

SECURITIES & INVESTMENT

REVIEW

THE JOURNAL OF THE CHARTERED INSTITUTE FOR SECURITIES & INVESTMENT

CISI.ORG/SIREVIEW

JUNE 2015

Wealth of talent

Managers need to learn new rules fast as industry revives

Evasive behaviour

It's important to look at moral not just legal tax issues

World betas

How effective is Smart Beta?

Banking reformer

**DAME COLETTE BOWE
ON HER TOUGH NEW
ROLE AT THE BANKING
STANDARDS BOARD**

Inside
*Review of Financial
Markets – see centre
pages for in-depth
and original academic
research*



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- **Stephen Cohen**, Chief European Strategist, BlackRock
- **John Cridland CBE**, Director-General, CBI
- **Professor Barry Rider**, Jesus College, Cambridge & Director, Cambridge International Economic Crime Symposium
- **Sacha Romanovitch**, Chief Executive Officer, Grant Thornton
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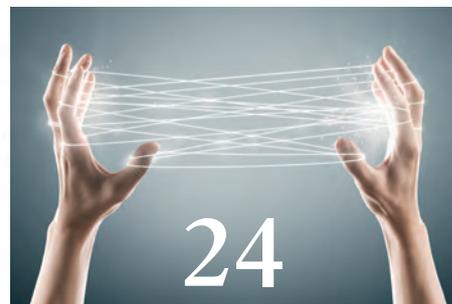
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City view



EIGHT HUNDRED YEARS AFTER THE MAGNA CARTA WAS SIGNED, THE PRESUMPTION OF INNOCENCE IS BEING STOOD ON ITS HEAD – BUT ONLY FOR BANKERS

On the 800th anniversary of the signing of the Magna Carta, that seminal event in the development of British justice, it is perhaps inevitable that the impact of any significant changes to the law or regulation which are made this year will be compared with the impact of that moment.

And within financial services, or more particularly banking, changes of such a nature are in train via the Financial Services and Markets Act and the proposed Senior Managers Regime. Putting aside the temptation to draw an historical analogy, we are concerned that a key tenet of British justice, namely the presumption of innocence is, in certain circumstances and then only for bankers, being stood on its head in favour of a ‘presumption of responsibility’ – or guilt.

The Senior Managers Regime which contains this contentious proposal also requires detailed ‘Statements of Responsibility’ to be drawn up which will specify precisely who is responsible for all aspects of an organisation, in order to avoid the situation of the recent financial crisis when, by making everyone responsible, the outcome was that no one was responsible. From that perspective, the proposals may seem entirely sensible and indeed have been publicly welcomed by senior industry figures.

Against that background, a requirement for firms to act in accordance with the law and regulation, and for senior managers to accept personal responsibility for the areas they manage, is currently the exception rather than the rule. We accept entirely that a bank being bailed out by the taxpayer to the tune of many billions of pounds, without any individual director or senior manager

appearing to accept responsibility for its failure, is impossible to justify and is an understandable cause of public antipathy.

However, we do have reservations over whether the potential ramifications of the Presumption of Responsibility are intrinsically equitable. It is not so much whether the charge of ‘reckless misconduct’ is itself unreasonable, but rather the mechanism by which the enforcement process will work, where the regulator appears to be effectively acting as judge, jury and potential executioner. This concern is recognised by the regulator, and Martin Wheatley, Chief Executive of the Financial Conduct Authority (FCA),

We prefer the safeguards of the current position, accepting its imperfection

recently commented: “neither the Senior Managers Regime, nor the presumption of responsibility, correspond to a ‘heads on sticks’ strategy... the FCA will apply the presumption proportionately and in a way that’s fair to the subject of the investigation.”

But if your name is Pottage or Cummings, you may not find that statement very reassuring. As CEO of UBS Wealth Management at a particularly tricky time for the firm, John Pottage was pursued by the Financial Services Authority (FSA), the predecessor of the FCA, seeking to fine and ban him. Pottage appealed to the Upper Tribunal – and won. The tribunal indicated that an approved person would be in breach of a statement of principle only where “he is personally culpable and

not simply because a regulatory failure has occurred in an area of business for which he is responsible”.

Peter Cummings, as former Head of HBOS Corporate Division, was banned from the industry for his “failure to exercise due skill, care and diligence by pursuing an aggressive expansion strategy... without suitable controls to mitigate the risk.”

Cummings chose on cost grounds not to appeal, but commented that “the decision to single me out for investigation is even more grotesque, given that even the FSA has to admit in its notice that other senior people were involved in the critical decisions for which I am taken to task”.

We prefer the safeguards of the current position, accepting its imperfections, where the liability of senior managers is set out as in the Pottage and Cummings enforcement decisions, and the regulator must show an element of recklessness, either in making positive decisions, or ignoring issues that need to be addressed.

The new responsibilities, maps and individual Statements of Responsibility should leave little room for managers to hide. But can we be confident that this will be applied both fairly and consistently, and will anything be done to counter the impression that an appeal to the Upper Tribunal is a course of action reserved solely for the rich?

Readers will be aware that while this is a proposal aimed at ‘bankers’ it must be conceivable that, if viewed as successful, its reach will be extended in due course to wider areas of financial services, including wealth management.

60-SECOND INTERVIEW

Pensions Administration is a new unit of the CISI's globally recognised Investment Operations Certificate. Dave Sadler, a panel member involved in developing the unit, explains its value



Dave Sadler, senior research and project consultant at Aviva

What does the unit involve?

It looks at state benefits, different types of pension schemes, types of policies used by schemes and the investments used by schemes to secure members' retirement. It

also covers the tax rules for pensions, trustees' responsibilities and HM Revenue & Customs requirements that apply to scheme administrators.

Who is it aimed at?

Those who have been working in a pensions administration role for at least a year. This includes members of an employer's pensions administration team, employees of firms providing pension administration services to clients and those working for pension providers.

Why has it been developed?

Pensions is a heavily regulated environment so it is key to understand how the different rules and regulations

apply to your daily duties. A pension is effectively a pool of investments which has particular tax advantages applying to it. The rules that must be followed to maintain the tax advantages of the pension are as important as the investment choices and regulation of those investments.

What is your verdict on the radical changes to the pension market?

Although the 2015 pension changes provide much greater flexibility, with that comes greater responsibility for the individual. If they take large amounts from their pension pots, they need to ensure that they still have enough money to provide for their retirement.

Individuals generally will not know what their life expectancy is and therefore how long their pension pot might need to last. Similarly, taking too much at once or at the wrong time could lead to large and unexpected tax bills. These potential complications are one of the reasons the Government has also introduced a free independent guidance service for

those with defined contribution pensions; the intention is that this will help to prevent people making the wrong decision.

As well as changes to retirement benefits, the taxation of death benefits from pensions has changed, so unused pension benefits can be passed on to a beneficiary, and in a lot of cases, if an individual dies before age 75, the benefits can be paid tax-free, irrespective of the format in which they are paid.

The simple fact is that roughly half of those retiring now have less than £20,000 in their pension pot, which is not enough to provide them with any decent level of benefits during the average period of 23 years spent in retirement.

We can expect further changes to the pension tax rules in the future to deal with unexpected issues and changes in people's behaviour.

- Dave Sadler is a senior research and project consultant at Aviva, specialising in pensions tax law. For further information visit cisi.org/ioc

City view sparks spirited reaction

The March 2015 edition of the *S&IR's* City view, the CISI opinion column, generated an unprecedented level of comment from Institute members, much of it critical.

In the column, the CISI argued that the lifetime ban imposed by the Financial Conduct Authority on Jonathan Burrows, a former managing director with BlackRock, on working in financial services after train fare evasion over a five-year period, was disproportionate.

CISI Chief Executive Simon Culhane, Chartered FCSI, said: "We accept that the view expressed in the article is not shared by all members and we should have made it clearer that this was an opinion piece rather than official CISI policy.

"However, readers may not have been fully aware of all the facts which were

not then in the public domain. As a result of this article, Mr Burrows released a statement which *The Times* and *City AM* covered fully and which painted a very different picture. The statement explained that Mr Burrows rented a flat and lived in London for five years, returning home at weekends. It is likely the amount evaded over a five-year period was in the region of hundreds of pounds.

"As detailed in the City view column, we applauded the regulator for calling Mr Burrows to account and for making it publicly clear that financial services professionals cannot pick and choose when to behave ethically. However, despite accepting his guilt and a hefty financial penalty of £43,000, it was the imposition of the life ban which the author felt was disproportionate."

Review of Financial Markets

This edition of the *S&IR* contains in its centre pages the sixth issue of the CISI's academic journal, *Review of Financial Markets (RoFM)*.

The 12-page publication includes diverse papers from academics based around the world.

RoFM Editor is Moorad Choudhry FCSI, Professor at the Department of Mathematical Sciences, Brunel University.

- CISI members are invited to submit papers to *RoFM* for consideration.
- For submission guidelines, see page 1 of *RoFM* or visit cisi.org/academic

Ask the experts: Senior Managers Regime

Who will the new Senior Managers Regime apply to and what will their responsibilities be?

The new regime is intended to make it easier for regulators to hold individuals to account, and applies to individuals responsible for managing regulated activities, or actions that might generate risk or serious consequence for the relevant firm.

The Prudential Regulation Authority's definition of 'senior management' includes chief executives, chief finance officers, chief risk officers, heads of internal audit, heads of other key business areas and group entity senior managers. The regime also applies to certain non-executives, including chairmen, risk, audit, remuneration and nominations committee chairs and independent directors.

Under the new rules, firms need to certify that individuals responsible for 'significant harm functions' are fit and proper to perform their role. Individuals must also submit applications for approval to perform a significant management function, including a 'Statement of Responsibility', setting out the aspects that they will be responsible for managing.

The regulator has introduced two tiers of new conduct rules, which apply to all significant managers and certified individuals. The first tier sets out the expected conduct for all individuals caught by the regime, including (but not limited to) a duty to be open and

co-operative with the regulator and to observe proper standards of market conduct. The second tier cites that senior managers have a duty to control effectively the area that they are responsible for, and a duty to comply with the relevant requirements of the regulatory system.

Senior managers will be required to evidence that they have taken such steps as a person in his or her position could reasonably be expected to take to avoid wrongdoing – meaning the onus is now on the individual, rather than the regulator. If a senior manager is aware of a risk that the implementation of a decision could cause their institution to fail, and has taken no steps to rectify it, they will have committed a criminal offence.

Will the application of the new rules differ for UK branches of foreign banks?

The application of the regime to incoming European Economic Area (EEA) branches is problematic, because the home/host state dichotomy ties the UK regulator's hands. However, branches of third country firms (banks that are authorised outside the EEA) will be caught by the regime – although the criminal offence won't apply to them.

How can financial services firms and CISI members prepare for the rule changes?

Elements are still undergoing consultation, but the regime is expected to come into force fully by March 2016.

The first thing firms need to do is to appoint a senior manager with personal responsibility for implementing the regime. They then need to consider how they will deal with the new and enhanced approval process for people performing senior management functions. Once everyone affected has been notified and grandfathered over to the new regime, firms need to set up a structure that prepares new joiners and employees moving into new roles.

- Further information: New CPD training course: Senior management responsibilities: Strengthening accountability, next dates 25 June 2015 (London) and 15 July 2014 (Manchester) - cisi.org/courses
- New CISI Professional Refresher: Senior managers and certification regime - cisi.org/refresher



Stuart Holman,
Deputy Managing
Director, CCL

The CISI is introducing a new Certificate of Professionalism for practitioners who wish formally to demonstrate a yearly commitment to maintaining their knowledge and skills, and upholding the highest standards of behaviour. To apply, visit cisi.org/professionalism

Art in the City

There are dazzling works of art in the City and in corporate collections across the world. In this issue, we look at Citibank, which has a diverse art collection with a global reach

Citi has retail banking operations in more than 160 countries and territories around the world. Among the bank's important individual collections are those in Britain, Canada, India, Pakistan, Italy, Poland and some South American countries. Citi's subsidiary Banamex also has an exceptional collection.

The collection's 30,000 works include antiques and memorabilia, 19th century photography, textiles, 20th century paintings and contemporary realism.

The core of the collection was formed when the bank, then known as National City Bank of New York, began commissioning paintings

in 1945. Paintings were commissioned from artists as diverse as Thomas Hart Benton, Charles Sheeler, Rockwell Kent, Clarence Carter, Walter Murch and John Rodgers Cox.

There are exhibition spaces in its Canary Wharf, London headquarters, at Banamex in Mexico City, and in two public exhibition venues in Long Island City, New York. Art from the Citi Collection of Fine Arts was recently on loan to the Money Gallery at the British Museum.

From *A Celebration of Corporate Art Programmes*, Peter Harris and Shirley Reiff Howarth - artworldeurope.org



Prince Seated at a Window,
Unknown-Indian, Bengal,
Murshidabad, 18th Century,
Citi Collection of Fine Arts

The knowledge

Negotiation

Good negotiation skills are essential in business life. Christopher Jones-Warner, Chartered FCSI, who delivers CISI courses in the areas of leadership and communication, gives some advice.

1 Prepare. Decide what you want specifically and what you would be prepared to accept. Work out your arguments and counter-arguments. Think through what the person you are negotiating with is likely to want and what their arguments will be. Construct your counter-arguments. Then contemplate what an absolutely off-the-wall answer might look like for all, that not only meets current requirements but brings other advantages too.

2 The meeting. Use initial small talk to connect with your counterpart and

create trust. Next, ideally, hear what they want. How you listen to them will determine how they listen to you. Then say what you want. See where you agree and then where you disagree. This is where the real negotiation begins.

3 The negotiation. Offer suggestions and compromise, but be bold. Toughness pays and often generates the opposite response from your counterpart. If you do feel intimidated, remember that you have a veto on anything you don't like. Give away absolutely nothing free, and if you do make concessions, preface them with "If". Think: "If you let me have that, I can give you this."

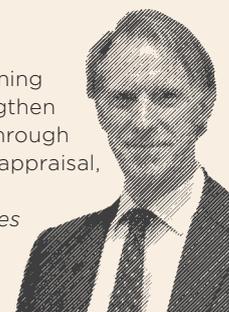
4 The discussion mires. If you have connected with your counterpart and

trust each other, detach from the point of disagreement and, together, come up with a solution. All new ideas start with a minority of one, so rubbish nothing. Seek a resolution which shifts all parties forward.

5 Agree, contract and deliver your side of the agreement. Strong delivery will improve your next negotiation.

Further information

New CPD training course: Strengthen your results through performance appraisal, 16 July 2015 – cisi.org/courses



Richard Lawson CBE FCSI(Hon) 1932-2015



Richard Lawson was a leading Stock Exchange figure over the period of the Big Bang, and played an important role in the successful transformation of the

old London Stock Exchange into a leading global stock market.

During this period, as well as being joint senior partner (later Chairman) of Greenwell, which was a major force in the UK gilt and equity markets, he was a member of the Council of the London Stock Exchange and a Deputy Chairman of the Exchange. He was Chairman of the Securities and Futures Authority (SFA) and of the Investors' Compensation Scheme, and a founder director in 1992 of the CISI (then the Securities Institute). In 1993, in recognition of his long and distinguished service within the financial services industry, the Institute's directors named him as one of the organisation's first two Fellows (the other being the late Peter Wills). He was awarded the CBE in 1994.

After attending school in Lancing, West Sussex, Richard carried out his National Service with the Sherwood Foresters, with whom he narrowly missed serving in Korea – the war finished a week before he was due to embark. He then spent a couple of years in industry with ICI before joining W. Greenwell (later Greenwell Montagu) in 1954, where he remained throughout his City career. Within his firm he was a private client specialist, although in later years his management responsibilities as joint senior partner, as well as his outside roles, took up much of his time.

Richard made a particular contribution to the regulatory changes taking place in the City during the Big Bang through his board membership of the Securities Association and subsequently his chairmanship of the SFA and of the Investors Compensation Scheme. He will be remembered for his integrity, his determination and single mindedness with the job in hand, and for his friendship with a wide circle of his City contemporaries.

Financial crime appeal



The CISI is revising its learning materials related to financial crime prevention and is interested in hearing

from compliance professionals with experience in this area to help formulate a qualification focused on industry best standards and international legal and regulatory expectations.

As a professional body, the CISI relies on industry practitioners to offer their knowledge and expertise to help create and maintain its exams and workbooks.

- To find out more information on what the CISI is doing in this area and how you can assist with developing this initiative, please contact Tony Morgan on +44 20 7645 0647 or email tony.morgan@cisi.org

Select Benefits



Limited time offer – 25% discount on travel insurance

Through CISI Select Benefits, for a limited time only, CISI members can save 25% on all Columbus Direct travel insurance policies.

Columbus Direct has been a leading specialist provider for over 25 years, has more than 15 million customers worldwide, and was voted Best Travel Insurance Provider 2014 in the Your Money Awards. It provides premium travel insurance cover in over 45 countries worldwide and all policies include cover for more than 150 sports and activities.

You can use this offer for your upcoming summer holidays or even

for a trip later in the year – as long as you purchase your travel insurance before 31 July 2015, you will be eligible for the 25% discount. There are a range of travel policies available and you can choose from three levels of cover. You can further tailor cover by adding or removing certain benefits such as cover for cancellation, gadgets, baggage or winter sports.

Visit CISI Select Benefits via cisi.org/mycisi for more information or to apply online, or call Columbus Direct on 0800 980 1030 (and quote CISI25).

*Terms and conditions apply. See website for further details.

Code of Conduct

In this edition of *S&IR*, you will find an updated copy of the CISI Code of Conduct.

There have been two changes to the Code – the introduction now notes that the Lord George Principles impose an obligation on members to act at all times in a way beyond mere compliance and to support the underlying values of the Institute. Principle 8 has been similarly amended to state: “To strive to uphold the highest personal and professional standards at all times.”

These changes have been made to reinforce the message that acting with integrity is a 24/7 obligation, not simply a 9–5 requirement. CISI members are representatives of the securities and investment profession and, as such, undertake to uphold the high standards expected of a professional at all times – not just while ‘on the clock’.

CISI Chief Executive Simon Culhane, Chartered FCSI, says: “Members will be generally mindful of this expectation already, and the change to the Code of Conduct has been implemented to demonstrate members’ existing commitment to high standards, and to reflect the importance which the CISI attributes to ethical behaviour.”

Keep up to date through our digital edition

Have you seen the digital edition of the *Securities & Investment Review*?

The smartphone and tablet-friendly website is updated each week with news, features and analysis on the hot industry topics. View the site at cisi.org/sireview



The *S&IR*'s quick quiz features questions from CISI Professional Refresher, an online learning tool, which includes more than 60 modules covering topics including anti-money laundering, the UK Bribery Act and information security and data protection. The answers are on page 11.

1. What is a central counterparty?

- A An organisation which tells market participants with whom they may trade
- B An organisation which intermediates between parties to every trade
- C An organisation which trades all products in all asset classes
- D An organisation which reports trades to the Bank of England

2. An employee has knowledge or suspicion of money laundering, but makes no report to the firm's money laundering reporting officer (MLRO). Who commits the criminal offence?

- A The firm
- B The MLRO
- C The employee
- D All of them

3. What is the role of the Financial Policy Committee?

- A To oversee the work of the Prudential Regulation Authority
- B To supervise insurance companies
- C To identify, monitor and take action to reduce systemic risks
- D To promote the financial stability of the UK financial system

4. The directors of the Financial Ombudsman Service are required by law to be:

- A Appointed by a body independent of the Financial Conduct Authority (FCA)
- B Appointed by the FCA, but independent of it
- C Selected solely from FCA-authorized firms
- D Selected solely from consumer bodies such as the Citizens Advice Bureau

Access to Professional Refresher is available on an annual licence basis. The full suite of modules is free to CISI members and is £250 for non-members. To find out more about Professional Refresher, visit cisi.org/refresher or contact the CISI on +44 20 7645 0777.

