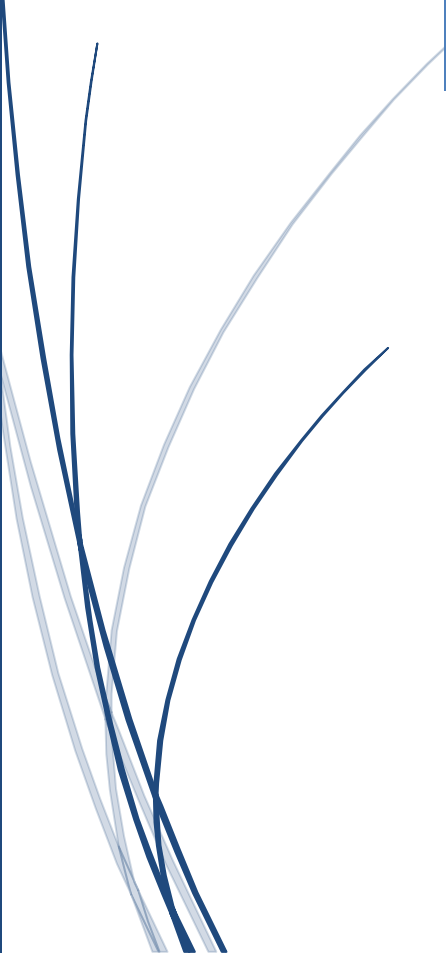




Report summary

The impact on long-term capital investment of accounting and prudential standards for financial intermediaries



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This report is the outcome of a partnership with Autorité des Normes Comptables (ANC – the French accounting standards body), Institut CDC (Caisse des Dépôts et Consignations) pour la Recherche and BNP Paribas that lasted from June 2013 to December 2015. Its purpose was to examine the accounting prudential frameworks that apply to the main financial intermediaries and identify the standards that may hinder long-term investment financing. We wish to extend our deepest gratitude to our partners for their support. The views expressed in the report and the report summary are those of the authors alone and do not necessarily represent the views of either the Paris Nord and Nice Sophia Antipolis universities or our partners.

Abstract

The aim of this report is to explain why there is insufficient long-term capital investment despite the abundant savings collected by a booming financial sector. Special attention is given to understanding the role of today's accounting and prudential requirements, to grasping their limitations and to underscoring the need for reform to foster long-term capital spending in Europe. This report shows that International Financial Reporting Standards (IFRS) can affect different financial intermediaries in different ways, and that current prudential rules are likely to prove even more detrimental to long-term investment financing.

Based on our analysis, we argue that the impact of those standards can be either: neutral (as is the case for lending); adverse (as is the case for equities and alternative investments), with gains and losses on equity instruments not recycled to profit or loss and the more restrictive cash flow criterion for amortised cost and FV-OCI accounting (to be introduced by IFRS 9); or beneficial (as is the case for bonds), with easier cost accounting for bonds, simplified hedge accounting and an expected loss provisioning model. We also highlight the negative impacts of the existing standards IAS 39 and IFRS 4 phase 1 (volatility, shorter investment horizons, and procyclical and short-term behaviour patterns). To address these factors and make accounting standards more supportive of long-term investment, we propose using the asymmetric prudence principle and creating an accounting category that allows certain types of investments with a long time horizon (stocks, private equity¹ and infrastructure investments) to be measured at cost.

At the same time, we note that prudential requirements (solvency, liquidity and leverage ratios) have a negative impact on portfolios of loans and high-risk securities such as quoted and unquoted equities (private equity) and infrastructure investments, although that impact should not be overstated. We have found that the cumulative negative effects of existing accounting and prudential standards make high-risk investments less attractive than government paper. To give banks adequate incentives to finance long-term undertakings without sacrificing traditional bank intermediation and financial stability, risk weightings for long-term assets should be reduced, a wider range of assets should be made eligible for the liquidity buffer, with precedence given to investments that finance the real economy (capital spending on tangible and intangible assets), and banks should rethink the stark emphasis on return on equity that characterised a number of their models in the 2000s.

¹ Unquoted equity.

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1. Introduction

Insufficient capital investment has emerged as a major obstacle to economic growth. Through the investment multiplier, investment,² both private and public, is supposed to have a powerful knock-on effect on the economy. The underlying assumption is that an increase – or decrease – in investment has a more than proportional impact on aggregate income. However, the past three decades have seen a secular falloff in the global rate of investment. According to a McKinsey report (2010), that rate dropped from 26.1% of world GDP in 1974 to 21.8% in 2009, representing a cumulative decline of roughly \$20 trillion. The decline, which was concentrated in the developed world, has accelerated since the 2007 crisis. It was particularly pronounced in the euro area, where investment slumped from 26% of GDP in 1970 to 18% in 2013. Yet the countries affected are greatly in need of large-scale investment to deal with issues ranging from outdated manufacturing facilities to an ageing population, from climate change to growing scarcity of raw materials. And it is precisely those issues that are making sectors such as infrastructure, energy, transport, and information and communication technology increasingly interdependent. The European Commission estimates that between today and 2020 the European Union will need to invest approximately €1.6 trillion in infrastructure for cross-border transport of goods, people and energy. The energy transition will likewise cost money – from 2% to 3% of GDP over a ten-year period. In the case of Europe, that will mean spending roughly €3 trillion in the course of a decade (Roadmap 2050). A contrary, and more contrasting, trend has developed in the emerging economies.³ Those countries experienced an investment boom in the 2000s and were less affected by the recent crisis.⁴

This secular decline in investment has proven to be a drag on economic growth. From 2000 to 2008, output grew 2% in the developed countries and 6.1% in the emerging economies. In the years from 1960 to 1970, it increased by 5.3% and 5.6% respectively. The sharpest decreases occurred in traditional industries, agriculture, mining and infrastructure. And the trend continued until 2013 (IMF, 2014). Capital investment can therefore be considered a prerequisite to a return to strong, sustainable, job-rich growth. Europe is facing challenges in particular with the level and innovation-generating capacity of such investment. Both the OECD and the IMF have in fact stressed the sluggish pace of investment recovery in Europe compared with the United States.⁵ In addition to cyclical causes related to the financial crisis and to differing economic policies across the developed world,⁶ the falloff in investment can be attributed to changes in the interrelated demand for and supply of capital. Investment cannot be brought about by decree; it depends on both available funding and corporate decisions.

Companies, however, are in transition today as they struggle to imagine the investments of tomorrow – those most likely to involve Schumpeterian-style innovation and disruption.

²Defined as gross fixed capital formation. We are therefore dealing with capital expenditure.

³ Unlike the developed world, the emerging economies invest primarily in industry, infrastructure (transport, energy, telecommunications) and residential property, a reflection of their particular growth trajectory.

⁴ Between 1970 and 2009, investment as a share of GDP rose from 28.8% to 48.7% in China, and from 14.6% to 37.9% in India. Between 2001 and 2008, it went from 19.3% to 24.1% in Africa.

⁵ The European Commission (EC) recently addressed the issue with the Juncker Plan, whose aim is to unlock investments of €315 billion in Europe over a three-year period.

⁶ Since 2010, an austerity bias has dominated euro area economic policy, with fiscal retrenchment undermining macroeconomic demand, and therefore investment. During the same period, the United States and the United Kingdom opened the financial market floodgates for mortgage lending and the wealth effect, two forces capable of supporting demand, and with it investment.

Given that economic growth phases have always been preceded by radical and incremental innovations, the key challenge today is to achieve the kind of innovation – by definition with no certainty as to outcome – that will contribute to a successful energy transition (above all to a low-carbon economy). In terms of capital supply, the contrast between weak investment and plentiful savings can be analysed as inefficient allocation of savings, resulting from the short-term bias of market participants and the most important financial intermediaries. On this point, there has been a rough consensus for some time in the academic literature,⁷ along with growing awareness among finance professionals. Larry Fink, the Chairman and Chief Executive of BlackRock, one of the world’s leading asset managers, warned in letters sent in 2014, 2015 and 2016 to the CEOs of S&P 500 companies, “We certainly believe that returning cash to shareholders should be part of a balanced capital strategy; however, when done for the wrong reasons and at the expense of capital investment, it can jeopardise a company’s ability to generate sustainable long-term returns.”

At issue here is the preference of many non-financial firms for share buybacks and dividend distributions rather than for investment. The weight and activism of pension funds, the policies of mutual funds with responsibility for managing the assets of those firms and the rise of hedge funds are among the factors that have fuelled concern over corporate short-termism. Moreover, non-financial companies are not the only ones feeling the pressure of highly liquid markets, where shareholders can sell their shares as soon as a company’s ROE (Return On Equity) drops below what the market deems average and/or dividend payouts fall short of expectations. Market pressure has even greater impact on the financial firms that, as intermediaries, help to finance the broader economy. They, too, may respond by selecting risky projects that are profitable in the short term and by turning down long-term investments likely to produce lower immediate returns. But by focusing exclusively on short-term returns and distributing too large a share of their earnings, companies wind up initiating fewer investment projects, which in turn reduces their ability to create value in the future. The risk is that lower capital expenditure will jeopardise long-term economic growth and even the earnings prospects of companies themselves.

Many other observers have perceived the excesses of finance since the onset of the crisis in 2007-2008 as well. Regulators such as Paul Volcker⁸ (a former Chairman of the Fed) and Lord Adair Turner⁹ (former Chairman of the UK’s Financial Services Authority) voiced doubts in 2009 about the economic usefulness of CDSs, CDOs and other financial innovations (Zingales, 2015). At the same time, international institutions and universities published a large volume of empirical research that questioned the positive correlation between the size of the financial services sector and economic growth (IMF, 2014; European Commission, 2013; Philippon and Reshef, 2012; Kneer, 2013; Jorda *et al.*, 2014).¹⁰

⁷ In France, see the works of Baudru and Kechidi (1998) Orléan (1999), Baudru and Lavigne (2001), Lordon (2002), Aglietta and Rebérioux (2004).

⁸ *The Wall Street Journal*, 14 December 2009.

⁹ *The Financial Times*, 23 September 2009.

