

“Uniformity versus Stability in Global Finance”

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Dear Ladies and Gentlemen,

I am honoured to speak at Oxford University today and thank the Oxford Martin School very warmly for the invitation. What I am going to say has been inspired by some of the important work of the Oxford Martin School – by Ian Goldin, Doyne Farmer and others.²

My topic is the trade-off between uniformity and stability in the financial system. I will argue that much has been achieved in strengthening the functioning and oversight of the system since the financial crisis, but that for the issues that remain, the trade-off between uniformity and stability is critical. The main point I would like to make is that the current design and functioning of the financial system is, in many respects, leaning towards uniformity – to the detriment of stability and to the detriment of efficiency in terms of what the system is supposed to deliver.

Speaking about systemic stability in the area of finance remains a crucial issue. I believe that we all share a sense that the risk of economic collapse has been avoided, but that the broader challenge of aligning the financial system with society’s overall economic objectives still remains to be fully addressed.

I would like to go through the argument in three main steps, starting with a high-level overview of the economics of the financial crisis and highlighting the main achievements of the regulatory steps taken and the main open issues. I will then turn to some key facts about uniformity in the financial system, focusing on the example of banking versus insurance and touching on both prudential regulation and accounting rules. And in the last step, I will discuss why uniformity is such an important issue, why it has not been strongly identified as such and what could be done about it.

¹ AXA Group and Paris School of Economics; email: christian.thimann@psemail.eu. Helpful comments and suggestions by Amelie de Montchalin and Nacim Dardour are gratefully acknowledged.

² For example, Goldin and Mariathasan (2014); Aymanns et al. (2015); Helbing et al. (2014); or Beinhocker et al. (2013).

I. Post-crisis regulation: achievements and open issues

1. The global financial crisis and the passing of the bubble

It is well known that the crisis that began in 2008 led to a destruction of financial values on a scale that was unprecedented since the Great Depression. Within the first 10 months of 2008 alone, the world's major stock exchanges lost nearly half of their value or 35% of world GDP. Equally, US and European banks lost several trillion in asset values as a result of the crisis.

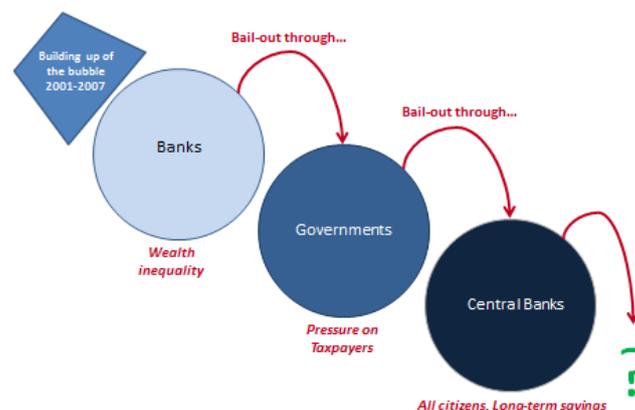
The main point to note, however, is that the assets never existed and these valuations should never have been made. That is the real issue of the financial crisis. So far, it has mostly been argued that it was systemic risk that was overlooked and that the valuations were completely unjustified from a real economy perspective.

Another way of looking at it would be to argue that the uniformity of trades, positions and investments played a crucial role: since all actors in the financial system had uniform positions, all piling up certain assets, the valuations got out of line with fundamentals.

When these values evaporated on the balance sheets of banks and other investors, something else had to step in (Figure 1). Otherwise, the notional value destruction would have caused a sharp destruction of activities and institutions and triggered an economic depression.

A key element that stepped in was government support: significant amounts of public funds were injected to rescue the financial sector through guarantee or recapitalisation schemes. The US TARP programme of \$700 billion; the European bank recapitalisations totalling EUR 600 billion; and the UK banking rescue package of £500 billion are the main examples. On top of this came several stimulus packages through tax cuts and extra spending in virtually all advanced economies and some emerging economies.

Figure 1. "Passing the bubble" from 2008 to today



But public spending cannot be augmented without limits. A government can create demand by bringing forward future demand, through raising indebtedness or lowering taxes, but the capacity to burden future taxpayers is not boundless. In fact, the rising indebtedness brought several governments towards their financial limits.

Therefore, the second element stepped in and central banks created or sustained financial value, essentially by lowering interest rates and buying assets, especially government bonds. As central banks can create money without any statutory restriction, there is no funding problem nor is there a debt ceiling. The limits of central bank action are not visible on their balance sheets but in the economy that surrounds them: financial markets get used to central bank support; social partners find it less urgent to restore competitiveness; and governments loosen budget discipline.

And there is another subtle limit that is a potential distortion of asset prices and which closely resembles the origins of the financial crisis in the first place, just that this time it is not the whole financial system where large number of actors act alike but it is the action of a very few central banks that create uniformity in the movement of some asset prices. “You can never beat the Fed”, is a well-tested saying of financial traders. In other words: move and trade in line with the central bank, not against it.