BACK STORY

*Jason Turner MCSI,
Director, Deutsche Bank*



Jason Turner didn't follow a conventional route into financial services. "Considering a career in the industry didn't occur to me at all when I was growing up," he explains. "I didn't come from a wealthy family, but my mother was the beneficiary of an educational grant, following the death of a grandparent." This allowed Jason to benefit from a private education, which unleashed the sportsman within, and he quickly developed a keen interest in rugby.

When his schoolmaster, a former London Wasps player, suggested he try out for his old team, Jason didn't need to be asked twice. Surrounded by incredible peers, he played for the Wasps for four years, before a misdiagnosis and delayed open hip surgery put paid to his sporting career.

But those early years were not lost on Jason. Now a director at Deutsche Bank, advising family office and ultra-high-net-worth clients, he still finds value in many of the skills he needed as a rugby player.

"There's a big teamwork ethic at Deutsche; it's very collaborative," he says. "The divisions that we have in the bank are designed such that we

He still finds value in skills he needed as a rugby player

are able to work in confidence with our colleagues and not feel like we're competing for the same end result."

Outside of the office, rugby still plays a big part in Jason's

life. He currently volunteers in an advisory capacity with the School of Hard Knocks, a social inclusion charity that uses the power of contact sport to change the attitudes of the long-term unemployed. As Business Ambassador, Jason looks for ways to promote the charity within the corporate and high-net-worth community.

Of course, it wasn't a smooth transition from rugby player to Director at Deutsche – but a penchant for networking and a strong work ethic certainly helped. Initially, a stint spent cold-calling businesses as a financial adviser for City Financial Partners helped Jason to prove he could converse and engage with clients.

He later went to work for UBS, where he became a Director on the Private Wealth Management Desk.

He then secured the position of Executive Director at Kleinwort Benson, having completed the CISI Level 6 Certificate in Private Client Investment Advice & Management.

"The reason I came to work for UBS, Kleinwort and Deutsche is because I'd shown certain levels of competence and results," Jason notes. "I was lucky in some ways, but I came through an experienced, driven career path – I've come up through the ranks."

- If you would like to tell us your own back story, email janice.warman@wardour.co.uk

Events preview

It's never too early to start thinking about your continuing professional development (CPD) planning, and the CISI offers plenty of opportunities to help you meet your requirements for professional development. Below are just some of the highlights of the Institute's events programme. For further information, take a look at the latest quarterly CPD brochure, which is included in UK copies of this issue of the *S&IR*.

CONFERENCES

1 JULY

CISI ANNUAL CONFERENCE 2015

Grange St Paul's Hotel, 10 Godliman Street, London EC4

A chance to network with other CISI members and keep up to date with latest industry developments. Confirmed speakers include Verena Ross, Executive Director of the European Securities and Markets Authority, John Cridland CBE, Director General, CBI and Sacha Romanovitch, CEO, Grant Thornton. Gold sponsor: Cordium; Silver sponsor, Axa Wealth.

ANNUAL DINNERS

10 SEPTEMBER

SCOTLAND ANNUAL DINNER AND AWARDS EVENING

Celebrate Scotland's highest achievers in CISI exams at The George Hotel in Edinburgh, and hear from journalist and former politician Matthew Parris.

24 SEPTEMBER

BRISTOL AND BATH ANNUAL DINNER

Join local CISI members at Bristol Aquarium for an entertaining evening. The guest speaker will be TV and radio presenter Declan Curry.

OTHER FORTHCOMING EVENTS INCLUDE:

- 24 June: Hot topics in cyber crime (Glasgow)
- 24 June: Information risk management in an age of cyber threat
- 24 June: Risk Forum – How to drive risk awareness from the top to the bottom
- 25 June: Senior Management Responsibilities – Strengthening accountability
- 25 June: European Regulation Professional Forum: MiFID II/R – Conduct of business with a retail focus
- 25 June: Guernsey Financial Advice Standards ('GFAS') – qualified and competent (Guernsey)
- 30 June: The mystery of hedge funds

LIVE WEBCASTS

Have you watched a CISI live webcast? There are now at least three available each month, including 'Brussels for Brunch' on the latest regulation coming out of the EU. CPD for watching live webcasts is automatically logged.

- For details of conferences, training courses, CPD and social events available to members, visit cisi.org/events

Investment dangers

BY 2050, ASSETS UNDER MANAGEMENT WILL DWARF THE BANKING SYSTEM BY RISING TO \$400TN. BUT THAT BRINGS WITH IT POTENTIAL PROBLEMS

✦ ANTHONY HILTON ✦ JOHANNA WARD

If you wanted to make a fortune in the City in the past 30 years, asset management was the place to be. Other parts of financial services – investment banking, for example – had more glamour; trading might have delivered more short-term rewards. But for steady, almost unbroken expansion, nothing beats asset management.

Since 1950, life expectancy globally has increased by 50%, the population has increased by 300% and global gross domestic product (GDP) has increased by a multiple of 40. The world is getting richer, the world is getting older and the world is getting more crowded. Put those three together and it becomes an opportunity not to be missed.

At the end of World War II, assets under management (AUM) in the US were the equivalent of roughly half the country's GDP. Today, that figure is five times higher – and GDP is of course also significantly larger. In the UK, however, the same growth has occurred much more rapidly. Today, AUM in this country are also five times GDP, but that upward charge began only in 1980.

This adds up to big numbers. In a speech last year, the Bank of England's Chief Economist Andrew Haldane, quoting figures compiled by TheCityUK, the financial services lobbying group, said that the global total of AUM was \$87tn in 2013. This was the equivalent of roughly three-quarters of the assets in the global banking system and represented a doubling in the last decade.

The forecasts are even more startling. Research by PwC, the business services group, suggests that the \$87tn of global AUM will have expanded to \$100tn in five years' time. Given that AUM correlated closely with the growth of GDP, those forecasts imply that by 2050 assets under management (AUM) worldwide will have risen to at least \$400tn, and be at a level which dwarfs the banking system.

However, growth on this scale brings with it potential problems. As the asset management industry has grown, it has also changed in nature. There has, for example, been a major shift towards specialist investment houses on the one hand and passive investing on the other. Hedge funds spring to mind in the specialist space, and passive investing has developed apace too – particularly with the popularity of exchange-traded funds,

which allow private investors access to index-based strategies. The second significant change is the way in which the search for higher returns has led investors to ever more illiquid markets – be they emerging market junk bonds or unquoted funds specialising in the purchase of distressed debt.

The third major trend has been the shifting of the investment risk away from financial institutions like insurance companies and pension funds and into the hands of the end investor.

It is the authorities' view that although fund management groups have rarely been thought of as a source of systemic risk in the past, that may need to change, and they fear that if panicked end investors all sought to sell their holdings at once, the asset management industry would be unable to liquidate the underlying investments quickly and easily, thereby causing a further circle of panic reminiscent of a bank run.

Mark Carney, though best known in the UK as Governor of the Bank of England, is also Chair of the Financial Stability Board, which was the global organisation set up by the G20 after the financial crash to put in place global safeguards to ensure that it would not happen again. In a letter to world leaders just this April, in which he outlined the work agenda for the next G20 meeting, scheduled for this November in Turkey, he wrote in the context of bond market investment that sudden shifts in portfolios could cause sharp and damaging spikes in interest rates. So, he said, his organisation would consider “whether additional policy tools should be applied to asset managers according to the activities they undertake, with the aim of mitigating systemic risks”.

That seems a pretty clear warning that the industry needs to brace itself. Regulation is coming.

Anthony Hilton is the award-winning former City Editor of *The Times* and the *London Evening Standard*



Evasive behaviour

IN THE WAKE OF THE HSBC SCANDAL, SHOULD MORAL RATHER THAN LEGAL CONSIDERATIONS DICTATE INDIVIDUALS' TAX AFFAIRS?

✦ JILL INSLEY ✎ PHIL HACKETT



Until the last decade, the distinction between tax evasion and avoidance was quite clear. Evasion is illegal, and those caught evading tax face hefty fines and spells in prison. Avoidance is legal, and getting one over the taxman in a legitimate way used to be considered perfectly acceptable – and still is, by some.

“Everybody does tax avoidance,” Lord Fink, the former Conservative Party Treasurer, told the *London Evening Standard* in February. “The expression ‘tax avoidance’ is so wide that everyone does tax avoidance at some level.”

However, Lord Fink is out of tune with public sentiment. In recent years, beginning with the banking crisis and the UK’s slide into recession, feelings about tax avoidance have changed. Using a tax avoidance scheme may be legal, until HM Revenue & Customs (HMRC) decides otherwise, but in the opinion of the great British public, it is no longer considered morally acceptable.

In 2010, Danny Alexander, then Chief Secretary to the Treasury for the Coalition Government, put tax avoidance and

evasion in the same insalubrious group. Announcing plans to attack offshore tax havens and other ‘tax dodges’, he said: “There are some people who believe that not paying their fair share of tax is a lifestyle choice that is socially acceptable. Just like the benefit cheats, they take the resources from those who need them most. Tax avoidance and evasion are unacceptable in the best of times but in today’s times, this is morally indefensible.”

Chancellor George Osborne used his 2012 Budget speech to describe aggressive tax avoidance as “morally repugnant”, and

“Some people believe that not paying their fair share of tax is socially acceptable”

subsequently began closing tax loopholes to stop individual tax dodgers legally avoiding paying their fair share.

Since then, celebrities ranging from comedian Jimmy Carr to Take That band members Gary Barlow, Howard Donald and Mark Owen have been publicly

Even donors getting tax relief for giving large amounts to charity have been dragged into the argument



WHAT IS TAX AVOIDANCE?

“Tax avoidance is bending the rules of the tax system to gain a tax advantage that Parliament never intended,” says an HMRC spokesman. “It often involves contrived, artificial transactions that serve little or no purpose other than to produce a tax advantage. It involves operating within the letter – but not the spirit – of the law.”

Those who defend tax avoidance often point to tax reliefs available on everything from enterprise investment schemes and venture capital trusts through to individual savings schemes and pensions – and query the difference. But these are tax-planning schemes deliberately developed by the Government for a specific purpose, be it to encourage employment or saving, or to help start-up businesses to secure the seed capital they need to get going.

“Tax avoidance is not the same as tax planning,” says HMRC. “Tax planning involves using tax reliefs for the purpose for which they were intended. Claiming tax relief on capital investment, saving in a tax-exempt ISA or saving for retirement by making contributions to a pension scheme are all legitimate forms of tax planning. While such actions may reduce the total amount of tax paid, they are not tax avoidance, because they involve using tax reliefs in the way that Parliament intended when it passed the relevant legislation.”

pilloried after investing in arrangements that were later identified by HMRC as tax avoidance schemes. Even donors who were receiving tax relief for giving large amounts of money to charity have been dragged into the argument.

No matter how much individuals had contributed to the economy or society, if they had made use of tax avoidance schemes, they were still vulnerable to criticism.

As one *Guardian* columnist recently put it: “To avoid tax is to scrounge off the state.” ➔

The most recent example of this new-found public outrage occurred in February, when leaked documents revealed that HSBC's Swiss subsidiary had been complicit in tax evasion and aggressive tax avoidance.

The revelations related to actions taken nearly a decade ago in a country famous for enabling the rich to reduce their tax liabilities, but they still caused uproar in Parliament, and threw HSBC into crisis.

NON-DOMS

The effect of the 'non-domicile' regime is to remove overseas income and capital gains from the scope of UK tax; that is, non-dom residents must earn and spend their incomes abroad. Any earnings made in the UK are taxed as normal. For the first seven years a 'non-dom' lives in the UK,

they can benefit from this regime quite freely. Thereafter, they can either elect to pay tax or they must pay a flat fee of £30,000 in the UK on their overseas income and capital gains; after 12 years, the fee increases to £60,000, and after 17 years, £90,000.

Only about 5,000 [non-doms] would actually pay tax on earnings made outside the UK

Nimesh Shah, a partner with accountants Blick Rothenberg, says: "A non-dom paying the flat fee of £60,000 would comfortably put themselves in the top proportion in terms of tax contribution."

George Bull, a partner with accountants Baker Tilly, agrees that it is about time the non-dom tax rules were brought up to date, but adds: "I don't think any [non-dom] is breaking the law. The UK has a unique feature in its tax system that is working exactly the way Parliament intended."

Although much has been made of the 115,000 people with non-dom status, Bull says that, according to HMRC figures, only about 5,000 of those would actually pay tax on earnings made outside the UK if and when non-dom status is scrapped. "The vast majority only earn income in the UK," says Bull. "These include cleaners, hospital workers, people working in the food trade, people from all walks of life. They are not all fat cats abusing the system."

TAX POLICY

Shah believes Labour's use of non-dom tax status in its election campaign is a good example of why taxation should not be determined by the media, politics or public opinion. "Tax policy, like any other government policy, should be considered, acutely assessing the economic impacts," he says. "Where a fundamental change to tax policy is proposed, it should be subject to detailed consultation with input from the professional bodies, so that the implications are considered and any legislation meets the overall objectives.

"The impact on bottom line tax revenue and the wider economic implications of such a measure [as abolishing non-dom status] have to be carefully considered and, at this stage, it is apparent that neither have."

So if politicians, the media and the general public are not to be trusted with changing tax law, who – or what – should be?

Richard Murphy, a chartered accountant and tax researcher who founded the Tax Justice Network, suggests the foundation of an Office of Tax Responsibility, a new independent body to monitor the effectiveness of the tax system. He says: "There are plenty of ways that tax loopholes that are completely legal could be effectively addressed. But so far, the political tax debate is not grown up enough to achieve this."





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your story?

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A difficult endeavour

DAME COLETTE BOWE'S APPOINTMENT AS CHAIRMAN OF THE NEWLY CREATED BANKING STANDARDS BOARD HAS BEEN GREETED WITH WIDESPREAD APPROVAL. HER ENTHUSIASM FOR THE TASK AT HAND IS INFECTIOUS

◆ JANICE WARMAN 📷 JASON ALDEN

Dame Colette Bowe has never taken the easy option. She began her working life as a civil servant, and within a few years became embroiled in a scandal: a leaked document concerning the Westland affair, the battle over ownership of a helicopter company that smeared Lord Heseltine, who was in conflict with her boss, Lord Brittan.

Her policy then was silence in the face of a media storm that saw the media camped on her doorstep. Did she leak the document to the Press Association on the instruction of Lord Brittan and the then Prime Minister, Margaret Thatcher? They denied it. She said nothing and left the civil service shortly afterwards for a stellar career in regulation and industry.

Today, interviewing Dame Colette about her tough new job as Chairman of the Banking Standards Board (BSB) in modest offices a few doors down from the Bank of England, I find her as discreet as she was then.

Would she comment, I ask, on the recent headlines about massive penalties imposed on banks for rigging foreign exchange markets? She wouldn't.

How about the possible effect of Britain leaving Europe? No.

How about the similarity between the phone hacking and the banking scandals, that there was a company ethos that some employees felt they had to adhere to? The answer to that was "no comment" too, this last because of her most recent role as Chairman of the

communications regulator Ofcom, which was itself involved in the former.

But, of course, she is quite right. The BSB has been formed to help reform the banking industry. As its Chairman, her job is to recruit and drive a lively and varied board down the road of leading that reform. And that means not commenting on each new scandal that hits the headlines, not least because some events will be sub judice.

Her appointment was welcomed by Sir Richard Lambert FCSI(Hon), the former *Financial Times* editor and Director-General of the Confederation of British Industry who had recommended the creation of the board and had been interim

"I did think that it was going to be extremely worthwhile if we could all make it happen"

Chairman: "I am very pleased to be passing the baton to Colette Bowe. She gets things done and I could not imagine anyone better qualified to take on this important and worthwhile job."

So what drew her to the job?

"Well, I did think that it was going to be extremely worthwhile if we could all make it happen and I also thought that the experience I would bring gave it a reasonable chance of being able to make it hold. So, it was a combination of those two things – thinking it is something really

worth doing and also thinking that I could bring something to it.

"I wasn't under any illusions about the fact that this endeavour that we're all engaged on is going to be difficult. To bring about or to support/facilitate a change in the culture of an industry is a hard job, but I knew the people who had come together to invite Richard to write this report, the seven institutions; I knew that they were all deeply serious."

RIGHT EXPERTISE

She decided early on that it should be a small operation that called in people with the right expertise when they were needed.

"Richard, all through this period, was absolutely marvellously helpful," she says. "Because the only person around was me and [he] said, 'Of course I'll help you'. So we had a very productive time where Richard helped me recruit the Chief Executive and also helped me recruit the board."

The Chief Executive, Alison Cottrell, former Director of Financial Services at HM Treasury, had been a City economist with firms including HSBC and PaineWebber before joining the Treasury in 2001.

Cottrell, says Dame Colette, is "somebody with good experience, somebody from the City, somebody who understands this world and also somebody who would be prepared to come in here and do a start-up. As you see, this isn't a huge marble hall; this room and the room you just saw is it,



“They are all people with a range of perspectives, views and experience, who are, crucially, good at listening”

and I needed somebody of the kind of temperament who would see that as a really interesting challenge.”

For the board itself, she believed that two sorts of people were needed – practitioners, people from across the City – “We’ve got big investment banks, we’ve got a mutual, we’ve got a challenger, we’ve got HSBC, so we’ve got, I think, representatives of most of the strands of the City” – and non-practitioners, people who come from a range of different walks of life.

“Gillian Guy, Head of Citizens Advice, agreed to join us, as did [Sir] Brendan Barber, former head of the Trades Union Congress (TUC). And an awful lot of what we’re going to be interested in here is the hundreds of thousands of people who work in this industry – [there is a] huge, huge set of issues. The people in this industry, how they’re motivated, how they feel about what happens. They’re in professional qualifications so I thought [we needed] somebody with massive experience of the

world of people in general working, so Brendan joined us.

“Other members include Paul Johnson of the Institute of Fiscal Studies, [who has] a razor sharp and formidable mind; Susan Rice CBE [current President of the Scottish Council for Development and Industry] who brings all sorts of things

“Board members have got their sleeves rolled up and are working on it. It’s very satisfying”

to this board, including the strongly important and professional bodies of the industry; John McFall, former Chairman of the Treasury Select Committee, who is Deputy Chairman; Onora O’Neill [Baroness O’Neill of Bengarve], the Chairman of the Equalities and Human Rights Commission, who gave the BBC Reith Lectures on trust [in 2002] – and trust, of course, is a big, big issue.

“Then the Rt Rev David Urquhart, Bishop of Birmingham, who has spoken a great deal in public on issues around financial services, who talks about the ethical basis of this industry and who, by the way, being based in Birmingham, is very involved in the world of business in the West Midlands.”

They are all people with a range of perspectives, views and experience, who have something to say about how the industry operates, says Dame Colette – and, crucially, who are good at listening.

The first board meeting took place a week before we met. “The board was really working very constructively together to help us start to shape the work and the programme.

“People are having to invent this project and the board members have all got their sleeves rolled up and are working on it. It’s very, very satisfying to see.

“So, the direction of travel, we hope, is to be able to produce properly grounded evidence about how the culture of this industry is ➤➤

BANKING STANDARDS BOARD

Non-practitioner members



Chairman Dame Colette Bowe has worked in the City, in regulation and in Whitehall and is former Chairman of Electra Private Equity and Ofcom. (See CV, right).



Deputy Chairman Rt Hon John McFall, Lord McFall of Alcluth is a member of the House of Lords Economic Affairs Committee and was until recently Chairman of the Workplace Retirement Income Commission.



Sir Brendan Barber is Chair of the Advisory, Conciliation and Arbitration Service, member of the House of Lords Economic Affairs Committee and former Trades Union Congress General Secretary.



Gillian Guy is Chief Executive of the independent charity Citizens Advice and of the British Bankers' Association (BBA) Consumer Panel, and until 2010 was CEO of Victim Support.



Paul Johnson is Director of the Institute for Fiscal Studies, and former Chief Economist at the Department for Education and Director of Public Spending in HM Treasury.



Professor Onora O'Neill, Baroness O'Neill of Bengrave is an independent peer, Chairman of the UK's Equality and Human Rights Commission, and former Principal of Newnham College, Cambridge and President of the British Academy.



