investment, and issues related to the creation of new euro denominated financial instruments for financing infrastructure (long-term equity funds, project bonds and guarantee schemes) and for strengthening stability in EU sovereign bond markets (Eurobonds).

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* Franco Bassanini, former Italian Minister (1996-2001) and Professor of Law at the University of Rome “La Sapienza”, is President of ASTRID Foundation and Chairman of Cassa Depositi e Prestiti, Rome. Edoardo Reviglio is Professor of Economics at LUISS Guido Carli University and at International University College of Turin, and Chief Economist and Head of the Economics Research Department at Cassa Depositi e Prestiti, Rome. The authors wish to thank Davide Ciferri, Gino del Bufalo, Gianfranco Di Vaio, Annachiara Palazzo and Susanna Screpanti of the Economics Research Department of Cassa Depositi e Prestiti for their precious contribution to the drafting of this paper. We are grateful to Vladimiro Ceci, Giovanni Gorno Tempini, Paolo Guerrieri, Claudio De Vincenti and Giuseppe Pennisi for valuable comments. This article is an extended version of a keynote speech delivered by Franco Bassanini at the OECD High-Level Financial Roundtable on Fostering Long-Term Investment and Economic Growth on 7 April 2011. This work is published on the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein are those of the authors and do not necessarily reflect the official views of the Organisation or of the governments of its member countries.

I. Overview

Growing demand for long-term investment both in advanced and emerging countries

In the future there will be a growing demand for long-term investment both in the advanced and in the emerging countries. In mature countries, there is a pressing need to finance infrastructure, innovation, environmental programs, as well as to prepare for the consequences of an ageing population. In developing countries, the income per capita catching up process is requiring vast investment in infrastructure (transportation, telecommunications, energy, urbanisation). Mature economies will also need to increase their share of long-term investment to exit the crisis, to reinforce their growth rates and competitiveness on global markets and to ensure public debt sustainability (successful fiscal long-term consolidation requires both stricter fiscal policy and higher economic growth).

The policy framework should encourage long-term investment

Intense competition for long-term financing will therefore characterise the world in the coming years. 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. Policy makers and international regulators should work not only to assure financial stability, prevent global crisis and “level the playing field” toward fair global competition in the markets for global savings. They should also work on creating a prudential and accounting framework that encourages managers of financial institutions to focus more on long-term (rather than short-term) results, especially in regard to investments with significant positive externalities for growth. In fact, long-term investment is crucial for the future of the world economy; and it could also play a positive role in financial market stability. A long-term vision is needed to tackle the major challenges facing our societies: climate change, scarce natural resources, environmental protection, poverty, immigration, and education.

New rules and new instruments to support long-term investment should be introduced

The second part of the paper discusses the issues related to the introduction of a new international and/or European regulatory framework more favourable (or at least less penalising) for long-term investment (prudential and accounting rules, fiscal incentives, common frameworks in project financing initiatives and corporate governance). It discusses as well the issues related to the creation of new euro-denominated financial instruments for financing infrastructure (long-term equity funds, project bonds and guarantee schemes) and increasing the stability of the EU sovereign-bond markets (Eurobonds).

II. The long-run trends in the evolution of global investment and saving

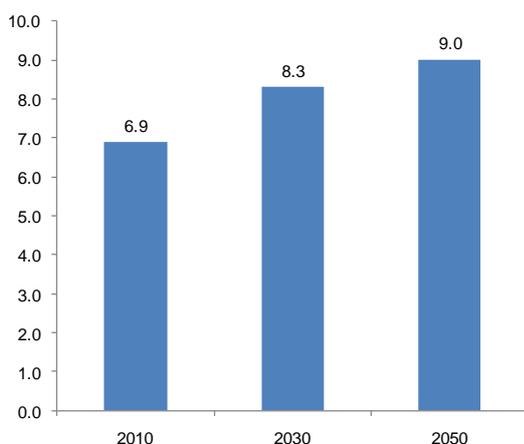
The world economy will experience strong demand for capital investment

Great transformations are going to characterise the 21st century. Almost two thirds of the world population, mostly in Asia, will switch from self-sustenance to consumption, from the closed circuit of an agricultural economy to the open source of a market economy. The world economy will experience exceptional demand for capital investment. World population will grow from seven to nine billion by 2050 (Figure 1); GDP should rise, in the same period, from 72 trillion USD (at PPP) in 2010 to about 380 trillion USD in 2050 (Figure 2).¹ The fastest growing regions according to forecasts will be

Africa (7.0%) and developing Asia (5.4%). As a result, North America and Western Europe are expected to fall from 41% of world GDP in 2010 to just 18% in 2050, while developing Asia's share is predicted to rise from 27% to 49% in 2050 (Figure 3). China is expected to overtake the US to become the largest economy in the world by 2020, to be in turn overtaken by India by 2050. However, the per capita numbers suggest that the convergence process may have several decades more to go (Figures 4a and 4b).

Figure 1. World population

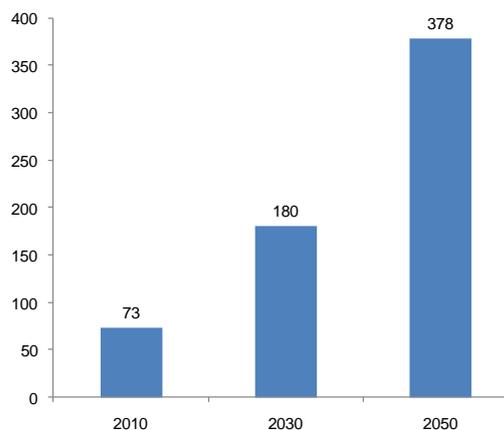
In billion



Source: Citi (2010).

Figure 2. World GDP

In trillion USD, PPP (2010)



Source: Citi (2010).

China and India have huge investment requirements, straining the environment and scarce resources

Looking ahead, both China and India have huge investment requirements.² It has been recently estimated that, to keep pace with urban population growth, China will build one New York City every two years. And India over the next two decades, one Chicago each year.³ The impact of such powerful rates of growth, urbanisation and development will represent a great challenge for the environment and challenge the scarcity of natural resources on our planet. The question mark is if technology and innovation will discover new solutions to manage the making such a great transformation, to make it not only possible, but globally suitable and geopolitically sustainable. In 2030 the demand for energy will be 50% greater than today and 80% of this demand will be for fossil fuels. CO₂ emissions will increase by around 60%. Another very precious common good – water – will be at the forefront of the problems to be solved, due to the boom in investment and consumption that is likely to take place this century. Technology will be asked to showcase all its powers to solve these problems.

Strong world governance is likely to be required

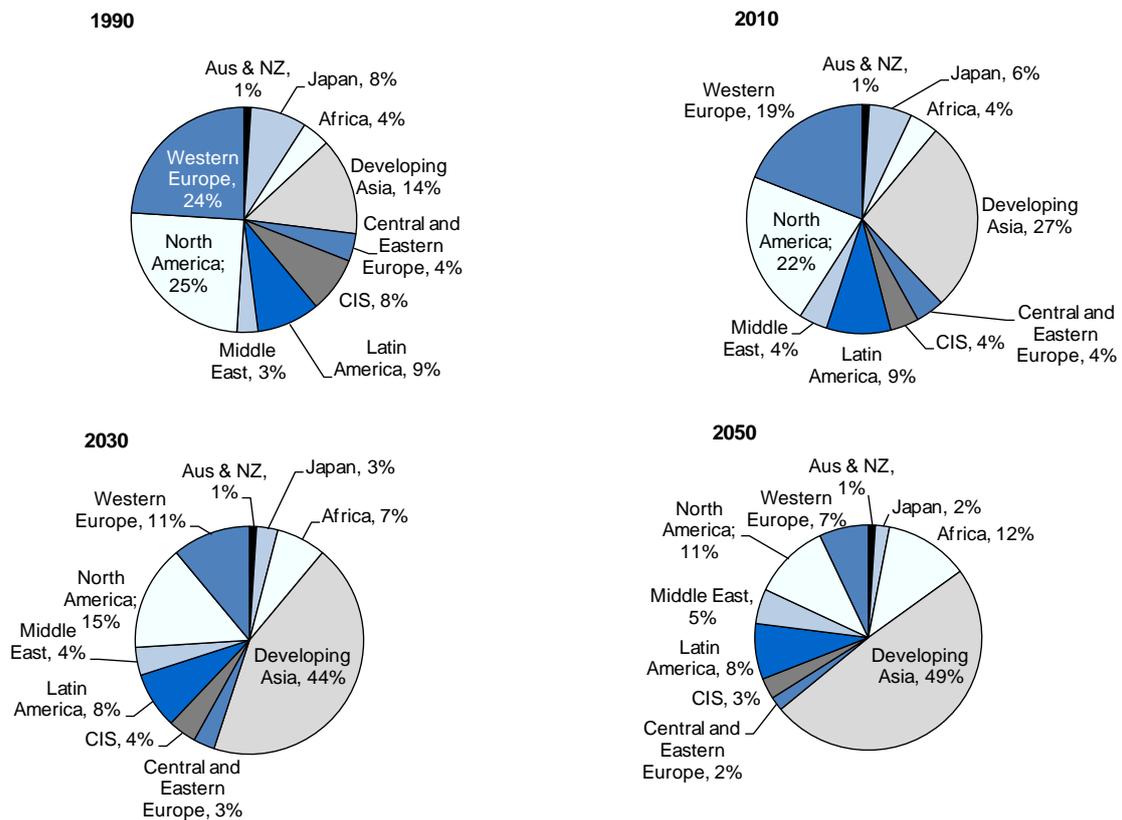
In the 21st century, most of the people in the world will aim to have the same living conditions and sustainable growth as the advanced world. The rest of the world does have the right – on grounds of justice – to ask for our same living conditions. It will be economically expedient and politically beneficial (or required) to share this exceptional global growth. However, strong world governance is likely to be required, most probably centred on the G-20 or starting from the G-20. Also required will be a wide exchange of

“best practices”, to achieve a global high-tech cultural and social welfare system, environmentally sustainable infrastructure systems and smart energy policies. Europe (and more generally the advanced world) should “export” this “model” – as well as the finance and know-how to produce it – around the world.

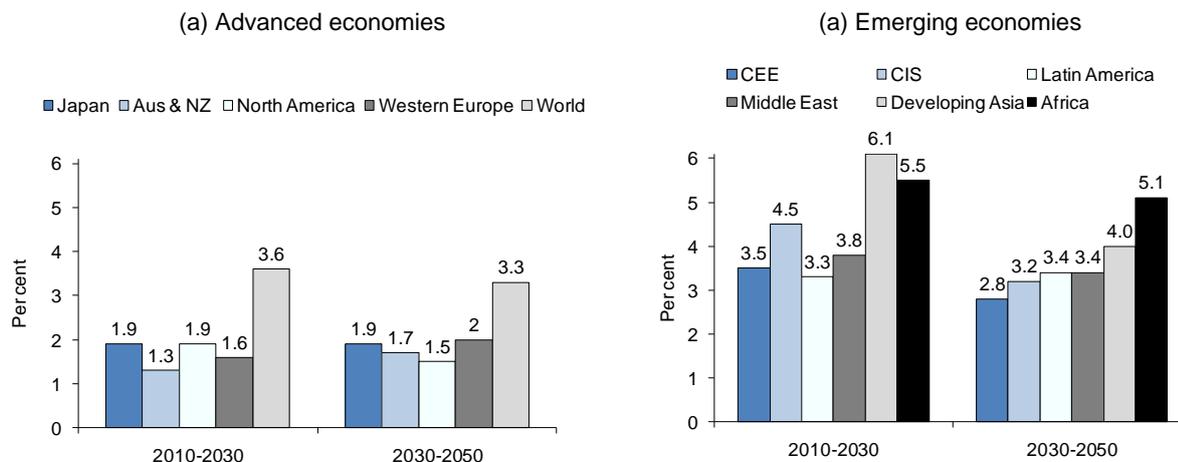
Consumption, too, is growing fast

Despite the very high investment rates of the fast-growing late starters/converging economies, the consumption growth, too, is already a significant driver of domestic demand in many of these countries. Total consumer spending in Asian economies is likely to exceed total consumer spending in the Euro area during the next two years and that of the US within a dozen years.⁴ The proximate driver of this consumption boom is the growth of the “middle class” in fast-growing Asia and Latin America.

Figure 3. World real GDP composition



Source: IMF (2010) and Citi Investment Research and Analysis (2011).

Figure 4. Real GDP per capita growth

Note: GDP per capita measured in PPP USD.

Source: Citi (2010),

High investment rates in emerging economies create export opportunities for advanced ones

However, even though total investment spending in Asia's fast growing economies could exceed total investment spending of the US and Europe, the per capita numbers suggest again that the convergence process may have several decades (China) or even several generations (India) to go. Mature economies – which should have a comparative advantage in capital goods production – may take advantage of the export opportunities created by these high investment rates to very different degrees.

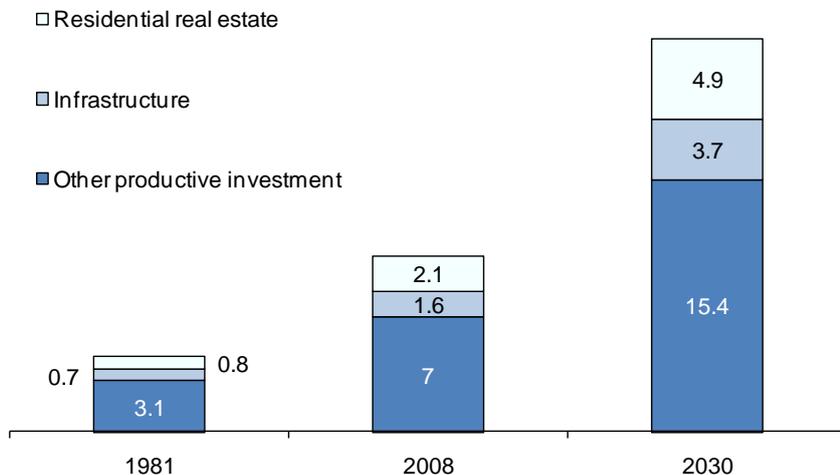
The speed of globalisation has increased

The speed of globalisation has increased in the last 20 years. It has been based on some key factors: (i) a geopolitical factor, with the fall of the Berlin Wall, and the shifting of the political power from the Atlantic to the Pacific; (ii) a technological factor, given the spreading use of IT and the lowering of transportation costs; (iii) an economic factor, with Asia producing low-cost goods and America buying them on credit; (iv) a financial factor, via the creation of global virtual money; and finally (v) an ideological factor, the “political apotheosis” of free market economy.⁵

Expect a huge increase in demand for capital investment in advanced and emerging economies

Therefore, in the next decades, we expect a huge increase in demand for capital investment which will go from today's almost USD 11 trillion to USD 24 trillion by 2030 (Figure 5).⁶ In mature countries, there is a pressing need to finance infrastructure, innovation, environmental programs, as well as to prepare for the consequences of an ageing population; in developing countries, the income per capita catching-up process (Figures 4a and 4b) is requiring vast investments in infrastructure (transportation, telecommunications, energy, urbanisation). Mature economies will also need to increase their share of long-term investment (LTI) to exit the crisis, to reinforce their growth rates and competitiveness on global markets and to ensure public debt sustainability (successful fiscal long-term consolidation requires both stricter fiscal policy and more economic growth).

