ESMA Financial Innovation Day 2015 - 'Innovation in a Capital Market Union: harnessing innovation to improve access to finance and spur investment'
- KEYNOTE ADDRESS AS PREPARED FOR DELIVERY -

Adrian BLUNDELL-WIGNALL, Director, Financial and Enterprise Affairs, and Special Advisor to the Secretary General for Financial Markets, OECD

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Dear Jean-Paul,[1] Ladies and Gentlemen, dear ESMA and National Competent Authorities members, and CWG[2] colleagues,

It is a pleasure and honour for me to open this event. We have a number of interesting panels today, filled with excellent speakers from a wide range of backgrounds. So this promises to be a very interesting day, providing us with new insights that may help shape our views on financial innovation and the way we address these issues as policy makers.

1. Financial innovation is good but there are risks

As we have discussed here at various occasions, financial innovations can bring many benefits, but also bear risk, both of them typically unknown. We have concluded that policy makers should therefore embrace financial innovation with a watchful eye on financial stability and consumer protection.

But the crisis has taught us that we may easily fail in this effort, as policy makers get carried away by exuberant markets and regulators get captured by successful financial innovators.

However, it is not only exuberance and capture that allow the build-up of risks and eventually create turmoil, it may also be sheer complexity and the inter-dependence of markets and our inability to see the whole picture. There are good innovations: products that complete markets and improve efficiency. There are also bad innovations: those that arbitrage inconsistent regulatory rules and tax systems. These are particularly problematic, because unlike market prices the arbitrage does not close the gap, and it may go on

[1] Jean-Paul Servais, Chair of the Belgian FSMA, and Chair of ESMA's Financial Innovation Standing Committee (FISC); http://www.esma.europa.eu/page/Financial-Innovation-Standing-Committee.
[2] Consultative Working Group (CWG) of FISC.

indefinitely building up risk in the system. For this reason I have always believed that the 2 most basic principles of regulation are:

1. All financial instruments must be treated in the same way regardless of jurisdiction (something the capital markets union will help);

2. To do no damage, in the sense of interfering with markets and possibly breaking them.

2. Learning from the past: improving regulation to curb risks and reap the benefits of innovations…

Regulators try to analyse the root causes of crises and try to improve the situation. This was on the minds of G20 leaders when they met in Pittsburgh in 2009 to set out an ambitious financial reform agenda, covering all financial markets segments and players, taking into account lessons learned from the crisis to ensure the 2008 debacle never happened again.

Six years after Pittsburgh, we have no doubt made progress in creating a better, sounder financial system that serves our citizens and to rebuild the trust our economies need to underpin investment and growth. However, most reforms are still in the process of implementation. This makes evaluating their effects – the intended and unintended consequences – even more complex and challenging. It is also hard to disentangle the effects of reforms from other post-crisis economic developments.

Also left wanting in some areas is the goal of closing regulatory loopholes, and striving for cross-border harmonisation of reform. For example, achieving a regulatory level playing field in bank regulation has been difficult, not only in national implementation of Basel capital requirements, but also in structural bank reforms. While there should be some scope for differences in implementation of agreed international reforms, material inconsistencies in national implementation of international reforms may lead to some negative effects overall and undermine international coordination.

3. …but open questions remain …

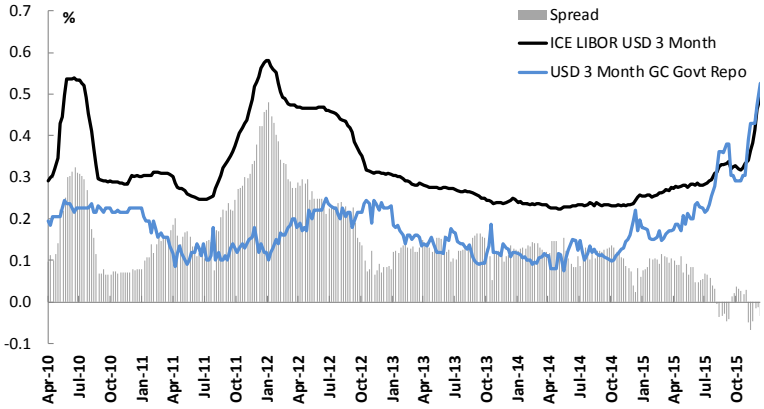
As we move more fully into the implementation phase of reforms, the issue of understanding the intended and unintended effects of reforms comes to the fore. I think part of the problem is that no one has any idea of what the 'right' financial system looks like – we are always starting from the present and being forced to adjust as new pressures evolve.

