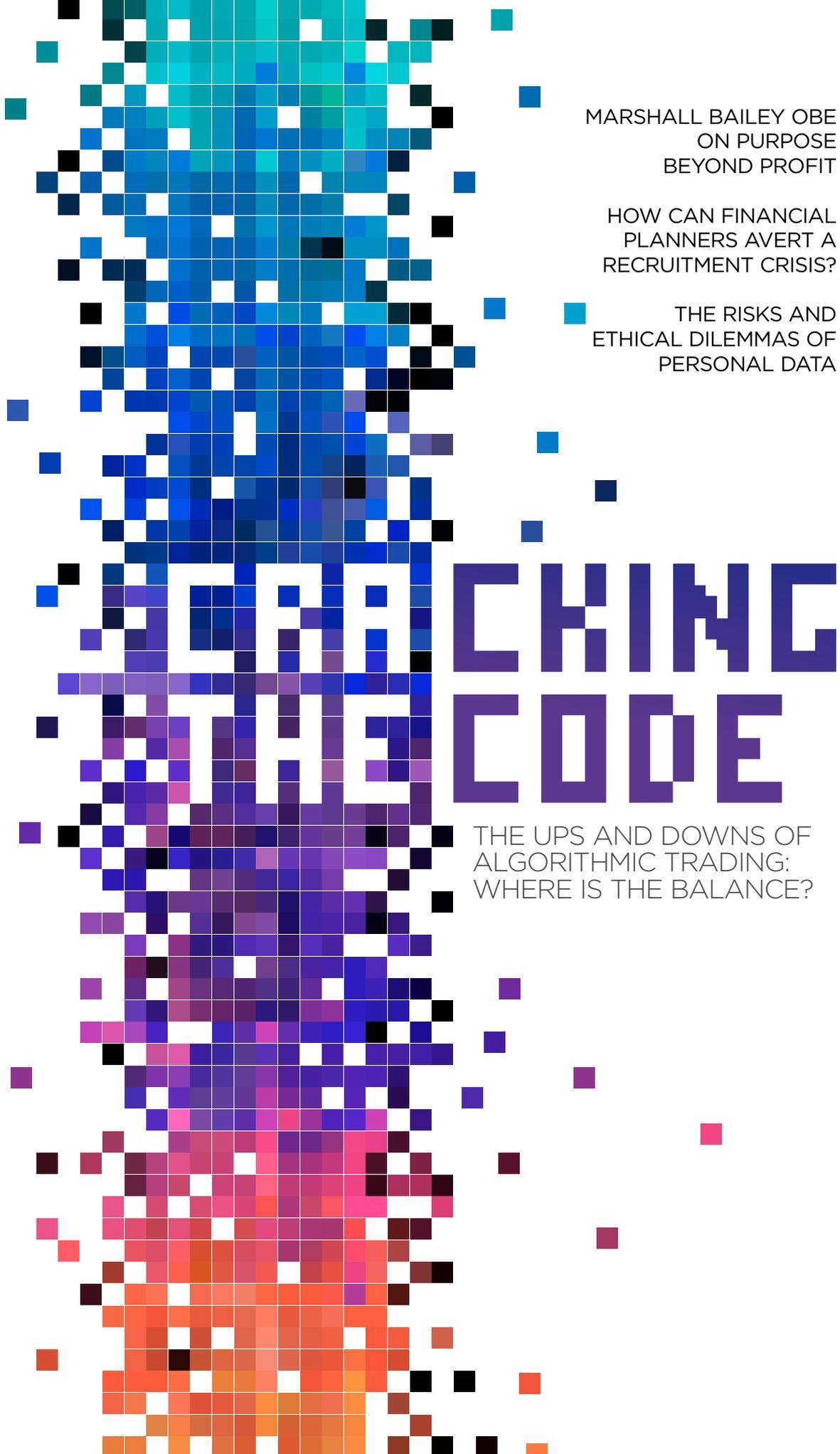


the review

PROVIDING INSIGHT AND ANALYSIS FOR FINANCIAL SERVICES PROFESSIONALS

CISI.ORG/REVIEW

Q3 2018



MARSHALL BAILEY OBE
ON PURPOSE
BEYOND PROFIT

HOW CAN FINANCIAL
PLANNERS AVERT A
RECRUITMENT CRISIS?

THE RISKS AND
ETHICAL DILEMMAS OF
PERSONAL DATA

ALGORITHMIC TRADING CODE

THE UPS AND DOWNS OF
ALGORITHMIC TRADING:
WHERE IS THE BALANCE?

CISI
CHARTERED INSTITUTE FOR
SECURITIES & INVESTMENT

ifp INSTITUTE OF
FINANCIAL
PLANNING

welcome

“During his nine years in the role, Sir Alan has campaigned tirelessly to enhance knowledge, skills, professionalism and integrity in the financial services sector”



Algorithms processing buy and sell transactions have been blamed for the ‘quant quake’ of 2007 and the ‘flash crash’ of 2010. But do they exacerbate or correct swings in the market? Read our special report (pp.31–34), with an opinion by Dr Robert Barnes, global head of primary markets and CEO of Turquoise, London Stock Exchange Group, for different viewpoints on this.

We also ask whether personal data is, as the commonly quoted trope would suggest, the ‘new oil’, taking into account restrictions imposed by regulation, risks and ethical pressures (pp.17–19). Other highlights include our profile of Marshall Bailey OBE, chairman of the Financial Services Compensation Scheme (pp.25–28); a hard-hitting look at misconceptions about behavioural finance (pp.55–58); and an insightful commentary on the perception of society in the decision-making process (p.5).

Please get in touch with any comments or suggestions.

Goodbye and best wishes to ...

Sir Alan Yarrow, Chartered FCSI(Hon), steps down as our chairman on 11 October 2018. During his nine years in the role, Sir Alan has campaigned tirelessly to enhance knowledge, skills, professionalism and integrity in the financial services sector. This included a year as Lord Mayor of London from 2014 to 2015, during which he travelled to 30 countries, promoting London as a world leader in international finance and business services.

We’d all like to thank Sir Alan for his dedication and commitment, and wish him all the best in future.

Jane Playdon
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Look out for the CISI’s latest annual report, which will be published shortly on cisi.org/annualreport

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 **An audience with Vivienne Artz, president of Women in Banking and Finance**



 **Nicky Morgan MP on opportunities and challenges facing Britain's wealth management sector**

Read



 **THE PROBLEM WITH PENSIONS**
Do we need a different pension system? asks Anthony Hilton FCSI(Hon)



 **CITY VIEW**
The CISI is calling on the FCA to include "significant relevant information" on an individual's membership of a professional body in the new upgraded Directory



 **HOW TO NAIL PUBLIC SPEAKING**
Whether it's a small presentation or a keynote speech in front of thousands of people, public speaking can be a challenge. Find out how to face it head-on

Learn

Professional Refresher, our online training solution, features more than 100 modules to keep you up to date with the latest developments, maintain regulatory compliance and demonstrate continuing learning. The three categories below show statistics for the past quarter, compared to average pass numbers for all modules of 142.



 **NEW Fintech**
Distinct pass numbers: 108



 **RECENTLY REFRESHED Anti-money laundering**
Distinct pass numbers: 910



 **MOST POPULAR General Data Protection Regulation**
Distinct pass numbers: 1,689

Reading QR codes

Point your smartphone or PC camera at the QR code, or do the same with a QR code scanning app, downloaded onto your smartphone from the App Store.

Q3 MOST READ

Where are financial services jobs moving to?
cisi.org/jobmoves

The aftermath of Beaufort Securities
cisi.org/beaufort

Blurred lines: vertical integration in financial services
cisi.org/integration

How to write an effective LinkedIn profile
cisi.org/profile

Regulatory update: buy-side asset managers
cisi.org/ruq218

MOST COMMENTED ON

Grey matters ethical dilemma: A sign of the times?
cisi.org/signofthetimes

Ask the experts: Governance of cryptocurrencies
cisi.org/cryptogovernance

Implications of GDPR for financial services firms
cisi.org/gdpr

How to improve your CV
cisi.org/cv

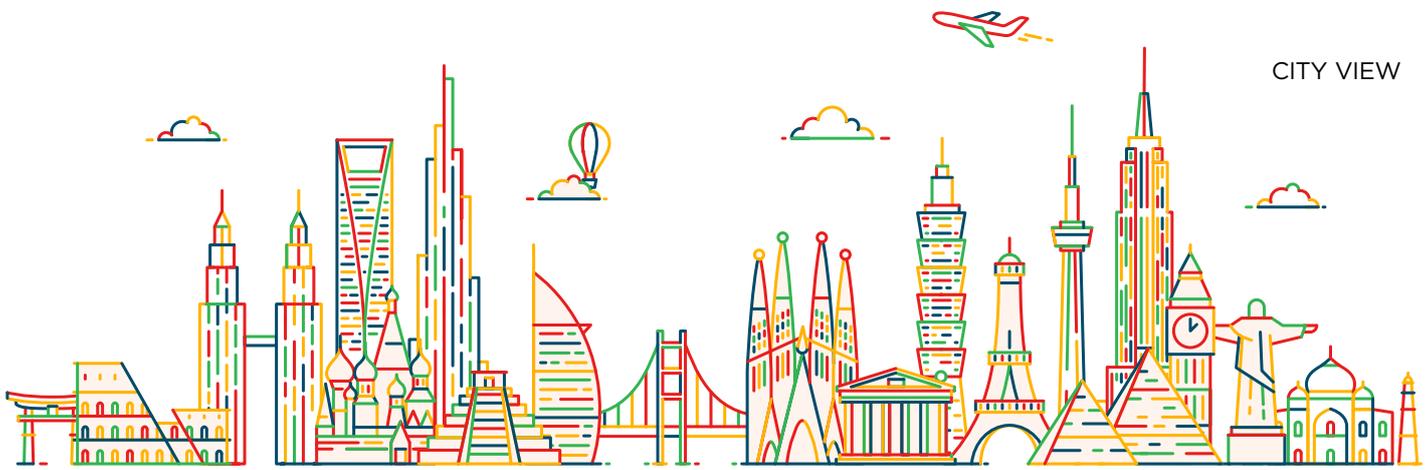
Finding the fine money
cisi.org/finemoney

EVENTS

For a full list of CISI events, go to cisi.org/events

MEMBER BENEFITS

To access all CISI member benefits, go to cisi.org, select MyCISI from the top menu and click on Membership Privileges.



Ethics evolution

REBECCA ASTON, HEAD OF PROFESSIONAL STANDARDS, CISI

The CISI Code of Conduct asks members to consider not just whether their actions follow the letter of the law, but also whether they are in accordance with the spirit in which the law (or regulation) was written. For some years, and especially following the global financial crisis, compliance with the spirit as well as the letter of the law has been given equal weight. Compliance teams have grown, and ethics teams have emerged.

It appeared that these two key pillars of goodness – what is legal and what is ethical – would be the foundation of decision-making for years to come. However, recently there has been a shift, and a third consideration has become increasingly prevalent – ‘what society deems is right to do’. This is not the same as ‘what is right for society’, which generally comes under the ethics pillar, and involves considerations such as whether an action or decision is in the public good and what impact (if any) it will have on the environment.