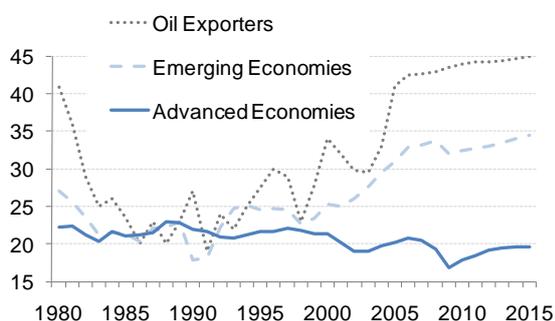
Figure 5. Desired global investment



Source: McKinsey Global Institute (2010).

Figure 6. Gross saving rate dynamics

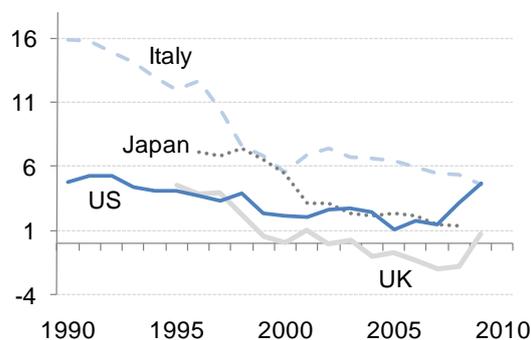
As percentage of GDP



Sources: McKinsey Analytics; McKinsey Global Economic Growth Database; World Development Indicators of the World Bank; McKinsey Global Institute (2010).

Figure 7. Household gross saving rate in advanced economies

As percentage of GDP



Source: OECD (2011).

Over the past two decades, there has been an excess of savings relative to investment

Over the past two decades, the world’s investment rate has been declining. This has contributed to an excess of saving over desired investment. At the same time, advanced countries’ gross national saving fell from 22.7% of their GDP in 1980 to 19.7% in 2008, even if the pattern differs across countries (Figure 6 and Table 1). For example, the savings rate fell more in the United States than in any other mature country, from 20.6% of GDP in 1980 to 12.7% in 2008. Gross national saving rates were relatively stable in France and Germany. Households account for most of the drop in national saving in many developed countries (Figure 7). On the contrary, emerging countries have exhibited not only increasing savings, but also investment rates as a result of their strong growth during the past decades (Figure 8).

Table 1. Savings and investment

As percentage of GDP

	Average 1996-03	2004	2005	2006	2007	2008	2009	2010	2011	Projections 2012-15
World										
Savings	21.8	22.1	22.8	24.1	24.3	24.1	21.8	23	23.8	25.1
Investment	22.1	22.1	22.5	23.2	23.7	23.8	21.6	22.6	23.3	24.6
Advanced Economies										
Savings	21	20	20.2	20.9	20.8	19.6	17.1	18.1	18.9	19.7
Investment	21.3	20.7	21.2	21.6	21.6	20.9	17.8	18.4	19	20.1
Net lending	-0.3	-0.7	-1	-0.7	-0.8	-1.3	-0.7	-0.3	-0.1	-0.4
United States										
Savings	17	14.5	15.1	16.2	14.3	12.4	10.9	12.4	13.8	15.5
Investment	19.6	19.7	20.3	20.5	19.6	18	14.8	15.9	16.5	18.5
Net lending	-2.6	-5.2	-5.2	-4.3	-5.3	-5.6	-3.9	-3.5	-2.7	-3
Euro Area										
Savings	21.3	21.9	21.6	22.6	23.4	22	19	19.6	19.9	20.1
Investment	20.8	20.4	20.8	21.7	22.3	21.9	18.9	18.8	18.9	19.4
Net lending	0.5	1.5	0.8	0.9	1.1	0.1	0.1	0.8	1	0.7
Germany										
Savings	20	22.9	23.2	25.7	28.8	28.4	23.3	24.9	24.5	23
Investment	20.2	17.1	16.9	17.6	18.3	18.5	16.5	17	17	17.2
Net lending	-0.2	5.8	6.3	8.1	10.5	9.9	6.8	7.9	7.5	5.8
France										
Savings	21	20	19.8	20.6	21.2	20.1	17.1	17.8	18.4	18.8
Investment	18.9	19.5	20.3	21.1	22.2	22	19	19.6	20.1	20.6
Net lending	2.1	0.5	-0.5	-0.5	-1	-1.9	-1.9	-1.8	-1.7	-1.8
Italy										
Savings	20.9	19.9	19	19	19.4	17.7	15.7	16.4	17.1	17.9
Investment	20.2	20.8	20.7	21.6	21.9	21.1	18.9	19.3	19.8	20.4
Net lending	0.7	-0.9	-1.7	-2.6	-2.5	-3.4	-3.2	-2.9	-2.7	-2.5
NIA Economies										
Savings	32.2	32.9	31.6	31.9	32.5	32.7	32.2	33.6	33.5	32.9
Investment	28.1	26.7	26.1	26.4	26.1	27.8	23.6	26.5	26.6	26.9
Net Lending	4.1	6.2	5.5	5.5	6.4	4.9	8.6	7.1	6.9	6
Emerging Economies										
Savings	25	29.6	31.1	33	33.3	33.8	32.1	32.5	32.9	33.8
Investment	25	27.3	26.9	27.9	29.2	30.3	30.1	31	31.5	32
Net Lending	0	2.3	4.2	5.1	4.1	3.5	2	1.5	1.4	1.8

Note: Data are not directly comparable due to the different regional and country aggregation.

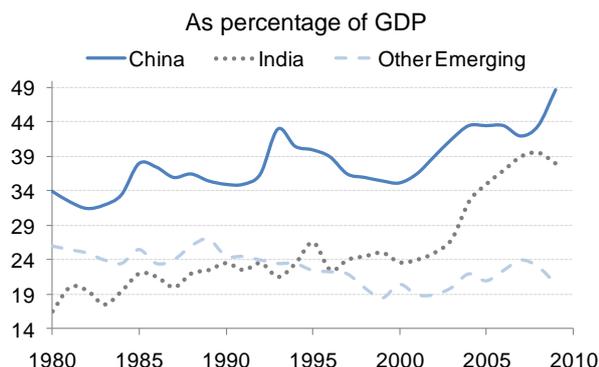
Source: IMF (2010).

The projected increase in global investment demand will put upward pressure on real interest rates

In the coming years, however, the annual investment rate in real terms has been estimated to rise from 22.4% of global GDP in 2008 to 25.1% in 2030 (Figure 9) as emerging markets continue to grow and urbanise and advanced economies recover to pre-crisis levels. Almost all of the projected increase in global investment demand reflects the increasing weight of China and India in the global economy. If current investment rates were maintained (and assuming no change in exchange rates over the period), these two countries' increased

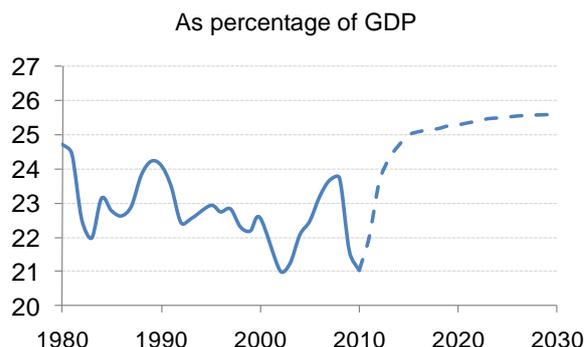
share in global GDP alone would cause the global investment rate to rise to about 24.5% by 2030. In this potential scenario, given the scarcity of long-term financing, if in advanced countries saving do not increase enough, the competition for capital will be intense. The coming investment boom will put sustained upward pressure on real interest rates, leading to a rebalancing of savings at the global level and widening the current account imbalances of recent years (Figure 10).

Figure 8. Investment rate in emerging economies



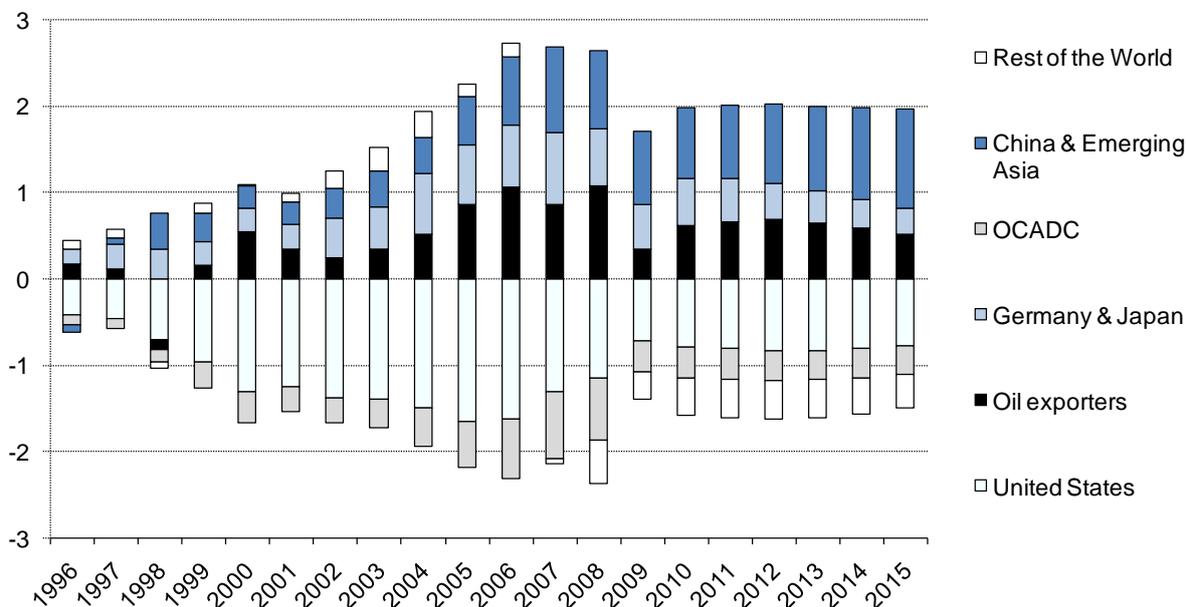
Source: CEIC; Haver Analytics; McKinsey Global Economic Growth Database; World Development Indicators of the World Bank; McKinsey Global Institute (2010).

Figure 9. Worldwide investment rate forecasts



Source: IMF (2011). Economic Intelligence Unit; - McKinsey Global Economic Growth database; Oxford Economics; MGI Capital Supply & Demand Model; World's Bank Development Indicators; McKinsey Global Institute

Figure 10. The evolution of global imbalances



Note: China & Emerging Asia: China, Hong Kong SAR, Indonesia, South Korea, Malaysia, Philippines, Singapore, Taiwan Province of China, and Thailand; OCADC: Bulgaria, Croatia, Czech Republic, Estonia, Greece, Hungary, Ireland, Latvia, Lithuania, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Turkey, and United Kingdom.

Source: IMF (2010).

Global imbalances can become a mechanism for more efficient capital allocation

As stressed by De Mello and Padoan (2010), widening global imbalances are not necessarily undesirable because they represent a general mechanism through which a more efficient capital allocation can be achieved. In particular, since fiscal consolidation is needed to facilitate a current account reversal, the massive reduction in the supply of government bonds (especially in advanced countries) can lead to a rebalancing of capital flows towards corporate bonds and equity investment.

III. Towards a decline of the dollar and a rise of the euro?

The crisis, in the long run, may weaken the dollar, opening up new opportunities

The prevailing consensus is that the 2007/2008 financial crisis will weaken the dollar and open up new opportunities in the global monetary arena. At first, the crisis seemed to strengthen the dollar. Investors, when shaken by turmoil, largely sought refuge in the US government securities market: the most liquid in the world and, in recent times of tremor, widely considered the place to safeguard savings. There was, at first, no real loss of confidence in the dollar's stability.

In the short run, the crisis has enhanced the role of the dollar

As regards central bank reserves, IMF data show that 64% of the world's reserves are in dollars and that this figure has continually risen over the last two years⁷. Thus, while it is true that during the crisis American investors shifted their assets from deposits and bank securities to government securities, before gradually shifting back, this does not appear to be the case for the world's central banks; they have regularly accumulated dollar-denominated reserves at a faster pace than during the period preceding the crisis, thereby financing the US deficit. It still makes sense to maintain reserves in the same currency as that of foreign debt and foreign trade⁸. Such funds are used to lighten the debt, ease trade flow and intervene in foreign currency markets.

But the strengthening of the dollar could be a short-term phenomenon

However, the strengthening of the dollar could be a short-term phenomenon. It might be argued that the vast amount of securities issued by the US financial market began to erode confidence in the dollar and US government securities. Over the next few years, the United States will be forced to issue large quantities of debt, in part to finance the imposing bailout and stimulus packages approved in 2008-2009. With an evident deceleration in financial globalisation, this could create significant problems for the United States in financing its budget and trade deficits.