Lady (Susan) Rice CBE is President of the Scottish Council for Development and Industry, former Chief Executive, then Chairman, of Lloyds TSB Scotland, and became the first Chair of Scotland's new Fiscal Commission.



The Rt Revd David Urquhart, Lord Bishop of Birmingham worked in commercial management with BP for ten years before studying theology at Oxford and becoming a parish priest. He is actively involved with education, industry and commerce.

Practitioner members



Chief Executive Alison Cottrell, former Director of Financial Services at HM Treasury, began her career as an economist with firms including HSBC and PaineWebber before joining the Treasury in 2001.



James Bardrick is Citi Country Officer for the UK and CEO of Citigroup Global Markets and Citibank International. He is a trustee of the Coggeshall Prentice Youthwork Trust and a board member of the BBA.



Craig Donaldson is the CEO of Metro Bank, and former Managing Director of Retail Products at RBS. He had senior roles at HBOS and Barclays, and serves on the Board of Directors at TheCityUK.



Alison Robb is a Group Director and member of the Executive Committee at Nationwide Building Society. She also champions diversity in the workplace and set up and leads Nationwide's women's network.



Antonio Simoes is CEO for HSBC in the UK and Deputy Chief Executive of HSBC Bank, its European subsidiary. He was a partner at McKinsey & Co before joining HSBC.



Clare Woodman is Chief Operating Officer of Morgan Stanley International and Co-Global Chief Operating Officer for Morgan Stanley's Institutional Securities Group. She is a non-executive director of TheCityUK.

being shaped, how the board and the leaders of these businesses are taking responsibility for what they're shaping, how the people working in the industry think it's going and how their customers in various ways, whether it's the retail customers or other parts of the business, think it's going."

The board is also intending to take a close look at the types of professional qualifications that are on offer. It has already had productive talks with bodies offering different financial qualifications, including the CISI, and will be asking what employers in the industry want in terms of professional qualifications – and whether they are currently available.

"How can we encourage more people to get professional qualifications? How can we encourage more firms to place value explicitly on professional qualifications? I'm not for a moment, by the way, suggesting that the BSB should be running any of this."

TONE FROM THE TOP

Ethics is another area of close focus. "We think that might be an area where we can help to put things together, maybe support a bit of research ourselves, [perhaps] a conference particularly aimed towards banking, where people could come together and talk about what really constitutes ethical practice in this industry – and how you can disseminate that to very large firms.

"People have often talked about something called 'the tone from the top', which is tremendously important. People at the top of any business, not just banks, have to express a certain set of values by the

Recent scandals "massively damage the trust of the people currently in the industry"

way they do things. But there's a lot more to this than getting that right: how you disseminate that down the business, how you make sure people are trained, how you make sure people are confident in their own understanding of what's required. Are people confident enough to say no? I don't think so.

"I've occasionally worked in places where somebody would have said, I'm not sure we should be doing this, and being told, no, no, no, you just don't get it. And I think the people in lead positions in this industry want people who work in their firms to feel confident that they can speak up, but it

takes a bit of doing. You can't just make that happen.

"But it's not going to be easy," she admits. The scandals that have come to light "massively damage the trust of the people currently in the industry. The industry has got a long way to go to make itself worthy... and it's so important, that, because we need banks.

"What banks do is integral to how a society like ours functions and if people feel that the banking industry is not trustworthy, that's a

"The best decision I ever made was when I was 19 and I decided to study economics"

serious problem for a society like ours. I'm now straying off into giving a sermon, but I do feel rather strongly about that.

"The after-effects of the financial crisis are still going on. But I think it acted as a tremendous catalyst for people having to rethink how they do this business, and these are complex businesses.

"The whole industry is going through a big process and we are kind of part of that, I would say. So, yes, things have changed. People are now talking about issues in ways that I think would not have been the case a decade ago."

So what is next on the agenda? "By the summer, we hope to be able to publish what our year-long work programme will cover." Then the board will ask more banks and building societies to join the six banks and one building society that are already members.

"What we're doing is really closely aligned with a lot of what banks are already doing themselves. I've met quite a few really interesting people working in banks, who are working in the field of leadership and delivery and all the things we've been talking about – so various kinds of professionalism, thinking through what sort of training you have, how you empower people so that they know what they need to do in any situation and if they can get this right, of course. To some extent, you don't need regulatory rule books."

What were her best and worst decisions? "The best decision I ever made was when I was 19 and I decided to stop studying modern languages and start to study economics," she says. That was at Queen

Mary College, London, where she is now Chairman of the governing body. She studied under Lord [Maurice] Peston, the father of BBC Economics Editor Robert Peston, who had just created an economics department and allowed her to switch course. "That was a life-changing decision.

"The worst decision? There are too many of them. But I've got enough self-knowledge to know when I've done something stupid or made the wrong call and I hope I'm big enough to acknowledge that and not to beat myself up over it.

"I suppose my favourite previous job was the one I stopped doing last year, which was chairing Ofcom for five years. I think the greatest achievement was making sure that that very formidable organisation stayed focused on the end customer, because that's what it's about.

"I wasn't the only person taking that view at Ofcom, but as chairman you do try to set a certain tone and the thing I always wanted to hang onto were the interests of the consumer."

Dame Colette was born and raised in Liverpool. She still has friends and family there and goes back regularly to visit from her north London home.

"Outside of work, I'm very fond of music and I'm very fond of watching football as well. Liverpool are my team. I'm a Liverpool supporter to the extent that my colleagues find very boring.

"I listen to music all the time. I'm a very, very bad amateur musician myself; I play the cello really badly. One of the things I do with the other bits of my time is to chair the exam board for music exams.

"I went to a marvellous primary school in Liverpool and I was fortunate enough to have a state education right through university and I think the opportunities I had were amazing, so I have a strong interest in education."

CHANGING BALANCE

What are Dame Colette's ambitions for the BSB? "I'd like to see us as an established part of the business world of the UK and acknowledged as contributing real value to the strengthening of British business."

We spoke about the changing balance of men and women in British boardrooms. The top three positions at the board, she points out, are held by women, but she was so occupied with choosing the right person for each job that this didn't occur to her.

DAME COLETTE'S CV

PRESENT

2014 – CHAIRMAN, BANKING STANDARDS BOARD

2012 – CHAIRMAN, ASSOCIATED BOARD OF THE ROYAL SCHOOLS OF MUSIC

2010 – BOARD MEMBER, UK STATISTICS AUTHORITY (CHAIRMAN OF AUDIT AND RISK COMMITTEE, 2014 –)

2012 – TRUSTEE AND CHAIRMAN OF AUDIT COMMITTEE, NUFFIELD FOUNDATION

2009-14 CHAIRMAN, OFCOM

2010-14 BOARD MEMBER AND CHAIRMAN, AUDIT COMMITTEE, AXA INVESTMENT MANAGERS

2010-14 CHAIRMAN, ELECTRA PRIVATE EQUITY PLC

2010-2011 BOARD MEMBER MORGAN STANLEY BANK INTERNATIONAL (INC MORGAN STANLEY INTERNATIONAL PLC)

2001-2006 DEPUTY CHAIR AND CHAIRMAN OF THE AUDIT COMMITTEE, THAMES WATER

1994-97 CHIEF EXECUTIVE, PERSONAL INVESTMENT AUTHORITY

1975-87 SENIOR CIVIL SERVICE POSTS IN THE DEPARTMENT OF TRADE AND INDUSTRY

"Here's my final thought about how things have changed. When we were about to announce the board of this organisation of ours, I was talking to a very prominent person in the City and I said, 'I'm going to announce our board tomorrow.'

"He said, 'Oh, good, 50-50, and I said, '50-50 what? and then he said, 'Men and women', and up until that point I hadn't thought of it. I thought it was kind of interesting that he was thinking about it. This is a senior man from one of our founder banks, but I also thought I personally have moved far beyond that."

The future of Britain's banks is clearly in good hands.

Rising regulation

WE EXAMINE THE IMPACT ON PROFITABILITY AND CORE ACTIVITIES OF DATA COLLECTION REQUIREMENTS IN THE FINANCIAL SERVICES INDUSTRY

HEATHER CONNON



Getty

MiFID and OTF, LEI and KID, EMIR and PRIIP*: even the most well-versed practitioner might struggle to identify all the acronyms that crop up in financial services regulation. What the alphabet soup does spell out, however, is a significant increase in the scope of regulation and the amount of data that firms will need to collect to comply with the burgeoning rulebooks.

The principal source of additional rules is MiFID II, the second Markets in Financial Instruments Directive and the related Market in Financial Instruments Regulation which was approved last year and is due to come into force in January 2017. Originally intended as a review of the operation of MiFID I, which came into

effect in 2007, it coincided with the financial crisis and market innovations such as the growth in algorithmic trading which, according to a Linklaters briefing on the directive, “clearly shaped the objectives of policy-makers. MiFID II has been framed with as much of an eye to the stability of the financial system as a whole as to the protection of the individual investor or conduct of an individual firm”.

FAR-REACHING

The result is a dramatic extension in the application of the directive in the types of instrument covered and in the type and amount of information that needs to be collected and reported on them. The list of areas covered, included in the Financial Conduct Authority’s (FCA) discussion

paper on implementation of the directive, issued in March, makes it clear how far-reaching this will be:

“In response to the financial crisis and to strengthen investor protection and financial market transparency [the directive] will strengthen protection for retail investors through limits on the use of commissions; conditions for the provision of independent investment advice; stricter organisational requirements for product design and distribution; product intervention powers; and the disclosure of costs and charges. It also includes changes on transparency requirements for a broader range of asset classes; the obligation to trade derivatives on-exchange; requirements on algorithmic and high-

frequency trading; and new supervisory tools for commodity derivatives.”

The original directive covered only equities, but MiFID II brings bonds, derivatives and other non-equity financial instruments such as structured products and emissions allowances into its scope. While there are only around 6,000 equities, Chris Pickles of the Open Symbology Team at Bloomberg points out that adding bonds and derivatives will increase that to more than 200 million.

Client communications, both professional and retail, are also undergoing significant changes

Compliance, he says, “will no longer be just a little project of the equity department; it will start to have pan-organisational impact”. While many firms currently operate in ‘silos’, using different systems for different types of trading, “if you want to [comply with MiFID II] properly, you may want to step back and do it across the organisation. It could be cost-inefficient if different departments are doing the same thing.”

UNDERLYING AIM

The underlying aim of the directive is to increase transparency – and thus improve investor protection. That will involve a big increase in the amount and type of transaction reporting, with the number of fields that have to be recorded more than trebling from the current 25 to more than 85 – including obvious factors like price, type of instrument, date and time, but also including personally sensitive data such as the National Insurance number of the person carrying out the transaction. Data could also have to be retained for longer: while current rules require telephone tapes to be kept for a month, MiFID II increases that to five years – with a concomitant requirement to retain the systems that will allow them to be heard, regardless of any upgrades implemented by the firm. That not only adds to the cost and time required for recording, but it also adds an extra layer of data protection to be considered.

MiFID II is not the only focus: UK regulators are also stepping up their demands. Colin Wilcox, Director of Advisory Services at The Consulting Consortium, points to increased

requirements from the FCA and says: “Demands on regulated firms in relation to data capture and submission have always been a significant overhead, and are set to increase with both regulatory and European directive-driven demand to capture, retain and potentially submit additional items.

“The new approach to data collection being implemented by the FCA is a recognition that it currently holds relatively little conduct-centric data, and with an enhanced interest in business model analysis and strategy – fundamentally what you do as a firm, who you do it with, and how you make money from doing it – this gap needs to be addressed. Firms should obviously be mindful of their obligation to provide relevant required data in a timely and accurate manner, but also to track data developments.”

Client communications, both professional and retail, are also undergoing significant changes covering everything from key information documents to suitability assessments. While these have historically applied only to retail clients, MiFID II requires that professional clients now have to have the same suitability documentation as retail ones. Yet many professionals agree specific documentation and information requirements, which may not be the same as those required under MiFID regulations, so firms could end up having to produce two sets of documentation, to satisfy regulators and their clients’ own needs.

Retail firms are already experiencing a new rigour from the FCA on suitability assessments, with significantly more detail now being required. One investment professional, who preferred not to be identified, estimated that preparing suitability and Know Your Client documentation could now take most of a day, rather than an hour or so, and may require detailed documentation and analysis of information that is peripheral to the main task of managing clients’ assets. For a wealth manager with hundreds of clients, that could mean spending months on these documents – time that could more productively be spent looking after the clients’ assets or on expanding the business. There is also little evidence that clients find much benefit in the reams of regulatory documentation they are given.

Ian Cornwall, Director of Regulation at the Wealth Management Authority, says that while technical guidance from the European

Securities and Markets Authority is still in draft form, it is already clear that implementing the MiFID requirements will be a “major project” for wealth management firms over the next two years.

EXTRA COSTS

Already, there are signs that the regulatory burden is taking its toll on firms, which complain, in private, that the extra costs and systems upgrades required could affect their ability to expand and develop new businesses. There have also been some public pronouncements about the issue. HSBC cited the growing regulatory requirements it faces as one of the reasons it is considering moving its head office from the UK to Hong Kong; other regions have less onerous requirements – in Asia, for example, there is no transaction reporting requirement at all. Private client manager Charles Stanley says: “Regulatory change remains near the top of our agenda,” that the FCA had “raised the bar” on regulatory compliance and that a key contributor to the interim loss the group suffered last year was increased regulatory costs. Private bank Coutts says it is reviewing every client investment dating back to 1957 following an FCA fine for putting clients into inappropriate investments.

Already, there are signs that the regulatory burden is taking its toll on firms

The economic impact of the financial crisis, and the loss of public trust in the industry, mean that tighter regulation was inevitable and most practitioners agree that some change was needed. It will be some time, however, before it is clear whether the huge investment in regulatory reform will produce the desired effect.

* *MiFID: Markets in Financial Instruments Directive, OTF: organised trading facility, LEI: legal entity identifier, KID: key information document, EMIR: European Market Infrastructure Regulation, PRIIP: packaged retail and insurance-based investment products*

Further information

CPS training course: Understanding the new EU-wide data protection legislation, 29 September 2015 – cisi.org/courses. Professional Refresher: MiFID II – cisi.org/refresher



Getty

Applying leverage

HOW CAN ASSET MANAGERS EXERCISE STEWARDSHIP OVER COMPANY BOARDS WHEN MANAGING ETFS AND INDEX-TRACKING PRODUCTS THAT HOLD SHARES?

◆ JILL INSLEY

The biggest managers of passive funds could find themselves forced to conduct stewardship of the companies in which they invest, according to the head of one of the UK's biggest fund management groups.

Saker Nusseibeh, Chief Executive of Hermes, which has £28.6bn under management and carries out engagement for another £134bn, recently told the *Financial Times* the move was necessary to combat an increase in "ownerless" corporations whose shareholders acted as "absentee landlords".

Nusseibeh argued that the rapid growth of passive vehicles such as exchange-traded funds (ETFs) has led to a greater proportion of shares being owned by fund managers unwilling to engage with company boards on behalf of their shareholders.

However, the idea is likely to prove unattractive to much of the passive fund management industry.

"Passive fund managers have engaged in a price war in the last two years, pushing the annual fees of some funds down to as little as 0.06%," says Laith Khalif of investment broker Hargreaves Lansdown. "Low prices are what attract their investors, and putting the structures in place and employing the analysts and staff necessary to engage with management and company boards would inevitably push up those charges."

LEVERAGE

In the past, it has been argued that passive fund managers were not in a strong position to influence investee companies. Because they typically replicate stock market indices, passive funds have no choice as to which

companies they invest in and are unable to use the threat of selling their holdings in a particular company as leverage to alter its behaviour. The most that some passive fund managers did was to use their proxy voting power at company annual general meetings.

But in the past few years, some of the biggest management firms have begun increasing their stewardship activities.

Vanguard, the world's second biggest fund manager, with more than \$3tn in assets, the majority of which is managed passively, wrote to the chairmen of the largest 500 US-based companies in March, outlining proposals to strengthen the relationship between directors and long-term shareholders. The fund manager, which is a permanent shareholder in every major public company worldwide, suggested the creation of shareholder liaison

PASSIVE INVESTMENT

Passive investment offers investors a cheap and convenient way to gain access to a wide range of companies included in a stock market index such as the FTSE 100 or S&P 500. Low turnover of stocks and the fact that no humans are needed to analyse or choose them means charges can be kept very low, so investors get more of any capital gains produced.

There are two main ways to invest passively: through index tracking funds, open ended investment companies (OEICs) and unit trusts; and through ETFs.

The fund manager of an OEIC or unit trust creates new shares or units to meet demand from buyers and cancels shares or units to meet obligations to sellers. This is done just once a day.

In contrast, ETF shares are traded on the Stock Exchange, just like ordinary shares, and can be bought or sold at any time of the day, making them more suitable for investors who want to trade frequently. ETFs tend to be cheaper and more flexible than tracker funds, and cover a wider range of indices, including timber and forestry, clean energy, Vietnam and global infrastructure.

But they are also more complicated, coming in two forms: physical and synthetic. A physical ETF holds all, or a representative sample, of the constituents of an index, just like a traditional tracker fund. Synthetic ETFs buy a swap, which means entering a contract with a counterparty that promises to pay the total return of the chosen index as cash. Synthetic ETFs typically track indices more closely, and are particularly good for tracking indices such as the Chinese stock market, but investors need to be aware of the risk of the counterparty not fulfilling its obligations.

committees to gather investor input on strategic issues such as succession planning and executive pay, and environmental, social and governance considerations.

Glenn Booraem, Principal and Fund Controller for Vanguard, says the response has been very positive, with companies welcoming the opinions and guidance of their long-term investors, especially as issues such as executive pay have increasingly attracted the attention of investor activists.

“Companies that have been the targets of activists, or are likely to become targets, are reaching out more frequently to shareholders to make sure they are aligned on key issues,” he says.

Vanguard has been increasing engagement during the past 15 years, since the dotcom bubble and the collapse of Enron. It now has a team of 12 people working on governance, which is tiny in comparison to the 15,000 staff employed by Vanguard and the trillions of assets under management. Booraem believes the team is pulling its weight in terms of helping to increase the value of those assets, but admits that it is impossible to quantify the benefits to fundholders.

The relationship between company and investor can be long and well established

Legal & General Investment Management (LGIM), the UK's biggest pension fund manager, holds £284bn in index tracking funds, plus a further £304bn in ‘solutions and overlay assets’ (liability driven investments, multi-asset funds and derivatives) and £110bn in actively managed assets. Companies that manage both actively and passively can use both types of shareholding to influence the behaviour of the companies in which they invest.

David Patt, UK Corporate Governance Analyst for LGIM, says the company prefers the term ‘index tracking’, believing that its form of management is not passive. LGIM's corporate governance team has grown from just three members when he joined the company ten years ago to eight now, holding about 500 meetings a year with company boards and management.

He points out that engagement by index tracking managers can have even more impact

than that of active managers, because it is targeted at all the companies, or particular types of company, included in an index, rather than individual companies held in a portfolio. As a company can stay in an index for many years, the relationship between company and investor can be a long and well-established one.

“Our job is to increase the value of the whole index, to create value for investors in an index tracking fund,” he says. “We try to be a force for good on environmental, social and governance issues across all the companies in which we have holdings.”

IS COMPULSION NECESSARY?

Given that the biggest passive fund managers are increasing their involvement in stewardship, while those that combine active and passive management were already engaging with company boards and management, is compulsion really necessary?

Professor John Kay, author of the 2012 Kay Review, which criticised the lack of engagement by asset managers with investment companies, is on record as saying he would not be opposed to some form of compulsion, although he “would prefer to see it happening because people realise the benefits”.

But Daniel Godfrey, Chief Executive of the Investment Association, believes compulsory engagement will achieve less than that carried out on an active, voluntary basis where the fund manager or investor can see an issue that needs addressing.

“The real key to more effective stewardship by investors and better governance at companies is focus by clients, investment managers and companies in the long term. Most end-beneficiaries have investment time horizons that can be measured in decades,” he says.