What society wants

Rather, the consideration of what society deems is right necessitates considering what the reaction of customers (and society more widely) might be to a decision, and taking that into account. The recent Australian ‘ball-tampering’ cricket scandal provides a pertinent example. During a Test match against South Africa, player Cameron Bancroft was seen attempting to rough one side of the ball by rubbing it on a piece of adhesive tape covered in dirt and grit. Captain Steve Smith and vice captain David Warner were also found to be involved. The scandal was reported globally, and moral outrage against the players’ actions from society was swift and strong. This may have been taken into consideration when meting out punishment, as Cricket Australia gave both Smith and Warner one-year bans, and suspended Bancroft for nine months. Smith and Bancroft were banned from captaining Australia for at least two years, while Warner will not be considered for any team leadership positions in the future (penalties that are harsher than those normally imposed for ball-tampering).

However, the Australian Cricketers’ Association has raised concerns about the severity and proportionality of the punishments, adding that the bans are disproportionate to previous sanctions for changing the condition of the ball, and that the Cricket Australia punishments are higher than those of the International Cricket Council. Nevertheless, public opinion seems to be very much against those involved. A BBC survey asked: “Are the punishments given to Smith, Warner and Bancroft fair?” Readers voted in strong support of the punishments (62% said “Absolutely. They cheated. Badly. And tried to cover it up”).

Consideration about society’s opinion has risen because social media has amplified people’s collective voices and the 24-hour news cycle enables the immediate sharing of and reporting on stories. Reactions are now given (and heard) instantly. Company decisions can be praised or subject to vitriol within hours, and can (and do) ‘go viral’ – reaching outside the core customer base and bringing attention, for better or for worse, to the company involved.

// IT IS NO LONGER ENOUGH
TO ASK IF A DECISION IS BOTH
LEGAL AND ETHICAL //

Inviting society’s opinion as a third party to the decision-making process has pros and cons. Society should be considered when a company makes decisions, and decision-makers should take into account what their customers and the public would want them (as a provider of products and/or services) to do. However, it seems to be the antithesis of long-term thinking. Society’s views, even on the same issue, are constantly changing. Additionally, it is important to not listen solely to those on social media, which represents a specific section of society (those with access to the internet, often a younger demographic) and could just be a case of those who shout loudest get heard.

Nevertheless, we are seeing a change in the ways decisions are made. It is no longer enough to ask if it is both legal and ethical. Now we also need to ask what society would want us to do. ●

AROUND THE GLOBE

The CISI's international network of offices looks after 45,000 members worldwide

UNITED KINGDOM

Chief executive officer:

Simon Culhane, Chartered FCSI

We are privileged to welcome Mark Carney, governor of the Bank of England, as guest speaker at the CISI London annual dinner at the Mansion House, London on Tuesday 9 October.

We will also be saying farewell to our outgoing chairman, Sir Alan Yarrow, Chartered FCSI(Hon), who is stepping down after nine years at the helm. Sir Alan said: "I have been very proud to be your chairman and I would like to thank you all for the support you have given me. The world has rarely looked more uncertain than it does at this time, but you can be assured that the Institute will continue to pursue a positive programme to promote integrity and professionalism, both at home and abroad."

9 years



The number of years served by outgoing CISI chairman Sir Alan Yarrow, Chartered FCSI(Hon)

GIBRALTAR



The Gibraltar Financial Services Commission (GFSC), which

regulates the sector in Gibraltar, has issued guidance on the ESMA Knowledge and Competence requirements under MiFID II. It lists benchmark qualifications that are considered relevant, including the CISI's level 4 qualifications for providing investment advice, such as the CISI Investment Advice Diploma.

KENYA



In June 2018, we opened our first African office, based in the Westlands district of Nairobi. Kimacia Gitau ACSI, pictured left, is the head.

The CISI has been active in Kenya since signing an MoU with the Capital Markets Authority in 2014, with over 2,500 exams taken to date.

Kimacia said: "I am excited to be working with the CISI, with the aim of actively promoting the benefits of holding CISI exams, building a membership network and community in Kenya and, more widely, in the East African community. We are currently working with the CMA on a continuing professional development programme to support our qualified professionals."

2,500

The number of CISI exams taken in Kenya since 2014

54

Integrity at Work
Interactive workshops
presented in ten
countries in 2017/18

KAZAKHSTAN

The Astana Financial Services Authority in Kazakhstan is the first regulator to join the CISI as a full Corporate Supporter. It governs the Astana International Financial Centre (AIFC), which was launched by the country's president in July 2018. The AIFC's initial focus will be on asset and wealth management – including Islamic finance – and a suite of CISI exams is being deployed to help young Kazakhs support its growth. The new centre, whose development is strongly supported by the UK's Foreign & Commonwealth Office, is run on common law principles, with a court system headed by Lord Woolf, former Lord Chief Justice of England and Wales.

PHILIPPINES

Country head:

Andrella Guzman-Sandejas



The CISI has been accredited by the Professional Regulation Commission of the Philippines as an online provider of continuing professional development. This allows members and non-members who have a Certified Public Accountant licence in the Philippines to use our Professional Refreshers to fulfil the regulatory requirements to maintain an active licence.

UNITED ARAB EMIRATES

Regional director Middle East, India &

Sri Lanka: Matthew Cowan, Chartered MCSI



The CISI and the Abu Dhabi Global Market (ADGM) have agreed to enter into an MoU to confirm the collaboration between the parties for the establishment of a financial educational hub. The hub will include, but is not limited to, the development of training programmes to meet the skill requirements for maintaining a highly effective workforce.

The CISI will assist the ADGM Academy in formalising study pathways, which will highlight a Financial Educational Hub Development Plan. The parties work together to meet the developmental and training needs of the financial services sector in the UAE, contributing to enhancing the UAE's position as an international financial centre. Students will be using training facilities to contribute to the development and implementation of the highest standards of financial professionalism, ethics and conduct in the sector.

INDIA

Country head:

Ganesh Iyer



The CISI director of global business development, Kevin Moore, Chartered FCSI (pictured left with SBI chairman Rajnish Kumar), together with CISI India, delivered an Integrity workshop to the leadership team at the largest government owned bank in India, the State Bank of India (SBI), on 21 June 2018.

The workshop, jointly organised by CISI India and SBI, is part of a 'Power speak' series where eminent speakers address the leadership team at SBI. Ganesh Iyer (pictured below right), country head, CISI India, said that the CISI is "gradually moving towards reaching out to the most prestigious banks in India" to promote professionalism in knowledge, skills and behaviour.

Kevin was also a panellist at a session on 'Professionalism & ethics' at the Indian Institute of Banking & Finance (IIBF) the following day. The panel included IIBF CEO Dr Jibenda Misra and Atul Kumar, chief ethics officer at SBI. ●



CISI LIVERPOOL WORK EXPERIENCE WEEK AND CAREERS IN INVESTMENT MANAGEMENT CONFERENCE 2018



A Level students taking CISI qualifications from schools and colleges across Merseyside recently had the opportunity

to meet eminent leaders in the financial services sector, including Dame Colette Bowe (pictured), chair of the Banking Standards Board, and CISI CEO Simon Culhane, Chartered FCSI.

The 32 students took part in the CISI's annual work experience week, with staff making them welcome at Blankstone Sington, Investec Wealth & Investment,

Pavis Financial Management, Pershing, a BNY Mellon company, Rathbone Investment Management, Tilney Investment Management Services, and WEALTH at work. One student was offered summer work as a result.

The week culminated in a two-day conference in the iconic Port of Liverpool Building on the Liverpool waterfront.

Dame Colette spoke on the first day about a career in investment. The advice she gave, both in her talk and informally over lunch, made a real impression on the students.

Simon spoke on the importance of ethics and integrity in the sector, and presented the students with challenging ethical dilemmas in an

interactive session which generated lively debate.

Students participated in a *Dragon's Den*-type challenge, *Liver Bird's Den*, presenting an investment pitch of a FTSE 100 company to a panel of experts. The Burberry team won the prize for their in-depth analysis and argument.

Students enjoyed the week and gave positive feedback, with one saying it "provided new perspectives and widened my knowledge".

- If you or your firm can offer support to our education work in Liverpool and in other regions nationally, please contact educationdevelopment@cisi.org
- For a detailed write-up of the week, visit cisi.org/liverpool18

THE CISI ISLE OF MAN BRANCH IS 25

The CISI Isle of Man branch recently celebrated its 25th anniversary. The branch was one of the first to have 100 of its members become personally Chartered. Branch president Paul Kneen, Chartered FCSI (pictured alongside founding president Rodney Margot, Chartered FCSI) said: "The CISI as an organisation has helped to educate and support the careers of many professionals working in the finance sector over the past quarter century. Here's to the next 25 years!"



CISI AGM ON 10 OCTOBER 2018

The annual general meeting of the Institute will be held on Wednesday 10 October 2018, from 10.30am to 11am, at CISI, 3rd floor, 20 Fenchurch Street, London EC3M 3BY.

Fellows (FCSI) and Members (MCSI) of the Institute may vote on the resolutions by:

- voting online using the link* in the MyCISI section of the Institute's website
- appointing a proxy to attend the meeting and vote on your behalf
- appointing the Chairman as your proxy
- attending the AGM in person.

Voting forms, whether completed online or sent by post, must be received by the Company Secretary not later than 11am on Monday 8 October 2018.

*online voting available from Friday 14 September.

Correction and apology

In 'The new research regime', published in the Q2 2018 edition of *The Review* on page 26, we report that a survey in September 2017 of 400 of the largest European fund managers by the CFA Institute finds that 85% plan to absorb the cost of research rather than pass it on to clients. This should have read 53%. The CISI apologises for the error.

Events preview

The CISI offers many opportunities to help you meet your requirements for professional development. Below are just some of the highlights of the Institute's CPD events programme, but for comprehensive details and to book, please visit cisi.org and click on the 'Networking & events' section.

CISI FINANCIAL PLANNING ANNUAL CONFERENCE 2018

1-2 OCT Hilton Birmingham Metropole

LONDON CPD

11 SEPT Distributed ledger technologies – an emerging buy-side consensus

24 SEPT Chartered members & Fellows masterclass: Behavioural finance – time to look in the mirror?

11 OCT Operations Forum: How do you implement an effective operational control framework?

24 OCT Dealing with difficult people – people skills for effective teams

31 OCT Wealth Management Forum: WOW! Customer service

8 NOV Thomson Reuters Lipper – expert forum

REGIONAL CPD

10 SEPT Estate planning & AIM market update (Guildford)

12 SEPT Communicate to connect – people skills for effective teams (Essex)

12 SEPT Roadmap for pensions reform 2018–2023 (Dublin)

12 SEPT Financial planning morning (Newcastle)

13 SEPT Building engagement and market update (Preston)

SOCIAL EVENTS

7 SEPT Liverpool, Chester & North Wales branch netball tournament

13 SEPT Scotland branch annual dinner & awards night

14 SEPT Liverpool, Chester & North Wales branch football tournament

27 SEPT West Country branch annual dinner

27 SEPT Yorkshire branch quiz night

- If you have an idea for an event or would like to contribute at one of our events, please email cpdevents@cisi.org

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

Networking event

Meet executives of a diverse selection of Alternative Investment Market-listed, inheritance tax-exempt companies on an informal basis at the event, held at New Walk Museum, 53 New Walk, Leicester on Wednesday 24 October

Fund managers of existing IHT-exempt funds will have the opportunity to reappraise known companies as well as meeting companies not currently on the radar.

Fund managers who may be considering establishing IHT portfolios will learn about ascertaining the potential and the pitfalls of investing in individual

securities rather than collectives.

The symposium will also demonstrate what is happening on the 'coal face' of the investment business.

The companies have been selected for their diversity and do not represent a recommendation to buy or sell the shares.