A gradual reduction of the dollar's predominance in reserves and international trade is likely

It is likely that this will lead to a gradual reduction of the dollar's predominance in reserves and international trade. Rapidly growing emerging economies in the midst of increasing global multi-polarism will tend to increase foreign exchange reserves and should consider alternatives⁹. The euro and Europe are the most natural beneficiaries of this diversification process. In 2008, 45% of international securities were issued in dollar, compared with 32% denominated in euro.¹⁰ According to the Bank for International Settlements (BIS, 2007), in 2007, 86% of all international transactions were carried out in dollar, compared with 38% in euro.¹¹ In April 2008, according to the IMF, 66 countries used the dollar as the reference currency for their exports, compared with 27 that used the euro.¹²

Central banks tend to prefer currencies that do not devalue due to inflation; but even more, they choose currencies that can be easily monetised for use in open market operations. This latter characteristic depends on the liquidity and depth of the market for government securities issued in that currency.¹³ The US securities market is still the largest government securities market in the world: almost two-thirds of the reserves of central banks are dollar denominated, while sterling and the Swiss franc only account for 2% and 1%, respectively.

The only alternative to the dollar in the near future is the euro

EU political reaction to the Greek crisis was strong; if successful it could increase the long-term expectations of the euro as a stable global currency

Therefore, the only alternative to the dollar in the near future is the euro. The European Union's GDP exceeds that of the United States. It has a stringent and effective inflation target. The monetary policy of the ECB and the Stability and Growth Pact (SGP) contributed to the stability of public finances before the recent financial crisis, and to mitigate the crisis' effects, after 2008. With the outburst of the Greek crisis, the SGP has been extensively tightened and the European Financial Stability Facility (EFSF) has been put into place. The political reaction of the EU to the European Sovereign Bond market crisis, was strong and on time, and if successful (and we trust it will be successful) may increase even more the long-term expectations of the euro as a stable global currency. The importance of the euro as a reserve currency is bound to increase, especially in the countries that border continental Europe, such as the Mediterranean-basin countries and Russia. As euro-denominated trade increases, the euro reserves of the central banks in neighbouring countries will also grow. Between 2008 and 2009, for example, the euro reserves of the central bank of Russia increased from 42% to 47% of the total, while its dollar reserves fell from 47% to 41%.¹⁴

Diversification of China's reserves would have an even greater impact

A much greater impact would result from strong diversification in China's reserves. It is estimated that 60% of the official reserves of the Chinese central bank are currently in dollars. A sudden change of portfolio allocation will cause the price of American securities to collapse, with a negative impact on both the United States and China as well, whose reserves would be devalued. Therefore, it is likely that the Chinese will adopt a strategy of gradual diversification that will require several decades to complete. Gradually, this - given the volumes involved - is a major change that could impact notably in the short-to-medium term.¹⁵

A single European sovereign-bond market could finance infrastructure and development

Clearly, the creation of a single European sovereign bond market¹⁶ will pose serious competition for the US market,¹⁷ with an increasingly ample room for financing European infrastructure and development with European debt.

The market for US federal government securities is around USD 2 500 billion.¹⁸ An equivalent amount of European sovereign debt would be around 13.5% of the European Union's GDP.¹⁹ This is a relatively modest portion of the EU-27 member states' total public debt, which is equal to 79% of Europe's GDP in 2009 and 84% in 2010;²⁰ a modest portion, but sufficient however to finance truly significant strategic investments.

IV. Financing long-term investments to foster stability, fiscal consolidation and sustainable growth: the need for a better regulation

After Pittsburgh, the focus has shifted from growth to financial and fiscal stability

After the Pittsburgh G-20 call for a strong, balanced and sustainable growth, the focus of the global community seems to have shifted mostly on financial and fiscal stability. Since high public debt and financial instability are considered the main drivers of the crisis, they have become the main guiding lines of action for regulators and policy makers in the aftermath of the crisis. There is general consensus that financial and fiscal stability represent central pillars of a healthy and well-functioning economic system.

Financial and fiscal stability are pre-conditions for growth

The correlation between financial and fiscal stability is self-evident: the Irish and the Portuguese crisis are excellent examples of it. Both financial and fiscal stability are pre-conditions of durable and healthy growth; they are strictly related to the expectations of economic agents and to the planning of economic activity. A well-balanced fiscal and financial environment increases opportunities for economic growth.

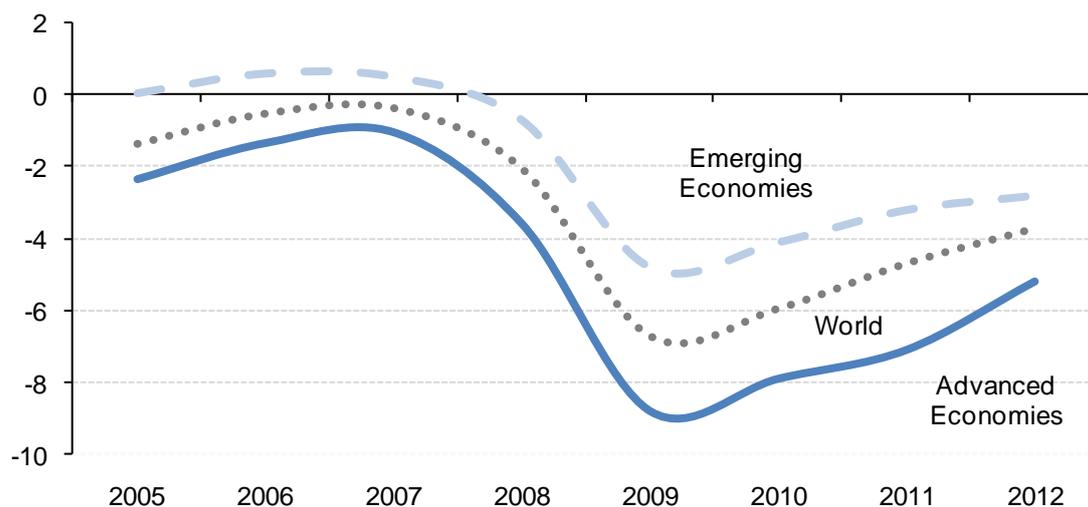
But growth and stability are interrelated

But there is also evidence that this correlation is – in fact – a bidirectional one. Durable and sustainable growth requires financial stability and long-term fiscal consolidation; but financial stability and fiscal consolidation both require durable and sustainable growth.

The crisis had a huge impact on advanced countries' public finances

As it is well-known, the financial crisis had a significant impact on the public finance of most advanced countries throughout the world.²¹ Considering the 33 advanced economies,²² in 2009 the budget deficit averaged about 9% of GDP, up from only 1% in 2007 (Figure 11).

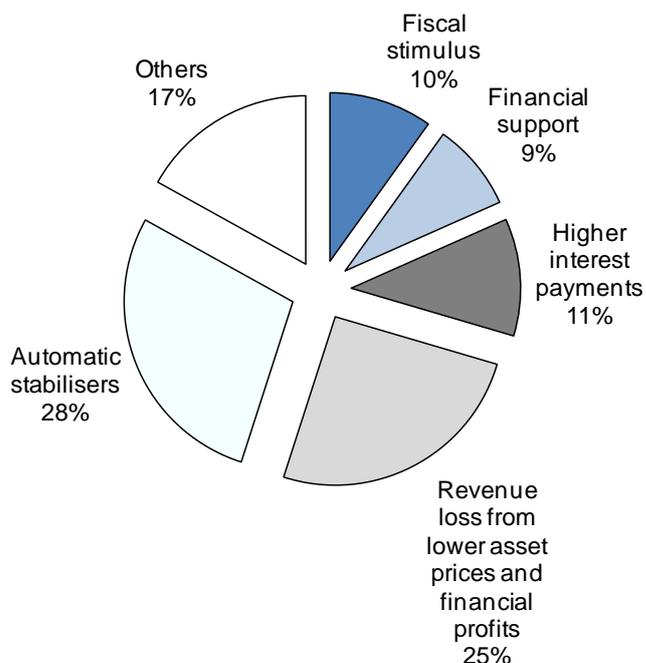
Figure 11. Deterioration of fiscal balance
As percentage of GDP



Source: IMF (2010),

The public debt-to-GDP ratio of the G-7 countries soared to post-war levels. For the “advanced economies” within the G-20, this ratio peaked at 102.7% in 2010, while the public debt of the emerging countries remains broadly stable at much lower levels (36.9% in 2010, see Figures 12 and 13).

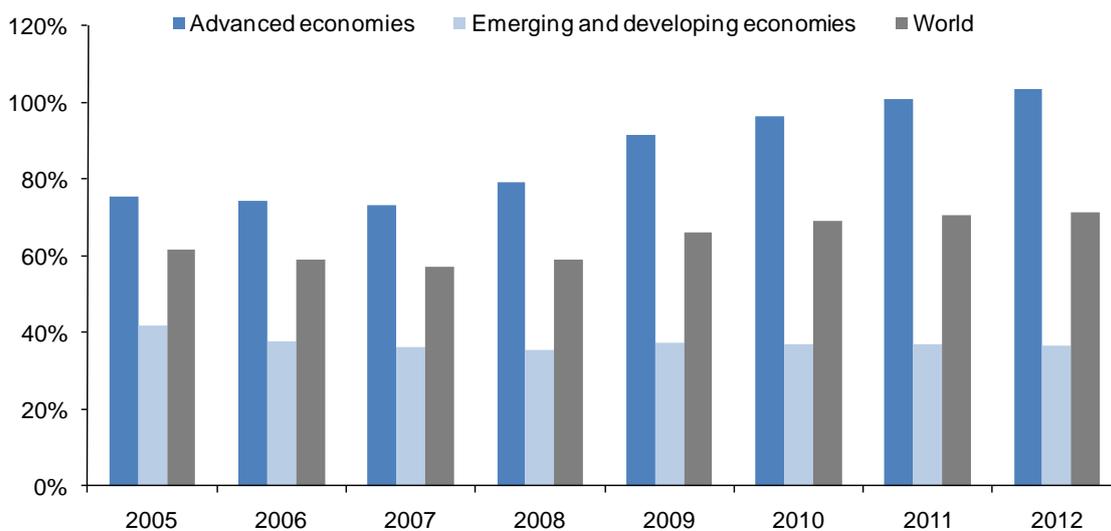
Figure 12. Government debt increase, 2007–14



Note: Debt increase: 35.5% of total GDP.

Source: Authors' calculations based on IMF (2010) data.

Figure 13. Increase in public debt



Source: IMF (2010).

The best way to reduce public deficits and debt is to increase GDP growth through structural reforms and higher investment in strategic areas

Thus, most advanced economies need to lower their deficit and their debt substantially. Strong inflation could reduce public debt, but we know that high inflation distorts the allocation of resources, reduces the growth rate, penalises the poorest citizens, and creates social and political instability. Major cuts in public spending are necessary, but politically difficult. In the long term, they may seriously jeopardise the government's political consensus. Thus, together with relevant but sustainable cuts in public spending, increasing the average rate of GDP growth is then the most desirable solution to restoring fiscal stability. Reforms to liberalise markets, boost competition and cut regulatory burdens are always necessary, but on their own may not achieve the desired results. Increasing investment is always crucial to fostering economic growth. This is particularly true for investments in strategic sectors able to generate high positive externalities, like infrastructure, research and technological innovation, the environment, alternative energy servicing, and biotechnologies. Investment in these sectors could enhance competitiveness and productivity.

To increase long-term investment, mature economies need to attract more private capital to replace declining public capital

However, the sudden strong increases in public debt and deficit levels imply that, today, government spending cannot provide the desired level of investment. Consequently, high-public-debt countries will not be able to finance such investment mainly with their own budget resources, as high-growth, low-public-debt countries (such as China, Korea, Russia, Brazil, Australia) can do (and decided to do). Thus, mature economies need to attract an increasing amount of private capital to offset the decline in public capital, to increase their share of long-term investments to exit the crisis, to reinforce their growth rates and competitiveness in global markets and to ensure public debt sustainability.

Developing countries, too, need to increase strategic investments

But the developing economies, too, need to increase their investment in strategic sectors; for instance, rapid urbanisation, climate change and the increase in consumption and economic growth are requiring vast investment in infrastructure (transportation, urbanisation, telecommunications, energy, water supply).

Increasing demand for financing may lead to an infrastructure "equity (and debt?) crunch"

In fact, as we have already discussed above, in the coming years the demand for both equity and debt for financing infrastructure is going to increase. The private equity industry for infrastructure, after a sudden decline during 2008, is rising up again. Both "brownfield" and "greenfield" initiatives can be attractive asset classes for large investors. But the demand for financing (especially in equity) is still larger than the supply, leaving open the question whether we will have to face in the future an infrastructure "equity (and debt?) crunch".

Need to enlarge the worldwide share of financing for long-term capital investment at the expense of short-termism and speculation

Thus, all countries should aim to increase their level of long-term investment and participate in a fair competition on global financial markets to attract private and public-private resources to finance them. Moreover, 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. We need to favour the match of long-term savings and long-term capital investment. New regulatory frameworks, friendlier to long-term investment, should be adopted on every level – national, regional and global.

Policy makers and regulators should create a framework that encourages long-term investment

Policy makers and international regulators around the world should work not only to ensure financial stability, prevent global crises and “level the playing field” to allow for fair global competition in the markets of global savings, but they should also work on creating a prudential and accounting framework that encourages managers of financial institutions to focus more on long-term (rather than on short-term) results, especially on investments with significant positive externalities for growth.

Long-term investment is crucial for the future of world economy

In fact, the issue of long-term investment is crucial for the future of world economy. This type of investment can play a positive role toward financial market stability. Moreover, it is pivotal for a sustainable long-term planning of economic and social systems. It will indeed take a long-term vision to tackle major challenges facing our society: climate change, scarce natural resources, environmental protection, poverty, immigration, and education. A long-term policy framework must be based on strategic public and private/public investments in infrastructure, energy, environment, telecommunications (New Generation Networks), R&D and human capital, which have strong positive externalities for the economy as a whole, and for human well-being and social cohesion.

The regulatory setting is now providing unfavourable incentives for long-term investment

Nevertheless, the overall regulatory setting has often been providing unfavourable incentives to such long-term investment (LTI) and to long-term oriented investors. The Basel rules and capital requirements have promoted short-termism and discouraged long-term banking and financial initiatives. Accounting rules conceived for investment banks and trading activities and appropriate for their business model have often penalised LTI and proved to be inappropriate for long-term investors (such as pension funds, insurance companies, SWFs, and development public banks) and for their unique business models.²³ The IASB mark-to-market philosophy may be particularly damaging for long-term investors, attributing instant market values to assets whose valuations may take years to accurately assess;²⁴ and the Solvency II Directive in Europe, as we will discuss later, discourages insurance companies and pension funds from holding infrastructural assets, not allowing for a proper matching of long-term liabilities with long-term assets on their balance sheets.