- How much financial innovation do we need to replace reduced lending by a smaller and safer banking sector?

- We have moved to clearing derivatives as a goal, without asking about the usefulness of some parts of these profitable businesses that play a role in tax and regulatory arbitrage.
- Certain banking activities have been prohibited affecting liquidity in markets as banks balance sheets are less able to be used in market-making and proprietary trading.
- Pension funds and insurance companies facing insolvency in the face of zero rates and QE have become a part of innovations in securities lending and the move to alternative assets – with new risks to consider[3].
- How do we assess the rise of a shadow banking sector that this fosters? How do innovations that thrive under less supervisory oversight contribute to a build-up of risks? How do we keep this in check without limiting the shadow banking sector's contribution to financing economic growth?

A small illustration concerning the 'plumbing' of the financial system and the law of unintended consequences is in order (Figure1).

Figure1: 3-month Libor (USD) vs the GC Government Repo Rate



Source: Bloomberg.

The US Government repo rate has passed though USD Libor this year suggesting that it is more expensive to borrow secured than it is unsecured. The same can be seen in the UK gilts market. Finance theory doesn't predict

[3] We have addressed such issues in our Business and Finance Outlook that we launched in June. We find that this environment has been driving strong demand by institutional investors for yield products, and such demand has been met by a shadow banking system that has facilitated new complex products. These products promise higher yield with lower volatility or synthetic exposure to underlying illiquid securities but with daily liquidity. This is another form of liquidity illusion, and risks are building up that are hard to assess as of yet.

this. This issue is to do with capital rules and the manner in which collateral is taken into account which raises the cost of renting bank balance sheets in the repo market. But what do we want here? To adjust the rules as banks want? Or alternatively do we want to push banks away from this business and allow innovation to take its course, with smaller repo/derivatives markets and with less warehousing of inventory?

4. Improving past innovations: the case of securitisation

Securitisation discussed at last year's Financial Innovation Day is another case in point. Securitisation itself has a long and rather successful history, but was tarnished by the subprime crisis.

But acknowledging the fact that the lending gap left by the sharp post-crisis decline in securitisation could hardly be filled by traditional bank lending, various concepts of high-quality securitisation – also dubbed "Securitisation 2.0" – were developed to address these concerns.[4]

So this is just an example that can show us that chances are that seemingly failed innovations can be revived and improved, and such progress helps to make truly useful innovations to persist and ameliorate financial intermediation.

Currently there are some innovations out there that are yet untested in a crisis situation. It could be coco bonds, ETFs, and more that will eventually need adjustments to a better, a "2.0" version.

5. Financial innovation fosters competition ….

Now let me address the role of financial innovation for competition, also because the OECD Competition Committee recently held a "Hearing on Disruptive Innovation in the Financial Sector", focusing on the example of peer-to-peer lending, equity crowd-funding, digital currencies, and payment mechanisms.[5]

We need innovators to contest markets, stimulate competition and enhance productivity, especially in financial services where network effects can create

[4] Improved transparency was needed. For details see e.g. Nassr, Iota Kaousar and Gert Wehinger (2015), "Unlocking SME finance through market-based debt: Securitisation, private placements and bonds", *OECD Journal: Financial Market Trends,* Vol. 2014/2.
DOI: http://dx.doi.org/10.1787/fmt-2014-5js3bg1g53ln.

[5] In which also ESMA's Anne Chone participated, alongside participants from the private sec-tor the UK's Financial Conduct Authority, and myself.

natural monopolies, concentrate rents and render financial services expensive and exclusive.

The hearing explored such issues, assessed the impact of selected financial innovations on consumers, and discussed how existing regulation should be changed in order to allow the introduction of new business models and technologies – and not stifle them at too early a stage.

6. …but this can be undermined by regulation

While policymakers do their balancing act between too much or too little constraint of either potentially beneficial or harmful activity, they also need to be mindful about compliance costs.