¹⁰ In the Commission staff working document accompanying its Green Paper on the long-term financing of the European economy (2013), the Commission discusses inefficiencies in the intermediation chain with reference to Kay (2012), who argues that the success of the financial system should be measured by how effectively it channels funding from providers of funds to those who seek to raise funds, rather than by its contribution to liquidity and price discovery.

One of the explanations advanced for short-termism¹¹ is that regulatory requirements perhaps encourage financial investors who might otherwise make long-term investments to adopt a short-term bias. Financial intermediaries have to contend with a fairly wide range of regulatory frameworks that impose varying degrees of constraint and that evolve over time. In response to a deep financial crisis that revealed the shortcomings and even excesses of specific banking models,¹² those frameworks have undergone large-scale reforms since 2009, from prudential banking regulation, with Basel III, and insurance regulation, with the Solvency II Directive, to accounting regulation, with IFRS. By encouraging greater caution, the new regulations have unquestionably provided the enhanced financial stability and transparency needed to strengthen the resilience of the financial system. The question, however, is to what extent the aims of the various regulations are consistent with the goal of financing the economy. To put it differently, could the new requirements be in danger of hindering long-term investment financing? In regulating the activity of financial intermediaries, a balance needs to be found between the pursuit of financial stability and the need to channel adequate funding to the economy. The aim of this report is to offer a different slant on this issue by seeking to identify short-term bias in the regulations that apply to banks and insurance companies – the primary providers of corporate funding.

Because it is particularly hard to quantify the impact of a given regulatory reform, and even more so of several reforms currently under way, we have opted for a more qualitative approach to identify the direct and indirect impact of those reforms on the intermediation activity of banks and insurance companies (lending and asset allocation). In addition to semi-structured interviews,¹³ we have established a qualitative database from responses to the Public Consultation launched by the European Commission on its Green Paper¹⁴ on the long-term financing of the European economy, made public in March 2013. The Green Paper raised 30 questions that can be divided into 8 basic areas, among them the definition of long-term investment, the role of banks and institutional investors in long-term financing, the impact on long-term investment of prudential and accounting regulation for financial intermediaries and the connection between taxation and long-term investment. Given the number of respondents, the range of sectors in which they operate¹⁵ and their diverse national backgrounds, our database can be considered a representative European sample. We have examined the responses of the full range of stakeholders (e.g., investors, banks, insurance companies, regulators), clearly rendering their opinions and analysing them against the

¹¹Another possible explanation has to do with the growing number of management mandates given to competing external asset managers, who have an incentive to seek short-term rather than long-term returns. By making the investment chain longer and more complex, the expanding role for asset managers has not only contributed to lower investor involvement with business management; it has also raised the cost to agents in need of funding and led to asymmetric risk taking.

¹² More specifically, their increasing reliance on short-term market financing, excessive levels of leverage and their tendency to conduct high-risk trading activities alongside retail banking activities (Barut *et al.*, 2015).

¹³We conducted 74 semi-structured interviews at financial institutions between April and November 2013 – banks (23), insurance companies (18), pension funds (11), regulators and standard-setting bodies (9), consulting and other firms (15) – followed by 3 more interviews in December 2014.

¹⁴Green papers typically present a range of ideas with the aim of initiating Europe-wide consultation on a specific issue. Interested parties, organisations and individuals are encouraged to submit their views in writing before a given deadline. The consultation may subsequently result in the production of a white paper representing the next stage in the process, with a well-argued set of proposals for EU action in the area under consideration.

¹⁵ We have consolidated the 11 categories identified by the EC into 5 large groups of respondents: financial intermediaries (banks, insurance companies, pension funds and other investment funds), market intermediaries (auditors, accountants, consultants, financial market participants, regulatory and oversight bodies, civil society, and non-financial companies).

findings in the academic literature. While there is a body of theoretical and empirical research that seeks to demonstrate the beneficial effects of fair-value accounting on transparency or of prudential standards on financial stability, very few studies have focused on the connection to investment.

Our findings highlight that IFRS accounting affects funding for long-term investment in a variety of ways, depending on the activities in which banks and insurance companies engage. Based on our analysis, we argue that the impact of those standards can be either: neutral (as is the case for lending); adverse (as is the case for equities and alternative investments), with gains and losses on equity instruments not recycled to profit or loss and the more restrictive cash flow criterion for amortised cost and FV-OCI accounting (to be introduced by IFRS 9); or beneficial (as is the case for bonds), with easier cost accounting for bonds, simplified hedge accounting and an expected loss provisioning model. We also highlight the negative impacts of the existing standards IAS 39 and IFRS 4 phase 1 (volatility, shorter investment horizons, and procyclical and short-term behaviour patterns). To address these factors and make accounting standards more supportive of long-term investment, we propose using the asymmetric prudence principle and creating an accounting category that allows certain types of investments with a long time horizon (stocks, private equity and infrastructure investments) to be measured at cost.

The report also shows that current prudential rules are likely to prove even more detrimental to long-term investment financing. Moreover, they have limitations due to their tendency to accumulate and interact, to their increasingly complex and technical nature, to their instability and to the growth of shadow banking. At the same time, we note that prudential requirements (solvency, liquidity and leverage ratios) have a negative impact on portfolios of loans and high-risk securities such as quoted and unquoted equity instruments and infrastructure investments, although that impact should not be overstated. We have found that the cumulative negative effects of existing accounting and prudential standards make high-risk investments less attractive than government paper. To give banks adequate incentives to finance long-term undertakings without sacrificing traditional bank intermediation and financial stability, risk weightings for long-term assets should be reduced and a wider range of assets should be made eligible for the liquidity buffer, such as investments that finance the real economy (capital spending on tangible and intangible assets).

Chapter 1 introduces the various research methods used in the report and the nature of data collected: first-hand qualitative information culled in France and the rest of Europe from semi-structured interviews and the Public Consultation launched by the European Commission (EC) on the Green Paper on the long-term financing of the European economy. **Chapter 2** seeks to clarify the concept of long-term investment and identify its sources, while attempting to overcome the limitations of previous definitions. What makes that attempt crucial is that defining the long term is a prerequisite to any future changes in the incentives offered to stakeholders. **Chapter 3** presents the accounting standards that apply to publicly listed banks and insurance companies. After a brief historical review of the international standard-setting process and its theoretical foundations, the chapter provides a critique of the theoretical underpinnings of IFRS and identifies the main standards that apply to recognition and measurement of financial investments. **Chapter 4** examines the effect of IFRS accounting on long-term investment funding at banks and insurance companies, based on qualitative analyses. We identify the observable effects of IAS 39 and the potential effects of IFRS 9 on banking and insurance and put forward detailed recommendations for making accounting more supportive of long-term investment. **Chapter 5** sets forth the primary prudential

constraints for banks and how they have evolved over the past forty years. Focusing in particular on the standards introduced in the wake of the 2007 financial crisis, we seek to gauge their potential impact on banking, based on a qualitative analysis and, after discussing stakeholders' arguments, we make recommendations. **Chapter 6** reviews the main prudential requirements for insurance companies in Europe. We place special emphasis on the Solvency II Directive and the changes it has undergone so as to clarify its potential impact on insurance company investments. **Chapter 7**¹⁶ presents the main regulatory and accounting constraints facing pension funds and listed companies with fully funded pension schemes, examining their effect on the investment strategies of defined benefits pension funds in the United States, Canada and the Netherlands (1990-2011) and of publicly listed financial companies in Europe (2005-2011).

2. A new definition of long-term investment

2.1 The various attempts at defining long-term investment

What makes defining long-term investment such a crucial issue is that there is no legal, much less universal, definition of the term. A few authors have attempted to provide one, but no consensus has emerged in support of any of the proposals. The latter tend to cover three facets of the problem: i) the nature of the long-term project to be financed; ii) how such a project is financed; and iii) the long-term behaviour of funding providers (see Table 1).

Table 1: Main facets of the concept of long-term investment

3 facets of LT investment	Facet 1 Nature of LT project	Facet 2 LT financing	Facet 3 LT behaviour
Sub-facet 1	Investment in tangible and intangible assets (G30, OECD)	Nature of resources (Aglietta <i>et al.</i>)	Investment strategies (Aglietta <i>et al.</i> , OECD, WEF)
Sub-facet 2		Long-term investors (Aglietta <i>et al.</i>)	Corporate governance (OECD)

Source: authors

- **The first facet (the long-term investment project)** pertains to the real economy, that is, to the areas in need of investment to support long-term growth and to the kinds of companies that require financing.
- **The second facet (long-term financing)** has its locus in the financial services industry and involves forms of financing that can be apprehended from two key standpoints: the nature of the requisite resources and the investors liable to finance long-term projects of the kind referred to in Facet 1.
- **The third facet (long-term behaviour of funding providers)** has to do with the behaviour of those who fund long-term projects, which is related to their investment strategies and to corporate governance.

Aglietta and Rigot (2007, 2009) define long-term investment in terms of the investment behaviour that investors with long-term liabilities need to adopt. Because they are inherently less exposed to liquidity risk (unanticipated withdrawals of savings), such investors¹⁷ should in theory take an approach to asset allocation that is independent from their own short-term

¹⁶ This report summary will not address this chapter.

¹⁷ Such as defined benefits pension funds, insurance companies and permanent funds (e.g., sovereign wealth funds, university endowments, reserve pension funds).

financing capacity and that aims for long-term returns that match their liabilities. Such an approach is associated with dynamic allocation, based on generalisation from standard theory and geared to diversifying risk over time (Campbell et Viceira,¹⁸ 2005). Through a strategy of smoothing out any shocks on asset returns, investors with long-term horizons may benefit from a more favourable risk-performance relationship than short-term investors (Gollier, 2002). They therefore have an incentive to adopt a portfolio strategy that gives greater weight to assets that look riskier in the short run but less so in the long run (Gollier, Janci, 2010; Gollier, 2015; Kessler, 2015). This kind of dynamic asset allocation, based on hedging intertemporal risk, has implications for asset management. It leads to portfolio rebalancing – the process of buying or selling financial assets to maintain the desired level of strategic asset allocation. An opportunity to rebalance should be judged on the basis of an analysis of how actual allocation deviates from target (i.e., strategic) allocation. Where such deviations are temporary, changing the portfolio structure would be an ineffective approach, and vice versa. Taking account of intertemporal hedging in this fashion implies a contrarian or countercyclical strategy based on a long-term analysis of the assets involved.