V. A new regulatory framework to foster long-term investment

1. The European debate

The debate concerning a new regulatory framework and new instruments to foster long-term investment has grown in Europe

In Europe, the debate concerning the development of a new regulatory framework and new instruments to foster long-term investment (LTI) has grown and developed considerably in recent years. The aim is to reduce the main impediments and improve incentives for strategic investments and/or for long-term investors: financial institutions with a public mandate, but also private investors, including pension funds, insurance companies and sovereign wealth funds (SWFs). The need for a new regulatory framework and new instruments to attract private financial resources (including those of European savers as well as non-EU foreign investors) for EU strategic investments has been widely emphasised. It should be kept in mind, however – as we have

already pointed out – that the crucial issue is not how to attract foreign capital to Europe, but, within a larger vision, how to attract capital for financing strategic long-term investment all over the world.

The Long-Term Investors Club is active in this area

Since the beginning of the crisis the Long-Term Investors (LTI) Club²⁵, on several occasions, has posed these questions to policy makers and international organisations. During 2009, at the Long-Term Investors Club Paris Conference²⁶ and then at the Eurofi Financial Forum held in Goteborg²⁷, the need for a new regulatory framework and for new instruments to foster European long-term investment was first stressed. In 2010, the four founders of the LTI Club (EIB, KfW, CDC and CDP) participated actively in the preparatory works for the Jacques de Larosière's and Mario Monti's Reports and in the Eurofi Financial Forum 2010²⁸ – where the issue was equally stressed. They also organised with the OECD two conferences in Rome and in Venice²⁹ specifically dedicated to the theme of a new regulatory framework more favourable to the LTI. Finally, specific proposals on the matter were compiled by the same four financial institutions in a working paper presented to the EU Commissioner Michel Barnier in September 2010.³⁰

The European Commission also emphasises the need for such a new framework

At the institutional European level, the need of a new regulatory framework, more favourable to LTI, has been strongly emphasised by the European Commission – following the de Larosière and Monti Reports – in the recent Communications on *A New Single Market Act* (EC, 2010d), on *A Comprehensive European international investment policy* (EC, 2010b), and on *The EU Budget Review* (EC, 2010c). In fact, without a substantial increase in investment in infrastructure, energy, environment, innovation and research, and therefore without major changes in prudential, accounting and tax regulations, the objectives set forth in the EU 2020 strategy and in the Monti Report can hardly be achieved. Major investments in the fields of innovation, renewable energy, water networks, telecommunications and transport infrastructures are case required for shifting to a low-carbon economy, coping with the scarcity of natural resources and adapting to rapid urbanisation.

However, even though a broad consensus can be discerned on the need for a new regulatory framework and new instruments more favourable for LTI (among the majority of experts, scholars, bankers and politicians), the international and European regulators seem to be still prisoners of a pro-cyclical and short-termist cultural approach.

2. Basel III and Solvency II: their potential negative impact on long-term investment

In the aftermath of the crisis, regulators and policy makers have been determined to strengthen the financial system

Understandably, in the aftermath of the crisis, regulators and policy makers had to be and have been very determined about strengthening the financial system to avoid the repeat of another crisis. The new regulation aimed at making the banking system safer by addressing many of the flaws that became visible during the crisis. Improvement in the quality and depth of the capital base and a renewed focus on liquidity management are intended to redirect banks' underlying risk-management capabilities. Banks' review of their risk-taking paradigm brings benefits to their business and to consumers,

investors and governments as well. In fact, the economy's main stakeholders can be protected only by a significant increase in capital requirements as proposed by the Basel Committee on Banking Supervision.

But such strong action on stability, we shall argue, should not hinder the capacity of banks (and, even more, of other investors) to serve the economy, especially in the financing of SMEs and of long-term infrastructure investment, which are sectors crucial to future growth and to competitiveness.

Some of the re-regulation might have unintended effects

As Jacques De Larosière recently emphasised, “some of the re-regulation might have unintended effects which need more fine tuning and an extension of the regulated business area”³¹. For European banks and their business model, the new Basel capital and liquidity rules will probably entail reduced profits and increased competition for deposits in the medium term. In this case, the consequent rise in costs would probably be offset by a mix of higher productivity and the transfer of costs to clients. Under the pressure of higher competition, certain banks might be encouraged to operate in a way that is more profitable but at the same time riskier.

The new regulation penalises the European banking system more than the American one

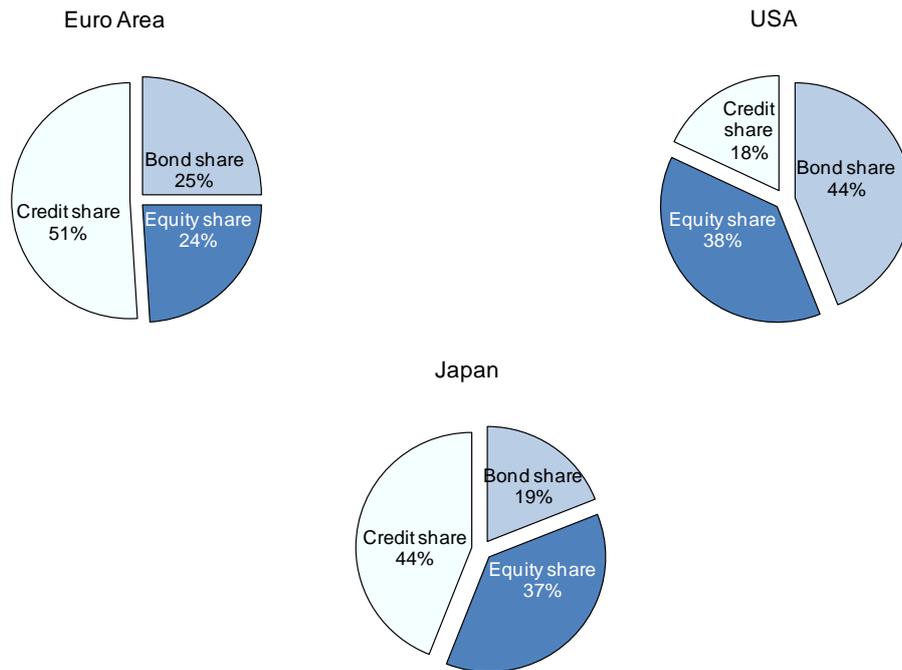
“Given the difference between the continental European and the American financial and banking systems, the new regulation penalises the European system more. Indeed, the crisis has shown that the two main banking systems reacted differently. The Anglo-Saxon “originate and distribute” model developed considerable trading activities and (mostly non-supervised) off-balance sheet vehicles with profitable but risky and opaque products. Banks with this model were heavily hit by the subprime crisis, leading to massive state and central bank interventions designed to avoid contagion. By contrast, continental Europe's universal banks were more diversified, with retail and corporate lending operations, fund management and other activities mainly concentrated on a client base. Such lenders were mostly concerned about the ability of borrowers to repay their obligations; their strong deposit bases conferred stability to the system as a whole. This second model almost survived without public bail-outs. European banks that did require assistance had mostly adopted the aforementioned riskier “investment bank” practices or had imprudently bought toxic products. The risk entailed by the new rules is that these stable institutions, if required to increase their return on investment, will reduce activities that have modest margins such as lending to small and medium-sized enterprises to favour the more profitable parts of their portfolios. Or, alternatively, the rules could translate into higher credit costs, with negative effects on the real economy and on the soundness of the financial system.”³²

These negative effects will be more significant in Europe than in the US

These negative effects will be more significant in Europe where the economy is mostly financed by the banking system (Figure 14). In the US only about one fifth of overall financing to the economy comes directly from the banking system: it affects especially the SMEs, mostly financed by regional banks and community banks which do not comply with Basel criteria. Consequently most of the restrictive effects on the capacity of banks to finance long-term, due to Basel III, would affect Europe and not the United States, giving the US an unfair competitive advantage. As Jacques de Larosière effectively concludes, “the cruel irony is that the banking model that most

favours financial stability and economic growth could be the chief victim of the new framework. The model that caused the crisis would, at least in part, be left in place. We would see an enforced search for a maximum return on assets – one of the biggest problems in the years before the crisis, when immediate profitability was too often deemed more important than sound analysis and risk prevention.”³³

Figure 14. Relative shares of credit, equity and bond finance



Source: ECB (2011).

Solvency II will present a huge capital burden for the EU insurance sector, discouraging long-term investments

As for insurance companies, starting from 2012, the European Directive Solvency II will introduce a new regulatory capital regime and modify the principles of risk assessment for the management of assets and liabilities in the EU insurance (and asset management) sector. The first pillar of Solvency II is the quantitative component of the new regulations. It deals with the capital requirements for insurers wishing to provide coverage in the EU markets. Solvency II contains two levels of capital requirements: (1) the Solvency Capital Requirement (SCR); and (2) the Minimum Capital Requirement (MCR). The SCR is a target level of capital, while the MCR is a minimum threshold, below which companies will no longer be permitted to trade. If the available capital lies between the SCR and MCR, it provides an early indicator to the supervisor and insurance company that action needs to be taken.

Modelled after the Basel regulations, Solvency II will present a huge capital burden for the industry. Implementation costs are a major additional expense in an environment where insurers are already struggling to maintain

profitability during an inopportune time in the underwriting cycle. In addition, there is an attempt to extend Solvency II regulation to the pension funds industry. Historically, investors in PPP and Infrastructure bonds have been institutions with long-term liabilities against which they needed to have assets to match long-term cash flows. The key players have been pension funds and life insurance companies (both of these invested directly in infrastructure as an *asset class*) as well as fund management companies, whose clients are also pension funds and life insurance companies.

Life insurances and pension funds tend to invest with a long-term horizon

Life insurances and pension funds are characterised by long-term and very long-term liabilities. Accordingly, they tend to invest with a long-term horizon, and their asset allocation includes instruments whose value is expected to increase in the long run. Their asset allocation process differs from that of a generic asset manager since, for these institutions, liabilities matter and, consequently, hedging instruments for the liabilities enhance investor's utility. Moreover, for a long-term investor the concept of risk diversification contemplates the time diversification in addition to the cross-assets diversification. For most of their activities, insurance companies and pension funds have long-term or even very long-term liabilities that in turn justify long-term allocation. Life insurers are estimated to have USD 11 trillion of assets under management. But due to their liability profile, their low risk appetite and their decision making structure, the estimated allocation to illiquid investments is equal only to 4%. Therefore, assessing life insurers' solvency based on short-term valuations is not only incompatible with their need to invest in assets that, while risky, yield very positive long-term returns, on average; this approach also means that any genuine asset-liability management is an illusion, even though the regulators actually hope to promote ALM systems.³⁴

Pension funds, unlike banks, do not face short-term solvency concerns; short-term constraints are for them costly and mostly irrelevant

Short-term constraints on pension funds have been criticised not only for being prohibitively costly, but also for being mostly irrelevant for long-term investors not facing short-term solvency concerns. This stands in contrast to banks, where the risk of runs by the clients justifies the short-term focus. Because banking institutions borrow short and lend long, transforming savings into longer-term investments, they are subject to liquidity risk when clients exercise the implicit put option on their deposits. Pension funds, on the other hand, have the unique ability to behave as very long-term investors, not only because the liabilities they face typically have a very long horizon, but also, and more importantly perhaps, because long-term ties bind employers and employees. After all, pension fund benefits are a by-product of the employment contract, not a competitive financial service, and this prevents the risk of client runs: employees are able to surrender their pension contracts only by breaking their employment contracts, an option that is rarely exercised in a massive collective fashion.

Therefore, the negative impact of Solvency II on Institutional Investors' capital requirements can foster a reduced appetite for buying/investing in long-term financial instruments, thus reducing the potential market scope.

3. Mitigating the impact of Basel III and Solvency II on long-term investment

EU institutions have some power to influence or to directly enact rules in support of long-term investment

It is widely accepted that the European Union has no powers to decide in this matter, since this would require the introduction of exceptions and additions to a set of rules internationally propounded through Basel III, Solvency II and the IAS. But the rules of Basel III must be implemented in Europe by a European Union directive (CRD IV), while Solvency II is itself an European directive. As for the international accounting standards, though they are defined by an independent NGO (the IASB), they can be effective only if they are adopted by the European and national jurisdictions.

So the EU institutions have at least some power to influence, and even to negotiate, with the IASB toward less-punitive regulations for long-term investment (LTI), and to directly enact improved regulation for insurance companies and pension funds through changes to Solvency II. As for Basel III, in principle, the EU is not obliged to transpose the Basel rules mechanically, but could provide for exceptions and integrations, as the US did for Basel I and II. However, strong political and practical reasons suggest not reopening the Pandora's box of Basel III. Nevertheless, there may be some margin in the implementation criteria for the Basel principles specifically aimed at the quality of LTI, in order to arrive at more targeted prudential regulation (*i.e.* taking into consideration the strategic nature of the investment, implicit government support, strength of collateral guarantees, etc.). On the other hand, the EU should prevent the improper extension of Basel III regulations beyond the banking (and the shadow-banking³⁵) sector.

An improper extension of Basel III rules beyond the banking sector should be avoided

Stricto jure, the rules of Basel III apply to banks, but do not apply to long-term investors such as insurance companies, pension funds, SWFs and, in general, to development banks like EIB, CDC, CDP and KfW. However, Basel rules inspire Solvency rules and regulation regarding other long-term players; on the other hand, *de facto* and *by default*, the same rules (or very similar ones) are frequently applied by the markets (for instance, rating agencies) to these investors, dramatically reducing their capacity to finance long-term investment. A solution can perhaps be found in the framework of the new mission statement provided by the Seoul G20 Summit to the Financial Stability Board, proposing the extension of the Basel rules to other parties (shadow banks). An integrative protocol to Basel III, or another international document, could be envisaged, which could -- without changing the Basel III rules in regard to banks -- integrate and refine the regulations with respect to long-term investors.