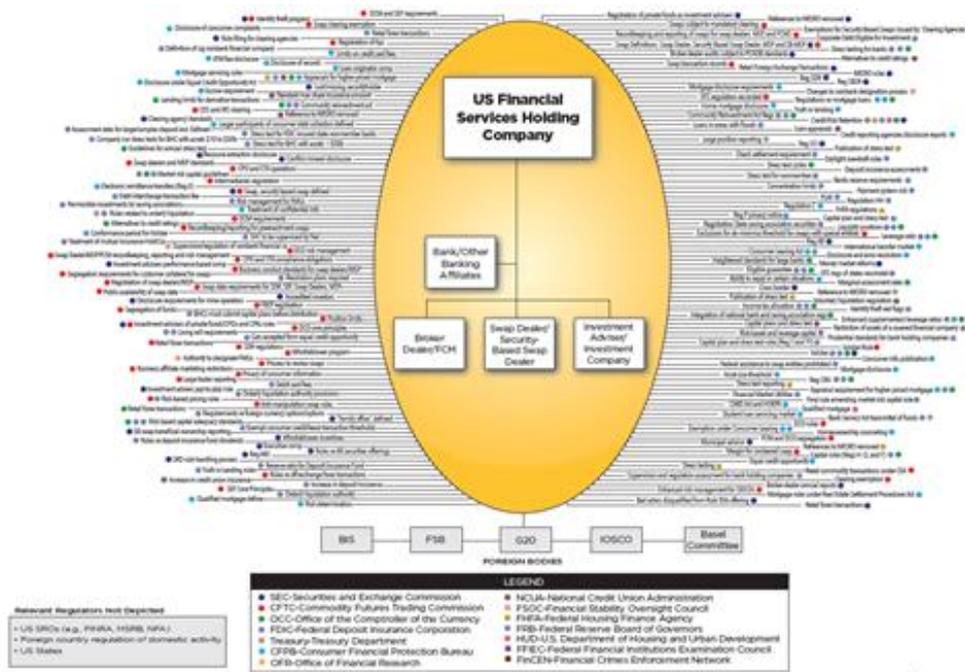
What will be the third phase of the adjustment? Monetary policy works by changing aggregate demand: bringing it forward through lower interest rates or moving it backward through higher rates. Bringing it forward massively means ultimately not only shifting consumption by a few years but also lowering long-term savings. At present, consumers are paying for the improvement in the situation by lowering their retirement savings. But how long can this last ? We know that the ageing of the world population is a major challenge ahead of us and especially in the most developed countries where the working-aged population started to decline. That will be the next big gap that will show up in a few years, as the passing of the bubble continues into the future.

2. Regulatory measures and achievements

Regulatory action post-crisis has been massive, comprehensive and appropriately intrusive. The Financial Stability Board (FSB), the world's supreme regulatory forum under the auspices of the G-20 countries, has pronounced on banking, shadow banking, systemic regulation, strengthened supervision, resolution, derivatives markets and compensation practices in the financial industry. At the global level, issues such as “too big to fail”, additional loss absorbency, supervisory intensity and stronger financial market infrastructures have been tackled.

In the United States, the Dodd-Frank Act contains 16 major reform areas overhauling the entire financial sector regulation. It too has created new institutions, given more power to regulators and supervisors to detect and intervene in financial crises, enhanced the transparency of derivatives and credit rating assessments and strengthened the protection of customers in their dealings with financial institutions and products (Figure 2).

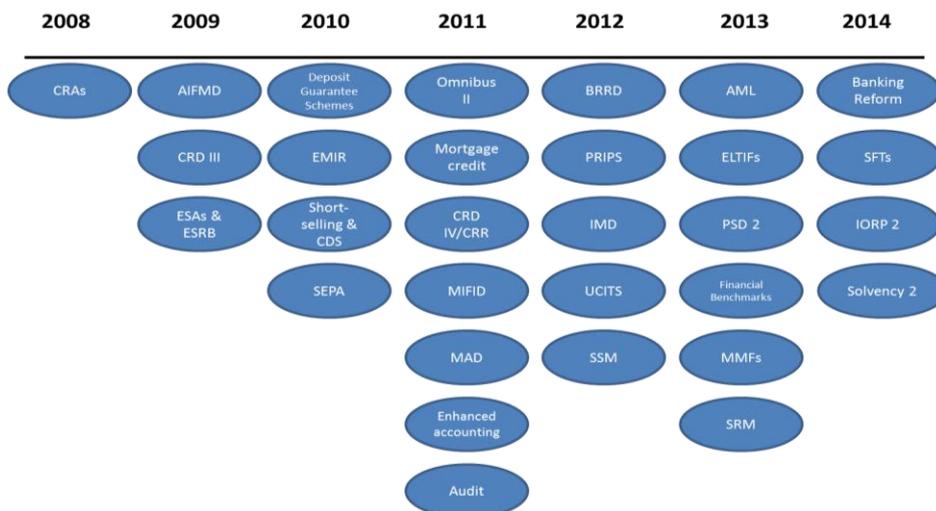
Figure 2. The U.S. Financial Sector Reform Measures Since 2010



Source: Securities and Exchange Commission.

The European Union has completed 30 major regulatory initiatives (Figure 3), including new rules for banks, insurers and capital markets (see European Commission, 2014, for an overview). It has ruled on rating agencies, hedge funds, short-selling practices and derivatives, on crisis prevention and management and on deposit guarantee schemes; and it has created several new institutions overseeing the financial sector.

Figure 3. The European Union’s Financial Reform Agenda, 2008-2014



Source: Author’s compilation.

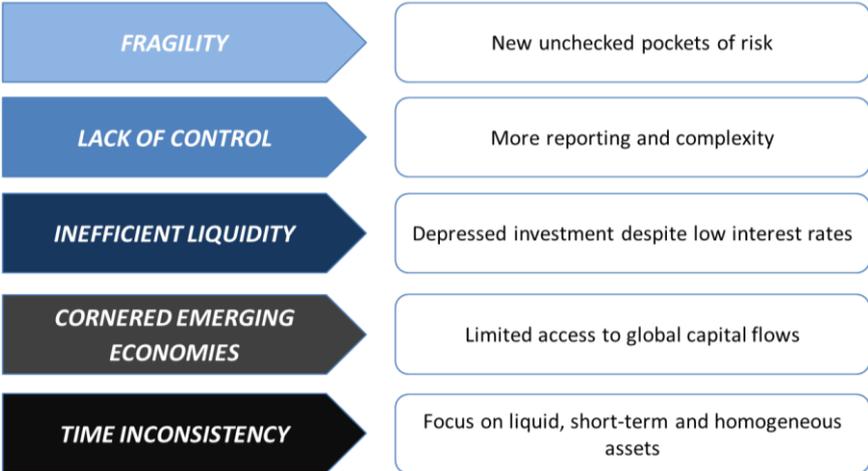
The achievements are substantial. Financial institutions and sectors are generally more stable, based on higher capitalisation levels and better risk management. Supervision has been strengthened, with a far stronger role for central banks and many new institutions. In Europe alone, new authorities for banking, insurance and markets have been created; and the European Banking Union has moved the supervision of systemically important banks in Europe directly to the European Central Bank (ECB). Finally, financial market transparency has been increased, as excessively complex financial products have been prohibited, as derivatives are mostly cleared in central counterparties and not “over the counter” and as ratings have become more transparent.