“Investment approaches that seek to deliver sustainable wealth creation at companies over these very long time horizons lead to genuine focus on environmental, social and governance issues rather than tick-box, mechanistic approaches that may satisfy the call that ‘something must be done’, but add little real value.”

➤ Further information

CPD training course: Corporate Governance: Building Board Competence and Effectiveness, 21 July 2015
– cisi.org/courses

THERE IS A REVIVAL IN WEALTH MANAGEMENT, BUT MANAGERS NEED TO LEARN THE NEW RULES QUICKLY IF THEY ARE TO RETAIN AND WIN CLIENTS

✦ JOANNA LEWIN

A wealth of talent

Once upon a time, wealth management firms could rely on existing large pools of clients' savings, and find prospective clients by simply looking to countries with fast-growing populations of wealthy people. Dips in the economy, although unpredictable, were expected to happen at some point and would be carefully provided for in an investor's portfolio by an astute wealth manager. As Fariba Ronnasi, President at Elite Wealth Management, wrote: "Long-term mindsets mean that sophisticated investors don't panic during market corrections, and they doggedly stick to their plans, whether the business cycle is cresting or sinking to a trough."

But then came the 2008 crash, the worst financial downturn seen for three

generations, which knocked the wealth management sector for six. Assets under management severely contracted – by as much as 20% in Europe and Asia – and in such circumstances "even the most steely-eyed investors can find themselves second-guessing their entire portfolio and making poor trading decisions," wrote Ronnasi.

A SECTOR ON THE UP

Many investors cashed out during the crash and some lived to regret it, as things slowly but surely recovered to a point where last month, funds under management at one firm reached a rather comfortable £84bn. According to consultancy firm Strategy&, prospects for wealth management have drastically improved over the past 12 months.

The sector's buoyancy can be seen in UBS's Wealth Management division this year announcing its best fourth-quarter results since before the crash.

However, while the sector has certainly got back on track, and investors are more inclined than ever to seek professional wealth management services (according to a study by Bain's Global Wealth Management), investors are also more sceptical and less trusting.

This, together with a more complicated regulatory landscape, the rise of the 'robo-adviser' and other digitisation, and unpredictable bond markets, has made the wealth manager's job far more complex.

David Patchen would agree. Now Senior Vice President of Private Client Group



Getty

Education and Practice Management at Raymond James Financial in Florida, Patchen started out in wealth management in 1988. Needless to say, he has seen the industry ebb and flow through enough business cycles to know that to win in wealth, you must adapt to moving tides. “Complexity is a macro trend,” he says. “It’s growing exponentially. Developments in regulation, markets, products, people’s lives, information, geopolitical events – if you start stirring all that up in a pot, you start to see how complex things have become.”

TAKING A HOLISTIC APPROACH

In light of the labyrinth of new regulation such as the second Markets in Financial Instruments Directive (MiFID II), coupled with changing customer behaviour, there has been much talk of wealth managers needing to diversify to meet clients’ needs. Patchen says these are essentially buzzwords, or, as he prefers to call them, ‘fuzzy words’. What do they actually mean? “Best practice for meeting clients’ requirements is about doing more than money management,” says Patchen. “It’s about taking a holistic approach that is custom-tailored to each client’s individual life.”

It seems that when venturing across this post-crash and mid-recovery terrain, engaging prospective clients and maintaining

existing relationships, the focus should not be on selling a product – which surely goes for most finance sectors – or even just having a robust asset management strategy. The word ‘holistic’ reigns supreme in this rejuvenated sector. Breaking down what he

How does a wealth manager overcome the new-found scepticism of investors?

means by a ‘holistic’ and ‘custom-tailored’ approach, Patchen enthuses: “There’s a life-planning component to management, a wealth preservation component, an inter-generational wealth component, a transfer component, a relationship management component... the list goes on.”

PROBLEM IDENTIFIER

Patchen proposes that wealth management firms seriously re-evaluate and better their unique value proposition. To best do so, he says, managers should always keep in mind another of his favourite words – ‘clarity’. He explains: “I believe that today, that’s the key word for wealth managers to remember. A lot of investors don’t realise that they lack clarity about their needs.” Because of all the variables in the components that make up wealth management now, Patchen explains that in most cases, “Investors aren’t even aware of their problem. They don’t know what they need.

“We, as people who are purveyors of wares and advice, are no longer the problem solvers we once were because problem solving implies that the investor has the self-diagnostic skills to identify their problems, and in today’s environment, with all of its complexities, that’s not what’s happening,” he adds.

Cynthia Poole, Chartered MCSI, Director of Relationship Management and Business Support in the London office of Raymond James, agrees that the same is true on this side of the pond. Poole explains: “We see the same difficulties, if not more so, here in the UK. We have an intricate regulatory structure laid out by the Financial Conduct Authority, as well as the significant amount of legislation we’ve got coming down the pipe from the EU.

“Then there is the added implication of always having to have a global market view because investors don’t just have all their exposure in the UK.” Poole adds: “So, best

practice – the holistic approach of managing an investor’s entire wealth from a structural perspective, a tax effectiveness angle, an investment performance perspective – is exactly the same here as it is in the US.”

SUSPECT MINDSET

But how does a wealth manager overcome the new-found scepticism of investors in order to serve clients best, or at all? As Patchen points out, there is a dearth of media stories that tell of wealth managers helping investors achieve their goals, likely because those stories would, frankly, be rather dull. One way of breaking down the barriers that investors have put up, suggests Patchen, is capitalising on the opportunities of social media.

Take the retirement sector, for example, which dominates the area. “In the States, what we’ve found is that grandparents, usually grandmothers, are using Facebook because their children are scattered around the US, or in many cases the world, and that’s an easy way to keep in touch,” explains Patchen. “When you have a review meeting with that client, you can start with some questions about what’s up with their family because you’ve had that insight by being ‘friends’ with them on Facebook.”

For Patchen, that’s invaluable: “If you can use it to develop some warmth, social media can break down that level of suspicion and distrust.” And that makes room for the questions that wealth managers need to ask to serve their clients effectively – through creating ‘clarity’.

Being genuine and sincere, and delving a little deeper into the crux of a client’s investment goal, seem to be the golden rules of this new wealth management game.

“And keeping things simple,” says Poole. “For our most successful wealth managers, that’s exactly the nut they have cracked, being able to give that clarity to their clients in the simplest terms.”

➤ Further information

David Patchen will be presenting at the CISI’s CPD event, Words Mean Things, at the London Capital Club in the City of London on 18 June. The event is free to CISI members and will also be aired on CISI TV. More information can be found at cisi.org/events

CISI Annual Conference 2015:
The Wealth of Nations, London,
1 July 2015 – cisi.org/ac2015



World betas

SMART BETA TAKES AN INDEX AND REFINES IT WITH THE AIM OF IMPROVING THE RISK RETURN OUTCOMES. HOW EFFECTIVE IS IT?

◆ HEATHER CONNON 📷 IKON

You can use them to tap into growing dividends, to minimise volatility or ride market momentum; they can help you access more esoteric commodities. They are just some of the smart beta strategies which can be accessed through exchange-traded funds, index funds and segregated portfolios and which are attracting growing interest from investors.

Definitions of smart beta vary depending on who is providing them but, in essence, it refers to investment strategies based on something other than the traditional market-capitalisation weighted indices. Products sit between the two poles of investment management. On one side are active funds where managers pursue their own strategy, regardless of the composition of the benchmark by which they are measured, with the aim of generating alpha – or a return above that generated by the market as whole. On the other are a range of passive funds such as exchange-traded products (ETPs), which track an index, a sector, a geography or a particular market niche. By their nature, these will simply mirror the beta, or return from the index they track, less management fees and other – usually minimal – aspects of tracking error.

Smart beta takes an index and refines it with the aim of improving the risk-return outcomes. Arne Staal, iShares EMEA

Product Head of Research and Innovation, says the market is driven by the realisation that there are systemic drivers, or factors, behind market performance that can be

Smart beta takes an index and refines it to improve the risk-return outcomes

isolated and tracked. These include size, volatility, momentum, value and quality. An investor looking to build a defensive portfolio, for example, could use a low volatility or quality smart beta fund; a more aggressive investor might look for momentum strategies.

Such strategies have, of course, been available for decades through actively managed products; with smart beta, they are now available as low-cost, transparent, passive products too.

Morningstar, in an analysis of the market produced last year, identified three types of smart beta strategies:

1. Return-oriented strategies, which aim to improve returns relative to a standard benchmark. These would include strategies like value, growth, momentum and yield.
2. Risk-oriented, where the aim is to reduce or increase the risk of a standard

benchmark, such as low volatility or risk-weighted funds.

3. A catch-all 'other', including funds that ignore the market-cap weighting commonly used for stock market indices like the FTSE 100 or the S&P 500 and instead invest equally in all the constituents as well as more esoteric commodity, property and debt strategies.

Growth in the market has been impressive, as demonstrated in the chart on page 28: BlackRock estimates that the cumulative flows into global equity smart beta ETPs over the last five years totalled \$167bn, and the total assets in the category have grown to \$248bn – reflecting an annual growth rate of over 45% during this period.

Most popular were dividend-based strategies, for example funds which screen for consistent dividend increases or high dividend yields, as investors sought alternative sources of income as bond markets remained subdued. Minimum volatility funds, which aim to reduce the volatility of portfolios, are also popular, particularly in times of high market volatility.

LION'S SHARE

Smart beta funds originated in the US and that country still accounts for the lion's share of assets under management: 57% of the total funds and 91% of the assets



in this sector, as at 30 June 2014, according to statistics from Morningstar. Their popularity in the US is illustrated by the fact that smart beta now accounts for almost a fifth of the overall market for ETPs.

But interest in Europe is growing rapidly: from nothing in 2005, they now account for \$26.3bn of funds under management, according to Morningstar, having increased nine-fold in just five years. In 2013, they accounted for more than 30% of all inflows into ETPs. While Scandinavia and the Netherlands were early smart beta adopters, UK pension funds and other institutions are increasingly investing in them, as are wealth managers for private portfolios, although direct retail investment is still relatively small.

PIONEERING RESEARCH

The smart beta concept has been around for decades. Its origins can be traced back to pioneering research by Eugene Fama and Ken French in the early 1990s, which found that factors like size and value, and

The growing interest in it as an investment tool has been spurred by the financial crisis

later momentum (Carhart, 1997), explained excess returns over long time frames. The growing interest in it as an investment tool has been spurred by the financial crisis, which has focused investors' attention on the performance, costs and risks of fund management. Many supposedly active fund managers actually stick very closely to the benchmark, yet charge high fees for performance which can easily be accessed via a tracking ETP.

Smart beta strategies go even further, by helping to isolate the factors which active managers use to generate their performance but at a much lower cost. While a smart beta fund is likely to have higher fees than standard weighted ETPs, they are still low compared with active products. Morningstar's survey found that European smart beta products charged a weighted average of 0.36%, compared with 0.33% for those not using such techniques.

"The return environment is very challenging and there is a lot of pressure on fees," said Staal. "Smart beta products ➡

can give access to the same factors but more cheaply.”

Smart beta funds are also more transparent than active products, as investors can analyse the indices on which they are based.

“Following the financial crisis, there has been much more of a focus on understanding exactly what [investors] are getting access to,” said Staal.

Of course, smart beta strategies are neither infallible nor risk-free. Ben Johnson, Director of Passive Manager Research for Morningstar, believes that ‘smart’ is a misleading name – Morningstar prefers ‘strategic’. In a recent interview, he said: “Not all of these various strategies are smart and even the ones that are very

smartly constructed are not going to necessarily feel all that smart over any given period. They are going to have their own unique performance patterns. They are going to underperform in certain market environments. They are going to lag the market in certain market environments.”

Staal says that, while the products may be new, the factors and strategies behind them have been analysed for years – a low volatility strategy, for example, is just looking at the equities in a different way. He does, however, warn that different providers structure their products in different ways so that even ones which sound the same can actually be doing different things, so it is vital to research products carefully. “One challenge for the

sector is that smart beta is a big concept which can be implemented in different ways, and iShares [Blackrock’s ETP arm] is playing a role in education.”

DIFFICULT TO PREDICT

There are factors which smart beta cannot take account of – such as the impact on energy companies of falling oil prices, government intervention or natural disasters. Many of these factors would, however, also be very difficult for active managers to predict.

Just as active and passive strategies can play complementary roles in building a portfolio to suit individual circumstances, risk profiles and investment goals, so strategic beta will also be part of the passive armoury, helping to match performance to individual requirements. Selecting the right product will still require careful research and analysis of the benchmarks used and the factors and screening techniques used.

While it is important to look at costs, it is also vital to consider who is behind the product

Smart beta can be used in a variety of ways, as is demonstrated by the table (left), including targeting exposure to specific factors, removing unintentional bias to particular factors or building portfolios with a range of risk and return profiles.

Morningstar’s Johnson says that, while it is important to look at costs, it is also vital to consider who is behind the product. “Look for a capable, responsible sponsor, such as an asset manager that has indexing as a core competency and that has a wealth of experience when it comes to running index funds. This is particularly important in this context, given that the particulars of managing these indexes are a bit more complex relative to a broad market exposure.

“It’s also important because a capable and responsible sponsor is going to emphasise launching investable strategies that have lasting investment merit and will likely do so at a low cost, as opposed to just chasing a fad and emphasising marketability over a strategy’s actual investment merit.”

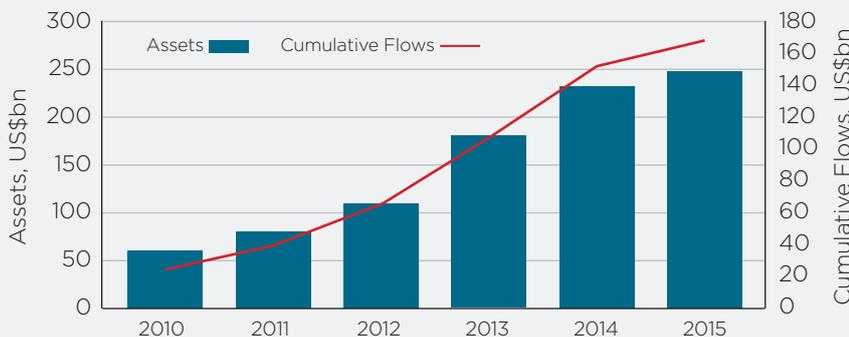
SMART BETA GROWTH

Smart Beta Type	AUM (US\$bn)						
	2009	2010	2011	2012	2013	2014	2015
Global Equity Smart Beta ETPs	35	61	78	110	178	233	248

CUMULATIVE FLOWS

Cumulative Flows (US\$bn)					
2010	2011	2012	2013	2014	2015 YTD
20	21	24	43	45	14
20	41	65	107	153	167

GLOBAL EQUITY SMART BETA ETPs



Source: BlackRock ETP Landscape. As at the end of Mar-2015. Assets and cumulative flows are measured in US\$. For year 2015, assets are as at the end of Mar-2015, and flows are YTD. Cumulative flows beginning year 2010.

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EDITORIAL

Never let it be said that financial markets – especially the equity markets as represented by stock indices such as the FTSE100 or S&P500 – are not emotional things. The instant response to events that, on second thought, might not be as ‘good’ news as they first appear is always interesting to see, because it strengthens the case made by behavioural economists that the perfectly rational investor, a staple assumption of macroeconomic models and thereby also of equity valuation models such as CAPM, is not grounded in reality.

Witness the large gains made by markets in response to the results of the UK general election. Remember that there had been no material sell-offs in the weeks prior to the election, so it’s not as if there was any large ground to make up. But is a Conservative Government with a small majority – in terms of stability and future uncertainty – a better prospect than what preceded it, the coalition with the Liberal Democrats? First of all there is the question of the forthcoming EU referendum, which certain Conservative backbenchers may well be pulling in an opposite direction to compared with the government. And it only takes an odd negative by-election result or two to start slimming that majority. Then of course there are the 56 MPs (out of 59 in Scotland) of the Scottish Nationalist Party, now the third-largest party in parliament. It just goes to show how holding a referendum on something never really kills it off as a contentious subject does it?

But all in all there is much in the UK political scene to contemplate that would make one think that uncertainty and volatility will be increasing, not decreasing, in the next 12-24 months. Some caution is called for, contrary to what one might have concluded just by considering the immediate market reaction.

There are countless examples of the instant impact on equity indices that turned out to be more contra-indicators. I used to think that bond markets were, if not immune, then at least grounded a bit more in logic and ‘fundamentals’ but this isn’t always the case. Many is the time I’ve witnessed the long bond futures contract rise significantly in price in response to a specific news item and then, only a day later, give up its gains and more on no further news. What’s happened in 24 hours that should affect a ten-year yield? (As my old boss at Hoare Govett Securities would have said, “more sellers than buyers!”).

It reminds me of this excellent quote from, interestingly enough, a physicist rather than a fund manager or banker:

“People still crave explanations even when there is no underlying understanding about what’s going on...erratic stock market movements always find a ready explanation in the next day’s financial columns: a price rise is attributed to sentiment that ‘pessimism about interest rate increases was exaggerated,’ or to the view that ‘company X had been oversold.’ Of course these explanations are always a posteriori: commentators could offer an equally ready explanation if a stock had moved the other way.”

-- Professor Martin Rees, Our Cosmic Habitat (Phoenix 2003, page 101)

But what alternative is there? Although behavioural economists are gaining more and more ground, as far as I can see they haven’t presented a replacement model for actual use at the coal-face. I may (and I personally do) have a lot of problems with the strong assumptions behind the work of all the ‘greats’ such as Fama, Modigliani and Miller, and Markowitz, not to mention Milton Friedman, but at least the models they employ underpin the principles of valuation that I need to use when, say, pricing a corporate loan or an interest-rate swap. And it gets even more interesting if I need to set an internal funding rate to reflect the term funding liquidity premium in a bank. What replacement models for such purposes, or adjustments to my current approach, is a behavioural economist proposing? That isn’t clear to me.

We have another interesting mix of articles this quarter. Before introducing them, may I reiterate that, as the membership of the CISI to a significant extent reflects the original stock exchange stockbroker and wealth management community, it would be very welcome to see more submissions from individuals employed in this sector. Up to now most articles we have received have come from academics or bankers, and while this is certainly very welcome and something we encourage, it would also be excellent to receive contributions from what is still the core member base of the CISI.

On to this quarter’s issue then. Messrs Bänder, Kronfellner and Widowitz from BCG have written a timely and I’m sure useful guide to approaching, and passing, the European Banking Authority’s new Supervisory Review and Evaluation (SREP) process. I’m sure practitioners amongst you will find this of value. Even if, personally, I disagree with the operating model point made in the article that the core responsibility for overseeing this process does not sit in Treasury. As the key specifically balance sheet risk management function within the ‘triumvirate’ of Risk, Finance and Treasury, it would, or certainly should, be the centre of excellence for all matters capital and liquidity. But a difference of opinion is what makes a market, and this paper is very welcome.

Our second article is on a topic that describes the core revenue stream of just about every bank in the world, but receives very little airtime. Preserving, and enhancing, net interest margin (NIM) must surely be a primary objective for any bank, so it is an imperative that a bank understands its NIM drivers and stress event impacts. The article by Charlie Hart is a good summary of the key issues in NIM analysis, and again should be of good value to practitioners.

The final article is by Abukar Ali at The Certificate of Bank Treasury Risk Management, and is a technical piece discussing pricing analysis of forward volatility agreements, a more recent capital market instrument. Note that the acronym FVA is usually taken to refer to ‘funding value adjustment’, which has its use in derivatives markets in common with the other FVA, but is otherwise something else entirely!

I’d like to thank our authors and as usual our readers for their continuing support.

Enjoy the issue.

Professor Moorad Choudhry FCSI, Editor

SUBMISSION GUIDELINES

CISI members are invited to submit to the Institute for consideration papers on any aspect of wealth management, capital markets and banking.