In contrast, the OECD distinguishes three features of long-term investment: (i) productive capital (investing to develop infrastructure, promote green growth and finance small businesses); (ii) patient capital (which lowers turnover, encourages less pro-cyclical investment strategies and therefore higher long-term rates of return and fosters greater financial stability); and (iii) engaged capital (enhanced corporate governance through active voting by shareholders). The World Economic Forum (2012) defines long-term investing as “investing with the expectation of holding an asset for an indefinite period of time by an investor with the capability to do so”. This typically entails holding an asset for at least ten years or through an entire business cycle. According to the G30 (2013), long-term investment is defined as spending on the various types of infrastructure that can expand the productive capacity of an economy. This encompasses tangible assets (such as roads, bridges, ports, factories and hospitals) and intangible assets (such as education and research and development) that increase future prospects for innovation and competitiveness. Many of these investments are public goods that not only generate greater returns for society as a whole, but also enable companies to produce more goods and services with fewer resources, improving productivity.

It should be noted that the definitions provided by the OECD, G30, WEF and Aglietta and Rigot cover only one or two of the three facets discussed above. To the extent that long-term investment involves a chain of participants who must all behave compatibly, we consider these three facets to be complementary. Bringing all three together is therefore essential to properly defining long-term investment, because it is the only way to transcend the limitations in previous definitions and arrive at the kind of universal definition that is clearly a necessity if incentives to engage in long-term investing are to be introduced. What emerges from our work on the responses to questions 1 and 2 in the Green Paper¹⁹ is that there is broad agreement, at least to varying degrees, on the three complementary facets of the concept of long-term investing (see Table 2).

¹⁸These authors have observed the persistence and the effects of mean reversion in stock and bond returns across different investment horizons. In other words, when returns on financial assets shift over time, the structure of risk and the risk-return tradeoff are time-varying.

¹⁹ Question 1: Do you agree with the analysis out above regarding the supply and characteristics of long-term financing? Question 2: Do you have a view on the most appropriate definition of long-term financing?

Table 2: Main facets of the concept of long-term investing

3 facets of LT invest.	Facet 1 Nature of LT project	Facet 2 LT financing	Facet 3 LT behaviour
Sub-facet 1	Goal <i>LT/Sustainable growth</i>	Nature of resources <i>LT and/or stable savings</i>	Investment strategies <i>(contrarian, low turnover, minimum 5-year holding period for a financial asset)</i>
Sub-facet 2	Nature of assets and agents to be financed <i>Investment in tangible and intangible assets LT >> above all ST, MT</i>	Instruments/vehicles <i>Ad hoc LT</i>	Corporate governance <i>partnership-based</i>
Sub-facet 3		Providers of funding <i>LT investors Development banks Public investment banks</i>	

Source: authors

2.2. The first facet: the long-term investment project

From the standpoint of this facet, the primary goal of this kind of investment is long-term growth²⁰ (Facet 1.1). Sub-facet 2 (1.2 – the nature of the investment project) rests on the assumption that long-term investment involves investing in capital assets, i.e., capital which, by tying up financial resources over an extended period, makes it possible to create new production units, innovate and enhance production processes. This kind of capital is to be distinguished from financial capital. Although it requires the entity making the investment to take risks, financial capital does not directly push back the frontiers of production; it does not contribute directly to what the real economy produces. For that reason, only tangible and/or intangible assets used by businesses, rather than financial assets, should be viewed as candidates for such long-term investment projects. Moreover, capital assets must be enduring in nature, even if they have to be renewed in the short, medium or long term.

Defining the nature of an investment project in relation to long-term growth is necessary but not sufficient, however, as long-term needs must be financed in part by agents with excess savings. This underscores the importance of the second facet of long-term investing, which pertains to long-term financing. Facet 2 is in turn divided into three sub-facets.

2.3. The second facet: long-term financing

The first sub-facet (2.1 – the nature of savings) pertains to the preferences of agents who have surplus savings. Their resources may be more or less short-term, public or private, internal or external. We believe that long-term savings (both contractual and de facto savings) should rank highest, as they involve lower liquidity constraints for providers of funds. The second

²⁰ Some respondents stress that such investments should go towards innovation and the development of infrastructure that will help address the challenges of climate change.

sub-facet (2.2 – long-term financing instruments) raises the question of what vehicles/instruments should be promoted for financing long-term investment projects. Given that such projects originate with companies that have to plan for the future, we see a need to expand the range of *ad hoc* long-term financial instruments (e.g., long-term European funds, long bonds) directed at so-called long-term investors. In the third sub-facet (2.3 – long-term providers of funding), the task at hand is to find investors willing to commit funding for a period long enough to finance long-term growth. They may be long-term investors with long-term liabilities (such as pension funds and insurance companies) or development banks and public investment banks.

This second facet is important in that it highlights the need to promote prior savings and appropriate long-term financing vehicles, but it, too, is insufficient, because the question remains as to how providers of funds will behave in the long term or actually hold securities for long time horizons (the third facet). An investor with long-term resources may very well prefer shorter investment horizons for any number of reasons, ranging from competition to regulations to existing incentives. This points to the need to consider a third facet focused on defining long-term behaviour and how it differs from short-term behaviour.

2.4. The third facet: the long-term behaviour of funding providers

Because the three facets are complementary, a proper fit with the first two facets requires a certain degree of long-term commitment by the providers of funding. Without such commitment, projects geared to the future stand little chance of materialising. A business enterprise is an institution designed for the long haul, even though some of the providers of debt and equity financing may only wish to go part of the way with it. When major disagreements on strategy arise, providers of funding who have trouble convincing their partners may be tempted to give up and withdraw their funding from the company. To put it differently, only if investors and shareholders accept the relative illiquidity of the funds they have provided can capital expenditure take place and pave the way for future profits – the best guarantee of real lasting shareholder value. There is necessarily more to an investor's long-term behaviour than simply buying stock.

The first sub-facet (3.1 – long-term investment strategies) has to do with asset allocation by financial intermediaries who seek to finance long-term projects. Our starting premise is that such intermediaries should adopt contrarian or countercyclical investment strategies combined with flexible, dynamic allocation, with rebalancing (as opposed to momentum management) and low portfolio turnover. Our analysis of the responses to the Green Paper suggests there is a rough consensus on a five-year horizon, a view corroborated by the European Commission's summary of the results. In the case of bank intermediaries engaging in their traditional activity, long-term behaviour has to do with their ability to extend loans with differing maturities and keep those loans on their balance sheets so as to maintain their long-term relationship with the borrowers. In addition, the necessary long-term commitment by banks involves promoting partnership-based governance, both for asset management purposes and at the companies in which they invest their own funds (Facet 3.2). Those companies can in fact be defined as institutions with multiple stakeholders, including shareholders, directors, managers, suppliers and customers. To enable such a company, which forms a sort of community, to plan for the future, its stakeholders must build lasting relationships. This underscores the need for relatively long-term commitment, and for instruments that reflect it. The European Commission seems to have endorsed a number of these conditions for investing

under the European Long-Term Investment Fund (ELTIF) regulation, which entered into force in December 2015. Examples include a five-year investment period, which amounts to introducing a certain amount of illiquidity into asset management, and the specification that long-term financing through such funds should go to real-economy assets, not to mention the prohibition of certain financial innovations.

A definition of long-term investing based on these three complementary facets²¹ will form the analytical framework for identifying potential short-term bias in the accounting and prudential rules that apply to banks and insurance companies.

3. The impact of accounting standards on long-term investment

3.1. Review of the literature on fair-value accounting

Before identifying the actual and potential impact of accounting standards on long-term investing and financing, we will endeavour to describe the accounting standard-setting process in Europe²² and clarify the theoretical underpinnings of the standards in force today. Very much like agency theory, which advocates reducing information asymmetry between shareholders and managers, IFRS aim to provide current and potential investors with the information they need to make economic decisions (purchase/sale of securities). The standards are thus in line with the efficient market hypothesis, given that they use fair value, based on current market price, as the primary approach to measurement. That approach has earned recognition for conveying transparent, verifiable information that is relevant to decision-making.

Most of the empirical research²³ shows that this measurement technique increases the relevance of accounting information to investors, as compared with amortised cost accounting. To assess the quality of fair value information, those conducting the research have specifically examined its impact on either a company's share price or the market value of its equity (using a statistical regression model). Most of the results, however, have only limited validity, as they are based solely on equity portfolios (there has been little or no research on other products such as bonds and alternative investments). More consequentially, the authors have been unable to prove indisputably that fair value measurement is superior to measurement at cost. Furthermore, the results are not statistically significant and explanatory variables may have been omitted. Some studies also point out negative effects of fair value accounting, such as higher volatility.

Detractors of fair value accounting emphasise its effect on financial statements and on the behaviour of both investors and managers.²⁴ Fair value, they contend, introduces volatility into financial statements (through the valuation of portfolios and equity, where fair value remeasurements are recognised), particularly in the case of medium- and long-term investments that should normally remain on the company's books for a considerable length of

²¹ Which must be upheld together.

²² In this summary, we will not be covering the accounting standard-setting process in Europe.

²³ Bernard 1995; Barth, Beaver and Landsman 1996a; Eccher, Ramesh and Ramu Thiagarajan 1996a; Nelson 1996; Laux and Leuz 2009; Magnan 2009.

²⁴ Barlev and Haddad 2003; Perry and Nolke 2007; Hitz 2007; Plantin, Sapra and Song Shin 2008; Jaggi, Winder and Lee 2010; Sapra 2010; Zhang and Andrew 2014.

time. Moreover, fair value accounting is said to encourage procyclical and short-termist strategies. As producers of a steady stream of instant valuations, market participants tend themselves to react instantly (with momentum strategies) and to shy away from their initial long-term strategies.