3. Open issues in regulation

Despite these major achievements, several issues remain open. There is a sense that financial stability is still fragile despite the heavy regulation and oversight. There is also a sense of high complexity of new rules and institutional arrangements. And in the functioning of the financial sector, there is a sense that it is heavily focused on the short term, acting in rather uniform and possibly “pro-cyclical” fashion and concerned more on dealing with government debt than with financing of the real economy (Figure 4).

Very broadly, the overall perception is that the financial sector is still not well aligned with the broader financing needs of the economy, including the need to fund innovation and to promote job creation and especially long-term investments such as infrastructure.

Figure 4. Open Issues in Financial Market Functioning and Regulation



Source: Author’s compilation.

More specifically, there are five “warning signals” illustrating that there still remain areas for improvement and issues to be addressed:

- i. *A sense of fragile financial stability* stemming from the continuous creation of unchecked pockets of risk
- ii. *A perceived lack of control* due to the growing complexity of financial regulation. It is reported that to ensure that it meets the 750 new rules on capital imposed in

the aftermath of the financial crisis, JPMorgan Chase employs over 950 people. A further 400 or so try to follow 500 regulations on the liquidity of its assets, designed to stop the bank toppling over if markets seize up. A team of 300 is needed to monitor compliance with the 1,000 pages-long Volcker rule, which restricts proprietary trading.

- iii. *Inefficient liquidity* – the “cash conundrum”. The ECB’s balance sheet has tripled within the 2010-2013 period, while at the same time inflation expectations have declined from 2% to 0.5%. Deposits of credit institutions with the ECB are still very large even though the rate of return is negative (-0.2%).
- iv. *Cornered emerging economies*. Despite an abundance of capital and liquidity from advanced economies and few barriers to international flows, emerging economies do not benefit from the situation and there is no major support for investment and growth on their side.
- v. *Time inconsistency* between rather short-term regulatory and financial market incentives and the main challenges in our economies and societies. The short-term orientation of financial markets is particularly striking at a time when our societies are discussing investments in infrastructure (for example, through the Juncker plan) and to stem climate change (for example, at COP21). There is a sense that whereas people individually and societies collectively think about the next generation, finance is concerned with the next quarter.

The rule-making community is conscious of these issues. The European Commission is looking into the cumulative impact of financial regulatory reform. It has recently launched a call for evidence to be informed about rules that in the view of practitioners are hampering the recovery and growth.

My hypothesis is that part of this misalignment between finance and sustainable growth comes from a poorly understood trade-off between uniformity and stability.

II. Uniformity in global finance: features and implications

1. The facts about uniformity within the financial system

The first point to note about uniformity within the financial system is the small number of leading actors: there are four leading global investment banks and three global rating agencies; six banks account for 95% of the CDS market and 20 asset managers account for 40% of their market; and most countries have two or three dominant banks. There are very few leading global newspapers and opinion leaders (Figure 5).

More importantly, regarding financial instruments, there is clear concentration in a few key assets, especially government and corporate bonds. According to the OECD³, the proportion of bonds (private and public) held by European life insurers has increased from 40% in 2000 to more than 60% in 2011, while the proportion of equities has decreased from 43% to 12% (Figure 6). Insurers have always held a significant share of fixed-income securities but the

³ Della Croce, R., Yermo, J., (2013), “Institutional investors and infrastructure financing”, *OECD Working Papers on Finance, Insurance and Private Pensions*, No.36, OECD Publishing.

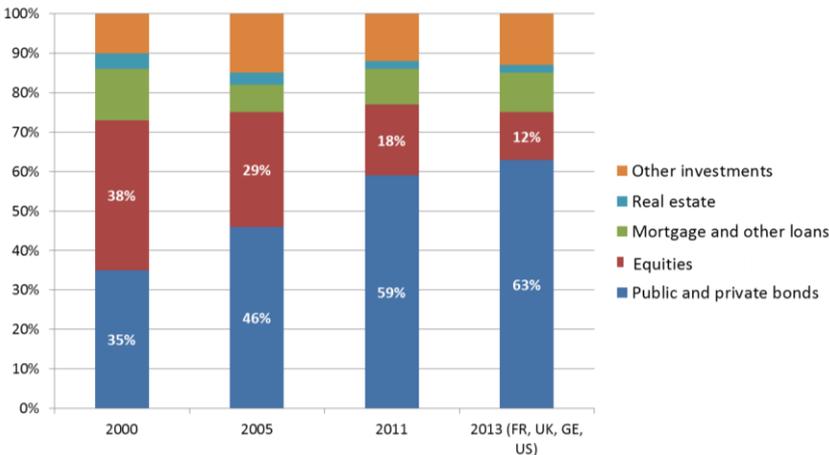
proportion of government bonds has sharply risen and that of other securities such as equities has further decreased. Large insurers that already operated under Solvency II have even lower equity holdings.