- Visit cisi.org/events for more details

QUICK QUIZ

The Review's quick quiz features questions from CISI Professional Refresher, an online learning tool. The popular product consists of more than 100 modules covering topics including anti-money laundering, the UK Bribery Act, information security and data protection. The answers are on page 47.

1. Which of the following constitutes sensitive personal data?

- A An employee's home address
- B A 'sick note' from an employee's doctor
- C A photo of an employee, their spouse and minor children in the organisation's staff magazine
- D The IP address of an employee's home computer

2. What are three characteristics of 'big data'?

- A High volume, high velocity, and high risk
- B High volume, high risk, and high variety
- C High risk, high velocity, and high variety
- D High volume, high velocity, and high variety

3. MiFID II includes a definition of which type of trading?

- A Algorithmic
- B Abusive
- C Real time
- D Carbon emissions

4. Which of the following statements about the Fifth Anti-Money Laundering Directive is correct?

- A It is an outcome of a joint initiative across G20 countries to combat money laundering in these jurisdictions
- B It serves only as guidance to EU member states for managing anti-money laundering risks
- C More than half of countries assessed are not implementing it effectively
- D Countries must comply with its requirements and individually transpose them into their national legislation

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



Financial planning news

A snapshot of financial planning news and events, by Jacqueline Lockie CFP™ Chartered FCSI, CISI head of financial planning

PARAPLANNER CONFERENCE A GREAT SUCCESS

The two-day conference from 13–14 June, themed ‘Rise to the challenge’, was packed with technical and soft skill-based sessions to help delegates progress in their careers. On the first day we learnt about our behaviours and how they affect those around us. This included a workshop on interpreting body language, led by Bob Malloney. Everyone I spoke to had great takeaways from this, from how to approach and discuss matters outside their comfort zone, such as pay and performance, as well as learning how to break the cycle of our natural traits to use our skills to benefit clients. Learning about where to sit in meetings was fascinating, with some changes suggested that could be made in client meetings to help put clients at ease and open to discuss their

financial circumstances. Combining these considerations with learning about body language and behaviours will certainly help improve our communication with others on a daily basis in our teams too. A highlight for me was the talk by Michelle Meredith and Martin Ruskin CFP™ Chartered MCSI, both from Paradigm Norton, who spoke about overcoming conflicts between planner and paraplanner. But I think Aleksandra Sasin from Navigatus Outsourced Paraplanning stole the show with her personal story of how paraplanning changed her life. This was truly inspirational, with some paraplanners saying it was the best talk they’d ever heard at a Paraplanner conference! To register your interest for 2019, please visit cisi.org/registerppc19

CERTIFIED FINANCIAL PLANNER™ CERTIFICATION AND COURSES

The new five-day courses to guide and support creation of your own financial plan for assessment have been a real success. They ran to the end of July and will start again in September, with more locations in Scotland and the South West being organised. The CISI is building the new CFP certification I told you about some months ago. We are working closely with the Financial Planning Standards Board in Denver to ensure we meet the global standards, but we will also ensure it is acceptable to the

UK market. More and more financial advisers as well as wealth managers are calling themselves financial planners and offering a financial planning service. But there is no consistency or validated process for all this, other than the international CFP examination. It is important that we all come together to support advisers of all varieties on their financial journey to a CFP professional. To that end we are looking at resources and training to support new and interested parties.

FINANCIAL PLANNING CONFERENCE 2018 1-2 October 2018, Hilton Birmingham Metropole

If you have booked already, please remember that the conference will start at 9am sharp on Monday, so please plan your travel for that day or book an extra night’s accommodation for the Sunday night before. We have reduced the time spent at the conference from three days to two, following feedback from the 2017 conference that delegates wanted content consolidated into two full days, not spread over three. The content has been created by financial planners for financial planners, paraplanners and wealth managers looking to learn more about how financial planning can have a positive impact on their clients’ lives.

INTERNATIONAL FINANCIAL PLANNING

I am active in the international financial planning scene, collaborating with the other 25 countries that are affiliated with the CFP designation to develop financial planning globally, and help clients and the public understand the benefits of having a financial plan of their own. You will see some new things during World Financial Planning Day on 3 October as all the countries come together in a global campaign. The day also kicks off the UK Financial Planning Week. I’m really excited to be involved in this important work and together we can help improve people’s lives. To register your interest for the UK Financial Planning Week, visit cisi.org/supportfpw

REVIEW MAGAZINE SUBJECTS

If you have any ideas for subjects to cover in the financial planning sections of *The Review* magazine, please contact me at jacqueline.lockie@cisi.org or email Janet Walford OBE, chairman of the Financial Planning Editorial Panel, at financialplanning@cisi.org with Janet’s name in the subject line.

RETIREMENT WEALTH PLANNING, YOUR WAY



We were one of the first SIPP providers in the UK and haven't stopped innovating. We leverage expertise through our respected technical experts, offering everything from blogs on topical issues to masterclasses and technical training, tailored to meet your specific business needs.

Head of Technical Support Neil MacGillivray's latest blog, 'When a lifetime allowance charge is the lesser of two evils', examines the lifetime allowance (LTA) charge and inheritance tax (IHT). In May 2018, it was revealed that the amount received by HM Revenue & Customs in respect of the LTA charge has almost trebled in three years, from £40m in 2014/15 to £110m in 2016/17.

Individuals who breached the allowance more than doubled over the same period from 1,020 to 2,410. It doesn't take a rocket scientist to identify the reasoning behind

this, considering the standard LTA reduced from £1.5m to £1.25m in 2014/15 then to £1m in 2016/17. Even with the standard LTA in 2018/19 increasing in line with CPI to £1.03m, the trend for an ever-increasing tax take will continue.

One should never base a decision on one form of tax but consider the impact of all taxes throughout, and even after, an individual's lifetime.

IHT is becoming an increasing problem for many and may be the greater evil. Despite the introduction of the residence nil-rate band, IHT receipts hit a record high of £5.2bn in 2017/18 and now impacts one in ten families. The benefits of tax relief on pension contributions, the low tax environment that the pension fund can grow under, and the fact that the pension fund should be exempt from the IHT regime may be sufficient to absolve the LTA charge.

Visit our Technical Hub on www.jameshay.co.uk to read the full blog and other technical resources and support.

CISI FINANCIAL PLANNING CORPORATE SUPPORTERS Q3 2018

Gold

Aegon
www.aegon.co.uk

Standard Life
www.standardlife.co.uk

Corporate AIC
www.theaic.co.uk

Dimensional Fund Advisors
www.dfauk.com

Financial Express
www.financialexpress.net

First Trust Global Portfolios
www.ftglobalportfolios.com

Hearthstone Investments
www.homeinvestor.fund

James Hay Partnership
www.jameshay.co.uk

Just
www.justadviser.com

Independent Health Care Solutions
www.ihtcs.co.uk

NS&I
www.nsandi.com

P1 Investment Management
www.p1-im.co.uk

Parmenion
www.parmenion.co.uk

Puma Investments
www.pumainvestments.co.uk

Royal London
www.adviser.royallondon.com

Schroders Investment Management
www.schroders.co.uk/adviser

Transact
www.transact-online.co.uk

Vanguard
www.vanguard.co.uk

MAKING THE MOST OF YOUR CLIENTS' ISA

There have been some significant changes to ISAs over the past few years, notably the ability to withdraw funds and replace them in the same tax year while maintaining the tax advantaged status of the relevant funds, known as the Flexible ISA.

Flexible ISA

Few stocks and shares ISA managers have changed their terms and conditions to include this flexibility. For those that have, their clients can withdraw any amount from their ISA, and replace it before the end of the tax year without the replacement amount counting as a new subscription.

When funds are withdrawn and replaced from an eligible ISA:

- Current year subscriptions are withdrawn first – these can be replaced with any ISA manager that offers the facility.
- Any withdrawal made in excess of current year subscriptions will be from previous years' subscriptions – this amount must be replaced in the ISA from which it was withdrawn.
- If the previous years' subscriptions ISA is closed following the withdrawal, this amount cannot be replaced unless this ISA is reopened.

Previous years' subscriptions will always be replaced first, where still possible (see above), if both current and previous year withdrawals have been made.

Example

If a £20,000 subscription is made on 1 June 2018, and £40,000 is withdrawn on 1 September 2018, £20,000 counts against the current year subscription and the other £20,000 against previous years. The £20,000 withdrawn in the current year can then be replaced in any ISA but the remaining £20,000 must be replaced in the ISA from which it was withdrawn. If the previous years' subscriptions ISA was closed following the withdrawal, it will not be possible to replace the full £40,000 but only the £20,000 in respect of current year subscriptions.



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JONATHAN GIBSON CFP™ CHARTERED MCSI, MANAGING DIRECTOR OF WELLS GIBSON IN SCOTLAND, DESCRIBES AN INTEGRATED APPROACH TO DELIVER 'PROPER WEALTH PLANNING'

Achieving real wealth

WHEN DID YOU BECOME AN ACCREDITED FIRM? WHAT HAS HAPPENED SINCE?

Wells Gibson launched in April 2016 and was awarded Accredited Financial Planning Firm™ status in the summer of 2016. We launched with 28 client families and this has grown to 45. In our first year of trading, we operated from home and relied heavily on outsourcing, especially administration and paraplanning. In April 2017, we moved into Prospect House, a traditional stone-built, former mansion house, which provides Wells Gibson with serviced office facilities, a staffed reception area and client meeting rooms. Also, in the past year we recruited Josh Smith as an associate (trainee financial planner) and Rachel Morrison in client services.

Our priority in the first three years is to focus on client relationship management; defining workflows and processes; implementing a robust investment process; and developing centres of influence and professional connections.

WHAT HAS ACCREDITED FIRM STATUS BROUGHT TO YOUR FIRM AND WHY SHOULD OTHERS SEEK TO BECOME ACCREDITED?

The application process provides a valuable health check for a financial planning firm.

We are now very clear about who we best serve, what we do, and how and why we do it. Wells Gibson is the only accredited financial planning firm in Dundee, which is an important differentiator in the marketplace. Furthermore, as an accredited firm, it's great to be part of a community of like-minded businesses and financial planners, always prepared to share ideas, give support and provide guidance on a range of issues.

WHAT SORT OF BUSINESS IS IT AND WHAT SERVICES DOES IT OFFER? WHAT'S YOUR USP?

Our vision is to see lives changed, one client, one family at a time and our mission is to bring clarity, contentment and certainty to the financial lives of our clients. We care about their financial future and believe real wealth is about much more than money and possessions. We focus on what is important to our clients, answer their big questions, make it easier for them to visualise and achieve the life they want, and create a plan which gives them the greatest chance of a successful investment outcome and best life possible from the money they have.

Our proposition is guided by a consultative model, which defines a world-class wealth management business as incorporating investment consulting,

// OUR MISSION IS TO BRING CLARITY, CONTENTMENT AND CERTAINTY TO THE FINANCIAL LIVES OF OUR CLIENTS //

advanced planning and relationship management – we refer to it as proper wealth planning and sensible investing.

We will soon be launching a secure web-based client portal and mobile app in partnership with moneyinfo, which will give our clients the opportunity to see their entire financial life in one place. They will have access to their banking, property, pensions, savings and investments, mortgage, credit cards and insurances. They will also see their total net worth and spending via interactive and animated graphs. The app will provide a document store for their paperwork. This will provide even greater transparency in clients' dealings with us.

We are delighted to be one of the first advisory firms in Scotland and the first in East Scotland to launch the portal and app.

HOW DID YOU GET INTO FINANCIAL PLANNING?