3.2. Summary of our interview survey results and the results of our study of the Green Paper on the long-term financing of the European economy

Based on this preliminary effort to understand the international accounting system, we have attempted to identify the impact of IFRS on long-term investment and financing by banks and insurance companies. To that end, we have analysed the responses to the EC’s Green Paper on the long-term financing of the European economy²⁵ and conducted a series of semi-structured interviews with a variety of stakeholders (e.g., officers of institutions, consultants, standard-setting bodies, regulators). The findings from these surveys are analysed in conjunction with the academic studies examined in our review of the literature. To start with, we have found broad consensus on the idea that long-term investing and financing are primarily affected by IAS 39 – Financial Instruments, to be replaced from 1 January 2018 by IFRS 9.²⁶

Our work has brought to light the impacts common to both sectors, as well as those that are specific to banking and to insurance. To begin with, we found that IAS 39, which came into force in 2005, has not affected long-term financing activity by banks. The standard calls for measuring loans and receivables at amortised cost (similarly to French GAAP), which makes long-term management of such portfolios possible. In the case of long-term investing by insurance companies, we observed a number of effects, some reflecting the low suitability of IFRS in their current form to the insurance business, and others pertaining to financial statements and the behaviour of insurance fund managers (see Table 3).

Table 3: The effects of IFRS 4 and IAS 39 on insurance companies

Technical impact of the standards on LTI	Impact of the standards on financial statements	Impact of the standards on investment managers
IAS 39: HTM category ill-suited to accounting for long-term investments due to the “tainting rule”, which sanctions the sale before maturity of an asset classified as HTM.	Fair value accounting has introduced volatility into insurance companies’ financial statements. Long-term investments are remeasured at the close of each reporting period, with any changes recognised in OCI (through equity). Those remeasurements reflect changes in the market rather than in the actual performance of long-term investments.	Confronted with fluctuations in long-term investments, insurance fund managers adopt momentum strategies and review their asset allocation more frequently, with the result that the holding period for long-term assets has become shorter.
As IFRS 4 phase 1 does not regulate measurement and recognition of insurance liabilities, they are still carried at cost, as they are under French GAAP, for example. This leads to inconsistency between fair value accounting for assets and cost accounting for liabilities.		Fund managers adopt procyclical behaviour in that they adjust their investment strategies to reflect changes in the market value of assets. Bull and bear market cycles become more pronounced as a consequence.

Source: authors

²⁵Question 20 in the Green Paper reads, “To what extent do you consider that the use of fair value accounting principles has led to short-termism in investor behaviour? What alternatives or other ways to compensate for such effects could be suggested?”

²⁶ The effective date for the new standard will be deferred for the insurance sector, however.

In addition, we examined the potential effects of IFRS 9 (scheduled to replace IAS 39) on long-term investing by banks and insurance companies. We identified those that were potentially supportive of long-term investing and those that were potentially detrimental to it (see Table 4). However, as IFRS 4 phase 2 – Insurance Contracts, has not been released yet, we were unable to identify any possible bias it might generate.

Table 4: Potential effects of IFRS 9 on long-term investing by banks and insurance companies

	Introduction of the pure cash flow criterion to determine the measurement category	Elimination of the tainting rule	Stocks are measured by default at FV-P&L	More flexible hedge accounting procedures
Changes in standards	The standard requires an asset to meet the SPPI test ²⁷ to qualify for measurement at cost or at FV-OCI.	Assets that meet the SPPI test may be measured at cost provided they are managed under a long-term business model.	Only stocks classified as strategic can be measured at FV-OCI, but in this case without recycling to profit or loss upon disposal.	Simplified eligibility criteria for hedge accounting and more flexible criteria for assessing hedge effectiveness
Potential effects	Many assets will be moved to another category (to FV-P&L): quoted and unquoted equity instruments, non-plain vanilla bonds, loans with structured rates, specific tranches of securitised loans and infrastructure investments.	Higher investment in bonds that qualify for cost accounting	Lower investment in stocks	Long-term asset hedges more accurately represented
Effects on long-term investing	Beneficial	Beneficial	Beneficial	Beneficial

Source: authors

IFRS 9 will therefore potentially affect long-term investing activity by banks and insurance companies in the following ways:

- It will heavily penalise investments in stocks
- It will penalise investments in alternative assets (private equity, infrastructure investments)
- On the whole, it will boost investment in bonds
- Short-term investments will be unaffected

Furthermore, IFRS 9 will have an impact on lending by banks, as it will change the criteria for determining the measurement category (fair value or cost) and the provisioning method (see Table 5).

²⁷ The *SPPI test* stipulates that the cash flows of an asset must represent solely payments of principal and compensation for the time value of money, in which case the asset is deemed to be *plain vanilla*.

Table 5: Potential effects of IFRS 9 on long-term lending by banks

	Loan measurement	Loan provisioning
Changes in standards	<i>SPPI test</i> applied to loans The application guide sets out the criteria for application to loans	Shift from an incurred loss model to an expected loss model ²⁸
Potential effects	A majority of loans will be considered plain vanilla and may be measured at cost. Non-plain vanilla loans will be measured at FV-P&L	Higher provisions Higher lending costs
Effects on long-term financing	Neutral	Negative impact on long-term loan categories (greater default risk)

Source: authors

What emerges from our analysis is that IFRS tend:

- to put stable, countercyclical investments in stocks and alternative assets at a disadvantage
- to put plain vanilla bond investments at an advantage
- to have a neutral effect on the majority of loan portfolios and an adverse effect on non-plain vanilla loans

The drive for transparency and neutrality that predominates in these standards contributes to a snapshot view of portfolios that conflicts with the kind of long-term financing required by long-term investment projects. The standards are ill-suited to long-term investment practice such as contrarian or countercyclical management, which equates with dynamic asset allocation handled flexibly over time. It is worth noting that the three years we devoted to this issue (2013-2015) allowed us to study standard-setting proposals (on IFRS 9 and IFRS 4) that did not all go through. Over that time span, we got to observe stakeholders' fears and doubts in relation to projects likely to affect their long-term activities. Some of those proposals were characterised by more significant short-term bias.

3.3. Accounting recommendations on how to promote long-term investing

In this field study, major importance has been given to the views of banking and insurance stakeholders regarding the effect of IFRS on the financing of long-term investment. The results highlight the difficulties created by IFRS for those managing assets held for the long term. Based on these points and our review of the literature, we put forward proposals for how the IFRS standard-setting process can take the special features of long-term investing more adequately into account. Underpinning our proposals is the asymmetric prudence principle, which calls for recognising unrealised losses only, but not unrealised gains. That outlook stands in contrast to the view of prudence upheld by the IASB, which can be equated with a neutrality principle that leads to recognition of both unrealised gains and losses.

Proposals relevant to both banking and insurance: Our analysis of the responses to the interviews and to the Green Paper on the long-term financing of the European economy shows that IFRS does not make it complicated to account for long-term debt instruments. We therefore have no proposals for that asset class. However, our study does bring to light a problem with respect to recognising and measuring portfolios of quoted and unquoted equity

²⁸ Under IAS 39, provisioning is performed using the incurred loss model (that is, a trigger event resulting in a loss must occur before a provision can be recognised), whereas under IFRS 9, the expected credit loss model is used (provisioning on a statistical basis).

instruments held for the medium and long term. Under IFRS 9, gains and losses on the sale of securities cannot be recycled. This means that the performance of investments will never be recognised in profit or loss. Banks, insurance companies and non-financial companies are all confronted with this issue. Our identification of these effects of IFRS prompted us to make the following recommendations:

- **For (quoted) equities held for the short term (less than 1 year),** use FV-P&L accounting. The management intent with regard to such instruments is to maintain high turnover so as to achieve the highest possible returns in a short time span. Such an approach is in line with the IASB's short-term outlook.
- **For (quoted and unquoted) equities held for the medium term (between 1 and 5 years),** use the FV-OCI category, while allowing gains and losses on the sale of those instruments to be recycled to profit or loss. Given that the shareholders in this case make a longer-term commitment, both management intent and the measurement category should be different from what they would be in the case of investors holding equities for short periods. This takes us another step away from the IASB's rather narrow short-term approach.
- **For (quoted and unquoted) equities held for the long term (over 5 years),** use cost accounting by **creating a new category for longer-term equity investments.**

As long-term investing is not unique to banks and insurance companies, the new accounting category could be applied to all investors who hold financial assets for longer periods. A number of conditions relating to actual investor behaviour could be included.

Such a long-term accounting category could, for example, meet the following requirements:

- **Measurement at cost accompanied by a provisioning model that permits recognition of unrealised losses.**
- **Use of rebalancing,** which permits portfolio reallocation and therefore active management, but with the consistent aim of meeting the long-term strategic allocation objective. This implies proper control of turnover. The goal remains long-term allocation to achieve long-term returns. Rebalancing is meant to ensure that the current allocation is in line with the long-term strategic allocation set for the portfolio. It should thus be distinguished from tactical allocation, whose purpose is to take advantage of current market conditions without a long-term benchmark.
- **Choice of a minimum holding period.** A 5-year period would be in line with the consensus response on the concept of long-term investing. Five years is also the period adopted by the EC for the European Long-Term Investment Fund Regulation, which entered into force on 15 December 2015.
- **Mandatory disclosure of the following information in the notes to the financial statements:** the composition of the portfolio, changes in that composition with justification provided for rebalancing and the fair value of the assets held.

Equity instruments held for the medium and long term (whether measured at FV-OCI or at cost) will require arrangements for provisioning unrealised losses. Such provisions would modify profit or loss to reflect estimated credit losses as they arise. In the case of **alternative investments (private equity and infrastructure investments²⁹)**, our recommendation is to give entities the option of measuring at amortised cost those representing long-term investments (over 5 years) such as private equity (with investments in innovative companies

²⁹ Which may take the form of either bond or equity financing.

taking priority) and infrastructure investments, in accordance with the long-term accounting category proposed above. Moreover, we consider it important to permit entities measuring such assets at fair value to shift to another measurement category in the event of a liquidity crisis (reclassifying them into the amortised cost measurement category in accordance with the amendment to IAS 39 adopted in the wake of the financial crisis).