Figure 5. Leading investment banks in key global markets

	Category	Bank	Year to date 2015 Fees (\$m)
Products	Global Investment Banking	Goldman Sachs & Co	4,613.03
	Mergers & Acquisitions	Goldman Sachs & Co	2,106.67
	Bonds	JP Morgan	1,419.90
	Equity	JP Morgan	1,059.86
	Loans	Bank of America Merrill Lynch	938.55
Regions/Nations	Americas	JP Morgan	3,278.20
	United States of America	JP Morgan	3,125.04
	Europe	Goldman Sachs & Co	993.31
	Japan	Nomura	474.66
	Asia Pacific (ex Central Asia)	Goldman Sachs & Co	367.03
	China	CITIC	317.34
	United Kingdom	Goldman Sachs & Co	250.30
	Hong Kong	HSBC Holdings PLC	124.05
	Africa/Middle East/Central Asia	HSBC Holdings PLC	74.74
	Brazil	Itau Unibanco	49.02
	India	State Bank of India	38.73
	Singapore	DBS Group Holdings	35.77
	Industries	Financials	Goldman Sachs & Co
Healthcare		JP Morgan	793.97
High Technology		Goldman Sachs & Co	450.83
Energy and Power		Bank of America Merrill Lynch	397.16
Industrials		Goldman Sachs & Co	387.28
Telecommunications		JP Morgan	316.30
Real Estate		Morgan Stanley	287.24
Retail		JP Morgan	237.01
Materials		Bank of America Merrill Lynch	234.94
Media and Entertainment		Goldman Sachs & Co	213.38
Consumer Products and Services		Bank of America Merrill Lynch	203.73
Consumer Staples		Bank of America Merrill Lynch	150.29
Government and Agencies		HSBC Holdings PLC	90.67

Source: Investment Banking League Tables 2015 – Thomson Reuters

Figure 6. Asset allocation of insurers over time in percentage of total investment



Source: OECD

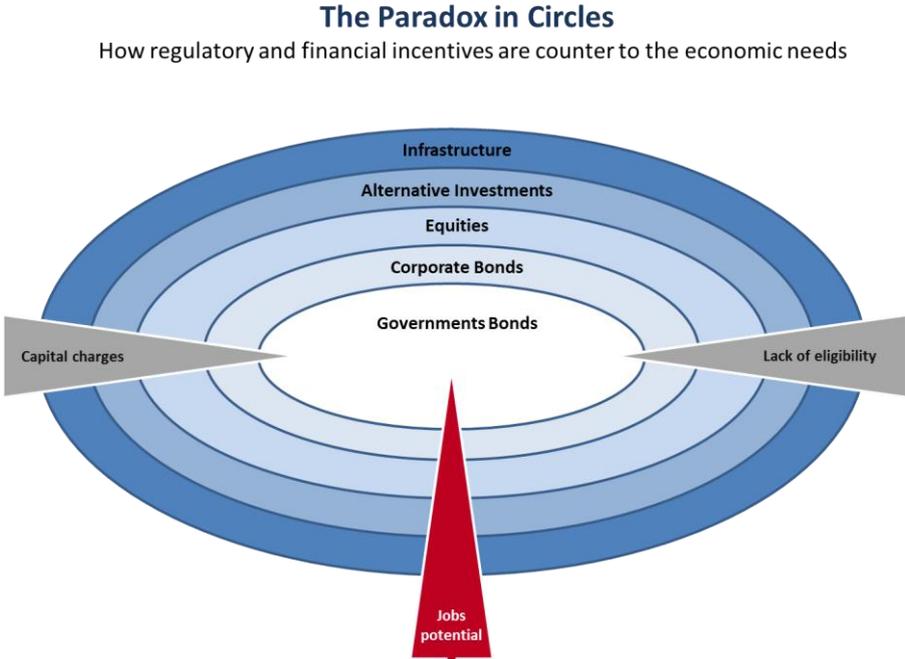
One of the key new rules of Basel III is to create a liquidity buffer at the level of commercial banks. The liquidity coverage ratio has been felt as one of the most intrusive and demanding elements of the new banking framework. It means that banks have to hold a specific set of assets equivalent to the possible outflow over a month ahead. The specific assets are qualified as High Quality Liquid Assets (HQLA) and are centred on government bonds and, with a haircut, corporate bonds. Such regulation inevitably creates a tiering structure of all financial assets and focuses demand at the top of the list.

The set-up of capital charges in the calculation of the capital framework goes in the same direction: zero for government bonds; positive for corporate bonds; higher for lower-grade corporate bonds; and even higher for equities and alternative investment forms.

The eligibility framework for central banks mirrors this: government and corporate bonds are eligible, the first with a zero, the second with a higher haircut; loans to firms are rarely eligible; and equities are generally ineligible for central bank refinancing, just as are alternative investments and, of course, infrastructure.

The result is a financial market that can be seen by way of concentric circles with government bonds at the centre (Figure 7): eligible for all purposes, central bank refinancing and liquidity coverage; corporate bonds in the next circle, generally priced at a mark-up over government bonds, mostly eligible but with haircuts; equities, alternative investments after this; and far out, the circle of infrastructure investments.

Figure 7. Stylized illustration of the construction of the financial market



Source: For explanation, see text. Author’s compilation.

Hence, we see some clear uniformity in demand and a key notion is liquidity. The Basel Committee defines: “Assets are considered to be HQLA if they can be easily and immediately converted into cash at little or no loss of value” (Basel Committee on Banking Supervision,

2013). It is the exchangeability into cash that creates the ranking and the uniformity towards some assets.