I was introduced to it by [ex IFP CEO] Nick Cann in 2002 and this was followed by a presentation around 2004 by the late David Norton. Both men inspired me to see a profession was emerging and I wanted to be part of it.

WHAT'S THE BEST THING ABOUT BEING AT A FINANCIAL PLANNING FIRM?

I love meeting and listening to people and hearing about their life. It's a great privilege to advise and serve fantastic clients and I thrive on the responsibility entrusted to us.

WHAT DO YOU LIKE ABOUT THE CISI?

The annual UK Financial Planning Conference is the perfect environment to meet others who have a strong financial planning ethos and similar client service propositions and it's always a real encouragement to meet other professionals who have similar challenges, goals and values.

Being affiliated with the CISI gives Wells Gibson kudos as it's the largest professional body representing investment professionals. This is important as ultimately we are seeking to grow our business with client families who are typically near, at or in retirement and require ongoing wealth planning.

WERE YOU INVOLVED IN FINANCIAL PLANNING WEEK 2017? IF SO, WHAT DID YOU DO?

As we develop, we hope to become more involved with Financial Planning Week.



JONATHAN GIBSON CFP™ CHARTERED MCSI Jonathan is managing director of Wells Gibson, an independent, family-owned business based in Dundee, Scotland.

Wells Gibson was founded in 2016 and represents Jonathan's career goal to own, manage and lead a business which delivers 'proper wealth planning' and 'sensible investing'.

Prior to establishing Wells Gibson, Jonathan was co-founder and co-director of Verus Wealth, Dundee (est. 2005) and AAB Wealth, Aberdeen (est. 2011), two successful and national award-winning businesses established in conjunction with two leading firms of accountants.

Jonathan's career in financial services started with Royal Bank of Scotland in 1988, before moving to Aberdeen in 1991 to work with Britannic Assurance. He has 25+ years' experience as an adviser to private clients and is a CERTIFIED FINANCIAL PLANNER™ professional, and Chartered Wealth Manager.

Jonathan lives in Dundee with his wife Claire, a primary school music teacher, and three daughters, Christina, Hannah and Katie.

In 2017 we were able to offer advice clinics/sessions without obligation and at no charge.

WHAT DOES A TYPICAL DAY LOOK LIKE?

As a young business with a desire for growth and to see more lives changed, one client, one family at a time, it's fair to say no day is typical!

WHAT ARE YOUR KEY TIPS FOR OTHER PLANNERS?

- ▶ Commit to lifelong learning and don't be afraid to ask for help.
- ▶ Stick to doing what you're best at and delegate and outsource the rest.
- ▶ Working in a niche sector – 40% of our clients are dentists, mostly private – means you can become the go-to person for that area. This takes time and requires centres of influence and doesn't necessarily mean you don't advise and serve other clients, but it does give you a focus.
- ▶ We need to embrace technology if we want our businesses to become more efficient and attractive and I'm convinced the winning businesses will embrace dynamic client relationship management with integrated workflow features; engaging financial planning software; intuitive, online investment experience platforms; and interactive client portals. ●

// BEING AFFILIATED WITH THE CISI GIVES WELLS GIBSON KUDOS //

Radio presenting was a lifelong ambition for Francis Klonowski



On the record

FINANCIAL PLANNER AND HOSPITAL RADIO PRESENTER FRANCIS KLONOWSKI HAS BEEN HELPING LISTENERS RELAX FOR ALMOST 40 YEARS. **LORA BENSON** REPORTS

Francis Klonowski CFP™ Chartered FCSI had over 40 years of a portfolio career before the term became fashionable.

Running parallel to a career that began in the priesthood, detoured to the hospitality sector and culminated at Klonowski & Co financial planning, was his lifelong ambition to work in radio or journalism – a goal he achieved via his hobby as a hospital radio presenter at Radio Allerton, at Chapel Allerton Hospital, Leeds.

“I left school in Sheffield at the age of 11 to attend a Catholic seminary with the intention of becoming a priest, but left around two years before what would have been my ordination. I had already begun my theology degree at Durham University, from which I graduated in 1975, but my interests lay elsewhere. I wanted to go into radio journalism or presenting but couldn’t find a way into it, and eventually decided to stay in catering (a sector I’d worked in during university holidays), moving to

// THE MUSIC I PLAY IS FAIRLY LAID-BACK, CHOSEN TO HELP THE LISTENERS RELAX //

Leeds in 1978 to work for a well-known local firm. In 1989 I abandoned all that for a complete career change to financial services, and eventually started my financial planning firm there in 1996.”

Learning the ropes

Francis’ decision to change career led to the fulfilment of his ambition to work in radio. “I saw a snippet in the local paper looking for radio volunteers for Chapel Allerton hospital radio. I met the station’s founders in September 1989 and I’m still there.”

With no radio production or journalism training, Francis had to quickly pick up some essential skills: “Perhaps the most intricate skill I learnt was to edit a recording on reel-to-reel tape, using splicing tape and a razor blade. I also learnt how to use a portable reel-to-reel recorder and would go out to record interviews, mainly with sports people. I’m mostly self-taught, through listening avidly to professional radio presenters, especially my broadcasting heroes Johnnie Walker, Paul Gambaccini and ‘Whispering’ Bob Harris.”

Francis’ big break came when the main presenter was off for a few weeks and he had to do the Friday night slot between 7–9pm, following which the slot remained his.

The first time he had to ‘drive’ a programme he had no warning: “The usual

presenter hadn’t turned up, so I quickly selected a few records. About three tunes in, I looked up to see the station chairman waving frantically through the glass, before poking her head and remonstrating with me to ‘think’ before choosing the music. The song was ‘Don’t fear the reaper’. It’s a lesson I’ve never forgotten!”

His slot is named the *Album Show* because Francis feels that there is a lot of good music hidden away on albums that never see the light of day. He has around 600 vinyl albums and 1,100 CDs. “The music I play is fairly laid-back, especially chosen to help the listeners feel relaxed, bearing in mind their situation.”

Francis has interviewed some famous musicians on his show, including former members of the folk band Lindisfarne, which produced big selling albums in the 70s. But the highlight for him was interviewing Bob Harris. “He’s been an inspiration for many years and much of the music I play is by singers and bands I first heard on his shows.”

This year is Radio Allerton’s 40th birthday. “We held an open day in April, with special live programmes and a display of archive material in the hospital foyer. All tracks on my opening programme were from our year of inception, 1978.”

Some people, of course, might associate hospital radio with Alan Partridge and the Norwich fictional hospital station Radio Smile. Francis, however, prefers a different comic character: “I think the spoof hospital radio DJ Ivan Brackenbury is more appropriate, from the early 2000s. Fortunately, the comic character is nothing like reality. We’ve always discouraged applicants who just want to play at being DJs. Some of our former members have gone on to media careers – including Chris Choi (ITN) and Richard Quest (CNN).”

For Francis, making someone’s stay in hospital a little more bearable motivates him: “I try to make my presenting as professional as possible, so patients find it indistinguishable from ‘normal’ radio – or perhaps even better. Just because it’s a hobby doesn’t mean it’s amateur.” ●



Contact jane.playdon@cisi.org if you have a hobby you think will interest other CISI members. You will receive a £25 voucher if we publish your story.

“

Investors who saw the commercial potential of personal data, and were able to pick the winners, have been richly rewarded ”

But what next for the personal data pioneers? p.17



US\$4.5tn

The total amount of assets the US Federal Reserve acquired under its quantitative easing programme
p.22

“Banking is about the greater economy and the greater good”

Marshall Bailey OBE, chairman, Financial Services Compensation Scheme, pp.25–28



1 in 4

More than a quarter of couples questioned in a survey by relationship charity Relate say financial worries put their relationship under pressure, *pp.35–37*

50

The average age of a financial planner – and this figure is on the rise. How can financial planning firms recruit and retain the next generation?
pp.38–40

SPECIAL REPORT: ALGORITHMIC TRADING

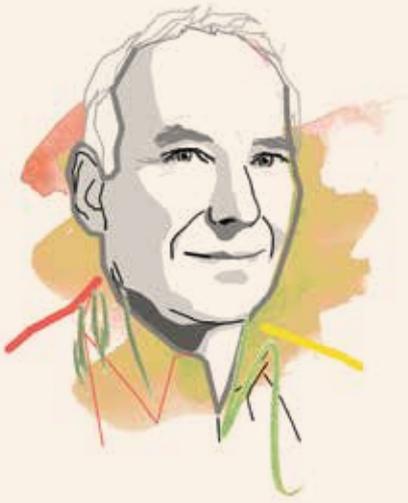
“

This was a Wall Street veteran, calling their finance professor, asking what was going on. That’s not a good sign ”

MIT professor Andrew Lo, on taking a call from a former student in the wake of the August 2007 ‘quant quake’, pp.29–34

pp.16–40

In-depth analysis of the latest trends in the financial services sector



FIRST PERSON

The QE hangover

THE DEMISE OF QUANTITATIVE EASING SHOULD BE A GOOD THING, BUT INVESTORS HAVE BECOME HOOKED ON THE BENEFITS THE INFLUX OF MONEY BROUGHT. NOW THEY ARE WORRIED ABOUT WHAT MIGHT TRANSPIRE IN A POST-QE WORLD

Anthony Hilton
FCSI(Hon)

“ We live in a zone of anxiety. According to a 2013 study by the behavioural team at Barclay’s Wealth, none of us live in the long term; we are always buffeted financially and emotionally by short-term uncertainty.

We should try to take a long-term view. As part of its study, the Barclays team looked at the MSCI World Index of developed equity markets in 24 countries and plotted it for more than 40 years from 1970. It then made a heat map to analyse what an investor would get.

It showed that any potential losses were all short term, whatever period was taken, and the bulk of them happened in the two years from starting to invest.

On the other hand, all investors showed a profit in, at the most, 12 years – assuming they did not sell out. That was the extreme; almost all the combinations, in fact, showed a profit after just five years, however bad the markets and high the investors’ shares might have been to start with. There was only one occasion when it took more than ten years to get into profit, and that was the 12 years just mentioned.

Provided you have a diversified portfolio and hold for the long term, it does not really matter when you buy. There are highs and lows in the market, but they become less and less significant with every passing year.

A wall of worry

That ought to be the end to the matter, but markets always have to endure a wall of worry and currently they are anxious about quantitative easing – or rather they are worried about the opposite.

Central bankers have been funnelling in huge amounts of stimulus for ten years now

after the financial crisis, but it is coming to an end. Indeed, the US has already taken some steps to raise interest rates, as noted elsewhere in this publication (see p.22).

This ought to be a plus for investors because it should mean that the economy can stand on its own two feet without the added stimulus. That is certainly the central banks’ view. But instead many people seem to be hooked on excess, rather like any other addiction – they know they ought to stop, but not now. The rush of money has caused a huge surge in markets and if that comes to an end, what will happen to prices? To quite a few investors, it does not bear thinking about.

In addition, a large number of companies in emerging markets have borrowed heavily thanks to low rates and the flood of money. The debt (largely in dollars) is a multiple of what it was before the financial crisis. The trouble is that some of these entities cannot cope with the higher rates that are likely to materialise and that will cause a cutting back of investment, a cutting back of production, and even bankruptcy. That would put severe pressure on those markets.

The other aspect of this is the huge growth of passive investing, where practitioners think shares are going to go up and active investing is not worth the candle because any gains are likely to be absorbed by costs. What they do not think of is the downside – a bear market, when passive investors are guaranteed to lose money but active investors might make a profit.

Hendrik Bessembinder, an American economics professor, shows that most stocks entering an index ultimately go out again and people would be better off buying Treasury bills than they would letting these shares run their course.