A proposal specific to the banking sector: While our research has shown the need for a change in provisioning approach due to the pitfalls in the incurred loss model (“too little, too late”, procyclical provisioning), it also highlights the importance of correctly calibrating both the size of provisions for expected losses on non-impaired loans and the credit-impaired threshold so as to avoid penalising long-term loans, which inherently entail greater risk. We therefore recommend that **the estimated future cash flows be taken into account in determining the amount of impairment.**³⁰ The model should include a calculation of the interest payments that will be received in the period over which an expected credit loss is estimated, as they reflect the risk estimated by the entity at the time that it extended credit.

4. The impact of prudential standards on long-term investment

4.1. Negative effects on the banking sector and their causes

A number of impact studies (e.g., by the International Finance Institute, the OECD, the Basel Committee, the IMF, the EC) have attempted to quantify the economic cost of financial reforms,³¹ but the results vary according to the models and assumptions used and the regulatory changes considered. What nonetheless emerges is that all the regulations examined have a cost impact that is reflected in pressure on margins, on capital and on the trading activities of banks. We have opted instead for a qualitative approach in order to identify the direct and indirect effects of regulation on intermediation by banks and insurance companies (lending and asset allocation).

Of the 257 responses to the Public Consultation on the Green Paper that we analysed,³² 113 mentioned prudential issues and 98 respondents (86.7% of the total) were of the opinion that prudential regulation negatively affected the long-term financing capacity of banks, whereas 4 respondents (3.6%) expressed the opposite view and 11 others (9.7%) gave a “no opinion” answer. While the vast majority of respondents from both the financial sector and non-financial companies (94.2% and 95.5%, respectively) shared that negative assessment, there was less agreement among respondents from civil society, regulatory bodies and financial market participants. The banking sector, as could be expected, showed the highest degree of engagement. Non-financial companies also subscribe to the arguments put forward by the banking sector, concerned as they are that greater regulation will reduce their access to funding. While a majority of civil society respondents stressed the negative impact of new prudential requirements on the long-term financing capacity of banks, some of them³³ clearly stated that those requirements helped strengthen the banking sector, leaving it healthier, better capitalised and therefore more able to finance long-term investment.

³⁰This position was endorsed by the EFRAG Board at its meeting on 9 April 2015.

³¹ Their impact on the cost of credit and on GDP.

³² We were unable to analyse 35 responses, including 8 that were not published.

³³ The European Trade Union Confederation, the Swedish authorities, Finance Watch and the Central Organisation of Finnish Trade Unions.

Of the 98 respondents who mentioned the negative impact of prudential regulation on the ability of banks to offer long-term financing, 47.3% stressed liquidity ratios, 35.5% capital requirements and 14.5% the leverage ratio in particular. These findings coincided with those in IMF impact studies, which demonstrated that the new liquidity requirements would cost as much as the higher capital requirements. The negative impact responses were characterised by two different lines of argument. The first had to do with the liquidity requirements and their effect on banks' ability to perform maturity transformation (loan, investment, securitisation portfolios, etc.), the second with capital requirements and the higher costs of financing (through securitised and non-securitised lending). We will attempt here to clarify those arguments, bearing in mind that each effect may be caused by several regulations.

Effect 1: A reduction in long-term financing

In the view of nearly 52 respondents³⁴ (46%), the liquidity ratios can affect lending by banks. The 30 of them who argued their positions³⁵ contended that the two liquidity requirements would limit banks' ability to perform maturity transformation. Transforming short-term liquid deposits into less liquid credits with longer time frames is precisely a form of long-term financing that non-bank financial entities are unable to provide.³⁶ More specifically, the short-term liquidity coverage ratio (LCR) affects long-term investment by requiring banks to hold strictly defined liquid assets in the LCR buffer.³⁷

This first negative effect is heightened by the solvency and leverage ratios. Respondents from France also emphasised the strong correlation between the level of capital at a bank and the amount of money it lends. As the loan book represents the primary driver of capital requirements, that, they argue, is where banks will focus their efforts. This could induce them to restrict the amount of money they lend in order to keep their regulatory capital from rising. Similarly, 16 respondents expressed the opinion that the leverage ratio adversely affects banks' long-term investment capacity because it applies to a bank's entire balance sheet, without taking the riskiness of assets into account. That could potentially limit investment by banks whose assets are subject to a low or 0% risk weighting, such as long-term loans backed by public sector guarantees.

Effect 2: Shorter loan terms

In the view of the respondents, the new long-term liquidity ratio (NSFR)³⁸ will lead to shorter terms for loans to the broader economy, due to the high cost of matching the maturities of assets and liabilities. Loans with long repayment terms and lower profitability become particularly expensive to provide, given that they have to be offset by stable funding, whose

³⁴ Many of those 52 respondents did not argue their positions.

³⁵ This argument was advanced by a majority of respondents at banks (12 respondents), among consulting and audit firms and financial analysts (6 respondents), diverse investors (4 respondents) and non-financial companies (4 respondents).

³⁶ "The various quantitative impact studies conducted by the Basel Committee (FSB) and by the European Banking Authority (EBA) show that banks are the only financial institutions to perform maturity transformation in Europe," according to the Fédération Bancaire Française (FBF). This is "their traditional role in expanding the supply of long-term credit and generating growth through maturity transformation," states HSBC.

³⁷ "Altogether, holding long-term assets will be penalised by the necessity to hold so-called liquid assets (mostly sovereign debt and deposits to central banks)," explains the Fédération Bancaire Française and BNP Paribas. "The LCR requires banks to invest part of the savings they attract in a narrow range of highly liquid assets and as a consequence these funds cannot be used to serve the real economy," argues ING.

³⁸ NSFR: Net stable funding ratio.

additional cost banks may well pass on, raising the cost of credit in the process.³⁹ The “rematching” principle “*requires banks to fund the investments through term borrowings or equity*”, argues the Royal Bank of Scotland. The European panel respondents thus believe that the two liquidity requirements will lead to a reduction in the long-term financing the economy so badly needs,⁴⁰ and the French are no exception. They criticise the NSFR for being at odds with banks’ intermediation function, which consists of transforming short-term sources of funding into long-term assets (i.e., using demand deposits to make medium- or long-term loans). In their opinion, banks have only limited household savings on their books and insufficient corporate deposits available to them. Such a demanding ratio, they claim, is likely to have a major impact on bank lending, given the trouble that banks have in obtaining long-term resources. Banks may well respond by shortening the term of their assets.

The solvency ratios are expected to intensify that impact. According to the French panel respondents, the additional capital requirements for using credit derivatives as hedges, particularly when credit valuation adjustment (CVA) risk is incorporated,⁴¹ could adversely affect long-term lending activity. The respondents stress that the use of hedging derivatives is an essential aspect of corporate financing, above all in the case of long-term transactions.

Effect 3: Higher financing costs and a tighter supply of financing

Some respondents draw attention to what they consider the overly conservative prudential treatment of derivatives. At issue is netting between derivatives assets and liabilities and collateral, as the NSFR encompasses both the asset and liability sides of the balance sheet. In more specific terms, the respondents point out that the Basel Committee authorises incomplete netting between collateral and cash flow and securities. It adds an extra layer to total liabilities excluding collateral (one takes the mark-to-market value of the derivatives and one charges 20% on it, over and above NSFR requirements). Such treatment, they contend, will penalise all those who use derivatives to hedge their exposures, from investors and hedge funds to insurance companies and corporates. Those users could well be penalised (i) by lesser use of derivatives to meet the requirements and therefore by reduced supply of hedging instruments; and (ii) by the higher cost of intermediation, which banks would pass on to them. One possible outcome would be reduced demand for hedges due to their disproportionately high cost.

The respondents also believe that by requiring banks to hold more long-term resources (i.e., more than one year), the NSFR runs counter to their primary activity, which is maturity transformation. On the whole, they consider the NSFR highly detrimental to market-based financing in that it will compel banks to draw on long-term resources to pay for the entire volume of liquid securities they hold, and therefore to settle for lower returns. Some of them mention the need to pass on the cost of stability to clients. They stress the important role that banks play in trading activities (derivatives and collateral) as market makers that maintain a liquid market for their clients’ transactions, or as intermediaries in the capital markets (for debt and equity instruments) that assume underwriting risk.

³⁹ In this regard, “*NSFR goes against the fundamental role of banks in liquidity/maturity transformation*”, states the European Banking Federation.

⁴⁰ “*The introduction of the new liquidity rules will equally have significant effects on the financing of corporates and SMEs*”, says UniCredit, as well as on mortgage lending, lending to municipalities and infrastructure investments (project and export finance), according to BNP Paribas.

⁴¹ Basel III introduces a capital surcharge to capture the potential mark-to-market losses on exposure to derivatives, which takes credit valuation adjustment risk into account.

This third effect is compounded by the solvency and leverage ratios. Higher solvency ratios for lending are one aspect of the problem. According to the respondents, loans (to corporate clients, SMEs, mortgage loans and infrastructure financing), which are considered the primary instruments of long-term financing, are among the assets that cost the most in terms of regulatory capital and that are the least profitable under the Basel III capital requirements. With the solvency ratio calibrated in this way, loans with longer repayment terms, which can be assumed to be riskier than short-term loans, will be penalised. Confronted with the need to increase their capital and maintain their return on equity, banks are likely to scale back their long-term lending activity. The prudential system calls for a higher capital charge on long-term assets, as they are considered riskier than others. This line of reasoning risks discouraging banks from channelling long-term financing to the economy so that they can keep profitability at levels acceptable to their shareholders. The arguments put forward by French banks attest to both of these tendencies, i.e., less long-term financing and concerns about profitability. Regarding the leverage ratio, banking sector respondents object to what they consider overly conservative rules, which oblige them to calculate exposures that do not actually exist. The leverage ratio rules have a highly adverse impact in their view. Their arguments are the same as those put forward in relation to the NSFR ratio.

Alongside their lending activity, banks possess a broad spectrum of financial instruments, including available-for-sale and/or held-to-maturity financial assets and investment property, which may also be affected by regulatory requirements.