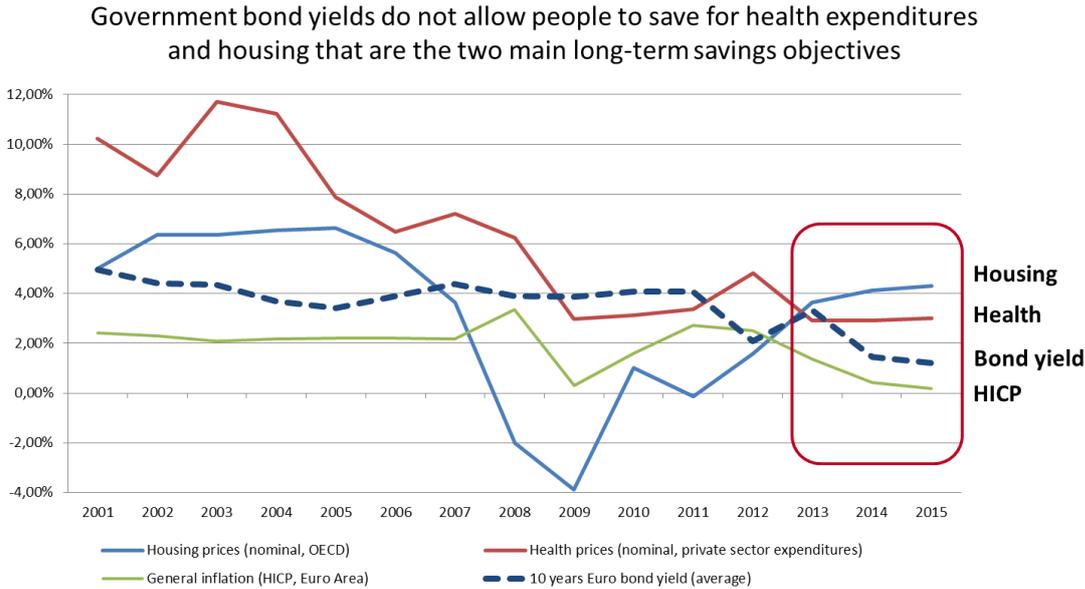
Demand towards the outer circles is thinner, which may explain part of the higher volatility in equity markets, but this is only part of the picture.

The other problem is that while demand is concentrating “in the middle”, jobs are created more in the outer circles: infrastructure, funding of innovation, risk-taking in enterprises: these are all job-providing financial activities. The government is not a net job creator to a significant and sustained extent in any advanced country.

Finally, this concentration in the middle creates an additional economic challenge for long-term savings of households. When households need to save on a long-term horizon – to buy a house or to prepare for health issues in old age – they primarily look for safety and therefore invest in sovereign bonds.

But as we have seen, large financial institutions also have incentives to buy these same sovereign bonds, which in addition are purchased massively by central banks as part of their non-conventional monetary policies. The cumulative impact of these two processes pushes yields down for sovereign bonds and pushes prices up for housing (Figure 8).

Figure 8. Savings returns (bond yields) and different price developments



Source: Eurostat and OECD.

The outcome is a situation where long-term savers save by investing in assets with virtually zero returns, while the prices of housing and health (what they are saving for and care about in the long run) follow a different price inflation curve. These inflation curves are moreover moving in a markedly different fashion than the overall price index that is the “single reference point” of central banks and yet are crucial in determining long-term economic wellbeing.

2. Is uniformity encouraged by regulation?

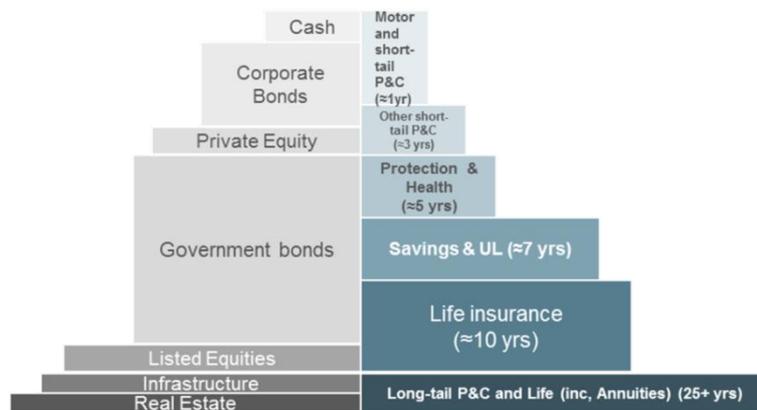
I would like to dig a little deeper into how uniformity can be induced by regulation and accounting rules.

Specifically, I will focus on the comparison between banks and insurance companies. This is a very relevant juxtaposition because insurers have a very different business model to banks, which can be seen in some ways as opposite to them. Both are financial intermediaries to some extent and both are large investors in financial markets.

But insurers have a long-term concern, banks a short-term concern. Insurers have liabilities that are staggered over time, from short to medium, long-term and very long-term obligations. The bulk of their liabilities are not callable: property and casualty insurance, health insurance and annuities cannot be called; only a fraction of their liabilities, namely some life insurance products, can be called.

Insurers can always cover immediate needs out of their reserves and the key concern is to have enough reserves to cover long-term risks and very rare events. Longevity risks and climate risk (for example, natural catastrophes) are one of the key long-term concerns. Banks, in contrast, have a short-term concern: the bulk of their liabilities are short-term deposits that in principle can be withdrawn overnight. To put it bluntly: banks can die over days; insurers over decades.

Figure 9. Stylized illustration of an insurer's balance sheet



Note: Own equity and debt are excluded for simplicity; the horizontal dimension illustrates the maturity of the assets/liabilities. Source: Author's compilation.

These fundamentally different business models also result in different investment strategies, which for insurers are based on "Asset Liabilities Management" (ALM), where assets are bought so as to match liabilities in duration and liquidity profile (Figure 9). Moreover, as insurers differ significantly between each other – as their liabilities are very different – they have different investment strategies between each other.