An integrative protocol to Basel III could establish special rules suitable for the business models of long-term investors

This protocol should establish, above all, which of the Basel-like rules are relevant for the different categories of long-term investors, and which are instead special rules and exceptions aimed at the specific mission and business model of these institutions. Constraints placed on long-term investment (LTI) should be carefully evaluated within specific contexts. For instance, a defined-benefit pension fund is characterised by long-term and very long-term liabilities and tends to invest with a long-term horizon; its asset allocation basket includes items that are perceived as "rich" in the long run. When long-term liability replication is problematic and a good proxy-portfolio consists of risky assets that perform their balancing role only in the long run, the

immunisation of the balance sheet to very short-term changes in the risk factors is inefficient. This is why short-term constraints on pension funds are mostly irrelevant for long-term investors not facing short-term solvency concerns. By the same token, the usefulness of attributing spot-market valuations to assets whose valuation is inherently a long-term undertaking is questionable.³⁶

Reinforcing counter-cyclicality and lower capital charges on long-term liabilities

Therefore, in order to limit the negative consequences of prudential reform on the capacity of insurance companies to finance economic activity, two types of actions could be envisaged: (i) reinforcing the countercyclical character of measures proposed in Solvency II; (ii) extending the principle of a reduced charge rate to contracts with very-long-term liabilities, such as retirement contracts.

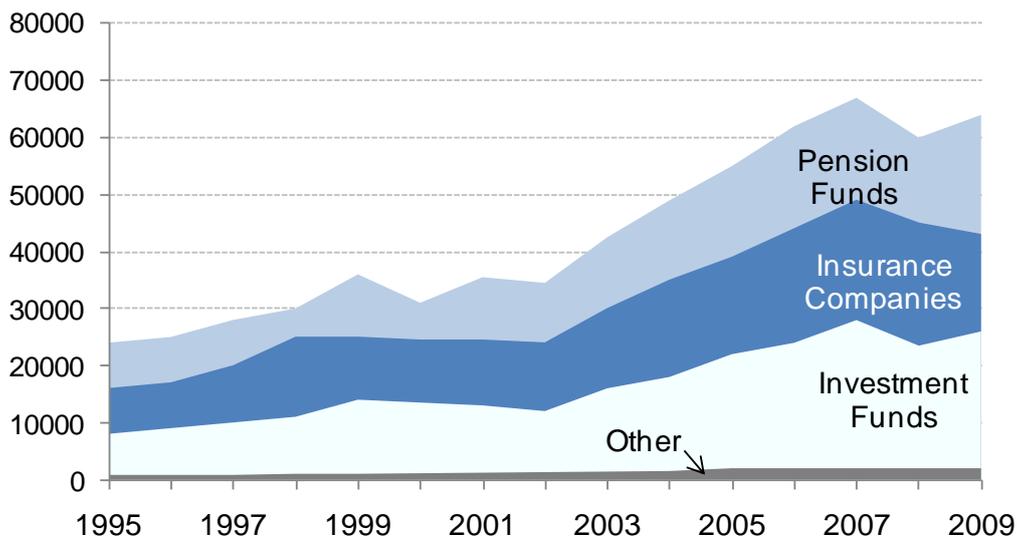
Moreover, in this context we want to emphasise the importance of looking at long-term institutional investors for what they are: *i.e.* long-term risk takers and long-term asset holders. If enough investors with a long-term horizon were active in the financial market place, they could act – as they once did – as shock absorbers (*i.e.* increasing liquidity and reducing volatility by buying into depressed markets).

Long-term investors are shock absorbers and growth engines with significant weight

Even more importantly, long-term investors could become a powerful financial engine for achieving strong, balanced and sustainable global growth. Long-term institutional investors are in fact potential investors in the financial instruments envisioned for project financing. With assets estimated at USD 50-60 trillion (USD 30 trillion, excluding investment funds, but including pension funds, insurance companies, SWFs, endowments funds and development banks), long-term institutional investors are potentially huge players in financing growth-stimulating investments (Figure 15).³⁷

Figure 15. Assets Held by Institutional Investors

In USD billion, 1995-2009



Source: OECD Institutional Investors Database.

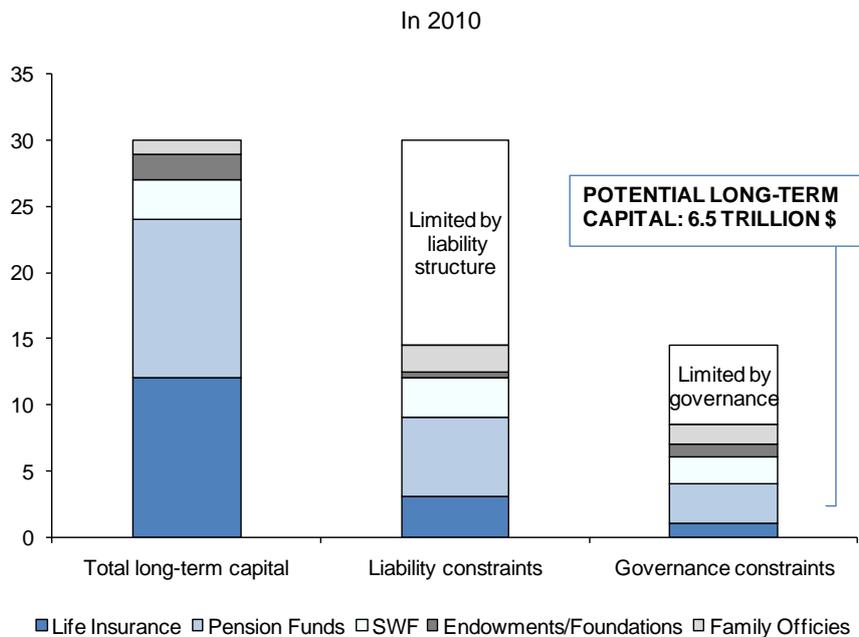
Today on average institutional investors allocate around 2%-5% of their resources to infrastructure, as an asset class. Potentially their balance sheets could have room for over USD 6.5 trillion in long-term assets (and over USD 12 trillion if investment funds are included), much of which could be placed in the equity or bonds issued for infrastructure projects (Figure 16).³⁸

4. The international accounting standards

Accounting rules should be revised to increase the potential of long-term investors

Within this context, accounting rules should also be partially revised to increase long-term investors' potential and to better represent the long-term nature of their investments.³⁹ Current accounting standards present two conceptual difficulties: in the IAS Board's philosophy, a company's assets and liabilities must be valued – in general – separately and independently; second, in many cases this valuation must be based on current values (marked to market).⁴⁰

Figure 16. Long-term investors' constraints



Note: Investment funds not included.

Source: World Economic Forum (2010).

The current valuation approach contains major pitfalls for financial communication to investors, supervisors and other stakeholders

This specific valuation approach (IAS 19 and IAS 39 for instance) is particularly damaging for LTIs. Indeed, it consists in attributing instant market values to assets whose valuation should, by their character, be based on several years. By doing so, market volatility is immediately transferred to investors' balance sheets and profit-and-loss accounts. Moreover, the current accounting reporting system prevents to check the quality of the fit between assets and liabilities. For instance, it is questionable whether short-term fluctuations in interest rates and asset prices should immediately be recognised since pensions have long-term commitments.

These two difficulties represent major pitfalls in financial communication for the investor and supervisory authorities, as well as for customers, intermediaries, shareholders, etc. The accounting rules set up for trading activities do not take into account the differences in the business models of financial institutions. This short-term horizon would strongly constrain the capacity of these types of long-term investors to hold stocks and other types of long-term infrastructure based assets.

Accounting rules fit for long-term investors may contribute to financial market stability

There is a need to (i) introduce accounting criteria that reflect long-term investors specific business model; (ii) distinguish between different temporal durations/matching liabilities and investments; and (iii) take into account the valuation of future cash flows over the long term. Appropriate accounting rules for long-term investors would also make a substantial contribution towards stabilising global financial markets and reducing short-term volatility.

Prudential treatment of financial assets that prioritises mark-to-market valuation is also hampering long-term investment. The mark to market accounting rules applied to typical long-term investors do not incorporate in their ALM distinctions between short-term and long-term investments. Therefore, a change to the prudential principles would be recommended. Due to the mark-to-market rule, the contingencies affecting the short-term valuation of these investments are immediately reflected in investors' financial statements – through higher earnings volatility and additional solvency requirements – although the actual time horizon for these investments far exceeds the reporting period.

5. Fiscal incentives

Further reforms should include tax incentives, project financing and corporate governance

A friendlier regulatory framework, which should be adopted at national, regional and global levels, should involve not only accounting standards and prudential principles, but also tax incentives, better (sectoral) regulatory mechanisms for project-financing initiatives, and corporate governance systems designed to stimulate long-term (rather than short-term) investment overall.

Fiscal disadvantages to long-term investment include tax systems that favour debt financing over equity

From a fiscal policy point of view, in many European countries strategic long-term investments (LTIs) are disadvantaged compared to short-term investments. These discriminatory tax disincentives should be abolished. For instance, most tax systems favour debt finance over equity, since interest paid on debt is deductible against corporate profits, while dividends are taxed. As a result, the after-tax cost of debt financing is lower relative to equity financing. Although equity financing allows corporations more flexibility in undertaking fixed investments (since it does not impose strict repayment conditions), the more-favourable tax treatment of debt may lead to less effective capital structures and encourage excessive indebtedness. Neutrality in financing choices should not necessarily be achieved by removing the deductibility of interest payments, but by granting equivalent advantages to equity financing.

“Ad hoc” incentives for financial firms

Considering the important positive externalities of the strategic long-term investments, we could envision “ad hoc” incentives for financial products and

to invest long-term should be introduced

firms to fund long-term initiatives of general benefit, similar to the fiscal incentives granted for US Project Bonds (through the US administration's stimulus plan) and the incentives awarded to the renewable energy projects by many European tax systems.⁴¹ Following the same logic, higher tax rates are often levied on short-term real estate transactions (buying and selling within three to five years), due to the speculative nature of the transaction.

Tax incentives could replace some direct public investment and may be self-financing

Tax incentives may become part of governments' contribution to long-term investment. In the case of investments now requiring public grants to be attractive, tax incentives may replace the lack of direct public financial resources. As a result, tax incentives can have a powerful positive effect to attract capital flows on these long-term investment vehicles and, in the long run, might also recoup its "public" cost by extending the tax base on capital investment itself.

6. Public Private Partnerships (PPPs)

PPPs can provide effective ways to actualise infrastructure projects

As outlined by the European Commission, Public Private Partnerships (PPPs) can provide effective ways to actualise infrastructure projects, to provide public services and to innovate more widely in the context of these recovery efforts. At the same time, PPPs are interesting vehicles for the long-term development of infrastructures and services, bringing together distinct advantages of private and public sectors.⁴² In addition, at the EU level, PPPs can offer extra leverage for key projects that achieve shared policy objectives, such as: combating climate change; promoting alternative energy sources as well as energy and resource efficiency; supporting sustainable transport; ensuring high-quality, affordable health care and accomplishing major research projects such as the Joint Technology Initiatives. Finally, PPPs offer the capacity to leverage private funds by pooling them with public resources.

A good and stable framework is required to attract private and foreign investment

As many OECD Reports have shown, private and foreign investment in PFs and in PPPs also requires (i) a good and stable political and legal framework, with reasonable regulatory and bureaucratic costs; (ii) an efficient and technically skilled public administration and government services; and (iii) a reliable judicial system. In many countries, better regulation is the first requirement toward attracting private and private/public foreign investment.

At the EU level, a common framework of principles and rules for improving regulation could be very important in reducing regulatory and non-financial risks. We all know that regulatory risk is a very large part of the cost of financing and the feasibility of large project financing initiatives. We also know that regulatory rules are nationally determined and so harmonisation in this area is very difficult as it involves legal systems that differ greatly. However, sharing best practices is a good first step towards a more harmonised framework.

Best practices should evolve into guidelines and manuals to be

In regard specifically to PPPs, new rules, incentives and common "best practices" should be introduced at the EU level as well as at the member States' level, in order to improve the efficiency of these instruments. Gradually, these "best practices" should evolve into guidelines and manuals to

jointly utilised at the EU level

be jointly utilised by all Member States. Regardless, it will be important to ensure that the applicable rules are appropriate and supportive while fully respecting the principles of the Internal Market.

Proposal to create a supportive European framework for PPPs

In this context, the new Commission Communication of 19th November 2009 (EC, 2009b) aims at creating a supportive European framework for PPPs that is designed to address the needs of citizens and the EU Community goals. According to the European Commission, a PPP group could invite relevant stakeholders to discuss their concerns and further ideas with regard to PPPs. Where appropriate, the Commission will issue guidance assisting Member States in reducing the administrative burden and delays in the implementation of PPPs. In this context, it will explore ways to facilitate and to speed up the attribution of planning permits for PPP projects. It will be important to work with the EIB with a view to increasing the funding available for PPPs, by re-focussing existing Community instruments and by developing financial instruments for PPPs in the key policy areas. Moreover, it will be necessary to review the relevant rules and practices in order to ensure that there is no discrimination in the allocation of public funds, where Community funding is involved, depending on whether the management is private or public.

According to the conclusions of the European debate at the Eurofi 2010 meeting, it is desirable to put in place, at the European level, certain practices. These include a standardised approach for the assessment and the distribution (including its formalisation) of a PPP's risks between the public authorities and private partners, in addition to a standardised mechanism for reporting on PPP performance. Such practices would make possible to establish a common language with a view to accelerating the establishment of such partnerships from both an industrial and financial perspective, helping at the same time the financial attractiveness of such investments.

7. Corporate governance

“Shareholder value” model is partly responsible for short-termism

The corporate governance model of the so-called “shareholder value” is partly responsible for the short-termism that recently characterised global capitalism. Such a model places the maximisation of shares value at the centre stage, taking precedence over the industrial or social value of the firm. The management is contractually linked only to the shareholders and not to the workers, or to the stakeholders or, more generally, to the industrial future of the firm. The managers of the firm are “winners” if they maximise the value of the shares, usually directly related to generous bonuses and stock options.

Principles on compensation in the financial sector should be adopted swiftly

This mechanism has created strong incentives to maximise short-term rather than long-term value, and this is compounded by the unintended short-term bias inherent in prudential and accounting regulations, as illustrated above. In this respect, the FSB has developed principles for compensation in the financial sector which we hope will be adopted swiftly by all jurisdictions as mandated also by the G20.⁴³

Proposal to improve the corporate

The Commission has issued a Green Paper launching a public consultation on possible ways forward to improve the corporate governance

governance framework in Europe

framework in Europe (EC 2010a, 2011). In the Green Paper, the issue of short *versus* long-term is addressed: “a focus on short-term performance criteria may have a negative influence on long-term sustainability of the company [...] Shareholder engagement is generally understood as actively monitoring companies, engaging in a dialogue with the company’s board, and using shareholder rights, including voting and cooperation with other shareholders, if need be to improve the governance of the investee company in the interests of long-term value creation. Although engagement on the part of short-term investors may have a positive effect, it is generally understood as an activity which improves long-term returns to shareholders. Therefore, the Commission believes that it is primarily long-term investors who have an interest in engagement (investors with long-term obligations towards their beneficiaries, such as pension funds, life insurance companies, state pension reserve funds and sovereign wealth funds).” (EC, 2011, pp. 21-22.)