Articles must be:

- Original work and previously unpublished
- Between 1,500 and 3,500 words in length and accompanied by an Abstract of 80-150 words.

All papers submitted will be refereed by the journal editorial panel or its recommended reviewers. For further details about the Review of Financial Markets and how to submit articles, see cisi.org/academic

GUIDELINE BEST-PRACTICE APPROACH TO MEETING THE EUROPEAN BANKING AUTHORITY SUPERVISORY REVIEW AND EVALUATION PROCESS

- Til Bänder, Bernhard Kronfellner and Michael Widowitz, The Boston Consulting Group, Vienna

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ABSTRACT

In 2014, two major new regulations were introduced with significant implications for banks' liquidity and funding management. The Supervisory Review and Evaluation Process (SREP) by the European Banking Authority (EBA) will take effect on 1 January, 2016, and will adjust the regulatory approach to liquidity and funding as well as require banks to periodically assess their business model, governance/processes, and capital adequacy. The 'guidelines on harmonised definitions and templates for funding plans of credit institutions,' also published by the EBA, include a 'funding template' that financial institutions will have to complete for the first time by 30 September 2015. They include above all detailed information on the status quo of assets/liabilities and the regulatory funding ratios liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) as well as forecasts of these positions. Coming from the balance sheet assessment and stress test in 2013/2014, both regulations represent a logical development from a regulatory point of view with regard to the required transparency and an objective regulatory assessment (see Exhibit 1).

In combination, the new regulations can be considered a milestone in the regulatory oversight of banks' liquidity and funding management due to the microscopic approach already known from the evaluation of banks' capital management. This implies, firstly, the collection of data using a specifically designed template; secondly, the application of stress tests designed by the regulator; and finally, the implementation of individual quantitative measures for each bank.

This paper summarises the impact of these two requirements with a focus on liquidity and funding. Additionally, it provides recommendations for the successful implementation.

INTRODUCTION

The financial crisis revealed not only the fragility of the banking sector, but also gaps in its regulatory oversight. Among others, national regulators and politicians across Europe came to realise that they had insufficient knowledge of the assets and liabilities of financial institutions, as well as of the risks hidden in these institutions' balance sheets. This resulted in regulators underestimating the capital and liquidity buffers required in times of a severe crisis. During the financial crisis, numerous banks defaulted, which led to billions in taxpayers' money being spent, as well as a spillover of the banking crisis into the real economy.

To avoid such a negative scenario in the future, the theoretical solution seems simple: regulators must know everything about the banks they oversee, use that information to assess risks by applying rigorous stress tests, and determine the required capital and liquidity buffers for each bank accordingly.

Since a lack of capital in combination with excessive risk-taking was considered to be the main reason for the default of most banks, the regulatory focus was first placed on the required amount of capital.

In 2011, the first EBA stress test¹ was the initial attempt of the regulator to determine the required capital buffers. However, this stress test was, in hindsight, considered to be too mild and insufficient to restore trust in the European banking system. An example of the insufficiency of the first tests is Dexia, which first ran into trouble in 2008 due to a shortage of liquidity, which required a government bailout; and then defaulted just a few weeks after passing the stress test in 2011 due to a write-down of Greek debt, which was not included in the stress test assumptions. The second attempt was led by the ECB as the new prudential regulator. In 2014, the ECB obtained an unprecedented detailed look into the assets and associated risks of banks by performing the 'Comprehensive Assessment,' which contained a risk assessment, an asset quality review (AQR), and a stress test. The results of this assessment are (partly) transparent banks whose capital buffers are set by the regulator.

The consequent next step for the regulator is to extend the approach of utmost transparency and quantitative measures to liquidity and funding.

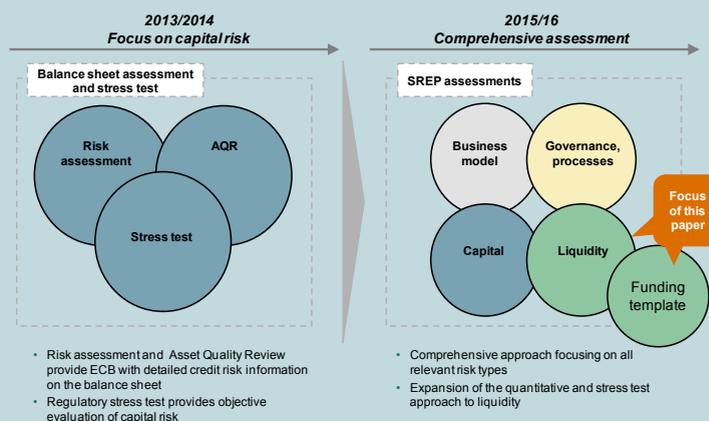


Exhibit 1: Introduction of two new liquidity and funding regulations

THE NEW SUPERVISORY REVIEW AND EVALUATION PROCESS

On 7 January 2015, the EBA published the final guidelines for common procedures and methodologies for the supervisory review and evaluation process. Following normal procedure, EBA guidelines are addressed at the National Competent Authorities within the EU, which are required to translate them into national law. However, this clearly defined governance structure was shaken up by the introduction of the ECB as the responsible regulator for major banks. Since the EBA does not have legal authority over the ECB, the ECB is entitled to introduce its own version of SREP. Therefore, some changes or additions can be expected. However, considering the ongoing communication and alignment between the ECB and EBA, the EBA version is usually a very good approximation of the final applicable version of the ECB, and banks are advised to treat the existing version as the status quo and to act accordingly.

SREP can be broadly divided into four tasks the regulator must complete:

- Categorise banks
- Monitor banks
- Evaluate banks
- Decide on potential supervisory or early intervention measures.

The overarching SREP framework is shown in Exhibit 2.

1. Earlier stress tests in 2009 and 2010 were conducted by CEBS

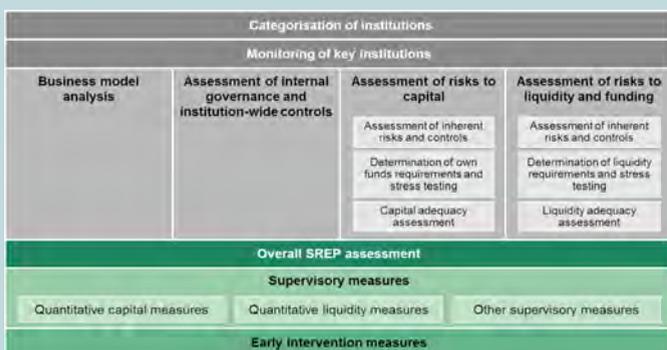


Exhibit 2: SREP framework

Allocating banks to four categories should ensure that each bank receives the regulatory oversight appropriate for its size, complexity, and systemic risk to the industry. The category will determine how often a complete SREP review is performed by the regulator. The definition of the categories and the matching time frame of the regulatory oversight are shown in Exhibit 3.

The monitoring will be based on a set of ratios to be defined by the regulator. They must include all relevant regulatory ratios (eg, LCR), market-based indicators (eg, credit default swap spreads), and internal ratios (eg, based on recovery plans), which banks will have to report on a quarterly basis. The resulting report will likely largely be a collection of existing ratios that are already known to the regulator. Therefore, the impact will probably be limited.

For the evaluation part, the regulator is required to perform an individual assessment of the bank's business model, its internal governance and processes, the risk to capital, and the risk to liquidity/funding. The result of each assessment is a score between 1 and 4, which in combination with the other assessments results in the final SREP score of each bank. The final score does not necessarily represent the average of the four individual scores, but is set on an individual basis by the regulator to represent the final assessment. For example, a bank that shows a severe risk of running out of liquidity will likely receive a total score of 4, even though the other scores might all be 1. A final score between 1 and 4 will describe that the bank is viable, while F classifies a bank as failing or likely to fail.

Based on the evaluation, additional measures can be defined by the regulator. These can include quantitative capital measures (eg, additional capital buffers), quantitative liquidity measures (eg, additional liquidity buffers), or other qualitative measures such as enforcing changes to processes or governance. If a bank is classified as failing or likely to fail, the

Exhibit 3: Categorisation of banks within SREP

	Category	Monitoring of key indicators	Assessment of all SREP elements (at least)	Summary of overall SREP assessment (by NCAs)	Minimum level of engagement
A. Categorization of institutions	1 G-SIs, O-SIs, other institutions considered by NCAs as large or systemically important	Quarterly	Annual	Annual	Ongoing engagement with management body and senior management, engagement for assessment of each element
	2 Large to medium sized institutions, domestic or with significant cross-border activities, with several business lines, including non-banking activities. Non-systemically important, specialised institutions with significant market share	Quarterly	Every two years	Annual	Ongoing engagement with management body and senior management, engagement for assessment of each element
	3 Medium sized to small firms, domestic or with non-significant cross-border operations, offering predominantly credit products. Specialised institutions with less-significant market share	Quarterly	Every three years	Annual	Risk-based engagement with management body and senior management, engagement for assessment of material risk elements
	4 All other small, non-complex domestic institutions	Quarterly	Every three years	Annual	Engagement with management body and senior management at least every three years

1. Liquidity risk was partly integrated in the calculation of the Net Interest Income in the stress test of the Comprehensive Assessment

countermeasure is to start the process as defined in the Bank Recovery and Resolution Directive (2014/59/EU), an interaction that highlights the comprehensive approach followed in this SREP version.

EXTENDING THE REGULATORY FOCUS TO INCLUDE A COMPREHENSIVE BUSINESS MODEL AND LIQUIDITY ASSESSMENT

With regard to the collection of SREP requirements, there is nothing completely new to the banking world. The novelty, however, lies in the combination of numerous regulatory checks across the entire bank in one comprehensive assessment and score. In this perspective, the final SREP score represents something like the rating of a bank, based on internal data and on-site evaluations. Furthermore, the new system will certainly shift and highlight priorities within the regulatory oversight. For example, the viability of the business model will likely be considered more important. And finally, some tools are introduced, which might change the way the regulator answers existing questions. Focusing on liquidity, the internal liquidity adequacy assessment process (ILAAP) and liquidity stress tests defined by the regulator stand out as being potentially more comprehensive and more rigorous than common assessments today. For instance, ILAAP represents a comprehensive evaluation of internal methods and processes, which is already common in some EU countries such as the Netherlands, but which will likely increase the frequency and depth of such checks in other countries.

In recent years, there have been numerous new regulations regarding liquidity and funding; however, the regulatory focus was placed even more strongly on capital regulations. One prominent example to validate this observation is the fact that the capital stress test by the ECB and EBA was based on the assumption of a steady balance sheet and did not include any assessment of potential liquidity default risks¹.

SREP finally closes this gap by requiring the regulator to design liquidity stress test scenarios for each institution individually. These stress tests can be more severe than the stress test scenario outlined by the LCR ratio and might include a longer timeframe than 30 days. A stress test scenario that is more severe than LCR or internal scenarios will have an immediate impact on the volume of the liquidity buffer and therefore on the balance sheet and profitability of a bank. Hence, the application of this new regulation by the regulator is critical for the final impact assessment of SREP.

Based on the results of this external stress test or any other observation made during the assessment, the regulator can set quantitative liquidity measures using three approaches: an LCR ratio higher than 100%, a survival period longer than 30 days, or an increase in the required amount of counterbalancing capacity of available liquid assets. All three approaches consequently lead to an increase in the required liquidity buffer.

PREPARING FOR SREP

In a world with unlimited resources, the SREP paper represents a very useful checklist that can be applied for a comprehensive gap analysis of the entire bank, including policies, processes, documentation, and methodologies. Completing such an analysis would yield numerous internal findings that can be closed before the external regulatory test. However, most banks will not be able to allocate the resources for such an extensive project on top of the numerous regulatory projects already ongoing.

However, banks should not leave all findings to the regulator. For example, a lean approach to determine the bank's status is to set up a series of workshops to discuss the content of SREP, and then have the respective departments—potentially with the assistance of audit—run a first gap analysis.

Furthermore, banks should implement a single point of contact. With SREP and its overarching character, the assessment of the entire bank is performed and steered by one regulatory entry point. To ensure consistency, it is therefore recommended to have one single entry point on the bank side as well. Ideally, this single point of contact would include people with extensive knowledge of the reporting, monitoring, and planning processes of the bank to check all regulatory reporting for consistency.

Finally, existing or new projects should be assessed based on their compatibility with SREP, and that the potential development of an improved data warehouse, triggered by BCBS 239 or the AQR, will be continued. After all, a quantitative microscopic view on a bank is only possible with high-quality data—something that the regulator will surely increasingly demand.

GATHERING THE REQUIRED DETAILED INFORMATION ON LIQUIDITY AND FUNDING

The most critical part of an objective and quantitative assessment as intended by SREP is the availability of comparable data to the regulator. So far, such comparable data has not been collected for liquidity and funding — a gap that will be closed with the funding template currently being introduced.

Following the recommendations of the European Systemic Risk Board (ESRB/2012/2), the EBA published the final “guidelines on harmonised definitions and templates for funding plans of credit institutions” on 30 June, 2014. Along with the guidelines, the EBA published a template that must be completed and provided annually by all relevant banks in Europe. The selection of banks will have to ensure that at least 75% of the banking system's total assets are covered.

Besides a detailed description primarily of the status quo of assets/liabilities and the liquidity ratios LCR and NSFR, banks are also required to submit a forecast for one or three years. Acquiring this harmonised information enables the regulator to assess potential funding risks in single banks, and offers an unprecedented quantitative comparison of the funding strategies of European banks—both prerequisites for the quantitative evaluation required by the regulator according to SREP.

In 2015, the data must be reported by 30 September with a snapshot date no later than 30 June; from 2016 onwards, the data must be reported by 31 March, with a snapshot date of 31 December of the previous year.

The requirements of the EBA funding template are summarised in Table 1, including an initial estimate of the relative difficulty of gathering the data. However, the actual difficulty for each individual bank depends significantly on the specific planning process already in place and the general quality of data and IT systems. Nonetheless, there are some rules to minimise the necessary time and resources:

- Focus on the original intention of the template: The purpose of this template is to provide the EBA with insights into the funding plans, capacity, and risks of single banks as well as the market as a whole. The provided information should therefore answer questions such as “does the maturity profile of a bank show noticeable mismatches; and if this is the case, does the bank have sufficient funding potential to comfortably control this mismatch?” If such questions can be answered, the accuracy of the data can be considered sufficient.

Taking the data field ‘long-term securities’ as part of the balance sheet forecast as an example. To technically forecast a balance sheet position accurately, International Financial Reporting Standards (IFRS) accounting would need to be applied. Therefore, the IFRS value of each security three years in the future would be required, including the ones that will be issued in the next years. Banks generally do not plan their liabilities at such a level of detail, and it would require a significant effort to adapt the planning process. However, the development of the nominal value of the current portfolio of long-term funding should be easily available from the liquidity maturity profiles, and the volume of the newly issued long-term funding should be known from the funding plan. Based on this information, it is easy to forecast the nominal value of long-term funding in the next three years, which is sufficient to provide the EBA with the necessary information to answer the main questions.

- Combine the right resources within the bank: Since it is called a ‘funding template’, it seems obvious that the responsibilities for completing the template should lie within the Treasury department. However, Treasury departments are sometimes driven by economic steering and less by forecasting specific positions, even if they are as important for funding as deposits, for example. In this specific example, the Treasury department needs to know the volume of deposits in three years and their level of sustainability; but it will likely not have this information, since it is not relevant for economic steering if the clients providing the deposits are domestic or internationally based. If the Treasury department had to forecast such a position, the results might be not only time-consuming to obtain, but also potentially wrong and inconsistent with other forecasts within the bank.

An adequate approach to solve this issue is to assign responsibility for gathering the required data to the department with the most insight into this specific data field. This would likely include the department responsible for FINREP reporting, the Treasury department for funding and liquidity ratios, the Finance department for assets forecasts, and the Risk department for maturity profiles; even the business units can be consulted to support the preparation of some forecasts. The main challenge is to ensure consistency between different data sources. To minimise that risk, banks could consider to establish the lead or Project Management Office (PMO) for these tasks within the department responsible for regulatory reporting and planning.

- Do not hesitate to adjust the granularity of your forecasts: The funding market is a fast-moving market, which is dependent on numerous external factors that can change every day. Therefore, each forecast can only be the best possible estimate at a given time. Often, and despite best efforts, reality will differ substantially from the forecasts. The EBA is well aware of this fact and will not use these templates primarily to evaluate the quality of the forecasts but to identify potential risks. Consequently, one should not hesitate to increase the granularity of the forecasts and add the new information based on a best effort approach.

	Subject		Details	Planning horizon	Estimated relative lv. of difficulty		
Balance sheet	Assets	Loans	Retail	Domestic ow. resident borrowers with and without credit provision, mortgage, other; International	3 years	Medium	
			Corporates				Domestic ow. resident borrowers with and without credit provision, SME, large corporates; International
			FI				Credit institutions; Non-credit institutions
		Other assets	Cash, reverse repos, derivatives and other assets (no information about securities required)	3 years	Low		
		Credit lines	Undrawn committed	3 years	Low		
	Intra group loans	Loans to group entities not within the consolidated group	3 years	Medium			
	Liabilities	Deposits	Retail	Domestic ow. residents; International	3 years	Medium	
			Corporates				Domestic ow. residents, SME, large corporates; International
			FI				Credit institutions; Non-credit institutions
		Securities	Short term (< 1 year)	Secured, unsecured	3 years	Medium	
			Long term (< 1 year)	Stock and issuance of unsecured, covered bonds, ABF and other secured	3 years	Low	
	Other equity and liabilities	Repos, derivatives, equity, other	3 years	Low			
Intra group deposits	Deposits from group entities not within the consolidated group	3 years	Medium				
Liquidity ratios		1-year forecast LCR, 3-year-forecast NSFR	1/ 3 years	High			
Funding reliance	Specific funding reliance	Deposits	Covered/not-covered by Deposit Guarantee Scheme, deposit like retail instruments	3 years	Medium		
		Public sector	Repo funding, credit guarantee funding or credit supply incentive scheme funding	3 years	Low		
		Innovative structures	Detailed descriptions and counterpart (total ow. SME, retail ow. client that already own bank deposits)	3 years	Medium		
	Pricing	Loans and deposits	Retail, Corporates, FI	Domestic, international	1 years	Low	
		Securities		Short term and long term	1 years	Low	
	Currency mismatch	Loans, deposits and securities	Retail, Corporates, FI	Balance sheet items equivalent to main currency without derivative funding	3 years	Medium	
	Restructuring	Loans and deposits	Retail, Corporates, FI	Balance sheet items which are part of a restructuring program (matured, acquired, sold, disposed)	3 years	Low	

Table 1: Requirements of the EBA funding template

CONCLUSIONS

The increasing number of regulations triggered by the G20 after the financial crisis is expanding continuously and has so far been limited more by the time and resources available to the regulators than by a conscious decision to limit the regulation. Following the initially set priority of the regulating bodies, the regulatory development started with capital and has now reached liquidity and funding. As expected, the microscopic approach has prevailed, including the collection of predefined data, the introduction of rigorous stress tests, and the option of implementing hard quantitative countermeasures to ensure the limitation of capital and liquidity risk as considered appropriate by the regulator.

The increase in required capital buffers, which already happened but might continue further, and the increase in required liquidity buffers, which will gain momentum through the new regulations, significantly reduces the available resources to earn revenues, and the increase in costs to comply with all the regulations reduces profitability even further.

In order to maintain or even increase their competitiveness under these difficult market conditions, banks can follow these steps:

- **Make bold and early investment decisions:** While details are still being discussed regarding most areas of regulation, the rough final picture has already taken shape. The regulator will not turn back time and allow banks to operate in the dark, but will continue to demand full transparency on data and processes. The immense costs of the AQR gave a powerful example on the huge burden that can occur if compliance is achieved on an ad-hoc basis. Therefore, investing in, for example, the implementation of a data warehouse that can be used to comply with all regulatory requirements will require high investments today, but will deliver significant cost savings later.
- **Engage with the regulatory world:** Sadly a not uncommon approach when dealing with the regulator was to keep it in the

dark as far possible, in order to run the business without regulatory intervention. While still pursued in some banks, this option is no longer practicable in the new world, since the microscopic regulatory view will likely detect any irregularities or extensive risk-taking sooner or later anyway—and if detected, the negative consequences will likely outweigh the initial positive business impact. Rather than considering the regulator an enemy that they should endeavour to keep out, banks should embrace the new world by considering him an objective friend, who can help you to run your business in a way favourable for your long-term economic development. Setting up transparent processes and having transparent data readily available increases not only the trust of the regulator in the bank, it also enables better steering for the management and in general reduces the likelihood of quantitative measures introduced by the regulator that are not economically useful or justified.