I would like to illustrate how the problem of uniformity interferes with these concepts by way of three concrete examples.

i. The global regulation of systemic risk

The global regulation of systemic risk takes place under the auspices of the FSB, reporting to the G-20. The FSB has developed a framework for systemic risk in insurance that closely resembles its framework for banks (Figure 10) and which, despite some different terminology, is partly bank-centric with an emphasis placed on capital surcharges.

The Policy Measures for Global Systemically Important Insurers (G-SIIs) replicate the framework used for banks on the assumptions of similar issues and features between insurers and banks. In particular, the framework does not acknowledge that solvency and liquidity issues are of a very different nature and scale between banks and insurance companies.

Admittedly, the financial crisis was linked to concerns about solvency issues that could be triggered by liquidity issues due to excessive leverage and holding of complex, hard-to-value and potentially illiquid assets. As most financial institutions’ liabilities have more or less callable or short-term features (debt), regulators viewed them as potentially exposed to capital shortfalls that could occur in case of “runs” and falling asset prices. For insurance companies, these factors have less relevance as liabilities are generally not callable at will but depend on external risk factors (which can be modelled).

A second element is that through the scope of “too big to fail”, size is assumed to have only downside effects (over-exposure of the financial system to the disruption or failure of a single market player) while it has significant advantages for specific industries like insurance, where diversification of the liabilities – both in terms of nature and geographies – is a significant robustness factor.

Figure 10. The FSB framework for systemic risks in banking and insurance compared

The case of parallelism within systemic risk regulatory frameworks

	FSB framework for banks	FSB framework for insurers
First designation date	November 2011	July 2013
Number of institutions	30	9
Overall justification	Size, global activity, interconnectedness, complexity and substitutability	Size, global activity, interconnectedness, non-traditional non-insurance activities and substitutability
Implications		
- Enhanced supervision	More intense and effective supervision, including through stronger supervisory mandates, resource and powers	More intense and effective supervision with direct regulatory powers over Holding companies Systemic Risk Management Plan
- Effective resolution planning	Recovery and Resolution Plans Liquidity Risk Management Plans	Recovery and Resolution Plans Liquidity Risk Management Plans
- Higher loss absorbency	Capital surcharges implemented	Capital surcharges to be developed

Source: Financial Stability Board; author’s compilation.

ii. Prudential regimes favour uniform approaches: the example of the volatility adjuster in Solvency II

With the development of Solvency II, a very comprehensive, technically advanced and complex risk-based prudential regime, regulators and supervisors favoured in its practical implementation some standardised approaches, even if the use of internal models is granted – with only very large companies investing time and resources developing them (for example, in France only two companies have an internal model).

The reliance on similar risk models and a standard formula creates mechanically a greater uniformity between financial actors.

In the case of Solvency II, one important example of uniformity is the so-called Volatility Adjuster, which is built on a single benchmark portfolio applied to all companies, independent of their actual investment portfolio.

The Volatility Adjuster is an essential tool as it limits the balance sheet impact of short-term market volatility that is not relevant for a long-term oriented insurer. But it has been built on a single set of portfolio weights for each currency and market taken from the average portfolio of insurance companies over the past year. An unintended consequence is that it strongly favours the convergence of all asset allocation in a given country to this average, independent of the actual needs deriving from each company’s specific liability structure and actually experienced volatility.

Figure 11. An example of uniformity through regulation: the volatility adjuster for insurance

Art 77d (2) of Solvency II Directive
*The volatility adjustment shall be based on the spread between the interest rate from a **reference portfolio** and the rates of the relevant basic risk-free interest rate term structure.*
*The **reference portfolio** shall be representative for the assets which insurance and reinsurance undertakings are invested in.*

➤ A single reference portfolio per market

Formula to calculate the spread underlying the volatility adjustment (art 50, EC Delegated Acts)

$$S = w_{gov} \cdot \max(S_{gov}, 0) + w_{corp} \cdot \max(S_{corp}, 0)$$

Generally based on market average of previous year

Volatility Adjuster Calibration of the benchmark portfolio

	Government Bonds	Other assets	CUR
EUR	38.7%	48.2%	EUR
BE	55.3%	34.3%	EUR
FR	37.1%	47.6%	EUR
DE	22.4%	68.5%	EUR
IT	62%	25.1%	EUR
ES	50.1%	37.7%	EUR
GBP	16.7%	30.3%	GBP
JPY	85.2%	11.4%	JPY
USD	18.2%	76.1%	USD
...

Source: Solvency II directive, EIOPA, author’s compilation.

Such a tool can create biases in the quality of resource allocation and reduce the diversity of strategies deriving from the diversity of investors. It can also inadvertently add to the lack of competition in a given market where diversity is weakened to the detriment of customers.

iii. The uniformity implications of mark-to-market accounting rules

The extensive use of mark-to-market prices (also called ‘fair value’) to an even larger set of financial actors, regardless of their business model, can trigger more risk aversion because of induced volatility. This translates into more short-termism and liquidity-driven investment choices through increased holding of government bonds.