Different theories

But that only works if you are an index tracker or the concomitant of that, such as an exchange-traded fund or some smart beta strategies where the investor is also locked in. It should not apply to active stock pickers because they can harness the growth that comes from the first beginning and the final exiting of the share.

However, some passive investors have a different theory. They have come to believe that the central bank will somehow always make things right so passive investment will also always be right. Even if the banks raise interest rates, it will be by less than

expected so that the boom can continue. Thus, there is no need to worry – or so they would have us believe.

No one knows what will transpire; it may be that quantitative easing causes a crash

“ The point is something somewhere will light a flame, but we do not know when or where ”

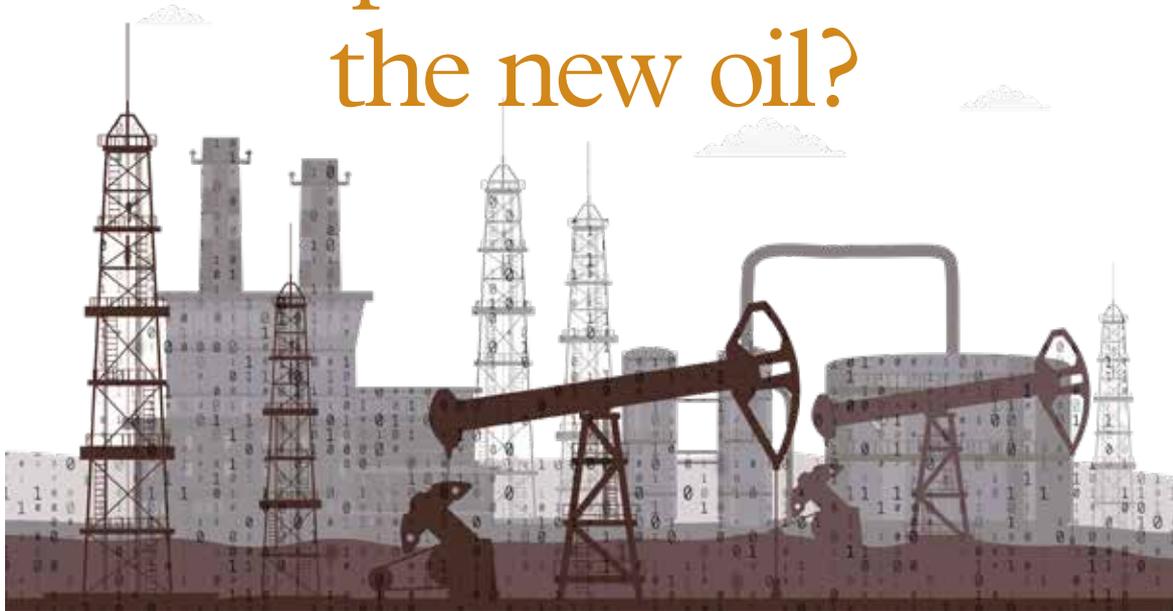
or it may be something else, be it a credit crunch or something completely different like a flash crash. The point is that something somewhere will light a flame, but we do not know when or where. Many people believe that the bull market is growing long in the tooth so it is ready for a correction, but even they do not know when it will be. Others simply do not believe it any time soon. ●

ILLUSTRATION: PADDY MILLS/SYNERGY

”

PERSONAL DATA HAS FUELLED THE GROWTH OF SOME OF TODAY'S LEADING COMPANIES. RISKS AND ETHICAL DILEMMAS ARE INCREASING, THREATENING TO DERAIL THIS TREND. **PAUL BRYANT** REPORTS

Is personal data the new oil?



Clive Humby, architect of Tesco's Clubcard and chief data scientist at Starcount, a consumer insights consultancy, first coined the phrase 'data is the new oil' in 2006. He said: "It's valuable, but if unrefined it cannot really be used ... data must be broken down, analysed for it to have value." (See boxout on page 19.)

Some, and in particular technology giants such as Amazon, Google and Facebook, have mastered this data refining process and created enormous value.

But alongside the commercial opportunities presented by personal data come risks, such as prescriptive new regulations and ethical questions, such as selling products that cause harm.

Companies using personal data now need to deal with new data collection and usage constraints imposed by the General Data Protection Regulation (GDPR), as well as emerging consumer activism such as the #DeleteFacebook movement. GDPR imposes strict rules that dictate how personal data should be gathered, managed and protected, with onerous consequences for not complying.

On the question of ethics, social media platforms and smartphone companies have been accused of designing addictive products and causing mental health issues.

Investors who saw the commercial potential of personal data, and were able to pick the winners, have been richly rewarded. Since listing on public markets,

investors in Amazon have enjoyed compound annual returns of 41% (over 20 years), Google 25% (over 15 years) and Facebook 32% (over six years).

Financial services companies are also ramping up the sophistication of their use of personal data. In early 2018, Legal & General (L&G) launched a new 'Customer risk and opportunity management' data programme to improve the customer insights it provides to intermediaries selling life insurance products.

L&G now combines and analyses its own data with data from external partners, such as customer segmentation providers. Traditional life insurance metrics about policy lapses or claims are analysed alongside 'lifestyle data', such as digital channel preferences, financial attitudes or life stage.

One early insight was that the birth of a first child was not triggering a life insurance purchase by parents to the extent expected. But, far more frequently, the birth of a second child was. This tendency could then be conveyed to intermediaries to make first-time parents aware of a common oversight.

Rob Gaunt, head of commercial management and distribution quality management at L&G, says that it's too early to quantify the benefits of the programme. But his goal is clear: "What we want is to very quickly start producing a list of consumer insights that, when presented to a group of intermediaries, 90% of them will say: 'I wouldn't have expected that'." >>

>> Investors are also using big data, including personal data, to inform their investment strategies. In its *2017 Global hedge fund and investor survey* – of 106 hedge funds and 55 institutional investors – EY finds that 78% of hedge funds currently use, or expect to use in the next 6–12 months, ‘non-traditional’ data, such as social media data, credit card data and search trends. In the 2016 survey, the proportion is less than 50%.

Institutional investors are buying the idea. They told EY that 24% of the hedge funds in which they invest currently use non-traditional data and they expect that proportion to rise to 38% within three years.

The risks of using personal data are significant, and rising, but some firms and investors have been apathetic.

In July 2017, Equifax, the consumer credit scoring agency, discovered that it had been the victim of a

hacking attack that compromised sensitive personal data of 143 million US consumers. It took more than a month for Equifax to publicly disclose the breach.

A week later, its share price had dropped 37%. The CEO, chief information officer and chief security officer stepped down. Equifax later confirmed it was party to more than 240 consumer class action lawsuits, as well as financial institution and shareholder class action lawsuits. And as of 30 June 2018, US\$314m of expenses had been recorded related to the incident.

Equifax and its investors had been warned. MSCI, an agency that rates companies on their environmental, social and governance (ESG) performance and risk exposures, downgraded Equifax to its lowest possible ESG rating in August 2016. It reported that Equifax was “vulnerable to data theft and security breaches”.

Investors largely ignored the warnings. The Equifax share price gained over 25% between December 2016 and September 2017, when the breach was announced. Following the plummet in the immediate aftermath of the incident, the share price has regained some ground but, as of 2 August 2018, still trades at around 12% lower than the level before the incident was announced.

This is not an isolated case. In 2015, UK telecommunications company TalkTalk had its systems breached, compromising the personal data of 157,000 customers. In its 2016 annual report, TalkTalk reports that due to the breach, it has incurred £42m of exceptional expenses and lost 95,000 (or just under 2.5%) of its broadband customers. The Information Commissioner’s Office imposed a record fine of £400,000, with Information Commissioner Elizabeth Denham saying: “TalkTalk’s failure to implement the most basic cyber security measures allowed hackers to penetrate TalkTalk’s systems with ease.”

Today, in a ‘live’ GDPR environment, for companies handling the personal data of EU consumers, these consequences could be even more severe. The fines associated with this legislation – the greater of €20m or

up to 4% of annual revenue – have been well publicised and have the potential to dwarf previous fines imposed for failing to adequately protect personal data. According to cyber security firm NCC Group – which created a model to determine what tier of fine would have applied to TalkTalk under GDPR legislation – the £400,000 fine might have been £59m.

MSCI says the risks are particularly severe for the financial sector. Writing on the MSCI website, Matt Moscardi, executive director, ESG Research, says: “Of the companies with revenues in the EU that MSCI ESG Research identifies as particularly at risk of privacy and data security issues, 40% were in the financial sector.”

The Equifax and TalkTalk events illustrate some of the harsh financial, legal and reputational consequences of inadequate personal data management. But the reactions of consumers are not consistent. While TalkTalk experienced a quantifiable consumer exodus, in the aftermath of the Cambridge Analytica saga, Facebook didn’t. Despite a relatively high-profile #DeleteFacebook campaign and extensive press coverage about consumer outrage, daily active users (DAUs) continued to increase during the first half of 2018 (5% more DAUs compared to 31 December 2017). In Europe, DAUs did decline by 1% in Q2 2018, but this change to Facebook’s European growth trend (DAUs were previously growing by around 1% per quarter) has been attributed to the introduction of GDPR as well as reputational and privacy concerns. In a study of users’ reactions to the Cambridge Analytica event, research company AppOptix concluded: “It is clear that declines in short-term Facebook app use were non-existent. That is, consumers shrugged off the incident and have maintained their usage patterns.”

Ethical pressures mounting

Companies and investors also have to grapple with ethical questions. Speaking in November 2017, Sean Parker, an early Facebook investor, said: “The thought process that went into building these applications, Facebook being the first of them, was all about: ‘How do we consume as

£59m

The amount Talk Talk’s £400,000 fine for a data breach might have been under GDPR



much of your time and conscious attention as possible?’ God only knows what it’s doing to our children’s brains.”

Facebook itself has acknowledged the dangers. A December 2017 Facebook Newsroom article – ‘Hard questions: is spending time on social media bad for us?’ – states: “In general, when people spend a lot of time passively consuming information – reading, but not interacting with people – they report feeling worse afterward ... A study from UC San Diego and Yale finds that people who click on about four times as many links as the average person, or who like twice as many posts, report worse mental health than average in a survey.”

Big data algorithms have also been accused of reinforcing discrimination. In her 2016 book, *Weapons of math destruction*, data scientist and former hedge fund quant Cathy O’Neil says big data algorithms have seen the poor being caught in a “death spiral of modelling”.

One such example is that poor people are more likely to have bad credit and live in high-crime neighbourhoods. Because of this, algorithms used in recruitment score the poor as high-risk and block them from jobs. Other algorithms access this information and increase the cost of credit and insurance, making their financial position even more precarious and driving their credit score down further.

The upside for consumers

But it’s not all downside for the consumer. They benefit from having their personal data used to create and refine products. In wealth management, moneyinfo provides financial advisers with a personal financial management (PFM) and client portal tool to offer to clients. The app links to and analyses data from credit cards, bank accounts, mortgages, investments, pensions, and even insurance policies. Clients see a complete, up-to-date picture of their finances; can access tools such as spending pattern trackers; and receive a more sophisticated service from their advisers.

Although consumers may think that their adviser has simply presented them with a new set of digital tools (the moneyinfo app will be branded by the adviser), multiple parties are required to make these modern tools function. And consumers now need to be made aware of how their data moves around and where it is stored – for example, it is common for companies to store their data ‘in the cloud’ at an outsourced data centre. Consumers can take some solace from knowing that these data centres, if storing the data of EU consumers, must also be GDPR compliant.