- **Streamline internal organisation:** Not being compliant or not fulfilling the economic expectation of the regulator with regard to capital or liquidity buffers likely results in very expensive countermeasures or penalties. However, even being compliant can be very expensive. Once, fulfilling the requirements and gathering the necessary data can cause high operational costs; secondly, the regulator must be convinced that the current set of processes and methods along with the calculated buffers are suitable for the bank. Otherwise, the regulator might demand an increase in the buffer capacity due to the lack of understanding or lack of trust in the risk management of the bank. To reduce these risks, it is recommended to implement a strong PMO, which always acts as the first contact to the regulator. Ideally, the PMO is capable of answering many questions of the regulator itself; at least, it must be capable of directing the questions instantly to the right person or department. Furthermore, it should keep track and be aware of all data provided to the regulator to assess and ensure consistency.

A PRIMER ON NET INTEREST INCOME MODELLING, FORECASTING AND STRESS TESTING

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ABSTRACT

Net interest income (NII) modelling is a crucial tool in the risk manager's kit. A robust forecasting model with assumptions around future stock levels may provide the basic assumptions for a NII model. The same model can be expanded into a stress testing tool, offering insights into sensitivities to factors such as market rates or customer behaviours.

NII indicates expected profitability, and therefore informs future capital levels. Enhancing the NII model to incorporate capital raising, dividend payments and credit events, including losses given default, will assure integration of credit and market risk views. The same model will reveal liquidity levels and costs of said liquidity. A savvy modeller will incorporate distress factors influencing the liquidity of both assets and liabilities.

WHY NII?

For balance sheet managers (BSM), modelling income from the balance sheet has become as relevant as the market value and duration of equity when reporting to management, including the Asset Liability Committee (ALCO).

From a P&L perspective; the BSM adds value through hedged interest income from the banking book. Valuation and the moments of sensitivity to rate movements (BPV and convexity) of held to maturity banking products, therefore, should matter less. Essentially, the earning potential of the leveraged equity in the balance sheet is a better measure of the value of the enterprise than the implied market value of the same equity (MV Assets-MV Liabilities). Many ALCOs now focus more on NII, although policies typically govern limits on both value and income.

Present value calculation requires predicting the size and timing of principal cash flows of customer deposits with indeterminate maturity and volume. Then both the first and second derivative of market value are highly dependent on the initial assumptions of dates for principal cash flows for deposits, hence the implied market value, duration and convexity of equity are also difficult to read with confidence. In contrast, predicting the interest expense by a pool of customer deposits can be done with more confidence.

NII generated ex ante by the model can be benchmarked to the same net interest income, ex post, as reported in the general ledger, over the same period. There is simply no way to similarly benchmark the market value of the entire balance sheet.

Net income analysis reveals more than just pro forma profitability, it can indicate capital and liquidity sufficiency too. Alternative assumptions and stress scenarios around behavioural cashflows (early withdrawal of deposits, forced sales of collateral, and disbursement of unfunded credit lines) for liquidity and credit events (increased defaults and/or reduced recoveries) for capital, as well as other adjustments to the main net interest margin (NIM) model allow for an efficient alignment of reporting processes.

TERMINOLOGY

Net interest margin (NIM) measures the difference in per cent between the interest-based revenue generated by the bank and the interest expense paid out to its bondholders and depositors. As such, it ignores the balance sheet effects liquidity management, of equity funding or capital growth. As it is relative and not absolute, it allows for a comparison of profitability for balance sheets of different sizes.

As this number excludes the impact of derivatives on income it is less relevant to the BSM than NII. Because NIM is not an absolute measure of currency income, it is also less useful when attributing P&L.

NII is the sum of the revenues generated by interest bearing assets, the expense of interest paid on liabilities, and net interest received and paid on derivatives (including swaps, caps, floors) over a given term. Shocking said net income with rate shocks gives a measure of rate risk for a given balance sheet; NII sensitivity. This number will include the impact of buying assets (distressed bonds) or issuing debt at a discount (for example commercial paper) on interest income per generally accepted accounting principles (GAAP).

Over a given term, how much income will accrue to shareholders, NII + costs incurred + fees charged + gains (losses) on MTM assets, taxes? This is the **shareholder value added (SVA)**.

Reported statutory and tax balance sheets and income will include additional non-interest based revenue/costs, operating charges, dividends, tax credits and debits. These parameters can be introduced in a robust model for NII to report true SVA.

FORECASTING

Unlike market value-based measurements, forward looking views of the balance sheet require more assumptions around growth, funding and reinvestment. By designing forecasting model with stress testing in mind, BSMs can derive sensitivities to underlying assumptions and exogenous factors. A framework such as the one offered by QRM (qrm.com) is useful for managing and applying these assumptions in a controlled manner. Vended frameworks also have the advantage of offering reporting interfaces.

For a given day, the coupons, maturities and notionals provide sufficient detail to model a balance sheet's net income. If the focus is consolidated interest income, then ideally intercompany positions which consolidate out (funding or hedging positions) are excluded from the population of transactional data. Creating pools from transactions will lead to more efficient analysis, with ideally minimal loss of precision.

Quickly, however, the current position seasons and is no longer sufficient to model NIM beyond a single day's simulation. By the close of business, some loans and deposits will have matured, loan balances amortised (and prepaid), and deposits decayed. Forward settlement of transactions (such as swaps, but also loans and debt) with terms agreed upon until today will also factor into the following days' analysis, as these will appear on balance sheet with relevant funding effects. These principal effects have material impact on the balance sheet and must be resolved. Moreover, given a typical day of activity, balances of receivables, payables, and retained earnings will fluctuate and therefore impact the sources and uses of funds that drive balance sheet.

Obviously, interest earned or paid will also vary for variable rate products, so it is critical that reset dates, margins, intervals and underlying rate indices are fed into the model. As the forecast will also include new fixed-rate products, their coupons will likewise be a function of prevailing market rates and assumed spreads. If margins are administered (not constant) then the model should accommodate.

Behavioural cash flows, ie, prepayment of loans and decay of customer deposits, are quite relevant to NII modelling, in that both existing and

forecasted transactions will show curtailment and resulting impairment of yield due to prepayment. As these behavioural products are typically hedged by contractually amortising hedges, the NII framework can also reveal the sensitivity due to fast pay/slow pay risk. If actual prepayments are lower (higher) than expected then the assets are under (over) hedged, this will have a material effect on NII sensitivity. As such the BSM is advised to back test assumptions around behavioural cash flows and to assess impact of error in forward estimation on NII.

That hedges don't necessarily perform as designed illustrates the primary reason for modelling assets and liabilities separately from derivatives, as opposed to modelling them net of hedges. Moreover BSMs may elect to leave fixed positions open, or use swaps to take on extended duration of portfolio: creating net structural positions. Similarly, modelling derivatives discretely is critical to replicating the effect of these strategies in the forecast over the long term.

As sources of funds mature or decay, are they expected to be replaced like for like or will short-term funding be preferred? Similarly, as assets amortise, will new assets originate like for like or will cash accumulate instead? In effect, the size of the balance sheet may shrink, remain steady or grow, depending upon the requirements of stakeholders.

Funding plans (including campaigns for deposits, expected debt issuance), budgets and forecasts from business unit-level indicate to BSMs both origination and stock expectations for notional products. Spreads as well as basis can be retrieved from these same projections, to be consistent with other management information (MI) in the organisation. As such, the NII analysis can build upon the relevance of the existing processes within the bank; ensuring engagement while offering challenge.

Balance sheet managers may also elect to bring in loans (primarily mortgages, but also fixed unsecured loans) with only applications in a pipeline. As these are already hedged with amortising pay fixed swaps, if the pipeline is not modelled with same assumptions used to hedge them, then NII sensitivity will result from rate movements. This may be desired, however, if the consensus expectation of prepayment has changed, post hedging.

Non-performing loans, as well as expected default and recovery of currently performing loans, may also be incorporated to better inform analysis of lending portfolio. Dividend payments that deplete capital and stock issuances that increase capital (including conversion of hybrid sources of funding) should also be incorporated in the model, which now offers insights to managements as well as regulators regarding capital sufficiency.

STRESS TESTING

Given shocks to certain parameters in the forecast model, what will the impact be on NII, and therefore capital? How will compliance with liquidity ratios be achieved? The model used to forecast should be sufficiently robust to allow for stressing of factors in a tractable and efficient manner.

As rate risk remains a primary concern for NII, a range of rate scenarios ought to be applied against the forecast when reporting NII sensitivity. As a central case, practitioners may choose to assume that rates remain static throughout the forecast period. Others prefer an implied forward view, based on the same projections of term structure implied by expectations hypothesis and used in present value analysis. As the assumptions from the business units' budget/forecast are based on in-house assumptions around market factors, it is useful to apply these inside of a NII analysis as well to validate revenue/expense numbers from balance sheet model against those from business units.

Other market factors, including CPI, home price inflation and FX rates can also factor into NII analysis. Typically, BSMs will shock rates up and down

by 50 and or 100 bps in order to assess rate sensitivity. By using shocks in both directions in varying magnitudes, local aspects of sensitivity can be established. Additional scenarios, based on events of concern (including sovereign default and election) are expected to move markets.

NII models allow for divergence of factors which are assumed to be positively correlated in typical MV/BPV analysis. For example, typical parallel shock analysis would presume that all yield curves move up or down simultaneously, however, recent market activity has shown Central Bank and LIBOR cash rates diverging. A steeper or flatter yield curve will also have different results, assuming that the assumptions around pricing are also driven by a variety of term points (new debt issued at five-year term point, loans indexed at six-month LIBOR rate, mortgages hedged back to three-month LIBOR). This expansion or compression of basis is a unique selling point of NII analysis.

Finally, to assure comparability in MI from month to month and year to year, these scenarios should be portable as markets progress through time. Has the NII sensitivity to the same steepening scenario changed from last month to this month, for example?

Changes in interest rates will obviously change rates for variable rate products as well as the coupons of forecasted new business. However, the secondary effects of rates on other aspects of the NIM model are worth noting. For example, a downward shock on rates will propagate more prepayments on a fixed-rate loans, as customers are more inclined to refinance loans. Loans in the pipeline are less likely to originate, as new customers are better served in new rate environment by other lenders. Any other originations will be made at prevailing (lower rates). As customers see reversion to standard variable rates (SVR) rates after fixed periods, these lower rates (possibly partially offset by expanding corresponding margins) will also like decline, reducing revenue further. Credit facilities may see greater disbursements of notional, at lower yield, also impairing profitability. Prepayments will accelerate.

Lower rates will see a reduction in decay for term deposits. Customers with current accounts already earning no interest will be unaffected, however those who are enjoying deposits with administered margins may see their margins expand relative to underlying market rates in order to defend market share.

The BSM, therefore, will need to apply assumptions around both balances and margin behaviour, given market conditions which are perhaps beyond the scope of the business unit's forecast. How would a 0% base rate affect premium savings products? Will SVR track base rate with a stable margin or would margins change given movements by the Bank of England Monetary Policy Committee?

Conversely, given an upward shock, the same administered margins for deposits would be compressed given competitive pressures. Prepayment of loans would likely slow and more applications in the pipeline are likely to complete.

A sufficiently large rate shock may even increase interest expense for current accounts which otherwise are assumed to not pay interest at all. Large upward shocks conceivably could increase defaults for all loans (not only fixed products) as customers will likely face greater financial distress from all obligations (fixed customers may be distressed by servicing commitments to third party banks, leading to defaults on fixed commitments as well as floating). Perversely, said distress may cause larger disbursement of credit, despite increased costs.

The forecasting framework should also reveal impact of stresses on balance sheet due to increases in behavioural cash flows. For example, if mortgages stopped prepaying while depositors withdrew funds, the bank may be challenged to provide sufficient liquidity to handle redemptions with cash on hand. Forced sale of assets or even calling on credit facilities may be required in order to remain solvent. Regulators are now asking the relevant questions about preparedness for these stresses.

Beyond the predictability of customer behaviour, limiting availability of liquid sources given stress may also be of interest. As events of 2008 showed, deep and liquid markets with low spreads, such as those for repos and commercial paper, can quickly dry up and offer little funding at even large spreads. Given a similar disruption, how will the bank secure funding? Are there credit facilities negotiated and ready to be called upon in order to raise cash, what would the impact be on NII and capital? Will active repurchase agreements allow for sufficient cash on hand to meet regulatory requirements given these other stresses?

Defaults similarly are of interest to both management and regulators. A stress could arise from an increase in defaults, and/or a reduction in recoveries for retail lending. For commercial banking, the impact of specific counterparty defaults should also be a concern, given collateral and other credit enhancements, such as credit default swaps.

If the lending book is highly concentrated in a given sector or region, the increase in defaults across the given sector or region may be another relevant way to stress the balance sheet. Once distressed, creditors typically draw down available credit facilities, and therefore maximise the bank's exposure before moving into default. Hence, the peak exposure at default is higher than the current notional of lending outstanding.

As stress testing will require margins, prepayments, disbursement of lines, default and recovery be driven by stressable factors, a robust framework (whether purchased or developed in house) for forecasting will allow the balance sheet manager to project NII given stresses to any number of factors at a variety of directions and magnitudes. This in turn will allow for a more robust indication of sufficient capital and liquidity over the same forecasted period, using consistent assumptions.

Exhibits 1 and 2 illustrate the output that would be incorporated in monthly ALCO MI.

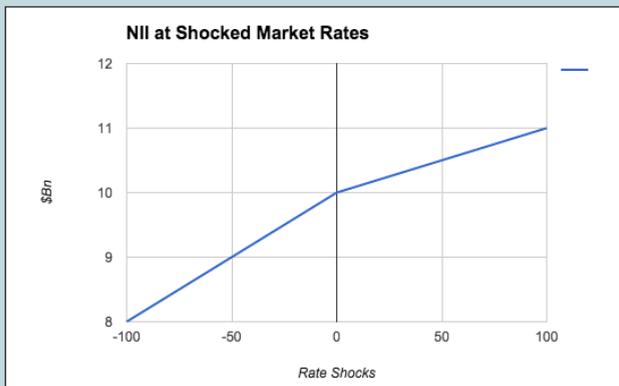


Exhibit 1: NII sensitivity

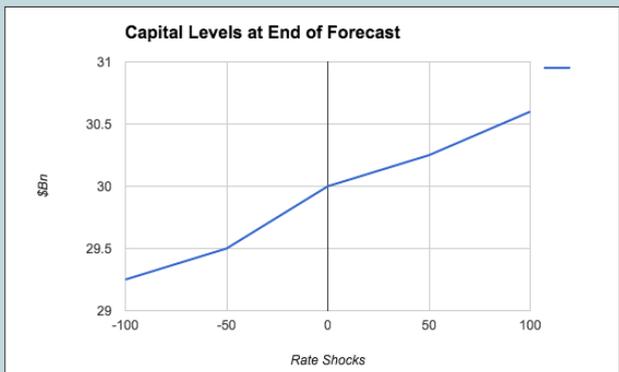


Exhibit 2: Capital impact

AN ANALYSIS OF THE FORWARD VOLATILITY AGREEMENT

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ABSTRACT

Variance, volatility, forward volatility swaps and other variations of derivatives based on volatilities have become popular and are used mainly by hedge funds and banks managing exotic derivative trading books. A forward volatility agreement is a forward contract future spot implied volatility, and in this paper we will provide an analysis of such instruments, their construction and pricing.

1.1 FORWARD VOLATILITY AGREEMENT (FVA)

The forward implied volatility of an exchange-rate return can be defined by forward volatility agreement (FVA – not to be confused with ‘funding value adjustment’, which is something else entirely in the world of financial derivatives). The FVA is a volatility swap contract between a buyer and seller to exchange a straddle option at a specified date in the future and at a specified volatility level.

A long (short) straddle involves buying (selling) both a call and a put option on the same underlying at the same strike price and for the same expiration date. Option players who have a view on volatility usually take a position on straddle trades. A long straddle position is a bet that the underlying will be more volatile over the term of the instrument than predicted by the market.

A forward volatility agreement can also be defined as forward contract on future spot implied volatility, which for a one dollar investment delivers the difference between future spot implied volatility and forward implied volatility.

In other words, the FVA is a forward contract on a future spot implied volatility, with a payoff at maturity equal to:

$$(IV_{t+k} - FV_t^k) \times M$$

Where

IV_{t+k} is the annualised spot implied volatility observed at time $t+k$ and measured over the interval $t+k$ to $t+2k$

FV_t^k is the annualised forward implied volatility determined at time t for the same interval starting at time $t+k$

M is the notional dollar amount that converts the volatility difference into a dollar payoff.

For example, setting $k=1$ month implies that IV_{t+k} is the observed spot implied volatility at $t+1$ month for the interval $t+1$ month to $t+2$ months

The implied volatility is a measure of expected volatility, which is directly quoted in traded currency options.

‘Spot’ implied volatility is the implied volatility for an interval starting today and ending in the future (eg, starting today and ending one month from now).

‘Forward’ implied volatility is the implied volatility determined today for an interval starting in the future and ending further in the future (eg, starting in one month and ending in two months from now).

The key motivation for trading FVAs is that it allows investors to speculate on the level of future volatility. Similar to the standard carry trade, the

volatility carry trade is a speculation strategy that buys and sells FVAs, where investors try to make money by guessing the level of future spot implied volatility. The carry trade in volatility works well if spot implied volatility is unpredictable. Then, investors engaging in this new carry trade will on average earn the difference between spot and forward volatility without having to worry about movements in exchange rates.

Given the data on the current implied volatilities for alternative maturities, the calculation of forward implied volatility can be computed (as a proxy) by a simple formula, which assumes that the relation between implied variance and time is linear across the term structure.

Define $\sigma_{t_1T_1}$ and $\sigma_{t_2T_2}$ as annualised at-the-money (ATMF) implied volatilities for the interval t to T_1 and t to T_2 respectively, corresponding to year fraction $D_{t_1T_1}$ and $D_{t_2T_2}$. The forward implied volatility between the two dates ($\sigma_{T_1T_2}$) is determined as follows:

$$\sigma_{T_1T_2} = \sqrt{\frac{\sigma_{t_2T_2}^2 D_{t_2T_2} - \sigma_{t_1T_1}^2 D_{t_1T_1}}{D_{t_1T_1} D_{t_2T_2}}} \quad (1.1)$$

$\sigma_{T_1T_2}$ is the market-determined forward implied volatility, which is known at time t and corresponds to the interval between T_1 and T_2 .

It is therefore possible to infer the 'local' volatility between two points T_1 and T_2 given the spot volatility curve.

For example, if current three-month and six-month volatilities are trading at 10% and 15% respectively, the three-month forward then would be 18.71% as per the above equation.

View Name	Implied Forward Volatility		Basket		Expanded Majors		
Currencies	1M	1x2	3x4	3x6	6x12	12x24	24x48
1) EURUSD	9.282	10.051	12.145	12.061	12.631	12.468	12.058
2) USDJPY	9.690	9.402	11.036	11.037	12.308	13.347	15.277
3) GBPUSD	7.180	7.626	9.559	9.481	10.128	10.433	11.675
4) USDCAD	7.390	7.884	9.523	9.421	10.395	10.438	10.454

Table 1: XDSH <GO>Derived on ATM IV (BGN) Term structure as of 18 April 2012. © Bloomberg LP. Used with permission.

The above relationship can be used to calculate forward volatilities for the entire volatility surface. However, this calculation does assume that skew in absolute (fixed) time is fixed.