Effect 4: Less higher-risk investment (in quoted and unquoted equities) and more so-called risk-free investment (in government bonds)

From a prudential standpoint, stocks are risk assets, as they are exposed to market fluctuations and offer no capital guarantee. Supervisory authorities accordingly show considerable determination to penalise such assets – in contrast to government bonds, which are considered less risky and more liquid – by imposing a high solvency ratio. Furthermore, the stakeholders surveyed believe the Basel III rules will strongly affect investments in alternative assets, above all private equity. Regulators consider such investments particularly risky.

Effect 5: A threat to the economic viability of securitisation; securitised assets with longer terms to maturity will be penalised by higher solvency ratios

Some respondents consider the capital requirements and risk retention rules for securitised assets to be excessive. In their view, securitisation could be an alternative source of long-term funding in that it enables banks to go on extending loans with lower capital requirements, while providing institutional investors and the capital markets with opportunities to invest long term, including in SMEs. The respondents criticise the Basel Committee's proposal in the *Securitisation framework* of 2012 to increase the risk weights for longer-maturity securitisation exposures without distinguishing the various types of securitised products, some of which, such as prime collateralised securities and asset-backed securities, are particularly safe. As a number of them also point out, such an approach would amount to a “double whammy”, given that risk and credit analysis already includes maturity profile. The proposed higher risk weightings could undermine the economic viability of securitisation and lead banks to get rid of their securitised assets.

4.2. A discussion of stakeholders' arguments and recommendations

Solvency ratios

The responses to the questions in the Green Paper on prudential rules for banks, together with the interviews conducted in France, suggest there are two opposing approaches to assessing the impact of the capital requirements. Respondents from the banking sector believe the additional requirements will force them to recapitalise and therefore to charge clients more for financing. At the same time, this will drive their ROE down, making the banks less attractive to potential shareholders. The trouble they have in building up the regulatory capital required of them will lead them to shun assets with higher risk weights, the respondents contend. This in turn will result in credit rationing and more expensive loans – the equivalent of a “double whammy” for borrowers. To these respondents, the deleveraging process, a consequence of the new prudential requirements, will therefore become a major cause of the inadequate supply of long-term financing to the European economy and of low economic growth.

This viewpoint calls for qualification, however, and for two reasons. First, the leading systemically important US and European banks enjoyed an extremely high ROE in the run-up to the financial crisis. Like non-financial companies, financial institutions may experience pressure from shareholders who threaten to sell their shares if the ROE drops below what the market deems average. They may respond by selecting risky projects that are profitable in the short term and by turning down long-term investments likely to produce lower immediate returns. Second, although a high ROE may distinguish those banks most likely to achieve sustainable performance, it tells us very little about the risks they take in terms of leverage, capital structure, dependence on short-term wholesale funding, asset quality, risk concentration and the like. ROE can therefore create negative incentives for some banking business models, for example if compensation policies encourage the pursuit of short-term profits. All strategies for restructuring bank balance sheets to generate long-term (or alternatively short-term) value and move to a more stable business model tend to drive ROE downward (or upward).⁴²

Recommendations: We are in favour of a tradeoff in the numerator (net income or gross margin) instead of just in the denominator. Such a tradeoff could be facilitated by applying lower risk weights to loans used to finance projects that meet the first requirement in the definition of long-term investment (capital spending on tangible and intangible assets).

Short- and long-term liquidity ratios

A majority of the banking sector respondents in France and elsewhere in Europe expect the two new ratios to affect the ability of banks to perform their financial intermediation role (particularly through maturity transformation). The LCR, they claim, will compel banks to hold liquid assets instead of long-term assets. The NSFR will affect their ability to perform maturity transformation by requiring them to finance long-term assets with long-term sources of funding. In the respondents' opinion, this will both reduce the availability of long-term financing, due to the need to hold strictly defined liquid assets, and shorten the term of loans, due to the higher cost of maturity matching.

⁴²Between 2002 and 2014, ROE in US and European industry ranged from 10% to 13%, whereas at universal banks it ranged from 10% to 20% between 2002 and 2005, and from 20% to 30% between 2004 and 2007, after which it declined drastically. The financial crisis revealed that those levels of ROE were unsustainable (ECB, 2010; Villeroy de Galhau, 2015).

This cause and effect relationship is open to question, however. Regulators introduced the new liquidity ratios because the financial crisis revealed that some banks had taken their transformation activity quite far – collecting more and more short-dated market instruments to finance mortgage assets and structured products created through securitisation whose liquidity then dried up overnight (as happened at Northern Rock and Lehman Brothers). Maturity transformation, to be sure, is an integral part of what banks do, but so is selecting and managing risk (along with the cost of screening and monitoring). Mitigating the excesses that accompany maturity transformation when it is not subject to adequate risk control is precisely the aim of the new liquidity ratios, and a legitimate one at that. In practice, this results in more intrusive regulation of how banks manage liquidity risk, with regulators imposing more stringent rules on which assets a bank may consider stable or liquid and penalising deposits from financial institutions. The challenge therefore involves striking a proper balance between mitigating excessive maturity transformation and preserving the ability to perform it.

Recommendations: To achieve that balance, we advocate a tradeoff in both the numerator and the denominator, rather than just in the numerator (to avoid reducing ROE). In the interest of an improved LCR, banks can make greater use of stable funding to reduce the net outflow of funds, instead of holding liquid assets. With respect to liquid assets (the numerator), the key issue has to do with the eligibility of liquid assets for the liquidity buffer. An overly restrictive buffer could lead to an amply sufficient reduction in excessive liquidity transformation, whereas a broader buffer could be viewed as creating a slight incentive to engage in excessive transformation. The tradeoff on this point could be facilitated by allowing a higher percentage of deposits at financial institutions to be considered stable, given that such liquidity is highly intermediated. We are also in favour of expanding the buffer to include securitised products, provided that the conditions for simple, safe securitisation have been met (see below) and that the loans underlying those securitised assets go to financing capital expenditure in accordance with the first facet of long-term investment.

The leverage ratio

In the view of the banking sector respondents, the simple leverage ratio will act as a backstop that will significantly reduce bank assets. To comply with the 3% leverage ratio, banks can adjust either the amount of assets on their balance sheets or the amount of equity. However, increasing equity is a costly undertaking in terms of both returns to shareholders and the bank's image (as it suggests under-capitalisation). Banks understandably tend to juggle their assets (the denominator) to comply with the leverage ratio. In the past few years, there have been moves to anticipate the new regulation that have led to a reduction of banks' assets. As the leverage ratio can be constraining,⁴³ banks will have an incentive to reduce their assets and turn towards the most profitable, and therefore riskiest, assets, contrary to the stated goal.

This causal relationship warrants further discussion. A different kind of tradeoff for meeting the leverage ratio requirement can be imagined, one that involves adjusting both the denominator and the numerator. Banks have other options than recapitalisation for satisfying prudential requirements without restricting their long-term investing activity. Finance Watch cites the High Level Expert Group on reforming the structure of the EU banking sector, according to which loans to households and non-financial companies represent 28% of European banks' balance sheets (European Commission 2012), while the deleveraging

⁴³ That is, when it, rather than the capital ratio, becomes the binding constraint.

process is expected to involve roughly 7.5% of total assets (Deloitte 2012), giving them enough leeway to scale back activities other than lending, such as trading. As the European Commission put it, “*balance sheet reductions and deleveraging can be achieved without reducing real economy lending*” (European Commission 2014b).

Recommendations: In principle, the simple leverage ratio is designed to help reduce the excessive leverage in some banking models (particularly at investment banks), which generates financial instability and possibly systemic risk. The focus, then, is on risk to the global financial system rather than on the micro risk related to individual banks. However, implementation of the ratio raises a number of questions. Because it does not consider the varying risk profiles of the assets that make up a bank’s balance sheet, the leverage ratio cannot be more than a prudential tool supplementing those prudential tools that include weightings to adjust for risk. A further drawback is that the leverage ratio is not as easy to calculate as it may seem, given that the Exposure Measure, which forms its denominator, permits netting of security borrowing and lending exposures. Under the Commission Delegated Regulation (EU) 2015/62 of 10 October 2014, which aligned European regulation with the revised rules set adopted by the Basel Committee on 12 January 2014, the leverage ratio may be calculated, for example, using the credit conversion factors provided for in the solvency rules for off-balance sheet items, with a floor equal to 10% of their nominal value. Institutions may also deduct the variation margins paid and received in cash from the current replacement cost portion of the exposure value of credit derivatives (for further details, see Chapter 5, Section 3, Part 7 of the final report). Furthermore, the leverage ratio does not facilitate comparison as much as one might wish, due to the diversity of accounting systems used around the world (e.g., US GAAP, IFRS), which have differing requirements for offsetting financial assets and liabilities.

Our review of these two types of arguments points to the need to strike a happy medium between a simple (i.e., not risk-adjusted) leverage ratio and solvency ratios (risk-weighted through the use of complex models). Such an approach might require a compromise involving fixed percentages (as under the Cooke ratio) that could then be refined using models (as under the McDonough ratio). The specifics of implementation would subsequently have to be worked out. The aim is not less risk-taking, but more measured risk-taking, which calls for an understanding of the outputs of the models used to calculate regulatory capital.

To incentivise banks to make other tradeoffs, prudential regulation should reduce the appeal of activities that are more profitable but less supportive of long-term investment and encourage activities such as lending to SMEs. Similarly, the prudential treatment of derivatives could be less strict if transactions took place on regulated exchanges instead of over-the-counter. While derivatives have the advantage of not requiring up-front financing, they can also entail additional risks.

To conclude our discussion of the three ratios, to give banks adequate incentives to finance long-term capital investment projects without sacrificing traditional bank intermediation and financial stability, risk weightings for long-term assets should be reduced and a wider range of assets should be made eligible for the liquidity buffer, above all investments that finance the real economy.