The personal data landscape of 2018 typifies the extremes of the digital economy. Enormous commercial opportunities exist alongside potentially destructive risks and disturbing ethical dilemmas. One misstep under the tough new GDPR regulations could leave a firm reeling from the financial and reputational damage of mishandling personal data. Investment decisions – such as picking winners, losers and ethically sound investments – are only going to become more complicated. ●

THE VALUE OF PERSONAL DATA IN 2018: SHIFTING SANDS

Personal data is sometimes bought by organisations in a straightforward commercial transaction with an explicit value. And sometimes it is collected in exchange for a service, where the value exchange is not as clear.

Clive Humby, chief data scientist at consumer insights consultancy Starcount, says traditional ‘data brokers’, which sell lists of consumer data for marketing purposes, have been disorientated by GDPR. Some of their previous data collection methods are no longer legal. Nor can they store some of the data they did in the past.

He says: “Even pre-GDPR, at the very top end, lists very rarely cost more than 50p per name, perhaps £1–£2 per name with a pre-qualification process, such as knowing the consumer is looking to buy a new house. Post-GDPR, the quality of this data is likely to drop, and so will its value.”

Clive thinks organisations need to focus more on collecting their own proprietary data. So, a mortgage broker might create useful content for potential customers about moving house. Those interested can sign up, grant consent, and their browsing or download behaviour can be used to offer targeted, useful messages.

When customers receive a ‘free’ service in exchange for allowing an organisation to use their data, the value exchange can be opaque. Clive says that LinkedIn is a case in point. A financial adviser might create a marketing list from the connections of a wealthy client who he or she is connected to. There is a strong likelihood that many on this list would be in the target demographic of the adviser. But the client has received no compensation.

End of the ‘Faustian pact’

For its 2018 *Trends* report, Mindshare Futures, a media and technology research agency, surveyed 6,000 UK consumers and found that two-thirds knew their data had value but did not know how to use it to their advantage.

Jason Smith, co-founder and former CEO of social media data analysis firm Blurr, thinks the ‘pay-with-your data’ model is on its way out. “I can’t see this ‘Faustian pact’ continuing where a consumer gives a company their data in return for a service and the company gets to do what it wants with the data. There is going to come a point, and the younger generation are closer to this point, when people say ‘this is not fair’.”

This view is in line with the Mindshare Futures research, which finds that 69% of millennials view their own personal information as ‘bargaining chips’ to enhance their lives.



‘Complex’ and ‘appropriate’ – what do they mean?

THE DEFINITION OF ‘COMPLEX FINANCIAL PRODUCTS’, FIRST MENTIONED BY THE INTERNATIONAL ORGANISATION OF SECURITIES COMMISSIONS IN 2013, HAS BEEN THROWN INTO FOCUS AGAIN BY MiFID II’S APPROPRIATENESS RULES. UNTIL THERE IS CLARITY ON WHAT ‘COMPLEX’ OR ‘APPROPRIATE’ MEANS, THE FCA IS URGING THE SECTOR TO ERR ON THE SIDE OF CAUTION. **RICHARD WILLSHER** REPORTS

The twin issues of the complexity of some investment products and how to protect investors from taking on risks they do not understand properly have been around for a long time. The latest Markets in Financial Instruments Directive (MiFID II) has thrown them into sharp focus, as compliance with the regulation is now mandatory.

In January 2013, exactly five years before MiFID II came into force and in the wake of the financial crisis, the

International Organisation of Securities Commissions (IOSCO) published its *Final report on suitability requirements with respect to the distribution of complex financial products*.

It established nine key principles relating to these requirements. It is easy to see the echoes of these principles underpinning MiFID II’s appropriateness rules. In essence, these require that where investment services other than investment advice or managing investments are provided in relation to complex products, firms must ask clients for information regarding their knowledge and experience in the relevant field. Providers can then assess whether the service or product is appropriate and, if it is not, issue a warning to the client to this effect.

MiFID II requirements are a delegated regulation and must therefore be implemented by national regulatory authorities – the FCA, in the case of the UK. So, what is MiFID II’s definition of ‘complex’ and what is deemed ‘appropriate’?

The definition of ‘complex’

Following the call for greater clarity, the European Securities and Markets Authority (ESMA) issued an opinion in February 2014 – ESMA/2014/146 – which states, in section 9: “For the purposes of this opinion, complex products/financial instruments are those that do not meet the criteria of ‘non-complex’ as set out in Article 19(6) of MiFID and Article 38 of the MiFID Implementing Directive. Financial instruments with structures that make the risks and likelihood of return more difficult to understand, including platforms giving access to complex products, are also likely to be considered ‘complex’.”

The opinion then goes on to provide six paragraphs of product definition. These should be read carefully. A key feature is that products “should generally be considered complex” if they are made up of or compounded by financial engineering involving derivatives, indices, structures which obscure a clear view of how they are put together or work in practice or what return an investor can expect. Some might consider it arbitrary that this definition seems to take for granted that shares, bonds or other common financial investment instruments are somehow transparent and not complex. Yet any investor who can foresee returns on these

// TO QUOTE WARREN BUFFET: “YOU ONLY FIND OUT WHO IS SWIMMING NAKED WHEN THE TIDE GOES OUT” //

over time and predict their futures must have a very good crystal ball.

Suitability and appropriateness

Moving on, what does ‘appropriate’ mean? Again, the opinion is lengthy, but, in essence, before an advisory firm advises clients on a complex product, it should carry out due diligence into it according to a variety of risk and reward criteria to establish whether it is suitable.

Firms should also assess the client’s knowledge and experience of complex financial products. This particularly applies to execution-only product sales where clients have to make their own investment decisions without advice. And it applies to Undertakings for Collective Investment in Transferable Securities (UCITS) products that are not structured products.

The FCA conducted several consultations on the implementation of MiFID II and its 1,000-page policy

statement – PS17/14 – is its final set of rules on the conduct of business and client assets, among other things. Section 12 addresses the question of appropriateness.

Essentially, it says that where the definitions in the MiFID II regulations are not clear, sellers of products that might be deemed to be complex should err on the side of caution. This seems to suggest that they should treat these products as if they were complex and carry out due diligence into a client’s knowledge and experience accordingly.

As yet, it is early days. MiFID II came into effect in January 2018 and, considering how far we are into the year, there still seems to be a considerable amount of discussion about what it requires of financial firms across a range of areas touched by the directive.

However, it will be surprising if, when the market turns and investors find their investments have moved into negative territory, recriminations against both providers and advisers do not follow. To quote Warren Buffett: “You only find out who is swimming naked when the tide goes out.”

In light of this, the cautious approach the FCA suggests seems to be the obvious course of action because the onus is upon financial product providers to ensure investors are protected from the risk of buying inappropriate investments whose risks they do not properly understand. ●



FURTHER READING

To access the links, point your smartphone or PC camera at the QR code, or do the same with a QR code scanning app, downloaded onto your smartphone from the App Store.



Final report on suitability requirements with respect to the distribution of complex financial products, International Organisation of Securities Commissions



Opinion: MiFID practices for firms selling complex products, European Securities and Markets Authority



Markets in Financial Instruments Directive II implementation – policy statement II, FCA



Log in to cisi.org/pr to access our Professional Refresher module on MiFID II.

DEFINITION DIFFICULTIES

The key FCA document to look at for a concise(ish) roundup of when a product is appropriate or not is section 10 of the FCA Conduct of Business Sourcebook (COBS) in the FCA Handbook.

To summarise, the FCA explains that a financial instrument is non-complex (10.4.3) if it is not a derivative or other security that depends upon a separate rate, yield or measure to determine the investor’s right to buy or sell it. The instrument must be liquid and can be priced against independent, publicly available market data. The client is not liable for any other costs than those involved in acquiring the instrument. The information available to the buyer before buying is publicly available and enables the “average retail client” to make an informed buying decision.

However, some products defined as non-complex are in fact complex and some complex

ones may be relatively simple. For example, shares in major listed companies are not deemed complex. However, most major companies use derivative instruments and/or leverage, the risk of which an investor may therefore be exposed to by proxy.

Structured products are regarded as complex although they may simply track an index and state clearly what the returns will be under different scenarios.

A with-profits fund is categorised as a non-complex product, although its price may be based on actuarial smoothing and annual bonuses rather than actual market levels. The best course of action could be to assess each product and each customer on a case-by-case basis, at least until the current MiFID II compliance fog has lifted, but the administrative work involved could be very onerous indeed.

Unwinding QE

NOW THAT QUANTITATIVE EASING HAS HAD THE DESIRED EFFECT ON FIXED INCOME MARKETS, THE STABILISERS CAN SAFELY BE TAKEN OFF. **PHIL THORNTON** REPORTS

Ten years ago, before the onset of the global financial crisis and the great recession, bond traders spent their time worrying whether the world's main central banks would raise interest rates by a quarter of a percentage point.

Rates were around 4% in the US and the eurozone, and 5% in the UK. Then a series of banking failures that culminated in the collapse of Lehman Brothers in September 2008 brought those halcyon days to a close as central banks rushed to cut rates to close to zero.

Given the severity of the downturn, central banks would have liked to cut rates even further to provide extra support for the economy. However, cutting rates below zero is not feasible as it means central banks paying investors to hold funds.

Instead, they had to resort to unconventional monetary policies. This included publicly promising to keep rates low (known as forward guidance) and carrying out short-term injections of cash to alleviate liquidity problems.

But the most powerful new device in their tool box was quantitative easing (QE) – where central banks buy specific amounts of fixed-income or other assets to stimulate the economy and increase liquidity.

November 2018 is the tenth anniversary of the launch of QE, when the US Federal Reserve (Fed) started buying US\$600bn in mortgage-backed securities, primarily to tackle problems in the sub-prime housing market. By the end of the programme, it had bought US\$2.1tn of assets.

In November 2010, the Fed announced a second round of QE that became known as QE2, purchasing US\$600bn worth of Treasury securities and US\$250bn–US\$300bn in treasuries from the profits of the previous investments.

The Fed had to fall back on QE for the third time in September 2012. With QE3, it set out a monthly approach for purchases instead of buying in bulk. The initial budget





ILLUSTRATION: JONATHAN MCHUGH/IKON

was US\$40bn a month, rising to US\$85bn by December 2012. By the time it stopped QE in October 2014, it had accumulated US\$4.5tn of assets.

// STUDIES SHOWED QE PROVIDED SUPPORT FOR AN ECONOMY THAT WAS OTHERWISE “HURLING TOWARDS THE ABYSS” //

Across the Atlantic, the Bank of England launched QE in March 2009, initially buying £165bn of gilts (UK Treasury bonds) and ultimately purchasing £435bn after five other interventions. The European Central Bank (ECB) started QE with €60bn a month of assets, initially corporate bonds but then eurozone bonds from central governments, agencies and European institutions. It raised the programme to €80bn in March 2016 and has so far bought €2.4tn.

Lower bond rates

The aim of the policy was twofold: first, to bring down yields in the bond market to relieve pressure on businesses and households and stimulate the economy. Second, when a central bank buys corporate bonds, this makes it easier for companies to raise money in the capital markets to invest.

Speaking ahead of the Fed’s June 2018 policy announcement, former Fed chairman Ben Bernanke said an overwhelming majority of studies had shown that QE provided support for an economy that was otherwise “hurtling towards the abyss”.

Analysis has shown QE had the desired effect in the fixed income market. A study by the Pennsylvania Federal Reserve shows clear evidence: the ten-year Treasury yield dropped 107 basis points (1.07 percentage points) two days after the announcement of QE1; interest rates dropped 75 to 100 basis points around Britain’s QE announcements;

and the Bank of Japan’s purchases of almost ¥187tn between 2009 and 2012 lowered Japanese interest rates 50 basis points.