A Federal Financial Analytics estimate[6] puts the cost of new regulation to banks since 2007 at $35.5 bn, focusing solely on 6 large global systemically important banks. These costs are high, and as such act in favour of established firms, putting smaller competitors at a disadvantage or prevent new companies to enter the market. And indeed, the post-crisis period has seen an increase in concentration in the banking sector.

7. New technologies facilitate market entry and disruption

But new technologies have allowed some nimble competitors to enter the market, and some did so by benefitting from market inefficiencies that established banks have been unwilling or unable to explore. And many of these new entrants are part of a wave of disruptive innovation that has been affecting other sectors of the economy.[7]

8. Regulation should be supportive at the fledgling stages

Regulation can facilitate innovation, but it can also pose obstacles to it. There may be a role for competition authorities to play, alongside other relevant regulators, in advocating regulation that allows beneficial new competition to

[6] Federal Financial Analytics, Inc. (2014) "The regulatory price tag: cost implications of post-crisis regulatory reform", available www.fedfin.com/images/stories/client_reports/Cost%20Implications%20of%20Post-Crisis%20Regulatory%20Reform.pdf.

[7] Disruptive innovation consists of product or business model breakthroughs that bring radical changes in the market, especially by reducing costs of service delivery; such innovations have the potential to take substantial market activities from pre-existing products and firms, providing that regulation permits and enables such activity.

emerge, while taking due account of key rationales for financial market regulation, such as prudential concerns and the need for consumer protection.

At an early stage, self-regulation with some guidance, support or light touch intervention by regulators seem to work well. The Innovation Hub established by UK's Financial Conduct Authority (FCA), and perhaps some type of "regulatory sandbox" model, may be a good way to go.[8]

9. EU Capital Market Union aims to create a more favourable environment for financial innovation

What policy makers and regulators should also do is to improve market functioning, remove barriers to cross-border services, and more generally, create true level playing field for financial markets. This is, in fact, also ESMA's approach, and a crucial pillar of the Capital Market Union action plan by the EC.

Jean-Paul has already elaborated on this, and I can only add that we are very supportive of the efforts towards creating a CMU. These line up well with our work on long-term investment and institutional investors (where we have dedicated project and an OECD/G20 Task Force) as well as our work on SME finance where we discussed many of the financing alternatives that CMU could foster to make SMEs less bank dependent and improve the financing of young, dynamic start-ups.

New forms of lending an investing should also be encouraged to tap into the resources of institutional investors, with assets of USD 57 trillion (in 2013).[9]

10. Financial innovation in the broader financial services industry

Financial innovations and disruptive technologies are also emerging in the asset management and wealth management industries, through the emergence of online automated, algorithm-based portfolio managers (the so-called robo-advisors). Furthermore, big data and their analytics might have the potential to affect the financial industry, notably the insurance sector. At the

[8] See https://innovate.fca.org.uk/.

[9] The amount of USD 57.7 tn. excludes the assets of all investment funds (to avoid multiple counting issues), and therefore underestimates the real size of institutional investors' assets. Include the assets of investment companies, the total amount of assets would be USD 92.6 tn in 2013 (which may however overestimate the real size of the sector due to the multiple counting issue). See http://dx.doi.org/10.1787/888933210395 (BFO Table 3.2. The size of the institutional investor universe: asset owners (USD billion)) and Pension Markets in Focus 2014, page 9 (http://www.oecd.org/daf/fin/private-pensions/Pension-Markets-in-Focus-2014.pdf).

OECD we have been looking into the possibilities that big data can provide in a wide variety of sectors and applications, and you have heard about that at last year's Financial Innovation Day.[10] This is certainly an area to watch, with pitfalls on the way but strong opportunities ahead.

11. Financial innovation in trading

The role of technology and the innovations it brings is also increasingly relevant in the capital markets through the proliferation of electronic trading platforms and practices.

While electronic trading systems offer rapid and cost efficient execution and greater transparency, the relentless rise of high-frequency and algorithmic trading has attracted considerable controversy. Algo-trades can move share prices far away from any underlying value, and front-running practices in high-frequency trading undermine market-based price discovery and tilt the playing field in an unfair and non-transparent manner.