1.2 FINANCIAL ENGINEERING – FVA CONSTRUCTION

The buyer of a forward volatility agreement enters a contract to buy at a specified future date 'fixing' date, an OTM straddle maturing at a date after the start or the trade date of the straddle strategy. The volatility level of the OTM straddle is agreed initially such that there is a zero cost to enter into the strategy. For example, the quoted volatility for the FVA is the forward volatility level that gives a zero cost.

The strike of the straddle is fixed to the date on which the term of the options begins, and at the same time the forward spot is set for the exercise date of the straddle. The premium of the forward volatility agreement is also calculated and paid on the forward date.

The amount paid for the forward volatility agreement is calculated as follows:

$$pay\ off_{FVA}(N, \sigma, \sigma_{fix}) = N \cdot (V_{straddle}(\sigma) - V_{straddle}(\sigma_{fix})) \quad (1.2)$$

Where

N is the nominal value of the forward volatility agreement,

σ is the current volatility,

σ_{fix} is the agreed volatility,

$V_{straddle}$ is the value of the options.

The calculation rule is applied only if the horizon date is before or on the forward date. If the horizon date is after the forward date, the value of the forward volatility agreements is zero.

The following formula provides the value $vFVA$ for a purchase of a straddle for the forward date:

$$v_{FVA}(t, t_F, T) = 4 \cdot e^{-r(t,T)(T-t)} \cdot e^{(r(t,T)-q(t,T))(T-t)} \cdot s(t) \cdot \left[N \left(\frac{1}{2} \sigma(t, t_F, T) \sqrt{T-t_F} \right) - N \left(\frac{1}{2} \sigma_{fix} \sqrt{T-t_F} \right) \right]$$

Where

$s(t)$ is the spot price of the underlying of the straddle,

$r(t, t_2)$ is the risk-free interest rate for the period t_1 through to t_2 ,

$q(t, t_2)$ is the dividend rate for the period t_1 through to t_2 ,

σ_{fix} is the volatility agreed on the contract date,

$\sigma(t, t_F, T)$ is the forward volatility at time point t for the period through to T ,

$N(x)$ is the cumulative normal distribution.

Continuous compounding is used for interest rate r and dividend rate q ; yield curve $r(t, T)$ is used for forward rate $r(t, T)$, in which t_F is the evaluation date. The current forward volatility is calculated as follows:

$$\sigma(t, t_F, T) = \sqrt{\frac{\sigma^2(t, T) \cdot (T-t) - \sigma^2(t, t_F) \cdot (t_F-t)}{T-t_F}}$$

This is the same as equation (1.1). Only slightly different notation has been used.

If the underlying of the straddle is an exchange rate, r is the risk-free interest rate for the local currency, and q the risk-free interest rate for the foreign currency.

The calculation rule uses the Black-Scholes (BS) formula for pricing options. This formula first prices the components of the straddle - the call and put options - by using the forward interest rates and the current forward volatility. The values for the straddles are totalled and discounted, and the option premiums are deducted. This results in the calculation rule shown above for forward volatility agreements, in which the premium of the term is given by the fixed volatility σ_{fix} .

1.3 VARIATIONS

Effectively an FVA is a forward contract struck with a specified implied volatility. Therefore, on the trade date both parties agree on: a reference forward volatility (strike volatility), a strike fixing date and an option expiry date. Interestingly for a financial derivative, the contract can be cash settled or 'physically' settled:

Physical settlement: On the strike fixing date, the seller of the contract receives a cash premium equal to the BS price of the option calculated using the agreed strike volatility in exchange for the option itself.

Cash settlement: On the strike fixing date, the contract is settled with payment of the difference in premium between the BS price of the option using the strike volatility and the prevailing market volatility.

Variations of FVA contract are currently restricted to the definition of strike of the straddle. Typical variations are ATM Forward or the delta neutral straddle strike for standard Black-Scholes delta or for Black-Scholes delta with option premium included.

If the strike of the straddle is defined as a Delta Neutral straddle, this implies that the strike is solved for such that the aggregate delta of the straddle is zero.

Consider a situation where one believes the implied volatility for a given currency on a given tenor will be higher at some point in the future. For example, three-month EUR-USD will be higher three months from now. One can then enter into a 3*6 forward volatility agreement for a notional of \$100,000. Assume that the agreed forward volatility level at inception of the contract was at 10%. There is no premium paid at this stage. Thus we have:

Contract date: 01/18/2012
 Settlement date: 04/18/2012
 Maturity: 07/18/2012
 Currency: EUR-USD
 Notional: 100,000
 Contract: FVA
 Tenor: 3*6 (3-month option in 3-month's time)
 Agreed volatility: 10% (the FVA rate)

Contract date: 01/18/2012 (t0)

- We enter into a 3x6 FVA Contract paying Fixed FVA rate of 10%
- Notional = 100,000 USD
- No upfront Premium

Settlement date: 04/18/2012:

- On settlement date (t+k) if the three-month Implied volatility is 11%, then:
- The deal settles into ATMF Straddle position with notional of say 25M per leg
- The premium to pay for this straddle is then EUR% 3.9847 (three-month Straddle priced at 10% volatility)
- If the observed implied three-month volatility on settlement date is 11%, the position could be closed out immediately at 11% volatility level which corresponds to EUR% 4.3839 (Straddle premium priced at 11% volatility)
- Recall the FVA payoff:

$$pay\ off_{FVA}(N, \sigma, \sigma_{fix}) = N \cdot (V_{straddle}(\sigma) - V_{straddle}(\sigma_{fix}))$$
- The net profit if cash settled is: 25M x (0.043839 - 0.039847) = approximately, 100,000.

GENERIC OPTION VALUATION PRICER - BLOOMBERG

If we look at a recent implied forward volatility that commences three months from now and expires three months later, we can see from the table below that the 3x6 for EURUSD quote is: 11.541%. Even though the market quote for future date is unknown, the current volatility surface can be used to extract future or instantaneous volatilities.

Currencies	1M	1x2	3x4	3x6	6x12	12x24	24x48
1) EURUSD	8.490	9.593	11.574	11.541	12.285	12.223	11.935
2) USDJPY	8.205	8.539	10.147	10.154	11.407	12.591	14.953
3) GBPUSD	6.642	7.376	9.155	9.024	9.917	10.180	11.909
4) USDCAD	6.852	7.514	9.181	9.226	10.108	10.075	10.393
5) AUDUSD	8.685	9.768	12.279	12.379	13.811	13.739	13.045

Table 2: Implied forward volatilities. © Bloomberg LP. Used with permission.

We can compare the above extrapolated forward volatility from the current vanilla surface for a given tenor to a model dependent volatility strike computed from FVA pricing.

Using screen OVGE on Bloomberg, we price a -month FVA, expiring three months after the FVA's date:

Currency pair: EUR-USD
 Trade date: 04/30/2012

FVA date: 07/30/2012
 Expiry date: 10/30/2012
 Notional: 100,000,000
 Not.currency: EUR
 Agreed vol: 11.574%
 Market quote: 11.574% (3x6)

To simplify the example, we can set the agreed volatility strike the same as the market extrapolated volatility for the tenor of FVA contract. Then we use the FVA template in Bloomberg's OVGE screen. We enter the trade date, Domestic and Foreign currencies, the FVA date and the final expiry of the contract. We solve for the volatility strike that produces zero price (as close as possible). One limitation with OVGE is that it does not have solver functionality and for this reason, we keep changing the volatility strike until we get price that is close enough to zero or negligibly small. In this case, we have solved for 10.3% volatility strike. The solved volatility strike gives a 0.02% price of the notional which is very small. Please note that in order to speed up the calculations; we are using MC Heston but only up to 1000 sample paths.

The screenshot shows the Bloomberg OVGE screen with the following inputs:

- Pricing: Domestic Ccy USD, Foreign Ccy EUR
- Pricing date: 04/30/12, Premium date: 05/03/12, Cut-off time: New York 10:00
- Model: MC Heston, Paths: 1,000
- Valuation: USD, Premium: 18,475,961, Theta: 3,971, Rho: 0, Std Error: 241,745.1067
- Inputs: FVA Date: 07/30/12, Expiry: 10/30/12, Vol Strike: 0.103, Notional: 100,000,000.00, Notional ccy: Foreign
- Description: Forward Volatility Agreement (FVA). At the FVA date, the buyer buys a straddle option expiring at the expiry date, paying the BS price of the straddle using Vol Strike. The strike of the straddle will be set as the delta Neutral Strike using Vol Strike.
- Structure saved by: Bloomberg
- Summary table: Asset EURUSD, Delta 13,973.04, Gamma 0.00, Vega 426,773.04, Spot 1.3223, Vol Surface Bloomberg BGN

Table 3: FVA pricer on Bloomberg. © Bloomberg LP. Used with permission.

As expected when using stochastic volatility models, the model tends to undervalue the market price or quoted prices, and this is mainly due to the correlation between spot and volatility. The dynamics of the observed volatility surface when spot moves is inconsistent with the result from stochastic volatility models.

To hedge the above FVA contract:

- Enter long three-month EUR-USD Straddle position on EUR 10,000,000 notional; and
- Enter short three-month EUR-USD Straddle position on EUR 10,000,000 notional.

The net position should leave us a long three-month long Vega. On the trade date, the position should have zero Delta and Gamma but we with constant Vega as spot moves from trade date until the contract (FVA's) start date.

We can maintain constant Vega until the FVA date but once the FVA date is reached, the position will have regular Vega position as Vanilla option and will need to be risk managed. As the market moves, the strike is then away from the DNS (Delta-Neutral Straddle). To maintain the Delta neutrality of the position, the trader needs to buy/sell the underlying.

As mentioned above the FVA contract does not need to be delta hedged before the forward-starting period ends. However, such contracts need to be Vega hedged with vanilla, out-of-the money Straddles (as they do have zero Delta and Gamma). A long OTM straddle has to be purchased on the expiry date of the option (six month), while a short OTM Straddle has to be sold on the strike fixing date (three month). As the spot moves, the delta of these Straddles is likely to move away from zero, requiring re-hedging of the position, which increases the costs (which are likely to be passed on to clients) and risks (unknown future volatility and skew) to the trader.

From inception of the contract until the FVA's date, we maintain a constant Vega position. Given the above portfolio of vanilla positions, we

then risk manage the Delta/Gamma risk, Vega risk, as well as the Vanna and Volga risk.

DELTA RISK:

$$\text{CallOption} = S xN(d_1) - Ke^{-rT}N(d_2)$$

$$\text{PutOption} = -S xN(-d_1) + Ke^{-rT}N(d_2)$$

Where

$$d_1 = \frac{\ln\left(\frac{S}{K}\right) + \left(r + \frac{\sigma^2}{2}\right)T}{\sigma\sqrt{T}}$$

$$\text{Delta} = N(d_1)$$

To maintain the delta neutrality of the position after the FVA's date, we need to buy/sell an amount equivalent of the delta of the position.

STRIKE-LESS VEGA

Both Volatility Swap and FVAs initially give exposure to strike-less Vega (exposure to implied volatility that remains constant as spot moves). This is because the ATM straddle is not set until the FVA's fixing date /start date. The FVA's strike-less Vega is constant until the strike-fixing date and once the strike is fixed at fixing date of the FVA, the Vega profile is similar to Vanilla and varies with the underlying.

RISK MANAGING THE GAMMA OF VOLATILITY EXPOSURE ('VOLGA')

Volga represents the sensitivity of Vega to a change in implied volatility. It is given by:

$$\text{Volga} = \frac{\delta^2 P}{\sigma \delta^2}$$

- The first derivative of Vega with respect to a change in volatility.
- The second derivative of option value with respect to a change in volatility (hence its other name is *Gamma Vega*).

The Volga is also referred to as Vomma. For volatility movements, Volga is to Vega what gamma is to delta (for spot movement).

For complex exotics such as FVAs that require stochastic volatility models, one needs to compute Volga and other Greeks with respect to model parameters.

The interest of Volga is to measure the convexity of an FVA position with respect to volatility. An FVA contract with high Volga benefits from the volatility of volatility! Hence, volatility dependent derivatives such as FVA with substantial Volga, pricing with a stochastic volatility model with high volatility of volatility may change the price dramatically.

For complex exotics such as FVA, traders cannot simply ignore the risk due to the change of Vega. They have to understand the change of the Vega with respect to the spot (see Vanna) and to the volatility itself. And to have a better understanding of Volga, it is important to stress the variety of models to account for the smile surface. In particular, the shape of Volga would crucially depend on the choice of model out of the following list of models:

- Stochastic volatility models: the correlation effect between the stock and the volatility plays an important role in shaping the Vega change.
- Local volatility model where the resulting local volatility is a function of the underlying itself.
- Jumps models with jumps correlated to the volatility parameters.
- Combination of the above, like Lévy processes.

- Discrete type option pricing models that are in fact, discretised versions of the models above. For instance ARCH/GARCH processes are just discrete versions of stochastic volatility models.

RISK MANAGE SKEW EXPOSURE ('VANNA')

Vanna measures the change in Delta due to a change in volatility. It measures the size of the skew position. Vanna is the slope of Vega plotted against spot.

The Vanna is a second order 'cross' Greek. Like any other cross Greeks, the Vanna can be defined in many ways, as follows:

- First derivative of Vega with respect to a change in the underlying.
- First derivative of Delta with respect to a change in volatility.
- Second derivative of option value with respect to a joint move in volatility and underlying.

To account for the complexity of the smile and in particular its skew and convexity, one needs to apply more realistic models including deterministic local volatility, stochastic volatility and jumps (see smile modelling), and the most recent model that combines both Local Volatility and Stochastic Volatility models (SLV). Stochastic models can change considerably the shape of the Vanna as they explicitly specify the correlation between volatility and the spot. If spot and volatility are positively correlated, the holder of the option with positive Vanna will benefit from the correlation.

VALUATION MODELS

Volatility swaps and forward volatility agreements are more complex instruments to price. Volatility is the square root of variance, and is a more complex derivative of variance. Its value depends not just on volatility, but on the volatility of volatility, and you have to dynamically hedge it by trading variance swaps as the underlying. This is possible too, but needs a model for the volatility of volatility. The selected model should be able to produce realistic hedge ratios or Greeks such as Delta, Gamma, Vega, as well as Vega risk with respect to changes in both spot and implied volatility.

LOCAL VOLATILITY MODEL (LV)

The Local Volatility Model (LV) extends the BS model by allowing the instantaneous volatility to depend on spot and time (Dupire 1994).

$$dS = S_t(r_t - q_t) + \sigma(t, S_t)S_t dW \quad (1.3)$$

The Local Volatility function $\sigma(t, S_t)$ is a function to be inserted into the (1.3) which will reproduce the current vanilla market prices. The function has no stochasticity of its own, just deterministic state dependency on time and underlying. This model class is considered less complex since it does not involve individual stochastic differential equations (SDE) for the volatility, it is merely described by a function.

Dupire found that the Local Volatility (LV) function could be derived as:

$$\sigma(K, T) = \sqrt{\frac{\frac{\delta C}{\delta K} + (r - d)K \frac{\delta C}{\delta K} + dC}{K^2 \frac{\delta^2 C}{\delta K^2}}}$$

The advantages of the LV model are:

- Simplest model consistent with the market
- Local volatilities are forward volatilities
- Arbitrage free (positive and regular)
- Implied volatilities surface with strike extrapolation provides variance swap fair value
- Good IV surface should give an accurate risk neutral density.

The deterministic LV function represents a market consensus estimate for the instantaneous volatility at some future time t with the asset at value S . It can be shown that the local variance $\sigma^2(S, t)$ is the expectation of the future instantaneous variance $\sigma^2(t)$ at time t conditional on the asset having a value S at time t .

STOCHASTIC VOLATILITY MODELS

The first stochastic volatility model was proposed by Heston in 1993, who introduced an intuitive extension of Black and Scholes. He assumed that the spot price follows the diffusion: that is, a process resembling geometric Brownian motion with a non-constant instantaneous variance $V(t)$. Furthermore, he proposed that the variance is a CIR process, that is a mean reverting stochastic process of the form:

$$dS_t = (r_d - r_f)S_t dt + \sqrt{V_t} S_t dW_t^1$$

$$dV_t = k(\theta - V_t)dt + \sigma\sqrt{V_t} dW_t^2$$

And the two Brownian motions are correlated with each other:

$$d(W_1, W_2)_t = \rho dt,$$

1. Initial volatility: $V(\theta)$, Not directly observable
2. Long term variance: θ
3. Speed of mean reversion of volatility: k
4. Volatility of volatility: σ
5. Correlation between spot exchange rate and volatility: ρ

All these parameters can be calibrated.

We can interpret the parameters σ and ρ as being responsible for the skew, the volatility of variance controlling the curvature and the correlation the tilt.

The other three parameters ($V(\theta)$, θ , and k) control the term structure of the model; where the mean reversion k controls the skewness of the curve from the short volatility level to the long volatility level.

Taking the limits $\sigma \rightarrow 0$, and $k \rightarrow 0$, we recover the BS PDE with constant volatility.

The volatility-of-volatility and mean reversion have the opposite effect on the dispersion of volatility. Volatility-of-volatility allows a large variation

of future values of volatility; mean-reversion tends to push future values of volatility towards the long-term value of volatility.

STOCHASTIC LOCAL VOLATILITY MODEL

Because of the limitations of the Local and Stochastic models on their own, recently the market practitioners have settled on using a model that combines both of the above models, called the Stochastic Local Volatility model (SLV).

At the moment there is a dearth of empirical tests on valuations of volatility derivatives (products) using this new approach, however, implementation and tests on barrier type exotics show:

- calibration matches the entire volatility surface to the very distant wings
- better model generated prices for reverse KO, Touches and Digital
- they are consistent with market dynamics.

For valuation of FVA, it would require a model that has the above features. It will also require not only better calibration but the calibrated volatility surface should have correct dynamics.

To test the SLV model, we would need to generate list of FVA prices for a given maturity using various mixing fractions. We can then compare these prices with market quoted prices (provided there are liquid OTC prices). For more detailed discussion on the implementations and empirical result on the SLV model, see Tataru and Fisher, (2010).

The SLV model is described by:

$$\frac{dS_t}{S_t} = (r_d - r_f)dt + L(S_t, t)\sqrt{V_t} dW_t^1$$

$$dV_t = k(\theta - V_t)dt + vvol \cdot V_t^\alpha dW_t^2$$

$$dW_t^1 \cdot dW_t^2 = \rho dt$$

$L(S_t, t)$ = Local Volatility, K = speed of mean reversion, θ = mean reversion level, $vvol$ = volatility of variance, ρ = correlation.

The mixing of LV and SV features is controlled mostly by $vvol$, followed as importance by the correlation ρ . For SLV to degenerate to a pure LV model one would set $vvol = 0$ and to obtain a pure SV model one would set $L(S_t, t) = 1$.

References cited in this paper are listed at cisi.org/rofmjune2015

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AWAY FROM THE CUT AND THRUST OF FINANCIAL SERVICES, SARAH ROBERTS-LELLO ACISI HAS A PASSION FOR A VERY DIFFERENT PASTIME

◆ LORA BENSON

Marching to her own beat

At the tender age of four, Sarah Roberts-Lello took her first choreographed steps as a majorette. Twenty-five years on, her affection for the pastime, which has brought her a clutch of awards, is still strong.

Sarah has been a lifelong member of the Larkettes, a majorettes troupe based in Liverpool, her home city.

“I started as a majorette as my parents wanted me to find a hobby,” says Sarah, who for the past eight years has worked at the Liverpool office of wealth manager Rathbones in its Client Static Data team.

“I realised fairly quickly that I was quite good at it and enjoyed performing.”

Baton twirling and marching to music in choreographed group formation are the essential components of majorette activity.

“Good hand-eye co-ordination is essential, as those batons can leave a bruise, but after a bit of practice it’s not too bad. Now it comes as second nature to me,” she says.