Because the yield on a bond moves in the opposite direction to its price, their value has risen sharply. This is hardly surprising given the surge in demand by central banks, which also fuelled increases in other asset prices such as equities and property.

The surge in bond prices has stirred worries about the danger of a crash in the debt markets if a sudden spike in inflation were to force central banks to start raising interest rates, triggering a fall in prices as yields rose.

Higher debt and increased asset prices – stocks or bonds – are a normal and desirable consequence of an easing of monetary policy, according to Marie-Hélène Duprat, senior adviser to the chief economist of Société Générale bank. “But they may become a concern if interest rates stay low for an unusually long time, leading to excesses.”

The world has been here before. In May 2013, Bernanke told the US Congress the Fed would at some point start to reduce its asset purchases. Bond yields spiked and equity markets fell on worries that a less aggressive monetary stance would hurt the economy and profits.

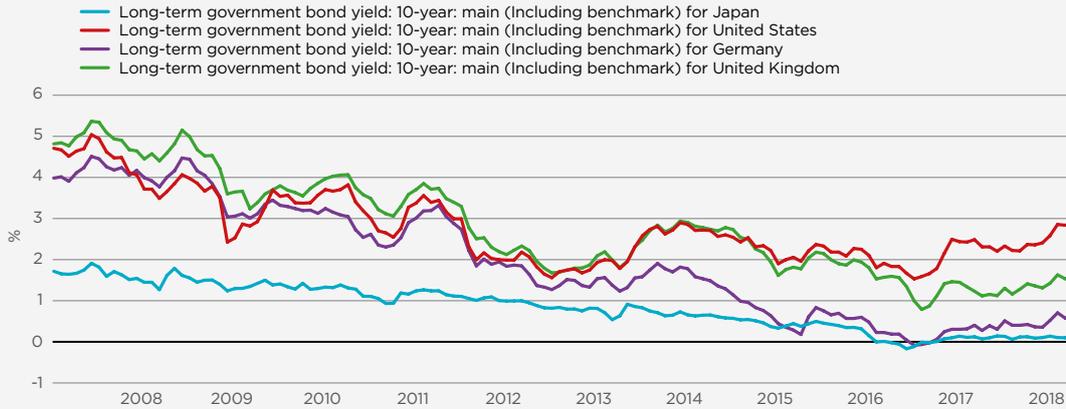
The most serious impact was on a group of emerging markets that became known as the Fragile Five – India, Indonesia, Brazil, Turkey and South Africa – all of which had built large current account deficits that left them vulnerable to rising borrowing costs. Their local currency bond yields rose by 200 to 400 basis points.

Corporate bonds, too, get hurt by rising rates, especially in emerging markets where borrowing rose over the past six years from US\$10tn to US\$25tn. Spreads (the gap between their average yields and those of US Treasuries) are at historic low levels.

“Emerging market assets are likely to remain under pressure over the next 12 months or so as Treasury yields rise

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FIGURE 1: LONG-TERM GOVERNMENT BOND YIELDS



Source: Organization for Economic Co-operation and Development

>> further and investor risk appetite deteriorates,” says William Jackson, a senior emerging markets economist at Capital Economics.

Removing the stimulus

The central banks have started to remove that stimulus, led by the US, which is the largest government and corporate bond market in the world. Bond yields have already started to rise (see figure 1). The Fed stopped buying bonds in October 2014 and plans to start selling back those it bought under QE.

The Fed has so far stuck to a programme it announced in September 2017 to shed bonds it bought during the crisis. That began with US\$10bn a month in October and will rise during 2018 to hit US\$50bn

and continue at that pace.

Padhraic Garvey, global head of debt and rates strategy at ING bank, says that in the second half of 2018, central banks will no longer be net buyers of government bonds for the first time in seven years as QE is reversed.

But he doubts the unwinding programme will have a material unilateral effect on the bond market, which is driven by evidence of strong economic growth. “The bond market bubble is slowly deflating as a result,” he says, adding that he forecasts the yield on both the ten-year and 30-year Treasury bond to stabilise at 3.5%, compared with around 3% now – well below the historic average (see figure 2).

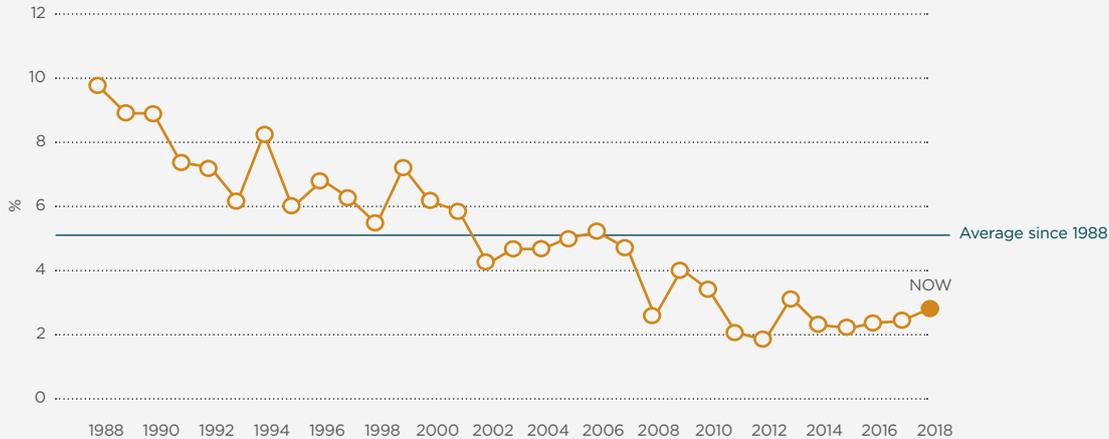
In June 2018, the ECB said it would end its asset purchase programme in December, tapering monthly purchases from

€30bn in September to €15bn from October until December.

The Bank of England will be the last of the ‘big three’ to unwind QE. It said in its 2015 *Inflation report* that it expected to keep the £435bn of assets on its balance sheet until interest rates hit 2%. Given the rate is currently 0.75% and the bank is forecast to raise rates by a quarter point every six months, unwinding may not start until after 2020.

While the withdrawal of QE will be a major influence on the global market, traders will have to keep an eye on other factors, whether it is a likely US\$1tn US deficit under President Trump, political ructions in the eurozone from Italy and Spain, or the outcome of Brexit on the UK. Traders will need to acclimatise to a busier life again. ●

FIGURE 2: 10-YEAR RATES STILL WELL BELOW HISTORICAL AVERAGE



Source: Bloomberg, ING estimates

The unlikely banker

MARSHALL BAILEY OBE, THE NEW CHAIRMAN OF THE FINANCIAL SERVICES COMPENSATION SCHEME, TELLS **EILA MADDEN** THAT BANKING HAS A PURPOSE BEYOND PROFIT – TO CONTRIBUTE TO THE GREATER GOOD OF THE ECONOMY AND SOCIETY



PHOTOGRAPHY: CHARLIE SURBEY

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If you were a betting person, you would never have bet that a young Marshall Bailey was destined for a successful career in financial services. Born in the US to Canadian parents, both academics, he moved to France with his family when he was just six months old. Five years later, the family moved to Canada. Coming from an academic household, learning and education were always strong influences at home. Throughout his schooling, no one had ever presented him with the idea of becoming a banker, nor had it ever crossed his mind.

After graduating from the University of Winnipeg with a BA in political science, he moved back to Europe to study for an MA in international affairs and history at The Graduate Institute of International and Development Studies in Geneva. The institute shared a campus with the UN High Commission for Refugees. “That seemed like an appealing career to me, working with refugees under the auspices of the UN. I still think that’s the kind of thing one ought to aspire to do, but banking has captured my attention and drawn me in,” says Marshall, who was recently appointed the new chairman of the UK’s Financial Services Compensation Scheme (FSCS).

It was while studying in Geneva that Marshall met some bankers with strong beliefs about the value of their contribution to society, and it was this that appealed to him. He already had a strong interest in international diplomatic history and had studied the French and Russian revolutions to gain a better understanding of the power of people and the wider community. Speaking to those bankers in Geneva, he realised that it was important for financial services practitioners to look at the world through a historical lens to understand how history might repeat itself.

After completing his MA, Marshall worked in Geneva for a couple of years until his work permit ran out. He moved back to Canada without a place to live or a job, but quickly found himself working in the international trading division of Swiss bank UBS in Toronto. Since then, he has climbed the ranks to hold senior positions at RBC Capital Markets (as head of EMEA and Asia for Global Financial Institutions) and State Street Global Markets (as chief operating officer for the UK and EMEA).

After a successful executive career, he has built an impressive non-executive portfolio, which has included a stint as the president of the ACI Financial Markets Association and a number of board



directorships with companies such as CIBC Capital Markets, where he is chairman of the board. And while only mid-way through his career, he has already been awarded an OBE for his services to the financial sector and to charity – an honour announced in June 2018.

Career highlights

Ask about his career highlights and he talks not about the roles and accolades, but about the people and the bigger purpose of banking. He is particularly proud of spotting and encouraging talented individuals to progress in their careers when, ordinarily, they might not have because they were women in a male-dominated sector, for example. He continues to seek opportunities to mentor promising people via the organisations he works with on a voluntary basis, such as the East End Community Foundation, of which he is a trustee. The foundation increases educational and employment opportunities for residents in London’s East End.

He is also proud of the various reform initiatives he has worked on. At the ACI Financial Markets Association, for example, he led the drive for education about, and endorsement of, ethical conduct in wholesale financial markets. This work resulted in the establishment of ELAC (the E-Learning and Certification portal), which gives those working in foreign exchange markets access to education and certification designed to improve their standards of market conduct.

Queen’s honour:

Marshall was awarded an OBE for his services to the financial sector in June 2018

// THERE ISN’T AN EASY ANSWER TO THE ‘POLLUTER PAYS’ CONSTRUCT //

His work on reforms allows him to stay focused on the central purpose of financial services. “It often occurs to me that the reason money gets traded between currencies is to facilitate trade and business and commerce and travel and so forth, and that’s what this is all about,” he says. “It’s not about trying to return as high a return on capital as you can for the shareholder – ultimately, businesses are about that – but banking is also about the greater economy and the greater good.”

Joining the FSCS

In March 2018, Marshall arrived at 15 St Botolph Street in London to take up the chairmanship of the FSCS. Often referred to as the ‘lifeboat fund’, the FSCS has a mission to provide for people to receive compensation when harm has come upon them through bad financial advice or other kinds of malfeasance, and where the firms in question are unable to pay those claims.

The FSCS is funded by a levy on authorised financial services firms. Since becoming operational in 2001, it has helped more than 4.5 million people and paid out more than £26bn.

Evidence suggests consumers are more likely to engage with financial services organisations if they know the FSCS is there to fall back on if something goes wrong. According to a 2017 FSCS survey of 2,038 consumers, 82% of respondents

feel reassured knowing the FSCS exists and 62% trust banks and building societies, knowing the FSCS would protect them if those firms failed.

Since taking up the chairmanship, Marshall has been extremely impressed with the motivation, dedication and level of commitment and skill demonstrated by all FSCS staff. “My initial assessment of the FSCS is that things are running really well, but all organisations are on a continuum of learning and self-improvement and need to adjust as the environment around them adjusts,” he says. “We do have things on the horizon that we need to prepare for.”