Securitisation

A further point for discussion is whether it is worth developing and supporting a European securitisation market to boost long-term financing. In the banking sector, securitisation offers

a way to access the liquidity and funding capacity of other market participants, while drawing on the expertise of banks. It is not risk-free, however. With securitisation, banks depart from their traditional, “originate-to-hold” intermediation business model, based on extending loans (which they keep on their balance sheets until maturity, while monitoring the credit quality of borrowers), and move towards another model involving a lengthy chain of non-bank financial intermediaries that take the place of traditional banks, and that operate in parallel to them. The danger is that banks will be reduced to mere brokerage houses (as occurred in the United States) and will have less incentive to manage their risks with reference to the more burdensome originate-and-hold model. Furthermore, securitisation heightens the procyclicality of the financial system in several respects; it renders bank balance sheets and leverage more sensitive to market fluctuations (by increasing the size of mark-to-market loan portfolios).

Recommendations: We support the idea of making securitisation safe by establishing safeguards throughout the process and along the chain of securitisation participants, combined with requirements as to investment behaviour by investors and the types of investment projects permitted, to avoid lapsing into reckless securitisation practices of the kind that led to the subprime meltdown in the United States.⁴⁴

- A first step towards safer securitisation could involve the obligation to trade securitised assets on regulated exchanges. The centralisation and standardisation offered by those exchanges would ensure that individual risk is not transformed into systemic risk. All securitisation contracts would be made with a clearing house, and could therefore be aggregated. Daily multilateral clearing would eliminate the danger of a buildup of risky positions.

Requiring the originating bank to keep part of the risk on its books would represent a second step towards safer securitisation by giving the bank an incentive to select and monitor borrowers more carefully. Information on securitised assets should be transparent and complete so that the various tranches can be rated in a rigorous fashion (a far cry from the spurious AAA ratings assigned to subprime mortgages). That would involve prohibiting synthetic or complex securitisation products and giving precedence to simpler ones. A further requirement would have to do with the nature of the underlying loans backing the securitised assets.

- Loans to SMEs should be a primary focus, along with those used to finance capital expenditure. Mortgage loans should not be the only underlying assets. They may contribute to economic growth, but less so than loans taken out to pay for innovative projects and production facilities.

Only those securitised assets that meet the above requirements should be given preferential prudential treatment, both in terms of weightings for the solvency and liquidity ratios and in the form of implicit public sector guarantees. The central bank could play a crucial role in assisting with and even promoting safe securitisation by recognising securitised products backed by small business loans or by loans that finance capital spending on tangible and intangible assets as eligible collateral for the LTRO programme. In both cases, it would be

⁴⁴ The historical data for European SME ABSs shows a default rate of 0% on senior tranches and of 0.41% on all tranches between 2007 and 2013. Over the same time span, the default rate on all European securitisations was 1.5%, compared with 18.4% in the United States (Villerooy de Galhau, 2015).

providing an implicit public sector guarantee so as to narrow the gap between financial and social return on investment.⁴⁵

Collateral damage from financial and banking regulation

While we fully acknowledge the legitimacy of the new prudential rules for banks, we also draw attention to their limitations. In fact, the unintended effects they produce may run counter to the stated goals. Those limitations are due in part to the tendency of prudential rules to accumulate and interact, to their increasingly complex and technical nature, to their instability and to the growth of shadow banking.

Transition and observation periods have been provided for to mitigate such outcomes, for example by making it possible to recalibrate the ratios. However, it is unclear whether such a gradual approach to implementation is feasible, given that market pressure will encourage banks to adjust faster. Any reasonably large bank that fails to comply with the new rules will be sending out a negative signal to markets and investors, and may have to suffer the consequences. In practice, then, all the measures related to the three ratios are concomitant. It might have made more sense, in keeping with the prudence principle, to wait until the impact of one or two of the ratios became apparent before considering additional requirements, as volume effects will build up for the leverage and liquidity ratios, while price effects will build up for the solvency ratios.

Moreover, as regulations accumulate, they inevitably begin to interact. Each one tends to be viewed separately, in relation to a specific issue of financial instability, and as a result, there may be significant discrepancy between stated objectives and actual outcomes. The effects of those interactions may be negative in some cases, conflicting in others.⁴⁶

A further limitation in this kind of regulation has to do with the growing technical complexity of the rules (a point that applies equally to the prudential standards for insurance companies and to IFRS) and with the standard-setting process. Not only are the actual regulations hard to understand; there is also an increasing number of them. If regulations and directives are the centrepiece of the reform process, it is impossible to implement them unless technical standards are published.

A large number of regulations have been adopted, but others are either under discussion, as the details of implementation get ironed out, or are on the way (for example, the financial transaction tax, banking union, the NSFR). Between 2009 and 2015, there were many amendments to specific measures, and the process is far from over. Once again, and whatever the timetable, banks will find it hard to withstand market pressure to comply with the new measures even before they have been officially adopted. To promote long-term investment

⁴⁵ Some investments may generate a low financial return but a high social return (in the form of greater welfare), as with certain public goods. For such goods to be financed, an implicit or explicit public sector guarantee is required.

⁴⁶ Those effects include “clearing obligations and collateralisation requirements for non-centrally cleared derivatives (EMIR, WGMR, leverage ratio), as well as restrictions on the reuse of assets received as collateral, [which] are leading to a shortage of securities available for use in bank refinancing” (Barut *et al.*, 2015). To this is added “the need to maintain a buffer of unrestricted liquid assets (LCR) and the potential application of higher haircuts on repos and securities lending transactions, both of which generate additional collateral demand, on top of initial margin requirements for derivatives” (Barut *et al.*, 2015). Such effects were underscored by the Committee on the Global Financial System (CGFS) in May 2013.

financing, the rules should be kept relatively stable, finalised as soon as possible and made known to all stakeholders (as the United States did with the Dodd-Frank Act of 2010). They should not be amended until they have been assessed. In any event, the current situation makes it difficult for banks to pursue long-range strategies.

Lastly, the growth of shadow banking may well prove to be the most worrisome risk. Although substantial progress has been achieved on all the outstanding regulatory issues, a number of weak spots remain with respect to actual implementation (as always, the devil is in the details) and to international coordination and harmonisation, leaving the financial system vulnerable. Among those weak spots are those pertaining to what is known as the “shadow banking system”, defined by the Financial Stability Board (FSB) as “credit intermediation involving entities and activities (fully or partially) outside the regular banking system”. Shadow banking, already a key driver of the 2007-2008 global financial crisis, has more recently staged a disturbing come-back that can be seen as an after-effect of post-crisis financial reform. The stricter regulation imposed on banks and insurance companies has raised the legitimate concern that just such an unregulated system may gain ground. In particular, the stiffer Basel III capital requirements entail higher costs for banks, whose representatives point out that the risks they can no longer take will be taken by other financial intermediaries. Subject neither to banking regulation nor to the same degree of oversight by bank supervisory authorities as banks are, shadow banks are characterised by fragile financing structures, excessive, procyclical leverage and financial products that create the illusion of liquidity, combined with under-estimation of the risks they involve (Scialom, Tadjeddine, 2014). The 2007 financial crisis starkly revealed that chain reactions among both regulated and unregulated financial intermediaries made liquidity risk inherently systemic. Risks were amplified and without being counterbalanced, as if they were primarily in the hands of unregulated financial intermediaries.

While we acknowledge that short-termist regulatory bias may restrict the supply of certain kinds of credit, its role should not be overstated.

A look at long-term trends in bank balance sheets shows that the main way in which banks increase total assets is by increasing the weight of the trading book⁴⁷ (measured at fair value) on their balance sheets. At global systemically important banks based in the US and Europe, trading book assets practically doubled in importance – from 20% to 40% – between 2000 and 2007. This growing weight of the trading book is associated with extremely high leverage ratios at the world’s biggest banks. In Europe, the loan book makes up a higher share of total assets at small and medium-sized banks (roughly 70%) than at large banks (50%). In contrast, financial assets held for trading account for approximately 25% of assets at large banks, versus 3% at medium-sized banks. Their weight at small banks is negligible (ECB, 2012).

Furthermore, in the current period of low investment, accommodative monetary policy, combining extremely low interest rates with quantitative easing, stands in contradiction to the high (double-digit) capital requirements. In other words, indirect action by central banks seems to have little effect on large companies. According to the report by Villeroy de Galhau (2015), Blundell-Wignall and Roulet⁴⁸ “conclude that real investment is motivated economically by faster growth and reduced uncertainty, but financially by the cost of equity – as opposed to the interest rate”. Meanwhile, dividends and share buybacks are stimulated by the difference between the cost of equity and borrowing rates. This difference is at its peak

⁴⁷ The trading book comprises all assets held for short- or medium-term trading.

⁴⁸ Blundell-Wignall and Roulet, “Long-term investment, the cost of capital and the buyback puzzle”, 2013.

today, and companies on Wall Street are being encouraged to give dividends and share buybacks priority over investment.”⁴⁹ In the United States, for example, from a macroeconomic standpoint, the issuance of new shares has ceased to be a means for companies to raise funds; it has been supplanted by share buybacks. Over the past thirty years, for every dollar of capital investment by non-financial companies, 17 cents were paid to shareholders for net share buybacks (Hecht, 2014). A study by Auvray *et al.* (2015) on ownership of non-financial companies in Europe from 1995 to 2012 shows that internally generated funding is the primary source of financing for Europe’s non-financial companies, followed by debt, while equity financing plays only a minor role. Quite counter-intuitively, however, shareholders have a major influence on corporate decision-making. They are the ones who demand cash distributions (in the form of dividends and share buybacks).

According to the report by Villeroy de Galhau (2015), “Many mid-caps and SMEs for which analysts do not calculate the cost of capital have the equivalent in the requirement of a faster return on investment: in three years henceforth as opposed to five, for instance.” “More specifically in the banking sector, the persistently high CoE ... has led several major European and French banks to announce big plans aimed at boosting their return on equity. Here, then, a high cost of equity has an impact on the actual strategy”. The report accordingly concludes that “to use abundant savings well, the nature of funding must adapt – becoming more innovative – while the cost of equity must decline: these two trends would reflect reduced risk aversion in advanced countries, particularly in Europe”.