The troupe is midway through competition season, which runs from April until August. Having progressed through the age groups,

Sarah now represents the Larkettes’ senior section, for dancers aged 15 and over. The Larkettes will over a five-month period take part in more than 20 inter-divisional contests against up to 12 first division troupes from the North West and North Wales region.

The troupe, which can include up to 40 dancers, will then compete in an end of season championships in Prestatyn, Wales, which attracts around 25 troupes from three different divisions.

“Over the years, we have won dozens of competitions, including being overall champions over the season many times. I love

Sarah has been a lifelong member of the Larkettes in Liverpool, her home city

the adrenaline rush from performing in front of people to win a trophy.”

Her competition experience has included attending events in the Isle of Man and the European Championships held at the Disneyland Paris complex. Sarah practises for around four hours a week with the troupe,

honing the Larkettes’ complicated 15-minute routine, which changes every season.

“You are awarded points for content at competition, and at our level there are certain movements you are expected to include in your routine, such as being able to roll the baton around your neck and spinning the baton at least twice before catching it.”

Sarah has great admiration for Gill Quirk, the troupe principal, who is the driving force behind the Larkettes’ success.

She says: “Gill has a brilliant imagination and I don’t know how she comes up with the routines she does. She is at the top of her game when it comes to finding great music for us to use. This year’s routine includes tracks from Jason Donovan, The Spinners and Dionne Warwick.”

Gill, who Sarah has known since she became a Larkette, is one of many close personal friends she has made through the group.

“It is a close-knit troupe. I have known a lot of the girls since I was very young and I used to train many of those who are now aged 16 or 17 when they were starting out.”

Looking to the future, Sarah has no plans to hang up her baton but would like to share her expertise as a majorette.

She says: “The teaching side is something I would like to develop and I would also be interested in judging competitions.”

Outside of her commitment to the Larkettes, Sarah has used any spare time she has left wisely, studying for the CISI Advanced Certificate in Global Operations.

➤ Contact lora.benson@cisi.org if you have a hobby you think will interest other CISI members. You will receive a £25 shopping voucher as a ‘thank you’ if we publish your story.



SARAH ROBERTS-LELLO:
TWIRLING THE BATON



Unexpected rewards

A NEW BANK LOYALTY SCHEME HAS WRONGLY CREDITED MILLIONS OF TRAVEL MILES. STAFF HAVE TAKEN ADVANTAGE. WHAT SHOULD THE BANK DO?

Getty

Fran is a senior member of the team in her bank which works on providing a ‘reward programme’ to account holders who meet various levels of activity on their bank account and related credit cards. She has recently been responsible for introducing a new reward scheme to her bank customers, in partnership with a well-known airlines group.

Shortly after the fanfare of the launch it transpires that the amount being credited to customers’ loyalty reward accounts has been wrongly programmed by a factor of 100. As a result, millions of travel miles have been wrongly credited to account holders. News of this has spread like wildfire, particularly within the bank, where a number of members of staff appear to have taken advantage of the error to book extensive and expensive overseas travel. The cost to the bank and the airline of honouring all of these unearned ‘miles’ could run into many millions of pounds.

As soon as Fran is made aware of the problem, she contacts the administrator of the scheme, who quite quickly identifies a ‘computer operator error’ as the cause and asks Fran what they should do. Fran feels that she must lose no time in informing her

The amount being credited to loyalty reward accounts has been wrongly programmed

superiors of the problems with the incentive programme but that she must offer them solutions to the problem at the same time.

Fran suggests to the administrator that they suspend the scheme immediately, but is told that they could only accept such an instruction in compliance with the terms of their contract with the bank. Accordingly Fran would have to get the agreement of a senior executive of her bank to amend the contract.

Knowing that she will be unable to avoid raising the matter at the highest level in her bank, Fran considers some recommendations on how to proceed. Recognising that there are a number of parties involved, including customer, bank and reward provider, she feels that any recommendation that she makes must take each of them into account.

START AGAIN

Her initial thought is that the most straightforward course of action would be to cancel the scheme and start again, crediting everyone with the correct miles.

Unfortunately, when investigating who within the bank had used the reward scheme, Fran is surprised to see her own boss, a number of other senior executives and even two directors. Accordingly, she feels that she had no alternative other than to report the matter directly to the CEO.

The CEO has already been made aware of the problem by his opposite number at the airline



BROUGHT TO ACCOUNT: THE VERDICT

A research partner in a boutique advisory firm finds herself facing a difficult decision. A major client's planned flotation looks overvalued – but no one will listen to her.

This was the 'Grey Matters' dilemma in the March 2015 edition of the *S&I/R* and readers were offered four courses of action to choose from on how the research partner, Jean, should proceed.

This was not one of the more popular dilemmas, possibly indicative of lower levels of interest in corporate finance matters, albeit that the type of dilemma illustrated is one that practitioners will be familiar with: a conflict between the need for valuable fees and personal integrity.

Interestingly, no one felt that the issue was an immediate resigning matter, with the great majority of respondents supporting the view that Jean should seek to persuade the sponsoring partner of her concerns, failing which she should insist that the matter is raised with all the partners. This is the CISI's preferred option.

A number of readers felt that the matter should be reported immediately to both the accounting and financial regulators. While this may be considered a 'safety first' action, it does expose all of the partners to the risk of damaging action by one or possibly both regulators, without giving Jean's fellow partners the opportunity to take remedial action. Accordingly, it would represent a last resort, rather than first action.

There was only one vote for allowing the float to continue on the basis that accounting treatments are an art, not a science. This was possibly from a reader who is a supporter of the John Cleese school of accountancy, or more recently, the Autonomy/Hewlett Packard debacle!

and thanks Fran for bringing him the details. However, on reading the list of names, his immediate response is to ask his PA whether the Chairman is in the office, as he must see him immediately. Taking Fran with him, he hastens to the Chairman's office.

The Chairman listens with increasing dismay as the CEO recounts what has happened and the potential cost. He is even more concerned to hear the names of those bank personnel who have taken advantage of what was, manifestly, a mistake. In his anger, his initial response is to suggest that the bank should dismiss all those staff who have taken advantage of the mistake.

At this, the CEO interjects and says that he thinks that might cause more problems than it solves and so offers the Chairman a number of potential ways forward:

- Offer all staff the chance to reimburse the bank for the equivalent value to the travel booked using the rewards.
- Tell staff that their actions have breached their responsibilities to their employer, who will take disciplinary action against them commensurate with the seniority of the member of staff.
- Dismiss all those staff involved, irrespective of the impact that this may have on the operations of the bank, on the basis that their behaviour amounts to dishonesty.
- Accept that the bank was partly responsible and offer to share the cost of any use made of the rewards with the individual concerned.

➤ **What would you advise the Chairman to do?**

Visit cisi.org/unexpectedrewards and let us know your favoured option. The results of the survey and the opinion of the CISI will be published in the September 2015 edition of the *S&I/R*.

The choice of finance

THE NATIONAL AUDIT OFFICE CONSIDERS HOW GOVERNMENT CHOOSES TO FINANCE ITS CAPITAL INVESTMENT AND MAKES PROPOSALS TO IMPROVE ITS DECISION-MAKING ON SPENDING, BUDGETS AND FINANCING

✦ MATTHEW REES, CHARTERED FCSI AND VASILISA STARODUBTSEVA

Over the past 50 years, the contribution of private finance to direct public sector investment has fallen. The figure (right) shows that ‘public spending gross investment’ (a measure of capital investment) has decreased by 5.6% as a proportion of gross domestic product (GDP). This reduction is largely due to the privatisations of the water, electricity, gas and telecoms industries in the 1980s and 1990s, which transferred ownership and responsibility for the delivery of national infrastructure to the private sector. The private finance initiative (PFI) was introduced in the 1990s to bring private sector expertise to public investment. The figure also shows that, in aggregate, the incremental contribution of PFI to public sector investment has been relatively modest. In the past five years, around 90% of the £46bn annual capital investment was publicly funded. Investment last peaked in 2010, boosted by a fiscal stimulus, and since then it has reduced by around one-third.

Decision-making and budget process

Our review of the budget system explains that central government departments must decide how to finance large capital projects well before cash is drawn down, for example for construction. Departments are not allowed to borrow directly from financial

markets, and their capital budgets are set every three to four years. We noted that, if departments did not have enough budget to fund the construction of an asset, their only option for investment was to use private finance. This can provide greater flexibility, although a considerable amount of time may pass between the decision to procure via the private finance route and the process which determines the cost of finance.

There are significant differences between the respective budgetary impacts of using private or public financing. About 90% of privately financed capital investment is not recorded as public spending when the investment takes place and so does not affect departmental capital budgets. In the short term, departments can reduce reported public spending and government debt statistics by using private finance but, in the long term, additional spending would be required via contractual commitments.

Cost of private capital

The future financial commitments for existing PFI projects currently amount to around £232bn. Annual expenditure has increased significantly in recent years in line with contractual commitments, and is currently running at £10bn. Of this, around £3bn a year is needed to service debt. According to the UK’s Whole of

Government Accounts (WGA, 2012/13) the average PFI financing cost is 7% to 8%, compared with average costs of government borrowing of 3% to 4%.

Although private finance is more expensive than public finance, it can represent value for money if the benefits, such as risk transfer, outweigh the higher cost. HM Treasury’s PFI database (at March 2014) shows that about two-thirds of all current private finance projects relate to accommodation – such as for hospitals, schools, offices and military barracks – and much of this is generally known as ‘social infrastructure’. We found that information about private finance costs for individual projects is limited. We consider that, if information

Private finance can represent value for money if the benefits outweigh the higher cost

on the financial terms of the projects were centrally collated and distributed, it could provide more evidence for public authorities about the relationship between project-specific risk and the cost of capital. We have therefore put forward proposals to increase transparency, aid comparisons and improve decision-makers’ confidence that using private finance represents value for money to the taxpayer.

Refinancing, negotiations or buy-outs of private finance deals can achieve cost reductions. For example, when in 2013 we examined savings from operational PFI projects, we found that savings were made by bringing services in-house and replacing private finance. Most private finance deals have used long-term financing agreements (for example, interest rate swaps) to limit exposure to rate rises. The Government introduced gain-sharing agreements to

CORPORATE FINANCE AT THE NAO

The National Audit Office (NAO) audits and scrutinises public spending in the UK on behalf of Parliament. The head of the NAO is an officer of the House of Commons and the NAO is independent of government.

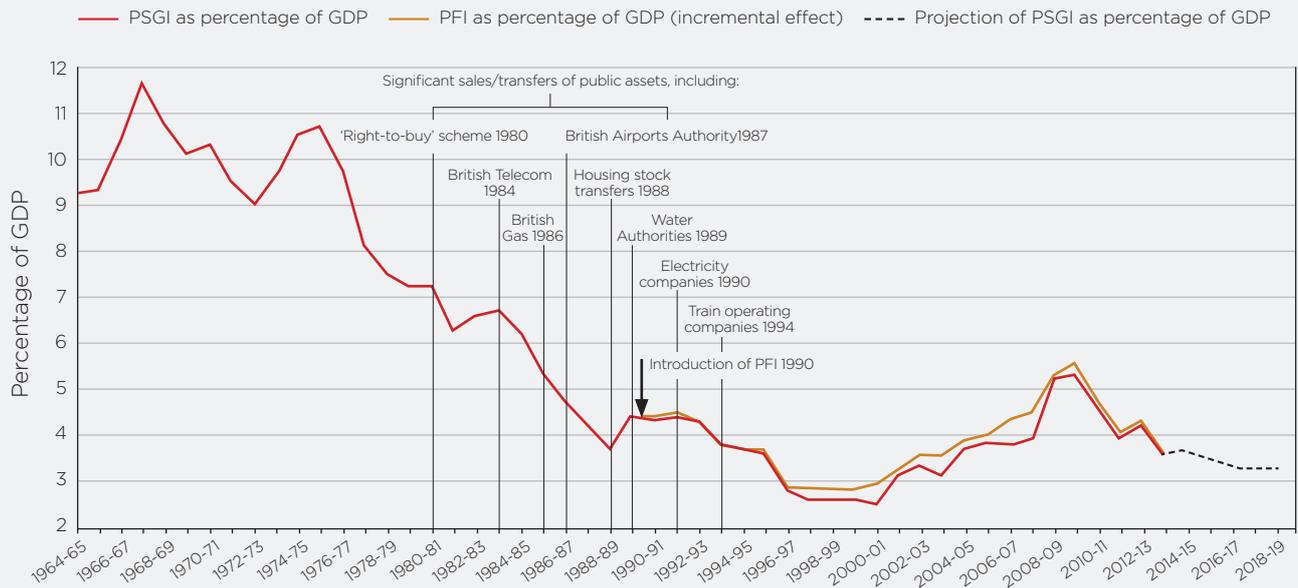
The corporate finance team at the NAO has published reports on infrastructure financing, major capital investments

and PFI. It also reviews government transactions, including privatisations and asset sales such as Royal Mail (recording available on CISI TV), and government interventions in the financial markets during the crisis and its subsequent sales, such as Lloyds Banking Group.

NAO reports are free to download from nao.org.uk

PUBLIC SECTOR GROSS INVESTMENT (PSGI) AND PFI INVESTMENT - PAST 50 YEARS

PFI has added to Public Sector Gross Investment



Notes

1 PSGI includes investment of local government and state-owned enterprises so these figures are not directly comparable to other data in this report on central government capital spending.

2 The capital investment through PFI has been added to the PSGI figure. A small amount (approximately 10%) of PFI investment is on the balance sheet for national accounts purposes so is also included in PSGI spending figures.

Sources: Office for Budget Responsibility, Public Finances Databank, 25 January 2015; HM Treasury PFI database (updated 15 December 2014)

enable taxpayers to benefit from a share of savings achieved, but there are relatively few such examples despite low interest rates and improved financial market conditions. Our analysis shows that the current value of swap liabilities for the 728 PFI special-purpose vehicles in HM Treasury's database is around £6bn.

Guarantees and the National Infrastructure Plan

In another recent report, UK Guarantees Scheme for Infrastructure, we examined the Treasury's £40bn scheme (a sovereign credit substitution arrangement), which was introduced in response to challenging market conditions for infrastructure finance. Our analysis indicates that the value of private finance for new projects halved from £6bn a year prior to the financial crisis to £3bn a year during the crisis, before recovering after 2012. We examined the value for money of the first five such guarantees, with a total value of £1.7bn, each of which involves the UK Government, as opposed to the private sector, taking the project risk for the particular tranche of financing

which benefits from the guarantee. Our report recommends a package of measures including: a review of eligibility criteria; improved risk reporting; development of an additional pricing methodology based on an appropriate capital charge; increased use of expert challenge; a review of pricing techniques; and consideration of how to maximise competition and transparency in the allocation of all government-guaranteed debt, to minimise the premium over government-issued debt.

The Government's National Infrastructure Plan (NIP) contains a pipeline of £327bn of infrastructure investment, both public and private, planned to 2020/21. This anticipates that 79% (averaging £37bn a year over the seven-year period) will involve private financing, whilst the remaining 21% (averaging £9.6bn a year) will consist of direct public investment. In our report, The choice of finance for capital investment, we outline a range of recent developments including the modifications to public-private partnerships through the introduction in December 2012 of Private Finance 2,

long-term contracts for renewable energy (contracts for difference), and other forms of government support for private investment (for example, traffic and volume guarantees). We highlight the wide range of implications for the national accounts and departmental financial statements, and question the extent to which various discrete initiatives represent a comprehensive response to the challenges set out in the NIP.



Matthew Rees, Chartered FCSI is the NAO's Director - Corporate Finance. He moved to the NAO in 2013 from the Competition Commission. This followed a career in investment banking with major international institutions.



Vasilisa Starodubtseva is an NAO Analyst - Corporate Finance. She joined the NAO in 2014, having previously worked at Preqin, focusing on private equity performance, and at the Bank of England in international finance.

Brewing up a storm

BREWDOG, THE FAST-GROWING SCOTTISH BREWER, IS PULLING IN THE FUNDS WITH ITS UNORTHODOX CROWDFUNDING EXERCISE – AND SHOWING MARKETING GENIUS TOO

✦ ANDREW DAVIS ✦ JOHANNA WARD



Are retail investors stupid? Or to be a little more specific, are people who buy shares in the latest crowdfunding exercise by Brewdog stupid?

The company, for those unfamiliar with Brewdog, is a small but fast-growing Scottish brewer based just outside Aberdeen that employs around 300 and makes a variety of beers and ales that are heavy on both artisan purism – they are a leading part of the rapidly expanding craft beer movement – and on distinctive and unorthodox marketing. When the company announced in May that it had passed the £5m mark just 20 days into its latest equity offering, it celebrated by dropping stuffed ‘fat cats’ with parachutes over the City of London, saying it had gone “behind enemy lines to conduct a symbolic gesture that heralds the extinction of the City fat cat. This is our way of showcasing the viability of alternative forms of finance. It is our own anti-propaganda propaganda.”

Ho hum, you might be tempted to observe. But don’t be too hasty to write Brewdog off as a bunch of loud-mouthed attention seekers riding for a fall – if nothing else, no one can accuse them of lacking ambition or chutzpah. The company, which was established by James Watt and Martin Dicke in 2007, already has 14,500 shareholders and is raising its fourth round of

equity direct from the public, this time seeking up to £25m in an offer that will remain open until 20 April 2016. Bagging a fifth of its target in less than three weeks is impressive and suggests it might just go all the way. If it does, this will be by far the biggest equity fundraising direct from the crowd in this country, and quite possibly in any other.

And Brewdog deserves credit for transparency as well. Given the size of its fundraising round, the company has had to produce a full prospectus and disclose detailed, legally vetted information to potential investors.

So what does the Brewdog prospectus reveal? The company is aiming to raise £24.8m net of about £200,000 in costs at a pre-money valuation of £280.3m. In 2014,

This would be by far the biggest equity fundraising direct from the crowd in this country, and quite possibly in any other

Brewdog had net profits of £2.65m, up 19.5% on 2013. So assuming it raises the full £24.8m, its 2014 earnings per share on a fully diluted basis would have been 41.25p. Given the offer price of £47.50 a share, this suggests a multiple of 115 times last year’s earnings. If net profits grow another 20%, that drops to a still giddy 96 times

for 2015. This is a fast-growing company, for sure (revenues rose 70% in 2013 and 63% in 2014), but that’s still a hefty multiple to pay.

The prospectus also makes clear that financing rapid growth in a business like brewing (as well as opening branded bars, Brewdog’s other priority) is very capital intensive. The company invested nearly £5.5m in 2014 and had a net cash outflow of just over £1m. By the year-end, it had liabilities falling due within a year of just over £7.8m – almost double the total a year earlier – and cash in the bank of £2.23m. To keep growing, it clearly needs a lot more money.

You can certainly criticise Brewdog’s offering for being expensive. But the same could also be said of AO World, the online appliance

retailer that sold its shares to institutional investors last year at an even more stratospheric valuation. You might also criticise Brewdog for having two share classes, A shares for the founders that give them overwhelming voting control and B shares for the crowd that offer discounts on its products but little or no influence over its governance. But that simply makes Brewdog less radical than its founders suggest, following as it does the pattern set by many of the old brewing dynasties that used dual share classes to preserve the family’s control of businesses that needed a lot of capital to grow. The vestiges of that system are still visible on the public markets today: Young & Co’s Brewery, for example.

Ultimately, none of this bothers me. Brewdog calls its crowdfunding share offers Equity for Punks and that provides the most useful clue as to what’s going on here. Choosing a name like that will naturally put off a lot of ‘serious investors’ and attract those who buy into the company’s ethos and marketing. And that’s the whole point – these shares may or may not be an astute financial investment, but Brewdog has definitely made them a ‘positional good’ that identifies their buyer as part of its anti-establishment clique.

If it can persuade beer enthusiasts to regard shares that are painfully expensive on conventional measures as a desirable extension of their relationship with the brand, then Brewdog clearly has something going for it – a genius for marketing and publicity. In a consumer goods business such as brewing, there are few skills more important than this. Perhaps those retail investors aren’t so stupid after all.



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