Investment horizons have shortened, producing increased volatility and lack of “ownership” of listed companies

Over the past two decades, investment horizons have shortened considerably. Turnover on the major equity exchanges is now running at 150% per year of aggregate market capitalisation, which implies an average holding period of eight months. At the same time, the intermediation of investments has increased, amplifying the importance of the agency relationship between long-term investors and their asset managers. It has been argued that the agency relationship actually contributes to short-termism on the market, which may also cause mispricing, herd behaviour, increased volatility and lack of “ownership” in listed companies. Some investors have also complained of a “regulatory bias” towards short-termism, which hinders long-term investors, in particular, from adopting longer investment strategies.

Solvency and accounting rules have had unintended consequences

During the Commission’s preliminary consultations with stakeholders it was noted that solvency and pension fund accounting rules, which were intended to promote greater transparency and more effective market valuation, have had unintended consequences.

The Commission recognises investors are free to choose a short-term-oriented investment model without engagement. However, the agency relationship between institutional investors (asset owners) and their managers contributes to capital markets’ increasing short-termism and to mispricing. This issue is particularly relevant as regards the inactivity of long-term-oriented shareholders.

Certain incentives in asset management contracts may contribute significantly to short-termism

It appears that methods for evaluating asset managers’ performance, as well as the incentive structure for fees and commissions, encourage asset managers to seek short-term results. There is evidence (confirmed in the Commission’s dialogue with institutional investors) that many asset managers are selected, evaluated and compensated based on short-term, relative performance. Performance evaluation on a relative basis, *i.e.* the extent to which they outperform or underperform a specific market index, can encourage herd behaviour and a short-term focus, particularly if short intervals are used to measure performance.

The Commission believes that short-term incentives in asset management contracts may contribute significantly to asset managers' short-termism, which probably has an impact on shareholder apathy.

VI. New European financial instruments for long-term investment

Strategic investments as well as innovation projects are a EU priority

The financial crisis has had a significant impact on the capacity of European businesses and governments to finance long-term projects of strategic and/or innovative significance, long considered a priority for EU growth – since the Delors white paper *on Growth, Competitiveness, and Employment* (EC, 1993) and the Lisbon Agenda (2000). More recently, the prioritisation of strategic investments has been emphasised by the *Europe 2020 Strategy* (EC, 2010e) and by the Monti Report (Monti, 2010).

As highlighted in these documents, long-term investments are crucial for EU growth, especially in the infrastructure sector, with projects such as the Trans-European Transport Networks (TEN-T), whose importance is also stressed in the Lisbon Treaty (Art. 170-171 TFEU).

Innovative financial instruments at the EU level are needed

In a period of sovereign debt crisis, the key issue for Europe is how to increase investment in medium- and long-term projects that are particularly significant for the region. To support the necessary level of investment, innovative financial instruments are needed at the EU level.

EIB and other public development banks are key to financing long-term investments and designing new financing instruments

The European Investment Bank (EIB) and other public development banks represented in the Marguerite Network (EIB, KfW, CDC and CDP) could play a key role in financing long-term investment and designing new financing instruments, in line with the new EU institutional framework. In fact, Art. 309 TFEU of the Lisbon Treaty defines the task of the European Investment Bank as contributing (through recourse to the capital markets as well as its own resources) to the balanced and steady development of the internal market in the interests of the European Union. For this purpose, the Bank provides loans and guarantees (on a non-profit basis) that facilitate the financing of projects in all sectors of the economy.

New financial instruments will provide an interesting long-term investment opportunity

New architectures must be considered for equity funds, project bonds, debt instruments, and more generally, credit-enhancing initiatives. New vehicles should be created to improve the liquidity of these instruments while maintaining their typical risk-return profile. If successful, these new financial instruments could provide an attractive long-term investment opportunity for institutional investors such as pension funds, insurance companies, SWFs, as well as for households.

1. Effects of the financial crisis on PFIs, PPPs and the “Marguerite” network

Traditional sources of senior debt for infrastructure and

Traditional sources of senior-debt financing for infrastructure and energy projects decreased sharply during the global recession. Only a few emerging sectors, such as strategic investments in renewable energy and environmental

energy projects fell sharply in the global recession

infrastructure, are expected to be an increasingly attractive asset class for banks and capital markets, owing to the strong incentives offered by many governments. In most other sectors, capital markets are providing insufficient debt financing to these sectors, owing to a shortage of transactions backed by monoline insurers and low investor appetite for unguaranteed project bonds.

Obtaining long-term bank credit is still especially challenging

Obtaining long-term bank credit is still especially challenging at present due to liquidity and capital constraints on major banking groups. Syndicated loan volumes are down as are the amounts banks will commit to individual transactions.

More equity capital is required

As financial institutions are increasingly risk-averse and public grants are declining, leveraged financing structures require far more equity capital than in the past. But it is difficult to get major infrastructure projects off the ground without the involvement of private equity capital. Long-term public institutional investors may play an important role in attracting this private capital.

“Marguerite”, the first equity fund for European long-term investments

The European Council of December 2008 endorsed the creation by EU institutional investors of a market-oriented equity fund called “Marguerite: the 2020 European Fund for Energy, Climate Change and Infrastructure” whose core sponsors are *Cassa Depositi e Prestiti* (CDP), *Caisse des Dépôts et Consignations* (CDC), the European Investment Bank (EIB) and *KfW Bankengruppe* (KfW). The European Commission, which endorsed the project from the very beginning, joined the project with an equity stake, followed by ICO of Spain and PKO of Poland, increasing to seven the number of founders

The Fund aims to contribute to the development of Trans-European networks in transport and energy

On a general level, the Fund aims to make a significant contribution to the development of the Trans-European Networks in Transport and Energy (TEN-T and TEN-E) as well as to tackle climate change and the implementation of the EU's 20/20/20 objectives, in particular by supporting renewable energy technologies. The Fund will have a positive effect (both direct and indirect) on infrastructure development. Clearly, the direct effect the investment enabled by the Fund. Moreover, the fund can be considered as a prototype for financing instruments (indirect effect) combining equity resources with debt/capital market funding through Public Private Partnership arrangements.

The Fund will mobilise investments in the European energy and infrastructure sectors

It is estimated that during the next few years, due to the multiplier and support effects for private funds, the € 1.5 billion Marguerite Fund will mobilise investment of about € 30-€ 50 billion in the European energy and infrastructure sectors. The geographical scope of the investments should span all 27 EU member States. The Fund will be an investment vehicle for long-term institutional investors from both the public and private sectors. Mainly investing in equity stakes, primarily in new greenfield projects, the Fund will also have associated debt facilities managed directly by each individual institution.

The Fund is “market oriented” but has

In brief, the Fund will be “market oriented”, but it will be distinguished from traditional private equity funds by: (1) seeking “non-speculative” returns; (2) investing with a long-term horizon; and (3) gathering significant

distinguishing characteristics

institutional endorsement, helmed by the European Commission among the founding members.

The Fund will serve as a prototype to support the EU 2020 Agenda

The “Marguerite” Fund proves that a “reinforced co-operation” in the European financial sector is a feasible option. It will serve as a prototype for a “family of European funds for growth” to support the EU 2020 Agenda’s ambitious objectives. It may also foster the emergence of a new and broad co-operation of long-term *institutional* investors – a “European Super Fund” – a solid buttress for strategic infrastructure.

2. European guarantee schemes and Project Bonds⁴⁴

Potential alternatives exist for funding infrastructure, within the limits imposed by current economic conditions, as noted earlier. The resulting investments could prove to be an attractive opportunity for pension funds, insurance (especially life-insurance) companies, sovereign wealth funds and households.

Project bonds could be an important debt instrument for financing European PF initiatives

Single-project bonds for energy or transport programmes could be particularly important at a time when leverage is severely diminished, following the collapse of monoline insurers toward the end of 2007 as well as of several securities’ markets.

The “reputation premium” provided by the EC makes these bonds attractive

The “reputation premium” generated by the European Commission’s participation and the prestige of the other founding shareholders would surely lower the costs and raise the credit ratings of the securities involved. This process can create an asset class attractive to investors seeking to match their liabilities with long-term, fixed-income assets, including European households and foreign sovereign wealth funds. With well-prepared projects, funds raised directly would not officially deplete public accounts of either the European Union or individual member state.⁴⁵

In the short run, projects bonds may be a substitute of the Eurobonds in financing European infrastructures

In the past, a number of Member States and a strong majority of the EU Parliament’s members have urged greater Commission involvement in the financing of the TEN-and TEN-E projects, and called for the issuance of Eurobonds to finance the dedicated EU budget. An amendment to the European Treaties is probably needed before the Commission can tap into the capital market. Such a path promises to be sufficiently challenging so as to render this route relatively impractical in the immediate future.

In contrast, European project bonds issued directly by the project sponsors present a quick and attractive financing instrument. Due to the recent difficulties experienced by monoline insurers, no such securities currently exist on the market. Prior to the crisis, a significant part of the project bond market was “wrapped”, or in other words, secured with guarantees from AAA-rated monoline insurers, with resulting high credit ratings.

The Marguerite Network, together with the EU and the

The Marguerite Network could provide debt-service guarantees to back project bonds. Under the current regulatory framework, guarantees are an acceptable alternative to loans provided to cover risks. Bonds issued for

EIB, could provide debt-service guarantees

individual projects, if European Super Fund-sponsored, would naturally adopt the Network's credit rating.

With a solid reputation and technical expertise in "assembling" PPP projects, and an added monoline guarantee, any Marguerite-backed instrument, given its high rating and low cost, would be certain to attract investors. In the event a project's full funding were not covered by bonds, banks could then invest. Single-project bonds promise: (a) non-encumbrance on national budgets (or more pointedly on Network members' accounts – other than the cost of the guarantees); (b) facilitation of projects with long-term goals – many of which as of late have fallen outside market means; (c) "market conformity" among the instruments; and (d) no crowding-out effect – as a portion of debt could be bank-designated. Note the above proposal is similar to that presented in US President Barack Obama's stimulus plan,⁴⁶ but tailored to fit Europe.

Projects financed by the issuance of securities on capital markets and guaranteed (by Marguerite) promise a well-planned structure and regular and reliable returns. Projects presenting technologically complex construction or other intricacies will most likely be evaluated and depend on the availability of cash flow payments, rather than asset-use support.

Two other new instruments (LGTT and RSFF) are managed by the EIB

Within the framework of PPPs, the European Commission is working on the development of two Trans-European Transport Network (TEN-T) instruments to be managed by the EIB, which will be based on risk-sharing arrangements between the Commission and the EIB:

1. Loan Guarantee Instrument for TEN-T projects (LGTT). The LGTT is a guarantee facility that facilitates greater private-sector involvement in the financing of TEN-Transport infrastructure. LGTT is designed to guarantee revenue risk during a limited period following construction of TENs projects, notably under a PPP structure. Individual LGTT guarantees are available through the EIB. In total, the LGTT facility is expected to support 25 to 35 TEN-T projects by 2013.
2. Risk-Sharing Finance Facility (RSFF). The RSFF is an innovative credit-risk sharing scheme jointly set up by the European Commission and the EIB, as well as the financing instruments under the Competitiveness and Innovation Programme (CIP). It will support higher-risk research, technological development and demonstration projects through loans and guarantees.

3. Europe 2020 Project Bond Initiative***The Project Bond Initiative builds on the EU-EIB experience in infrastructure financing***

In his State of the Union speech on 7 September 2010, the President of the European Commission, José Manuel Barroso, announced the Europe 2020 Project Bond Initiative (the "Initiative").⁴⁷ The Initiative will be launched by the Commission together with the European Investment Bank (EIB) in order to build on existing experience with joint EU-EIB instruments and the EIB's track record in EU infrastructure financing.

The Initiative is also open to other financial institutions

While the EIB will remain the Commission's principal partner, efforts will be made to ensure that the Initiative is also open to other financial institutions⁴⁸ with the requisite expertise and the willingness to take on the associated risks in partnership with the European Commission.

Support for companies issuing bonds to finance infrastructure projects

The principal idea behind the Europe 2020 Project Bond Initiative is to provide EU support to companies issuing bonds to finance large-scale infrastructure projects. The Initiative aims to attract additional private sector financing for individual infrastructure projects by improving the senior debt ratings of the project companies, thereby ensuring that their bonds can be placed with institutional investors.

The Commission's key role will be risk-sharing with the EIB (or other financing partners), enabling them to provide guarantees or loans to support such bonds. No bond issuance will be required by Member States' governments,⁴⁹ the EU or the EIB for this purpose.

EU-supported credit enhancement reduces funding costs

The EU-supported credit enhancement would allow the senior project debt to be issued in the capital markets through a new class of project bonds ("EU Project Bonds"), resulting in reduced costs for the financing of longer maturities, while meeting demand by institutional investors (such as pension funds and life insurance companies) for stable, long-term assets.

Credit enhancement could take the form of a debt-service guarantee or the issuance an additional layer of debt at the subordinate level. The choice between guarantee or loan would depend on the specific financial characteristics of the project, but neither form of support would substitute for shareholder contributions in the form of equity or shareholder loans.

In both cases -- debt-service guarantee or subordinated loan -- a maximum 20% of total bond funding for any one project would go toward ensuring that the senior debt bond issuance achieves an investment-grade rating (ideally around A or higher) in order to be attractive to institutional investors.

To sum up, the Europe 2020 Project Bond Initiative will use EU funds to attract additional private-sector financing for individual infrastructure projects through the capital markets with the help of project-finance techniques.

The Initiative could also be used to support project-loan financing and corporate financing

The intent is to act as catalyst for the re-establishment of capital markets as a significant source of financing in this sector, while increasing overall funding for infrastructure projects. While the Initiative will primarily focus on project bonds, it could also be used to support project-loan financing and corporate financing for specific sectors and projects.