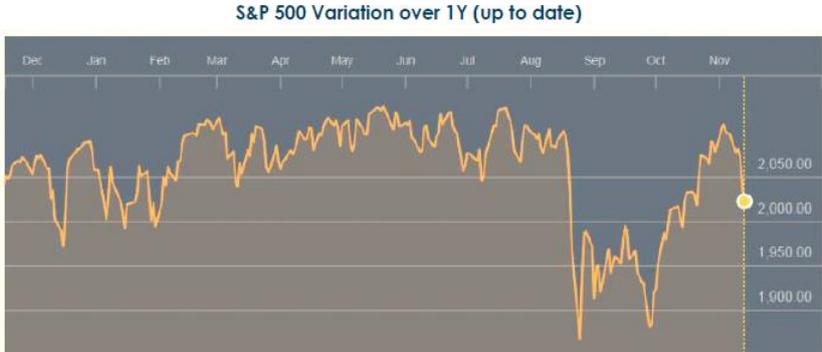
Indeed, the definition of fair value does not capture an entity’s will to hold an asset for a longer period of time as it defines the price as an “exit price” (Figure 12): the assumption is one of a market participant willing to sell its assets at any moment. From this perspective, fair value is very relevant for very active market participants such as traders, including for market-making activity, which is instrumental in providing sufficient liquidity.

But from the perspective of long-term oriented market participants, the holding of more volatile assets such as equity is penalised under fair value treatment, even though such assets turn out to be more profitable in the long run for both investors and society. In a nutshell, one could say that the possibility for many investors to pick a stock for its intrinsic value (that is, the projected cash-flows stemming from the expected growth and dividend distribution) is being dismissed by the undifferentiated application of fair value.

Figure 12. Mark-to-market and marginal exchange value

IFRS 13 defines fair value as **the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date** (ie an exit price). That definition emphasises that fair value is a **market-based measurement**, not an entity-specific measurement. As a result, an entity’s intention to hold an asset or to settle or otherwise fulfil a liability is not relevant in measuring fair value.

Source: IFRS



Source: IASB, Bloomberg and author’s compilation.

The penalty appears especially undue if one adopts the perspective of an insurance company: insurers tend naturally to be long-term holders of assets (for bonds mostly up to maturity) in order to match the duration of their long-term liabilities through their ALM strategy. The instantaneous market price of a stock is thus not a relevant indicator for an insurer's profitability, liquidity or solvency, as it does not capture the intent to hold an asset to maturity or over a prolonged period.

It is even more remarkable when one considers the fact that banks benefit from a distinction between trading and banking book – with the former being valued at fair value and the latter at historical value – while insurers are bound to apply mark-to-market valuations to their full balance sheets as if they were holding assets only for trading purposes.

As a result, we observe an incentive mismatch between accounting rules and the intended behaviour of investors managing trillions of assets. This is not neutral but has far reaching consequences as by ignoring, for example, the incentive for insurers to “buy and hold” assets, one weakens the traditional stabilisation role that they play in an economy.

This issue related to accounting rules is linked to long lasting and historical debate around the perception of value. One can date it back to Adam Smith (*The Wealth of Nations*, 1776) who highlighted the “paradox of value”:

“What are the rules which men naturally observe in exchanging them either for money or for one another? These rules determine what may be called the relative or exchangeable value of goods. The word value has two different meanings: sometimes it expresses the utility of some particular object, and sometimes it expresses the power of purchasing other goods. The former may be called ‘value in use’; the latter, ‘value in exchange.’

The things which have the greatest value in use have frequently little or no value in exchange; and, on the contrary, those which have the greatest value in exchange have frequently little or no value in use. Nothing is more useful than water: but it will purchase scarce anything. A diamond, on the contrary, has scarce any value in use; but a very great quantity of other goods may be obtained in exchange for it.”

Various definitions of value have been considered in economic research: from objective measurements (based on the underlying quantity of labour needed to produce a good: think Adam Smith, David Ricardo and Karl Marx) to more subjective measurements (the utility and scarcity of a good: neo-classical economics).

The “exchange value” assessed by a market price has prevailed, perhaps for practical reasons. The paradox is that pushed to the extreme, the concept of “exchange value” should lead to all assets being valued at zero. If a large investor were to sell all of its balance sheet at any given moment, prices will be zero since there is no buyer for one trillion assets on a given day.

Fair value relies on “exchange marginal value” rather than “use value”, where the former is more relevant for short-term investors who trade permanently small quantities of assets; the latter is more relevant for long-term investors who can have large blocks of assets and can act as active shareholders.

What this means is that mark-to-market valuation is perhaps the biggest force creating uniformity in the financial system. It obliges all investors to value and publish their asset holdings with the uniform price that is obtained through current exchange on financial markets, even if they plan to hold this asset for a very different purpose (namely dividends) and/or over a different horizon, and even if they have fundamentally different valuations of the asset.

This is a major problem because the exchange value can fluctuate enormously and is influenced by outside factors that are not intrinsic to the asset itself. Hence, there can be a situation in which the use value is stable and the exchange value fluctuates strongly because the latter depends on developments in other markets as well. Given moreover that the exchange value is based on a discounting of future revenues, changes in the discount rate alone can cause fluctuations.

Finally, whereas the use value of most assets lies in a relatively narrow range – think of dividends or the dividend yield – the exchange value can in principle fluctuate between zero and infinity; in the wake of the internet bubble in 2000 very astonishing exchange values and fluctuations in those values were observed.

Let me illustrate this point with a specific example: Think of a windmill/wind turbine, which is an infrastructure fixed investment with a long operating horizon (Figure 13). A buy-and-hold investor like an insurance company may invest in it because it is generating a steady revenue stream, based on the (mostly fixed by regulation over years or decades) electricity price generated by a modelled windflow. The investor considers the acquisition costs, the dividend/revenue stream over the usage period and writes off the asset at the end of the horizon.

A short-term investor, in contrast, will look at the exchange price, which will fluctuate in response to discount rate variations, discovery of shale gas, movements in oil prices related to geopolitical factors and others. For the buy-and-hold investor, such volatility is essentially irrelevant, but mark-to-market rules would oblige the investor to put the exchange value on the balance sheet and accept gains and losses as they come along.

