Remarks by Director of Markets Supervision, Gareth Murphy, Central Bank of Ireland

3 March 2016

Introduction

Good afternoon ladies and gentlemen. I am grateful for the invitation to speak at the launch of the Duff & Phelps Global Regulatory Outlook.

I have had the chance to review the Global Regulatory Outlook. I commend the authors and editors of this document. There is much food for thought.

This afternoon, I will cover six issues. They are mostly confined to the asset management industry, which is my primary focus, but I'll start with three of those issues which are relevant to the financial services industry in general: namely culture, technology and cyber risk - all of which are called out in the Global Regulatory Outlook.

Culture and personal accountability

Firms that promote a culture which is client-focussed, which is fair and which is mindful of the wider financial services and economic environment are firms that are aligned with the mission of financial authorities.

For some time, culture has been an area of focus for the Central Bank. For example, it is called out in the Central Bank's Consumer Protection Strategy (it is one of the 'Cs' in the '5Cs' framework). As a matter of practice, inspections of investment firms by my staff in the Markets Supervision Directorate, conclude with an assessment of firms' culture. And of course, the aim of a credible deterrent of enforcement is to promote the right behaviours and the right culture in financial services.

To me, it is no surprise that as rules on capital, liquidity, remuneration, resolution and so on are being laid down, the focus has shifted towards firms' culture. One manifestation of this is various regimes for greater personal accountability, especially at senior levels.

It is hard to regulate culture. It is hard to spot culture on a balance sheet - though bad culture will eventually damage it. But it is possible to use supervisory tools to gauge culture and to press for better behaviours, especially through direct engagements with firms' boards - which must take responsibility for setting the cultural tone in firms. That is why supervision (as opposed to rule-writing) is so important for the coming years.

The final thought I would offer - which echoes the observations of academics such as Lessig - is that regulation is but one modality for steering behaviours - the others being social norms, market conventions and the physical constraints of the world we live in.[1] Put another way, if the culture of financial services had been in a better place a decade ago, we might not be dealing with the substantial corpus of new financial services regulations at this point in time.

Technology

The basic economic proposition of new technologies is speed, efficiency and convenience. Some of the most interesting areas to benefit from technological innovation relate to (a) payments and settlement, (b) information and distribution, (c) securities registration and (d) identity verification. These are all areas of interest to the asset management industry.

New distribution technologies

Distribution in financial services is becoming faster and cheaper. There are numerous examples of new distribution models driven by technology covering money market funds[2], payment services[3], mobile trading[4] and crowd-funding[5] [6] - to name a few.

Identity Verification Technologies

Identity can take on a whole new meaning in a virtual world where there is no face-to-face contact, no signatures, no passport and no ID cards. New forms of identification are being explored such as social media profiles and cryptography.[7] The quality, integrity and security of modes of identification clearly have relevance to the proper and orderly provision of financial services. However, demand for new identification technologies is not just about online speed and efficiency, it is also about safety, security and confidence in financial services.

New technologies for registering ownership of assets

Distributed ledger technologies are increasingly being explored as an efficient and speedy way to register the transfer of assets between counter-parties.[8] (Rather than keeping a single register of information recording the ownership of assets, these technologies allow a network of users linked through the internet to maintain and update a register of ownership). At this stage, I have lost count of the number of press articles discussing their potential.

Clearly, new technologies present a wide range of regulatory challenges. For example:

- What activity should we measure and what new data will we require?
- Who should we collect this data from?
- Which technologies or applications will succeed and which will fail?
- Do we need new legal and regulatory definitions?
- How should financial authorities, which are typically public bodies, compete with the private sector for expertise which is in great demand?
- How should supervisors adapt? [9]

These are just a few questions - and by no means a non-exhaustive list of questions.

The key point is technology has the potential to disrupt and transform. It has the potential to impact all users of financial services. And it will pose challenges to our model of regulatory engagement.

IT and Cyber Risk

New technologies pose new risks – especially the threat of cyber attack.

Not a day goes by when the issue of cyber risk is out of the newswires. There are many 'unknown unknowns' and the threats are insidious.

In a small number of cases, the Central Bank of Ireland has seen fraudulent redemption requests being paid by regulated firms operating less-than-rigorous identity verification processes.

Back in 2014, the Central Bank identified the threat of cyber-attack as a major risk area for investment firms, fund service providers and asset managers. Early in 2015, a themed inspection of a sample of these firms was concluded. The main conclusions of the themed inspection was that firms needed to embed a broader awareness of cyber risk amongst their staff and that this culture of risk awareness needed to be driven from the board.

Moving beyond the development of a risk culture, one of the biggest challenges is determining the nature and scale of the investment required to counter cyber risk. Tackling this threat requires people, systems and vigilance. This requires an ongoing commitment from both financial authorities and regulated entities as the threat adapts and evolves. For sure, this will be an area of concern for years to come.

Moving away from the cross-cutting themes, i'll take a few moments to focus on some issues particular to the asset management industry.