Already in 2012 a foresight project by the UK Government Office for Science (in which I participated) suggested various remedies at regulators' disposal, like circuit breakers, minimum tick-size polices or minimum resting times (notification of algorithms is a possibility too, but perhaps the least effective).

But even if it works fair and well, high-frequency trading may curb the economic incentives necessary for market ecosystem to create value and sustain market activity. A study published by the OECD[11] finds that the shift from quote-based markets to electronic order book markets has had a major impact on US IPO activity, since they resulted in a collapse of dealer incentives by as much as 87.5%.

Furthermore, while HFT may benefit the efficiency of price discovery in larger and more liquid markets, it may lead to concentration of activity in these markets at the expense of smaller, less liquid segments serving smaller companies.

[10] Christian Reimsbach-Kounatze of our Science, Technology and Innovation Directorate participated in one of the panels.

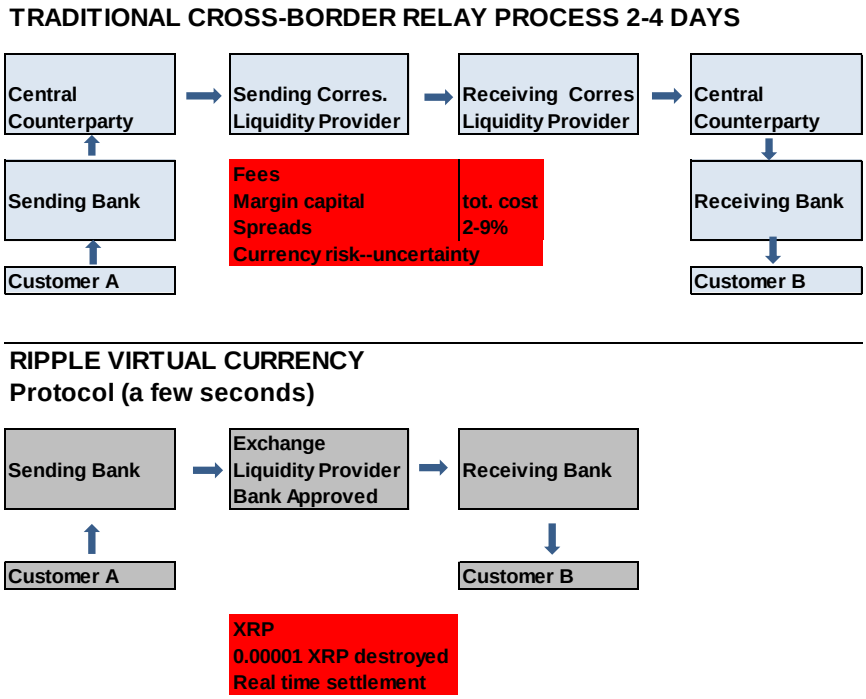
[11] Weild, D., E. Kim and L. Newport (2013), "Making Stock Markets Work to Support Economic Growth: Implications for Governments, Regulators, Stock Exchanges, Corporate Issuers and their Investors", *OECD Corporate Governance Working Papers*, No. 10, OECD Publishing; available at http://dx.doi.org/10.1787/5k43m4p6ccs3-en.

12. Crypto-currencies and new payment systems: from defiance to mainstream

At the OECD we have also looked at issues related to the emergence of crypto-currencies and new payment systems. In September last year I presented some of the work on Bitcoin and related systems,[12] and later today there will be a discussion on its distributed ledger technology.

It is interesting to see how this innovation spurred competitors that created what I think are nimbler systems, and how with the entrance of banks and other big players the focus has definitely shifted from a 'revolutionary defiance' of creating a currency outside the central bank system to technological issues of how to make more efficient and secure payments and carry out transactions without the need for a trusted third party. Ripple is an interesting case in point that could well serve as a model for bank evolution—currently already used by some banks and being tested by others (Figure 2).

Figure 2 Ripple Protocol Versus Traditional Cross-Border



Source: OECD.

[12] Based on Blundell-Wignall, A. (2014), "The Bitcoin Question: Currency versus Trust-less Transfer Technology", *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 37, OECD Publishing, Paris. DOI: http://dx.doi.org/10.1787/5jz2pwjd9t20-en

Terrorism finance, money laundering and illicit trade are all reasons to strictly regulate this space. However, we need to be careful not to curb the technological innovation in this area.