Recent regulatory trends (Delegated Acts of 2015) show that the latest amendments are consistent with what banks are proposing. But only if they fulfil specific conditions will they be in line with our recommendations. In the case of securitised assets like ABSs, the condition is that the underlying loans serve to finance capital expenditure, in accordance with the first facet of the definition of long-term investment. There must be a relatively homogeneous set of risks and a high-quality securitisation process (one that is simple, transparent and standardised), with incentives for banks to manage credit risk (through screening and monitoring) as carefully as they would for loans kept on their balance sheets. If that condition is not met, the outcome will be reckless securitisation of the kind engaged in by US banks. The inclusion of covered bonds in the liquidity buffer will also help mitigate the short-term bias of regulation, as it will indirectly incentivise banks to finance projects that correspond to the first facet of long-term investment, and that all too rarely obtain the funding they need. The measure of exposures that make up the denominator in the leverage ratio has likewise been revised. These amendments only partially coincide with what banks have proposed. The regulatory authorities have questioned neither the basic validity nor the level of the liquidity ratio, despite widespread criticism from the banking sector. However, most of the banks’ suggestions pertained to the treatment of derivatives eligible for inclusion in the denominator, and the stance of the regulatory authorities has not changed significantly.

These regulatory reforms clearly need to be adjusted to reflect the international competitive requirements of the various stakeholders, but financial security must remain our paramount goal. Now that memories of the financial meltdown are fading, it is particularly important to stress this point in response to requests and pressures from financial institutions more concerned with competitive strength than with financial stability. Regulatory change is a necessity. Systemic banking crises can bring about an output loss of anywhere from a few percentage points to nearly 50% of GDP, depending on the crisis and the country (Laeven and

⁴⁹ It should also be noted that weak demand is one cause of lower investment.

Valencia, 2008; Honohan and Klingebiel, 2000). Lastly and most importantly, regulation must not leave out shadow banking – in all likelihood the epicentre of the next crisis.

4.3. Negative effects on the insurance sector and their causes

We found that, among the respondents to the Public Consultation on the Green Paper who believed Solvency II would have a negative impact, a sizeable, 73.8% majority felt the programme's approach to valuing assets and liabilities would be detrimental to long-term investment, while 49.2% of them emphasised the penalising effect of the risk weights assigned to specific long-term assets. Two lines of argument were put forward: one relating to the method for calculating prudential requirements, the other to the prudential treatment of specific long-term assets. Insurance industry practitioners did not question the rationale behind the various measures, which they deemed both warranted and necessary. They recognised that Solvency I was a simple and effective prudential framework, but that was no longer adequate to the changing nature of the insurance business.

The first set of arguments underscores the interconnection between the accounting and prudential requirements for insurers, given that the same valuation-related effects are cited as in the preceding section. An obvious explanation for this is that one of the main changes introduced by Solvency II is to require all assets to be valued at market value so that the securities held can be immediately identified. Under Solvency II, an insurance company's prudential balance sheet will therefore have to be completely different from the balance sheet under its national accounting standards. It will be modelled in part on the balance sheet prescribed by IFRS, but will go further by requiring insurers to remeasure at fair value the items still carried at cost under IFRS. The contention has been advanced that, unlike the IFRS standards, Solvency II has moved to a *full fair value* paradigm. French insurance practitioners have moreover raised questions about the way in which regulatory capital is calculated under the new accounting framework. In their view, the prudential approach in Solvency II amounts to a sea change in the basic insurance mindset, which reasoned up until now in terms of strategic allocation over several years, and not in terms of instant market value at a given closing date (which leads to thinking in terms of liquidation value).

4.4. A discussion of stakeholders' arguments and recommendations

Our analysis of the responses in our European and French sample also highlights roughly ten potential effects attributable to the method for calculating prudential requirements and to the prudential treatment of specific long-term assets.

In relation to the first set of effects, the criticism centres on the choice of a prudential framework based on full fair value. These are much the same effects mentioned and analysed in the accounting section of this report on fair value. They include higher volatility and greater procyclicality, shorter investment horizons, a departure from "buy-and-hold" management and, to top it off, a preference for less risky and less volatile assets (government bonds), while higher-risk assets (e.g., quoted and unquoted stocks, infrastructure investments) are shunned. Based on our critical analysis of the theoretical underpinnings of fair value accounting, we consider the case for all these effects to be well-founded.

Recommendations: All the recommendations made in the accounting section therefore apply here as well. We are also in favour of expanding the range of assets eligible for the use of countercyclical mechanisms to mitigate those effects in the prudential framework. All recommendations aimed at rendering investment strategies less procyclical and less volatile are consistent with the third facet of the concept of long-term investment (long-term investment strategies of funding providers).

Regarding the second set of effects, objections focus on the key instrument of prudential regulation, i.e., the regulatory capital risk weights assigned to specific long-term assets. Among those effects are powerful disincentives to finance infrastructure investments and invest in quoted and unquoted equity instruments, leading to a preference for government bonds and short-term strategies – magnified by the use of one-year VaR as a risk measure.

Recommendations: Insurance industry trade associations in France and Germany advocate special prudential treatment for low-risk infrastructure project assets. We endorse their recommendation. Investments in infrastructure (non-carbon wherever possible) are precisely the kinds of long-term assets referred to in Facet I of the long-term investment concept (investment in tangible assets), which should be encouraged in order to bring about a return to sustainable growth. The same goes for unquoted equity instruments, provided that the explicit purpose of purchasing them is to channel financing to innovative companies, as in the case of private equity funds of funds (with programmes to invest in intangible assets). Equities, yet another vehicle for financing such investments, could also be given special, lighter prudential treatment. But here too, funding providers would need to fulfil the behavioural requirements set out in Facet 3: (i) they would have to keep portfolio turnover low or limit it to rebalancing so that financing with stocks traded on liquid markets meets the requirements of Facet 1; or (ii) they would have to practice buy-and-hold asset management, an approach that insurers deem unworkable for them because of the current valuation methods. Similarly, the assignment of lower weightings to structured products backed by collateral or by long-term guarantees should be contingent on the use of high-quality collateral. A one-year VaR horizon may not be appropriate for the insurance industry.

The picture that emerges from the comments of French and European practitioners is that Solvency II is designed to maintain financing stability and protect the insured, while long-term investors in insurance companies are given short shrift. The stakeholders surveyed stress the contradiction between regulatory constraints that turn investors away from higher-risk and long-term assets and the societal role that the insurance sector is supposed to play in financing the economy. In essence, they object to the short-term bias of Solvency II, which they believe will inevitably drive companies to re-orient their business models towards the least volatile and most liquid assets. The new requirements suggest that the prudential authorities do not give priority status to the role of insurance companies as long-term investors. We subscribe to the view of those stakeholders, but with the proviso that insurance companies act as long-term funding providers who engage in long-term management of the kind described in the third facet of our definition of long-term investment.

The amendments of September 2015 to the Delegated Acts adopted by the Commission in January 2015 contain a number of important changes. A key example is the lower risk calibration for specific assets, whose effect is to reduce the short-term bias in Solvency II. Debt investments in infrastructure projects are now considered less risky. Similarly, the limits related to minimum credit quality restrictions for infrastructure projects have been eliminated. Those restrictions proved problematical in the event of a rating downgrade for even a single

asset. In such cases, the asset ceased to be eligible for inclusion in the portfolio (the famous “cliff effect”), forcing its holder to sell it. The minimum credit quality restrictions, which could lead to ineligibility for many assets of the kind held by insurers such as infrastructure investments, or even to a fire sale of downgraded assets, are also gone. In addition, the prudential treatment of equities is less unfavourable now that an equity dampener has been introduced to temper the one-size-fits-all approach under Solvency II (with a capital charge of 39%). All these changes represent steps in the right direction, provided they fulfil the conditions discussed above.

5. Conclusion

Our research into the impact of IFRS on long-term investment and financing by banks and insurance companies shows that those accounting standards affect different financial intermediaries in different ways. We would accordingly argue that the effect of those standards on long-term investing is not neutral, and can even be adverse in the case of certain investments (particularly equities and alternative asset classes). We have found that, in its current form, IAS 39 has no impact on lending activity. This, however, does not hold true for the insurance sector, where the combination of IAS 39 and IFRS 4 phase 1 has introduced short-term thinking into long-term management. We have highlighted the criticism levelled at IFRS 9, which will come into force in the 2018 financial year (for banks), for its approach to measurement and recognition of medium- and long-term investments in equity instruments. The aim of our proposals is to introduce greater balance into IFRS, so that assets held for the long term can be measured in a more consistent manner, without being penalised by the accounting rules.

However, the recent prudential rules have proven to be even more detrimental to long-term investing than those accounting standards. We have noted that prudential requirements (solvency, liquidity and leverage ratios) have a negative impact on portfolios of loans and high-risk securities such as quoted and unquoted equity instruments and infrastructure investments, although in light of the high ROE recorded, that negative impact should not be overstated. We have found that the cumulative negative effects of existing accounting and prudential standards make high-risk securities less attractive than government paper.

Effect of the standards Neutral 0 Beneficial + Adverse –	IFRS accounting standards	Prudential standards	Aggregate effect: Cumulative effect ++ Cumulative effect – Neutral effect +-
Banks			
Loan portfolio	Neutral (IAS 39)	Adverse (liquidity ratio)	0 -
High-risk asset allocation (equities, private equity, infrastructure)	Adverse (IAS 39 and IFRS 9)	Adverse (solvency ratio)	- -
Low-risk asset allocation	Adverse (IAS 39 tainting rule) Beneficial (IFRS 9 business model if SPPI test is met)	Beneficial (solvency ratio)	- + +
Securitisation	Neutral (IFRS 10 and IAS 39-IFRS 9)	Neutral	0 0
Use of derivatives		Adverse (leverage and liquidity ratios)	-
Insurance companies			
High-risk asset allocation	Adverse (IAS 39 and IFRS 9) Investment property: Neutral (IAS 40)	Adverse (solvency ratio)	- -
Low-risk asset allocation	Beneficial (IAS 39 tainting rule) Beneficial (IFRS 9 business model if SPPI test is met)	Beneficial (solvency ratio)	- +

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