Disclosure of investment fund fees

Let's start with investment fund fees. At the heart of this discussion, there are concerns about the efficiency of pricing in investment fund markets.

Put simply, "are investors getting what they think they are paying for?"

This is a significant question in view of the important role that investment funds play intermediating the supply and demand for capital and, in particular, in facilitating pension planning where small variations in annual fees can compound into significant impacts in retirement.

Effective disclosure is at the heart of investor protection. With the prospectus and the KIID, there is a clear framework for funds to make these disclosures. However, more work needs to be done to assess whether the communication of this information is leading to an outcome whereby investors are efficiently discriminating between funds.

Indeed, it is perhaps not surprising that in a market environment where there are a large number of investment funds to choose from and where comparisons between funds can be challenging, investors may struggle to efficiently process the information they receive.[10] Sometimes too much choice and too much variety can be overwhelming, especially for non-professional clients.

Various financial authorities have conducted supervisory work looking at aspects of this issue, such as closet index tracking[11] and value for money[12]. The Central Bank announced a themed-inspection amongst its 2016 supervisory programme which will look at Total Expense Ratios. Using funds' regulatory returns, a statistical analysis will be conducted relating Total Expense Ratios with various characteristics of Irish- domiciled funds. The aim of this exercise is (a) to build up a data-driven approach to understanding Total Expense Ratios and (b) to identify funds that are outliers. This is a resource-efficient approach to filtering through a large population of funds and to identify those that warrant follow-up supervisory engagement.

Stress-testing of investment funds

Stress testing of investment funds is an emerging area of supervisory focus.

The first thing to say is that the adverse outcomes for banks and investment funds under stress scenarios are very different.

- An adverse outcome in a bank stress event may be a capital shortfall which may even lead to an insolvency or resolution trigger event.
- In an adverse outcome in an investment fund stress event, one of two things may happen: either underlying assets become dislocated or the fund is gated, or both. In effect, the investment fund could become illiquid for a period of time.
- The issue of investment fund stress testing is topical for a number of reasons:
    - first, it is a natural extension of the debate which has already taken place over the last two years in relation to the risks of non-bank, non-insurance systemically important financial institutions (NBNI-SIFI);
    - second, at a time when markets are becoming more volatile and when asset prices have suffered a correction over the last few months, the ability of investment funds to meet redemption requests is an issue of increasing supervisory focus;
    - third, research into the theoretical mechanism of investment fund runs is ongoing and is yet to fully inform the broader policy debate;[13] and
    - fourth, this area (of investment funds stress testing) is an interesting illustration of the value of the data which firms are now required to file.

Run-risk stress testing must start with a definition of what the stress event is. For example, the stress event could be (i) a sell-off in emerging markets, (ii) the seizing up of high-yield corporate bond markets or (iii) even the departure of a leading portfolio manager from a large asset management group (as happened with Pimco in 2014). The key point is that supervisors must have the capacity to interrogate the regulatory returns so as to identify cohorts of funds that can be grouped as being subject to a common stress, as and when such stress events are defined. Looking back on the various turbulent market episodes of the last thirty years, it is clear that each period of market stress is different and depending on each episode some parts of the investment funds industry were affected more than others.

Beyond the categorisation of funds by a common stress, the next stage of the exercise is to calibrate a stressed redemption event. Here the duration and depth of the event must be determined and the modelling of interaction between redemption and price impact can be challenging. Often, extreme episodes of history are useful guides in this calibration exercise.

The next step is to consider the management of liquid asset buffers: are they run down in response to a redemption request or built up in anticipation of more? This is an interesting conundrum. Academics describe proactive liquidity management as (potentially) time-inconsistent.[14] In a nutshell, liquidity buffers mitigate fire sales today, but the need to rebuild liquidity buffers for tomorrow may trigger runs today. The supervisory question is: how likely is such an adverse feedback loop and how should such risks be mitigated.

For significant stress events, asset sales will be inevitable. At this point, the richness of granular portfolio data (such as that collected by the Central Bank under its OFI II regulatory return) comes into its own as it is possible to determine aggregate sales pressure on a security-by-security basis.

For some securities, like listed equities, it is possible to estimate, using historical data, the impact of asset sales on prices and then to use these price impact calculations to recalculate the NAVs of the investment funds. This whole supervisory exercise opens up a wide range of possibilities such as:

- understanding the adequacy of liquid asset buffers at a micro- and macro-level;
- analysing the potential feedback loop between redemption-driven NAV reductions and subsequent redemptions; and
- estimating the impact of investment fund redemptions on specific asset markets.

This work on investment funds stress testing still has some way to go. However, this issue is likely to be quite topical in the near future as a result of (a) supervisory work at national level, (b) exercises such as IMF Financial Sector Assessment Programs and (c) the annual FSB Shadow Banking Monitoring exercises.[15]

Data and data-driven supervision

This leads me onto the subject of data in supervision.