The EU will define the project-eligibility framework and seek greater synergies between EU grants and the use of specialised financial instruments. The intent is to focus on the transportation (TEN-T), the energy (TEN-E) and the ICT sector.

The Initiative would be available for projects that are economically and technically sound, cost-effective, and which have a real prospect of attaining

financial viability (Figure 17). Project size should be higher than € 100-150 million. The aim would be to make the maximum number of projects “bankable”.

EU risk would be ring-fenced, with the EIB covering the residual risk

The EU and the EIB would share the risk of losses on the project portfolio. The EU risk would be ring-fenced, and its participation therefore capped at an agreed annual budgetary amount. The EIB would be covering the residual risk up to its maximum exposure on any individual transaction.

The Initiative should build on the EIB's long-standing experience in the financing of infrastructure projects.

Figure 17. Potential blending area of the initiative

	Project Characteristics	Funding Instruments
	High financial profitability Low risk	Commercial bank loans (incl. EIB loans)
Potential Blending	Low financial profitability High risk	Joint Instruments, e.g. credit enhancement
	Low or negative financial profitability Very high risk	EU Budget / Grants

Source: EIB and authors' calculations.

EIB would carry out due diligence, financial appraisal and monitoring

Therefore, in partnership with the Commission, the EIB will help develop and continuously expand a pipeline of infrastructure and PPP projects on the basis of a clearly defined eligibility framework. The EIB would subsequently carry out the due diligence and financial appraisal in the structuring phase, price the guarantee or loan and monitor the project thereafter. EIB may also be prepared to act as controlling creditor according to principles to be established in agreement with market participants.

European infrastructure investment needs

Preliminary estimates point to European infrastructure investment needs of between € 1 500 billion and € 2 000 billion. More specifically, from now until 2020, investment needs are estimated as follows:

1. € 500 billion in the Transportation sector, for the implementation of the Trans-European Transport Network (TEN-T) programme;

2. € 1 100 billion in the Energy sector, by public and private entities for the implementation of the Trans-European Energy Networks (TEN-E):
 - a. € 400 billion on distribution networks and smart grids;
 - b. € 200 billion on transmission networks and storage capacity;
 - c. € 500 billion to upgrade actual and build new generation capacity;
 - d. € 38-58 billion to € 181-268 billion in the telecommunications sector to achieve the Commission's broadband targets.

The European Commission (DG-ECFIN) and the EIB's estimated targets for EU Project Bonds' issues are in the range of € 1-5 billion per annum at the beginning of the Initiative and in the range of € 10-20 billion by 2020.

Two-thirds of EU infrastructure investment 2006-2009 was privately financed

Across the EU, from 2006 and 2009, one-third of all infrastructure investment needs were financed directly by the government sector (mainly education investment) whereas two-thirds were financed by the private sector (mainly utilities investments: energy, water, sewage and waste).

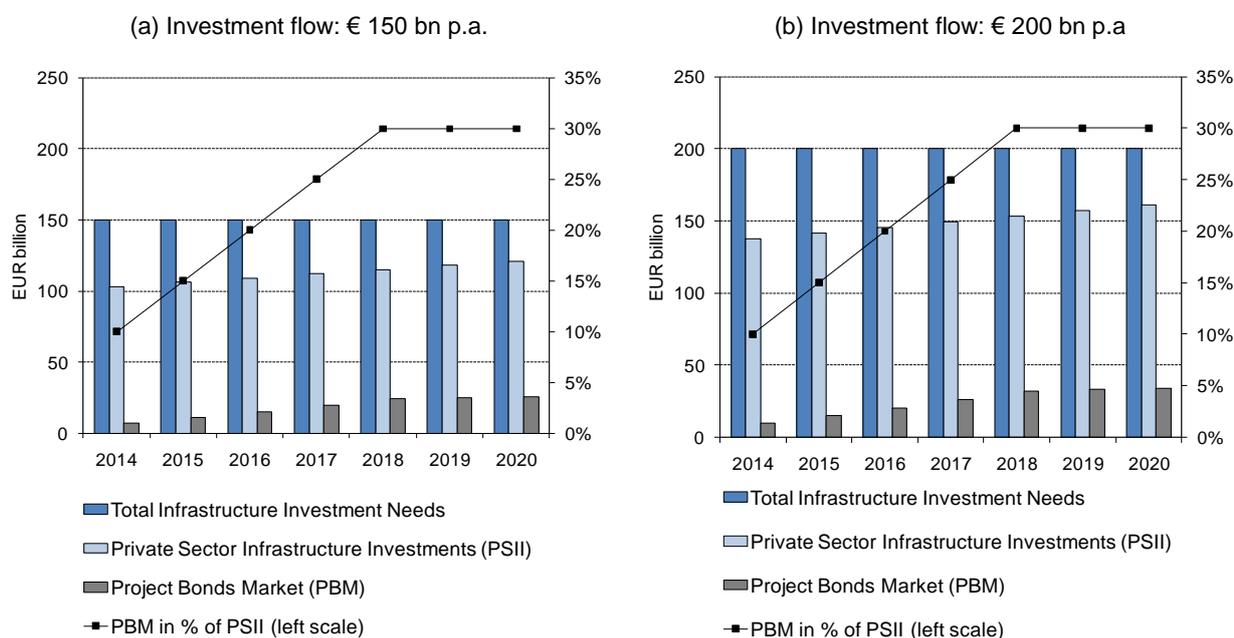
Most private-sector infrastructure investment is undertaken directly by utility and transport companies, via so-called corporate finance. Infrastructure investments through a Special Purpose Vehicle (SPV) using project-financing techniques (including public private partnerships – PPPs)⁵⁰)⁵¹ has risen in the meantime to around 10% of total private-sector infrastructure investment.

The European Project Bond market could reach a size of approximately € 110-200 billion

Considering that the Initiative is expected to be fully operational in 2014 and assuming conservatively that:

1. estimated investment required by infrastructure of € 1500-2 000 billion (2011-2020) is almost linear over the next decade, thus around € 150-200 billion per year;
2. the Initiative would increase the private sector's share of infrastructure investment, from the current two thirds to about 80% in 2020 (an increase of 2% per year);
3. the Initiative is targeting between 10% (the starting level) and 30% of private-sector infrastructure investment (an increase of +5% per year);
4. the typical leverage of an SPV in a project-financing structure (including PPPs) is a 80/20 debt/equity ratio;

this could lead within five to seven years to the creation of a European Project Bond Market of approximately € 110-200 billion (Figure 18), depending on the type of EU-backed support (a debt-service guarantee or a subordinated loan).

Figure 18. EU project bonds market

Note: To estimate the size of the EU Project Bond market we assume that infrastructure investment need is linear over the period 2011-2020 and that the Project Bond Initiative will be fully operational in 2014. Since the amount of required investment in infrastructure is estimated by the European Commission in about € 1 500-2 000 billion by 2020, this implies an investment flow equal to about € 150-200 billion per year. Panel (a) refers to the estimate of € 150 billion per year, while panel (b) refers to the estimate of € 200 billion per year. Furthermore, we assume that the private sector's contribution to infrastructure investment needs will increase linearly at the rate of 2% per year (from current 2/3 to 80% in 2020). Finally, we assume a 80/20 debt/equity ratio, typical for a project financing framework.

Source: Authors' estimates based on European Commission data.

EU-backed EIB commitment could be € 5-8 billion

According to this preliminary estimate, EU-backed EIB support of at least € 25-40 billion would be needed to cover potential risks arising from the Initiative, and therefore, even assuming a 20% provisioning ratio, an EU-backed EIB commitment of around € 5-8 billion.

Nevertheless, the creation of a Pan-European Project Bonds market of € 110-200 billion raises several issues

Nevertheless, in our view, the creation of a Pan-European Project Bonds Market of € 110-200 billion raises, among other things, the following issues:

1. Liquidity of the primary, and above all, the secondary market:
 - a. The potential size of the EU Project Bonds' market can be overestimated: over the last 15 years, despite monoline guarantees that made the resulting project bonds more attractive for institutional investors than the EU-supported credit enhancement, € 100 billion of infrastructures were bond-financed (above all in the UK);
 - b. Issuance and/or underwriting risks in bought deals and/or in auction processes;
 - c. Liquidity risk in private placements;

- d. Detailed analysis of infrastructure projects that are suitable for EU Project Bonds' issues. It is critical to build up a significant and reliable pipeline of potential investments in order to persuade institutional investors to consider EU Project Bonds as a new asset class for their portfolios;
 - e. Potential need for a Public Infrastructure Bonds Agency for facilitating EU Project Bonds' market liquidity;
2. Regulation and fair competition;
 3. Fair distribution of EU-supported credit enhancement for project bonds financing of infrastructures in the Member States;
 4. Settlement procedures.

Institutional investors with long-term liabilities were key players

Historically, investors in PPPs and infrastructure-project bonds have been institutions with long-term liabilities against which they needed to have assets to produce matching long-term cash flows. The key players have been pension funds and life insurance companies, both of which invested directly, as well as fund management companies, whose clients are also pension funds and life insurance companies.

But Solvency II may have a negative impact

The potential negative impact of Solvency II on institutional investors' capital requirements is that it could induce a lessened appetite for buying/investing in EU Project Bonds, thus reducing the potential market scope.

Different capital requirements for infrastructure bonds are needed

In our view, since the default curve and recovery rates are typically much better for infrastructure bonds than for corporate or similar bonds, it is critical that regulatory efforts introduce different capital requirements for infrastructure bonds vs. corporate bonds, thus allowing for a specific (and different) module for evaluating infrastructure debt..

The main rationale behind EU Project Bonds

In our view, the main rationale behind EU Project Bonds' issuance can be summarised as follows:

- lower financing costs overall (including guarantee fees, etc.) vs. bank loans;
- longer tenor (increase the debt sustainability, etc) vs bank loans;
- increased sources of funding (capital markets vs cash constraints of financing banks – credit crunch or financial crisis) and potentially more infrastructure investments;
- higher standardisation potential for the financial instruments, which could be complementary to bank loans.

Main drawbacks of project-bond financing

Generally, the main drawbacks of infrastructure financing through project bonds are:

- lower flexibility: in regard to potential re-financing needs or opportunity costs over the project's life-cycle; and as regards prepayments and related breakage costs.
- negative carry: debt issuance occurs at financial close even if all the funds will not be required until later in the construction programme.

Need to attract high-quality sponsors and high quality projects

In any case, we believe that EU Project Bonds must not only target institutional investors but their success and the related market's establishment rely also on the initial need to attract high-quality sponsors and high-quality projects.

Credit enhancement's positive effects

The EU-backed EIB credit enhancement's (in the form of a debt service guarantee or an additional layer of debt at the subordinated level) mechanism, chosen to support the Initiative, is likely (i) to attract private sector institutional investors to the financing of projects in all the relevant infrastructure sectors (transport, energy and ICT), (ii) to facilitate/accelerate the conclusion of financing packaging for creditworthy projects, and (iii) other things being equal, to have a positive impact on the sustainability of infrastructure debt, by stretching maturities and lowering overall financing costs.

Proposals to increase liquidity include the creation of a Pan-European Public Infrastructure Bonds Agency

Institutional investors will primarily focus on market liquidity in assessing the attractiveness of investments in EU Project Bonds (a new asset class for their portfolios to which to allocate approximately 3% and up to a maximum amount of 5% of total) and therefore:

- to generate liquidity, it is critical to build-up a significant and reliable pipeline of potential infrastructure projects to be financed by EU Project Bonds. This would also mitigate the potential concentration risk that institutional investors may perceive for their portfolios;
- to assure and facilitate liquidity (above all in the secondary market), the creation of a Pan-European Public Infrastructure Bonds Agency would not only be desirable but potentially unavoidable in the medium-term.

Need for a Pan-European market platform

There is consequently, in our view, a need for an EU common economic and financial policy that could lead to the creation of a Pan-European market platform where the EU Project Bonds could be listed and traded.

In addition to fiscal incentives

Fiscal incentives, at a national level, similar to those provided recently by the Obama Administration in the US, can represent an additional way of supporting the establishment of an attractive and efficient (liquid) EU Project Bonds' market.

4. Eurobonds

The financial instruments discussed are advantageous because they have a very limited direct impact on public resources. Not ordinarily funded directly by the European Union's budget or that of Member States, they do not increase general government debt, instead, they draw on funds from private capital markets and global institutions, or are raised through institutional investors and others that lie outside the regular scope of government. European households and significant private and public capital outside of Europe are seeking reliable, diverse long-term investment opportunities.

The array of instruments that could finance strategic European infrastructure projects is incomplete if "Eurobonds", or "Union bonds" are excluded.

Eurobonds are European sovereign debt instruments

Unlike project bonds, Eurobonds are actual European sovereign-debt instruments. Proposed by Delors⁵², and reintroduced by Tremonti, they have met with staunch resistance.⁵³ More recently, in Barroso's speech of 7 September 2010, the head of the European Commission re-launched the idea of Union Bonds for financing long-term infrastructure investments, recalling previous proposals: by Delors in the white paper on *Growth, competitiveness, and employment* (EC, 1993a); in the Commission Communication *Stable money – sound finances* (EC, 1993b); and in the Giulio Tremonti's *Action Plan for Growth* (2003).

Issuance of Eurobonds was recommended for financial market integration and stability, but could also play a role in investment financing

Also Mario Monti in his Report (Monti, 2010) underscored the EU need for Union bonds, due to the fragmentation of the government-bond markets in Europe; as a result, European bond markets are less liquid than their counterparts in the US and Japan, resulting in higher costs for investors, issuers, other debtors and, ultimately, European citizens. The issuance of Eurobonds would be recommended for a sound financial market integration and financial stability. However, in the future, they could also play a role in financing investment and growth. In such a case, they should be limited to project-financing initiatives that have stable, long-term cash flows, such that they do not weigh on the EU's and/or Member Countries' public budgets.

Union bonds could provide a "safe haven" alternative and favour the Euro as reserve currency

The potential and expected size of the Union bond market could satisfy a growing demand for risk-free securities of the same quality as German and French government bonds but with liquidity features directly comparable to US Treasury bonds. Indeed, Union bonds could represent a "safe haven" alternative in the global capital markets and favour the Euro as a reserve currency at the international level (Favero and Missale, 2010)

5. The Junker/Tremonti proposal

Only one year after the introduction of the European Monetary Union (EMU) in 1998, the market for fixed-income government securities was taking shape as an almost perfectly integrated market. The spreads between high-yield Member States (Portugal, Italy, Spain) moved, in fact, from the high peak of 300 basis points in the pre-EMU to less than 30 basis points of post-EMU. The

differentials among various national bonds remained low, although not negligible, for almost ten years.