Figure 13. “Use value” and “exchange value” in the infrastructure example of a windmill

Value = Use	Value = Exchange
Long-term investors	Market participants
Equity investor in a windmill for 20 years	Assess if they should buy/sell exposure to wind electricity
Buy-and-hold strategy	Permanently reassessing buy/sell
Cash-flows are predictable over the contract period	Latent capital gains and losses continuously change
Return is known	Prices change, “marked to market”
Time is real – the future remains future	Time is discounted – the future is brought to the present
Risk is in the wind speed	Risk is in the collective market construction of future energy prices and opportunity costs

Source: Author’s compilation.

III. Replacing uniformity with diversity: what can be done?

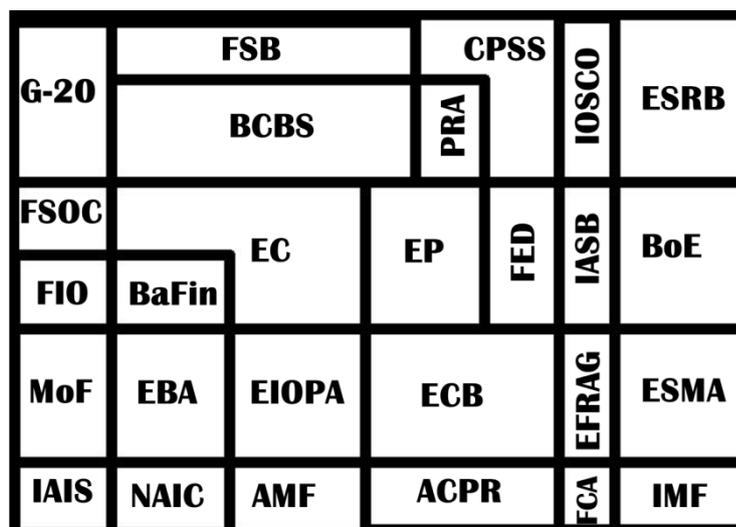
1. Why is uniformity not being widely discussed in financial market circles?

There is a strong temptation for regulators to address all financial issues under a single umbrella, steered at global level by the G-20 and the FSB. Two arguments drive this single umbrella approach: first, the increasing interconnectedness within the financial system calls for holistic, fully integrated and coordinated approach; and second, the search for a level playing field - “everybody should play by the same rules” – which is often equated to the need to avoid “shadow” systems to emerge at the edges of the regulated systems.

As the financial system appears to be too complex to be actually regulated relying on this single umbrella concept, practical regulatory bodies are sliced with very specific, well-defined and well-confined mandates. In this setting, it is very difficult for any of the competent regulators to take an overall perspective.

One could illustrate it with a “Mondrian” set-up (Figure 14), where a plethora of actors are confined to their specific mandate and a large number of national, European/US and global actors exist, creating by themselves a very complex regulatory system.

Figure 14. An illustration of the “compartmentalisation” in global financial regulation



Source: Author’s compilation.

In such an environment, it is very difficult for any of the regulators to consider “the bigger picture” and this is the case even for the G-20 or the FSB because they can only give guidance and suggestions but not interfere with regional or national mandates that are all fixed in respective laws. Moreover, for the system as a whole, there is no “diversity officer” as has become common practice in large organisations or an “increased resilience oversight” that could examine imperfections and make cross-constituency recommendations.

The outcome is that the regulatory complexity is put at the service of the respective sectors or constituencies but not necessarily to the broader benefit of the functioning of the system. Decisions are individually rational for the sector or area concerned but can still result in a

financial system that is collectively not entirely fulfilling its purpose in line with broader economic or social objectives. To keep these objectives in mind, actors who are able to observe the system from the outside, as do many academics, are essential to the debate.

2. Where to start? What to be done?

The final and fundamental purpose of sound regulation is to design incentives that reconcile private and public interests. Both are often seeking the same goals but in many cases negative externalities created by the market actors are not internalised by them, the regulator shall tackle those market externalities detrimental to the global welfare.

The aim is not to multiply constraints on a market and deter its efficiency but to set clear rules that respect the fundamental role of the system they govern. In addition, an optimal regulatory framework allows for smooth evolution, with room for growth and innovation.

The technological wave that we are experiencing is profoundly changing our institutions and traditional organisations. The rise of companies such as Uber, AirBnB, peer-to-peer lending, robo-advisers in asset management, crowdfunding and the promises of the Blockchain technology are evidence that technology weakens or erases the classic barriers to entry in markets where traditional players were well established: no need to possess cars to create a transport company, no need to build hotels to rent rooms, no need to be human to provide investment advice and no need to be a banker to lend money.

The world sees its traditional institutions and organisations challenged by new economic models that are lighter and cheaper and are increasingly user and customer-centric. Apart from the capital barrier to entry that technology removes, disruptive actors are enjoying a regulatory vacuum: all over the world the regulation is institution-based (one might even say “intermediary-based”) and not activity-based. Creating companies with a different institutional framework (not being a “bank” but a “peer-to-peer crowdfunding platform”, for example) allows these companies to avoid many of the regulations that apply to the incumbents.

In the not-too-distant future, the functioning of the system might well shift from an institution-focused approach to an activity-focused approach. Such a shift would have profound implications for the oversight of the financial system that so far is still greatly institution-based.

IV. Conclusion

The financial system serves a purpose, namely to organise financial activity to the benefit of the economy and society at large. This lecture has tried to outline how uniform treatment may conflict with long-term stability. As in many biological systems, standardisation and the creation of uniformity may over the short term facilitate the oversight, assessment and regulation of the system, but weaken its overall stability in the long term. Any attempt to allow for diversity in the valuation of assets, in the shaping of business models and in the treatment of different sectors would therefore be stability-promoting measures. They would also help to align the system with the massive diversity that exists in our economies and societies.

Thank you for your attention.

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