The increased focus on supervisory work and supervisory convergence raises the question as to what good supervision looks like. Supervision is a craft drawing on experience, knowledge of the regulatory framework and technical expertise. Given the extensive corpus of rules that must be policed - which would challenge any amount of supervisory resources - the question arises as to what efficient and effective supervision looks like.

Increasingly, I see a greater role for data-driven supervision. Good quality regulatory data can help supervisors to prioritise workflow and areas of focus based on key metrics and statistical filters.

That said, there is scope for further debate on the role of data in supervision and the standards that data should meet in order to support effective and efficient supervision. I look forward to such a debate - drawing, especially, on lessons from MiFID II, AIFMD and EMIR - and I expect that it will touch on a number of issues, such as:

- the definition of data concepts,
- the level of granularity of the data,
- the design of data templates,
- the efficient collection and sharing of data within the EU, and
- the capabilities required of supervision departments.

ESMA's Investment Management Standing Committee

Before I finish up, I'll say a few words about the current workload of ESMA's Investment Management Standing Committee, which I chair. The work of the IMSC can be divided into three sets of issues: implementing new rules, supporting the European Commission's work on Capital Markets Union and forging greater supervisory convergence.

In relation to further regulatory implementation work, issues include:

- the next wave of advice on third countries that might seek the AIFMD passport;
- remuneration guidelines under UCITS V; and
- other aspects of the implementation of UCITS V (and you will note that ESMA issued a Q&A on implementation issues arising out of UCITS V early this week).[16]

In supporting the CMU agenda, the IMSC may assist on the topics of:

- loan origination by investment funds, and
- challenges to cross-border marketing of funds.

There are many areas in which greater supervisory convergence is needed but I would highlight, in particular:

- UCITS share classes and

- asset segregation.

Conclusion

Previous years have been dominated by major policy debates and new European regulations focussing, in particular, on capital, liquidity, remuneration, reporting and so on. My outlook for regulatory engagement sees a greater focus on effective, efficient and convergent supervision.

This is part of an emerging shift.

A shift which appreciates the increased role of supervisors in protecting investors, promoting market integrity and safeguarding financial stability.

A shift which acknowledges the challenges that supervisors face in adapting to new risks and new technologies.

A shift which involves a greater focus on culture as a modality for promoting the right behaviours.

A shift which sees a greater use of data to inform and prioritise supervisory workflow.

As supervision evolves - blending hard-data, technical knowledge, business experience and cultural nous - it must be supported in its central and vital role of 'safeguarding stability and protecting consumers'.

---

[1] See Lessig 1998, "The New Chicago School", The Journal of Legal Studies Vol. 27, No. S2 (June 1998), pp. 661-691

[2] The most striking example is that of Chinese investors diverting their bank savings into the $85bn money market fund Yu'E Bao using mobile phone-based applications developed Alibaba.

[3] See Jack and Suri (2011) and Mbiti and Weil (2011) who document the characteristics and development of M-PESA, a mobile phone based money transfer system in Kenya.

[4] http://www.bloomberg.com/news/articles/2015-03-03/iphone-app-robinhood-luring-users-with-zero-commission-trading

[5] See ESMA (2014) and ESMA (2015b). ESMA has recently published an opinion and a survey on investment-based crowdfunding. The Opinion explained that these investments are associated with risks of dilution; asymmetric information and redemption owing to the fact that the majority of projects invested in are small and have a high rate of failure. Of the 46 entities considerer as part of the survey, 18 were authorised under MiFID, 12 were indirectly authorised as MiFID tied agents of an investment firm, and 16 were exempted or excluded from MiFID's scope. ESMA also found the majority of the surveyed companies engaged in the MiFID activity of the 'Reception and Transmission of Orders' and that 19 of the 46 were subject to base capital requirements that range between €5,000 and €730,000.

[6] See Freedman and Jin (2008).

[7] I have heard cryptography experts describe a private key as being almost like a signature. Whilst we may be accustomed to losing our keys or our password from time to time, imagine losing your signature!

[8] See Ali et al (2014). They assert that this "innovation draws on advances from a range of disciplines including cryptography (secure communication), game theory (strategic decision-making) and peer-to-peer networking (networks of connections formed without central co-ordination)."

[9] See ESMA (2015a).

[10] See R Dobelli, (2014), "The Art of Thinking Clearly".

[11] Danish, Norwegian and Swedish Authorities: http://www.investmenteurope.net/regions/swedendenmarkfinlandnorway/danish-funds-comment-active-share

ESMA: https://www.esma.europa.eu/sites/default/files/library/2016-165_public_statement_-_supervisory_work_on_potential_closet_index_tracking.pdf]

[12] UK FCA: http://www.fca.org.uk/static/documents/market-studies/ms15-02-1.pdf

[13] Zeng (2015), "A dynamic theory of mutual fund runs and liquidity management", Working Paper, Harvard University.

[14] See Zeng (2015)

[15] http://www.fsb.org/2015/11/global-shadow-banking-monitoring-report-2015/

[16] https://www.esma.europa.eu/sites/default/files/library/2016-181_qa_ucits_directive.pdf