The European sovereign debt crisis has reopened the issue of Eurobonds

With the eruption of the financial crisis the differentials became sizable. Thus, the crisis in European public debt has reopened the issue of Eurobonds which has been on the agenda for some time but never really got enough serious consideration. Project Bonds can already be considered European debt for growth. In fact, they are related to European strategic projects in the fields of infrastructure, energy and telecommunications. In the Project Bond model, the debt is guaranteed by the public sector – EU, EIB – but is financed with domestic private savings and by international private and public savings and not with public budgets.

Eurobonds for stability and Project Bonds for growth could be closely related in a European Sovereign Debt system, but moral hazard needs to be addressed

In the future, these two forms of debt – Eurobonds for stability and Project Bonds for growth – could be closely related with one another – giving birth to a European Sovereign Debt system. In this respect, the actual European Financial Stability Facility (EFSF) could represent a starting phase and the basic mechanism to develop the new Eurobond. In fact, as also stressed by Favero and Missale (2010), the efficacy in terms of reduction of borrowing costs would be improved only if the new security is issued and guaranteed by all Member States jointly, as actually in the EFSF. Since the mutualisation of risks could create in the end a problem of moral hazard for fiscally less virtuous countries, the design of this new security must balance the potential benefits among all Member States.

Developing the EFSF with the aim of creating a new market for EU-guaranteed bonds with capped guaranteed issuance

The recent proposal made by Junker and Tremonti⁵⁴ seems to fit in with this perspective. In particular, their proposal explicitly considers the potential development of the EFSF with the aim of creating a new market for EU-guaranteed bonds. Each Member State would have the possibility to issue Eurobonds up to 40% of GDP. These bonds, jointly guaranteed by all Member States, would have the highest rating (in particular, a EUR 500 million fund could be sufficient to guarantee an AAA rating). The remaining debt issue would be the responsibility of each State. An agreed procedure in case of default or restructuring events is planned in order to encourage fiscally less virtuous States to adopt corrective fiscal policies.

Plans for the creation of a European Debt Agency (EDA) to succeed the EFSF

Moreover, the proposal envisions the creation of a European Debt Agency (EDA) to succeed the EFSF. This Agency would have the task of issuing new bonds up to 40% of each State's GDP, and to buy bonds of financially stressed marginal countries with the aim to discount their yields compared to European guaranteed ones. This mechanism would generate a broader bond market, thoroughly comparable to the American one, reducing, in this way, the liquidity risk of each national bond market. Moreover, highly indebted countries could benefit from lower borrowing costs. In the case of debt restructuring, the private sector could exchange part of its bond holdings for new bonds issued through EDA. The procedure would be the same as the EFSF one and would lead to a significant reduction in debt-to-GDP ratios of highly indebted countries since their bonds would be exchanged at a price very close to their face value.

A Eurobond market would strengthen the Euro system's financial governance and credibility

The Junker and Tremonti proposal has the advantage of drawing on a mechanism characterised by well-balanced incentives and benefits among Member States. Furthermore, this mechanism is not so different from the present EFSF. Finally, a Eurobond market would strongly contribute to reducing pressure on the government-debt securities of non-core economies while, at the same time, strengthening the Euro system's financial governance and credibility.

VII. Conclusions

Long-term investment can foster stability and growth; it needs to be supported by the regulatory framework

An intense competition for long-term finance will characterise the world in the coming years. In the aftermath of the recent crisis, the issue of long-term investment has attained a central role in the debate among academics and policy makers. Now that the worst phase of the crisis seems to be over, the attention of the financial community to such an issue has somewhat faded away. However, we need long-term investment for financial stability, for fiscal consolidation, and, more generally, for long-term sustainable global growth. We tried to show that the two goals – stability and growth – are not mutually exclusive. They are, in fact, interconnected by a cross-correlation. Long-term investment will contribute to both financial stability and fiscal recovery. Well-calibrated regulation must be friendlier to long-term investment. Good regulation, in short, must be able to promote “virtuous circles” between stability and long-term growth. Elements of this new scenario that should be carefully taken into consideration by policy makers and national and international regulators are: (1) the sensitivity of long-term growth to the cost of capital; (2) the need to eliminate regulatory disincentives against long-term investment; and (3) the urgency of avoiding excessive regulatory zeal.

Financing for infrastructure is a small fraction of global investors' total assets

The amount of financing needed to fund global demand for infrastructure projects, although very large, amounts to just a few percentage points of the global investors total asset allocation, which is estimated to be over 60 trillion euro. A set of well-designed rules and incentives, and the creation of a few liquid markets for new long-term financial instruments could easily achieve the desired level of infrastructure investment needed worldwide.

A new regulatory framework and instruments are needed to promote investment in infrastructure, innovation, research and the environment

The message that comes out from these estimates is that, even though long-term investment needs are large, they represent a relatively small portion of total financial assets and savings held by institutional investors worldwide (around 5%-7%). The effect of long-term investment on the economy and competitiveness, however, is indeed extremely important. It then seems quite reasonable to build a new regulatory framework (accounting, supervision and fiscal rules) that is more favourable to long-term investment in infrastructure, innovation, research and the environment, and to introduce new dedicated financial instruments better able to attract private investment capital to these long-term, strategic projects.

Notes

1. For the estimates on long-term GDP growth see Citi Global Capital Markets (2011).
2. For estimates on savings and investment see McKinsey (2010).
3. *Ibid.*
4. *Ibid.*
5. See Tremonti (2008), p. 8.
6. McKinsey (2010).
7. The data on the estimated composition of central bank reserves are found in IMF (2009).
8. See Eichengreen (2009).
9. See Moghadam (2009).
10. IMF (2009).
11. The total for all currencies comes to 200% since each transaction involves two currencies.
12. IMF (2009).
13. See Goldberg and Tille (2008).
14. *Ibid.*
15. It is no coincidence that for some time now there has been discussion of the possibility of transferring a part of the world's reserves into IMF Special Drawing Rights, which are based on four currencies (dollar, Euro, yen and pound sterling). This marks a return to the "bancor" idea proposed by Keynes after World War I.
16. See the paragraph describing Union bond financial instruments.
17. "The current global economic crisis has encouraged talk of issuing Euro-area bonds with the backing of the entire set of Euro-area members, including, most importantly, Germany. If this were done on a significant scale and if this debt were to replace the member states' national debt securities, the Euro area would possess a market with roughly the uniformity and liquidity of the United States' Treasury market. But such radical fiscal federalism is not something to which the German government, among others, is likely to agree."
18. The US federal debt is forecast to be \$2 553 billion at the end of 2009 (*Economic Report of the President*, sent to the United States Congress in January 2009, Table B-78, p. 377), therefore about €1 670 billion (at the prevailing exchange rate on 4 November 2009).

19. The GDP of the EU-27 (2008) came to €12 506 billion (Eurostat figures).
20. European Commission (2009a).
21. See IMF (2011).
22. According to the definition of the IMF.
23. De Larosière (2011).
24. See De Larosière (2010).
25. The Long-Term Investors (LTI) Club was created in 2009 by the European Investment Bank, the French *Caisse des Dépôts et Consignations*, the Italian *Cassa Depositi e Prestiti* and the German *KfW Bankengruppe*, to bring together major long-term institutional investors and to coordinate their activities in the global economy in support of sustainable economic growth. Major public development banks and financial institutions (such as the *Caisse de Dépôt et de Gestion du Maroc* (CDG), the Russian *Vnesheconombank* (VEB), the Ontario Municipal Employees Retirement System – OMERS, the Mubadala Development Company from Abu Dhabi, the China Development Bank – CDB, the *Caisse de dépôt et placement du Québec* –CDPQ, the Polish Bank *Gospodarstwa Krajowego* – BGK, and the Turkish *Turkiye Sinai Kalkinma Bankasi A.S.* – TSKB) joined the LTI Club in 2010.
26. *The Promotion of Long-term Values and Economic Stability*, 22nd June 2009 in partnership with the OECD. The conclusions of the June 22 Paris Conference have been presented at the 10th Annual OECD Forum, in Paris on June 23 and 24, 2009.
27. *What Priorities for the Incoming EU Authorities in the Light of the Financial Crisis?*, the *Eurofi Financial Forum* 2009, 29 September to 1 October, Göteborg. See particularly Bassanini and Reviglio (2009).
28. *Optimizing EU Financial Reforms for Achieving Resilience, Growth and Competitiveness. What Priorities? What Roadmap?*, the *Eurofi Financial Forum* 2010, 27th – 30th September 2010, Brussels. See especially the paper *For an EU Action Plan to Remove the Disincentives to Long-term Investment*.
29. *Long-term Investment in the Age of Globalisation*, Rome, 17th June 2010 (all papers in <http://www.astrid-online.it/Dossier--d1/DISCIPLINA/The-Long-T/index.htm>) and *Towards a Sustainable Future: The Role of Long-Term Investment*, Venice, 28th-29th Oct. 2010 (all papers are available at <http://www.astrid-online.it/Dossier--d1/DISCIPLINA/Studi--ric/index.htm>).
30. Letter to Mr. Barnier, Proposals to adapt the EU's financial regulatory framework to long-term investments requirements, 20th September 2010, with an annex on proposals to promote long-term investments in Europe – conclusions of the European long-term financial institutions' working group on banking supervision.
31. See De Larosière, J. (2010), *ibid.*
32. See De Larosière, J. (2010), *ibid.*
33. See De Larosière, J. (2010), *ibid.*
34. See Ziemba, W.T. (2003).

35. The transfer of costly operations, in terms of capital requirements such as trading, to the so-called “shadow banking system” outside the scope of regulation and supervision, may endanger financial stability. The Financial Stability Board (FSB) is working on this issue under the direct mandate of the G-20, as stated by Finance Ministers and Central Bank Governors at their last meeting (“We welcomed the FSB work on the scope of shadow banking and look forward to the recommendations that the FSB will prepare for our next meeting on the regulation and oversight of the shadow banking system.” *G20 Communiqué*, 14-15 April, 2011, Washington, D.C.).
36. See Amenc *et al.* (2009) and Foulquier (2009).
37. OECD (2011); see also Eurofi (2010) and Conseil d’Analyse Économique (2010).
38. World Economic Forum (2011).
39. De Larosière (2010).
40. See De Larosière, J. (2010), *ibid.*
41. The very rapid growth of European private investment in renewable energy plants is commonly attributed to these tax or price incentives: *quod erat demonstrandum!*
42. See European Investment Bank (2010).
43. “We urge all jurisdictions to fully implement the FSB principles and standards on compensation. We call on the FSB to undertake ongoing monitoring in this area and will assess the results of the 2nd peer review on compensation practices by our next meeting.” *G20 Communiqué*, 14-15 April, Washington, D.C. On this topic, at global level, see OECD (2010).
44. On 25 September 2008, the Vice-President of the European Commission with responsibility for transport policy, Antonio Tajani, met with the EIB President Philippe Maystadt and his Italian and Greek Vice-Presidents to investigate potential strategies for maximizing the EIB’s involvement in funding major transport infrastructure projects. A decision was taken to set up an informal working group consisting of representatives from the Commissioner’s Cabinet, the Directorate General for Transport and Energy, and the EIB, with the objective of studying new tools for financing TEN-T projects and facilitating participation by private investors. For the most part, the proposals presented in this and the following section have been taken (in some cases *verbatim*) from an informal memorandum drafted by the working group in the summer of 2009.
45. If the funding is issued by a “market unit”, even if that unit is 100% owned by the State or some other public sector entity, and if, thanks to an appropriate financing structure, at least two out of the three risks that characterise a PFI project (construction, traffic and tariffs) are transferred to the market, then in compliance with the ESA-95 accounting rules, this debt is not included in the national public debt, valid for compliance with the criteria of the Maastricht Treaty and the Stability and Growth Pact.
46. In the United States, as in the European Union, the new administration is seeking to counter the recession with economic stimulus measures that include a significant commitment to new investment in public infrastructure. The stimulus package provides for the issuance of new types of project bonds, which are accompanied by significant direct tax relief for the net interest accrued on the bonds. For example, the “Recovery Zone Economic Development Bonds” are to be issued to finance public infrastructure projects or the construction of projects that deliver public services, as well as for projects connected with employment growth and career development. The “Qualified Energy Conservation Bonds” provide USD 2.4 billion for projects related to renewable energy and building maintenance to meet energy-efficiency and environmental standards. The new stimulus package also includes project bonds for rail

- transport, as well as USD 1.6 billion in “New Clean Renewable Energy Bonds” to finance biomass and hydroelectric power generation.
47. See http://ec.europa.eu/economy_finance/consultation/index_en.htm
48. International Financial Institutions (IFIs) and/or other Member State banks with a public sector mandate.
49. The Initiative does not intend to increase direct public funding and therefore governments’ indebtedness. Thus, it is not to be confused with what are commonly termed “Eurobonds”.
50. PPP structures are prevalent in transport, as well as increasingly in waste, health, education and other social sectors. Non-PPP project financing is well established in the energy and other utility sectors.
51. PPP structures are prevalent in transport, as well as increasingly in waste, health, education and other social sectors. Non-PPP project financing is well established in the energy and other utility sectors.
52. While Delors was the first to speak of a European investment plan in the communications sector, in research and in the major trans-European networks, as well as of “Union Bonds” as a means of financing such projects, the first proposal to issue such bonds actually dates back to Jean Monnet and the establishment of the ECSC. This is no coincidence, given that redemption of the bonds issued by the ECSC, an institution with legal personality, was backed by taxes on European coal and steel products. Indeed, Article 49 of the Treaty establishing the ECSC states: “The High Authority is empowered to procure the funds necessary to the accomplishment of its mission: by imposing levies on the production of coal and steel; by borrowing.” In the case of European companies, redemption of the European bonds could be directly backed by the rates charged to users for the services provided or by the licensing fees for the management of the infrastructure.
53. For a complete review of Euro Bond proposals see Favero and Missale (2010) among others. Documents, interviews, papers regarding Euro bonds are available at <http://www.astrid-online.it/Dossier--d1/EUROBONDS/Rassegna-s/index.htm>.
54. See Juncker and Tremonti (2010).

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