Also think of this: A recent FSB survey of pension funds, insurance companies, and banks on main future risk ranks cyber-crime as the number one risk. As financial institutions and central bank payments systems are vulnerable to attack, there is a need for a new security architecture in which the technologies developed for the new payment systems could play a role.

13. Financial innovation can help coping with climate change and greening our economies

Finally, last week the COP21 climate conference ended, and the OECD was heavily involved.[13] Thus I cannot miss the opportunity to convey a few thoughts on how financial innovation can cope with climate change risks and help greening our economies.

Climate change itself, policies and technological changes in response to climate change all create risks that have various implications for the financial sector, affecting financial institutions and capital market participants in different ways.

Physical risks from climate change due to its expected impact on the severity and frequency of natural disasters can (to the extent that losses from damages are insured) affect the insurance industry directly and can extend to other sectors.

The financial management of these impacts – in terms of providing financial protection and supporting recovery and reconstruction after disasters – is a key challenge. While various risk transfer tools such as (re)insurance and capital markets instruments, most prominently catastrophe bonds, exist, further innovations may be needed to cope with increasing climate-related risks.

There are also so-called transition risks that result from the adjustment process towards a clean and low-carbon economy that can prompt a reassessment of asset values as their ability to generate returns is impaired and they face pre-mature write-downs or even conversion to liabilities.[14]

[13] 43 events organsied or co-organised by the OECD and its 'sister' organisation IEA, NEA and ITF took place over the 11 days at the OECD Pavilion in Le Bourget, and several others at the OECD headquarters, attended by over 2000 people.

[14] E.g. clean-up or scrapping costs like costs of dismantling a nuclear power plant or removal of oil platforms.

Thus there is a potential for these assets to become stranded. Risk factors that could result in stranded assets are, for example, rapidly and unexpectedly declining costs of alternative sources of energy, cost-saving innovations in clean technology, discovery and exploitation of new, alternative resources, or regulations to reduce carbon emission.

Long-term investors like pension funds and life insurers are particularly exposed to such risks, and whether and how financial innovation will be able to deal with the stranded asset problem is still unknown.

But there are not only challenges related to climate change, there are also opportunities of investing in the 'green transition'. Financial innovations like green bonds[15] can help investors to better find such opportunities.

For all such risk-management and investment instruments to work efficiently, climate-related disclosure is important.

In a recently released stocktaking report on climate change disclosure in G20 countries,[16] the OECD, in collaboration with the Climate Disclosure Standards Board (CDSB), has analysed mandatory reporting schemes and identified commonalities and divergences between them. This is certainly a first step in the right direction.

Furthermore, a recently established private-sector-led Task Force on Climate-related Financial Disclosures[17] under the aegis of the FSB should provide further guidance in this respect, and is expected to make recommendations for consistent company disclosures that will help financial market participants understand their climate-related risks.

Also, under the China G20 presidency a new task force on green finance will be established which will further advance the issues, thereby potentially fostering further financial innovations.

14. Conclusions

So where does this leave us as policy makers? We have to deal with rising uncertainty and complexity of our physical, regulatory and economic environment.

[15] For an overview of the issues see the policy perspectives paper available at http://www.oecd.org/environment/cc/cop21session-greenbondsroundtable.htm.
[16] See http://www.oecd.org/fr/investissement/corporate-climate-change-disclosure-report.htm.
[17] See http://www.financialstabilityboard.org/2015/12/fsb-to-establish-task-force-on-climate-related-financial-disclosures/.

Exponential technological advancements, rapid innovation and the emergence of big data are expected to continue to drive innovation and digital disruption in the financial markets. At the same time, these innovations may allow us better to supervise and regulate. Big data and enhanced analytical tools may enable us to connect the dots and prevent the build-up of imbalances and risks.

Public policies and regulatory frameworks will need to embrace and adapt to those financial innovations while ensuring a level playing field and healthy competition in the market.

At the same time, we need to ensure that end-users are sufficiently protected when involved in innovative financial products and platforms. We also need to better educate financial consumers and ensure they have sufficient financial skills to use emerging digital financial services and other innovations to their advantage.

Today's discussions will help us to further improve such efforts, and I wish you a successful continuation with this event.

Thank you for your attention!