In December 2016, the FCA launched a review into how the FSCS is funded. A number of issues came under the spotlight, including how to reduce the volatility and unpredictability of levies and whether a risk-based levy would better reflect the risk a firm poses to the FSCS. The FCA is expected to issue its Handbook Notice on the new funding regime in the second quarter of 2019.

A thorny issue

The levy is, effectively, a tax on the majority for the misdemeanours of the minority. “The levy payers are ultimately businesses that could use the levy they pay to us in other ways, but luckily the vast majority of them understand fully that paying the levy benefits everybody and, therefore, it’s the kind of thing that we ought to contribute to,” Marshall says.

“For example, the banks who pay for deposit insurance have seen the downside of the banking crisis and the way in which banks disappeared through some difficult and fast-moving times during the global financial crisis. I’ve yet to meet a banker who feels that having to pay for deposit insurance is unfair or unjust.”

In the advice world, while the majority of firms want to do the right thing, there is a tension between those that create a product and those that sell and advise on it. There isn’t an easy answer to the ‘polluter pays’ construct, says Marshall. In the final rules of its funding review, the FCA is requiring product providers to contribute 25% of the compensation costs that fall to intermediaries. Marshall would like the advice sector to sit down with the FSCS and the regulators to work through some of its difficulties, but, in the meantime, he is calling on the firms in question to understand that the FSCS provides value to them in a way that is efficient and sensitive to their particular challenges.

Marshall’s top career development tips for young professionals

“Prepare yourself to work really hard. The financial services sector is competitive.”

“Find people that you like, that you find rewarding to be around and that can provide you with the challenges to make you a better person.”

“Look for mentors who want to believe in you and who will give you the chance that you need to break out of the crowd. When you find those people, they will be the most powerful allies and supporters that you can find.”

“Don’t doubt yourself. We all want to be more ready or more prepared than we can be and you’re never going to be perfect, so seize the opportunities that are there and do your best with them.”

CV

Jun 2018: Awarded an OBE for services to the financial sector and to charity

Mar 2018: Appointed chairman of the Financial Services Compensation Scheme

Jan 2014: Begins building a non-executive director portfolio, which includes positions with the National Bank of Jeddah, CIBC Capital Markets, Chubb Europe, CFA UK and UK Financial Investments

Mar 2014: Takes up the presidency of the ACI Financial Markets Association

Mar 2011: Joins State Street Global Markets as chief operating officer of UK and EMEA

Jan 1993: Joins RBC Capital Markets; works way up to head of EMEA and Asia, Global Financial Institutions

Mar 1991: Joins UBS in Toronto, Canada as FX and fixed income trader, following a stint at AMAS Bank in Geneva



First impressions: Marshall has been impressed with the dedication and commitment of FSCS staff

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“We will never get to a place where we have no malfeasance being tried somewhere and I don’t believe that anybody would want to live in a society where we have a lot of vulnerable people suffering because of these bad advisers. We simply have to do it,” he says. “The police force is funded for the same reason. The FSCS is doing its best to keep those levies to a minimum.”

Top priorities

Beyond implementing the results of the FCA’s funding review, Marshall wants the FSCS to review its systems and architecture continuously to ensure it is fit for purpose. Investment in its claims-handling platform and online portal has seen customer satisfaction rise to 83%, and is expected to reduce claims-handling costs by £2m by the end of 2017/18. In a further development, the FSCS has appointed a sole partner, Capita, to provide its claims handling service. It says the move will offer a better deal to claimants and stakeholders.

If focusing on operational efficiency feels a bit like tinkering at the edges, Marshall does have a new focus for the FSCS – to use its experiences and insights better so as to support oversight and reform of those parts of the sector where people are giving bad advice to the vulnerable. As one example, he points to the potential for misselling pensions products to those who can now access their entire retirement pot under new rules on pension freedoms.

“A big role that the FSCS can play here is to work with regulators and the sector to understand how these things arise so that

preventative measures can be put in place to really protect these members of society from receiving bad advice and making bad decisions,” says Marshall.

Raising awareness

One thing the FSCS could do to help vulnerable consumers is to make it clearer that they can help themselves, cost-free, through the FSCS and that it will do its best to make its services accessible to them.

In September 2017, the FSCS reached an agreement with the Building Societies Association and UK Finance on how their members will use the FSCS badge across a range of channels, including websites, mobile apps and advertising campaigns. The agreement builds on disclosure requirements set by the Prudential Regulation Authority, which requires all authorised banks, building societies and credit unions to inform new and existing customers that the FSCS protects their deposits – by displaying FSCS-branded stickers and posters in branches and sharing the FSCS’s information leaflet.

The FSCS has also set up a life and pensions working group, made up of some of the biggest providers in the UK, to emulate the agreement reached with deposit takers. This follows mystery shopper research by the FSCS, which finds that nearly two-thirds of clients had to prompt their adviser for information about the FSCS. “So far, the working group is heading in the right direction, with levels of engagement very high,” says Marshall. “However, we are at the very early stages of this long-term project.”

Despite the challenges that ‘bad apples’ in the sector pose, Marshall believes that, collectively, financial services have made tremendous strides over the long term. “When I think of the historical studies done on how it was then and how it is now, everybody is better off,” he says. “We’ve got lending, access to capital and lots of good educational programmes that we wouldn’t have had 50 years ago. I’m confident that if we keep trying to improve on these matters, and we all work together, we’ll get there.” ●

// A ROLE THAT THE FSCS CAN PLAY IS TO WORK WITH REGULATORS AND THE SECTOR TO REALLY PROTECT MEMBERS OF SOCIETY FROM RECEIVING BAD ADVICE //



Look out for our interview with the new CISI chairman, Michael Cole-Fontayn, in the next issue. For a personal message from him, go online now

*Can we have
algorithmic
trading without
the flash crashes?*

p.30:

How algorithmic trading impacts investing >>

p.34:

Algorithmic trading's upside for investors >>

How algorithmic trading impacts investing



ALGORITHMIC TRADING HAS REDUCED COSTS AND MADE INVESTMENT DECISIONS MORE SOPHISTICATED. BUT REPEATED FLASH CRASHES HIGHLIGHT THE DANGERS. MARKETS AND REGULATORS HAVEN'T FOUND THE BALANCE YET. **PAUL BRYANT** REPORTS

An early warning of the risks of algorithmic trading came in August 2007. The 'quant quake' was a four-day period when the portfolios of a string of quantitative hedge funds simultaneously lost between 10% and 30%, while movements in the main market indices were nothing unusual.

The event has been studied in detail by Andrew Lo, a professor at the MIT Sloan School of Management and director of the MIT Laboratory for Financial Engineering. Lo first became aware of the situation when he started receiving phone calls that week from panicked former students who had gone on to work for quantitative hedge funds. Lo joked about the situation in a subsequent lecture: "This was a Wall Street veteran, calling their finance professor, asking what was going on. That's not a good sign!"

Only one investment strategy was affected: 'mean reversion'. This entailed concurrently buying stocks that had declined and shorting those that had risen. The bet was that in a large portfolio, most losers would bounce back and winners would pare gains.

Professor Lo's hypothesis is that there was a trigger event for the quant quake in 2007, probably a fund liquidating a large position. To unwind a mean reversion strategy, it is necessary to trade in the opposite direction. So the fund had to sell declining stocks, not buy them. Because the position being liquidated was large, declining stocks fell further; they didn't revert to the mean. This resulted in losses for other funds with the same strategy. Losing money, these funds not only stopped

trading but also decided to liquidate their positions, compounding the losses triggered by the original liquidating fund.

In 2010, the spotlight on algorithmic trading intensified. US equity indices dropped almost 7% in minutes on 6 May, before recovering most of the losses just as quickly. The 'flash crash' impacted mainstream institutional and retail investors, not just a few little-known hedge funds.

The US Commodities Futures Trading Commission (CFTC) and the Securities and Exchange Commission (SEC) said the primary cause was the actions of a large mutual fund, which sold US\$4bn of futures contracts in about 20 minutes. It reportedly used a clumsily constructed algorithm that flooded the market with sell orders, creating an imbalance between buyers and sellers.

In 2015, the CFTC appeared to change this view when it accused London-based independent trader, Navinder Singh Sarao, of price manipulation and 'spoofing' (see boxout on page 32). The CFTC head of enforcement said: "His conduct was at least significantly responsible for the order imbalance that in turn was one of the conditions that led to the flash crash."

Subsequent academic studies offer even more alternatives. Albert Menkveld, professor of finance at VU Amsterdam, co-authored *The flash crash: a cautionary tale about highly fragmented markets*. He suggests "cross market arbitrage" – trading between different exchanges – was restricted because of a technical glitch, resulting in a lack of liquidity and abnormal price moves.

Another paper by academics from the universities of California, Stanford and Yale suggests that the large US\$4bn mutual fund

ILLUSTRATION: PHILIPPE INTRALIGI/KON

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J.P. Morgan Research built a test algorithm to read and interpret 100,000 news articles and determine market sentiment from them. The resulting portfolio outperformed a number of equity indices over the 12–18-month testing period.



THE HOUND OF HOUNSLOW

Navinder Singh Sarao, also known as ‘the hound of Hounslow’, has been accused of being a major cause of the 2010 flash crash. He manipulated electronic trading practices to commit fraud and pocket around US\$30m.

Sarao left a futures trading job in the City in 2008 to trade with his own money. In 2015, the US Commodities Futures Trading Commission accused him of price manipulation and “exceptionally large, aggressive, and persistent spoofing tactics”, conducted between 2009 and 2015, including the day of the flash crash in 2010.

He was said to have designed an electronic trading system that placed a series of very large sell orders in E-Mini S&P 500 futures contracts at prices slightly away from the market price. This caused prices to fall. Before the market price reached Sarao’s order price, his algorithm would withdraw the order. Sarao could then buy at this ‘manipulated’ low price and profit when the price recovered. On some days, his algorithm placed hundreds of orders and changed them thousands of times during the day.

He was arrested in the UK, lost an extradition battle, and was forced to appear before a Chicago court. He pleaded guilty to wire fraud and spoofing, with the court ordering him to pay US\$26m in civil penalties and a further US\$13m in disgorgement (the return of illegally gained profits). Released on bond, he has been allowed back to the UK, but must return to the US for sentencing. The case judge has said he faces up to 30 years in prison.

But the degree to which his actions influenced the 2010 flash crash is heavily disputed. A study by academics from the universities of California, Stanford and Yale says: “Our results suggest that the illegal spoofing behaviour of a single trader, Navinder Sarao, had little impact on market prices ... if Sarao’s relatively small-scale trading generated the large-scale effects asserted by the government, modern equity market structures could be viewed as alarmingly fragile.”



In the dock: Navinger Singh Sarao

>> sell order, combined with corrupt data, caused uncertainty among algorithmic traders, which in turn caused them to withdraw liquidity.

What is clear about the flash crash is that the exact cause is still unclear. And that markets are still susceptible to similar events.

On 7 October 2016, the pound depreciated by 9% versus the US dollar in early Asian trading, before retracing much of the move very quickly. Some early speculation suggested the pound flash crash was due to comments made by then French president François Hollande, calling for a hard Brexit. But the Bank for International Settlements attributed the move to “a confluence of factors” – with various forms of automated trading playing a key role – that resulted in the rapid withdrawal of liquidity and violent price moves. An already established, but orderly, downward trend in sterling triggered automated sell orders (options hedging and stop loss orders), at a particularly illiquid time of day (when European and North American markets were closed).

And on 5 February 2018, US equity markets experienced a sudden 7% drop with no obvious explanation, with much of the financial press blaming “the machines”.

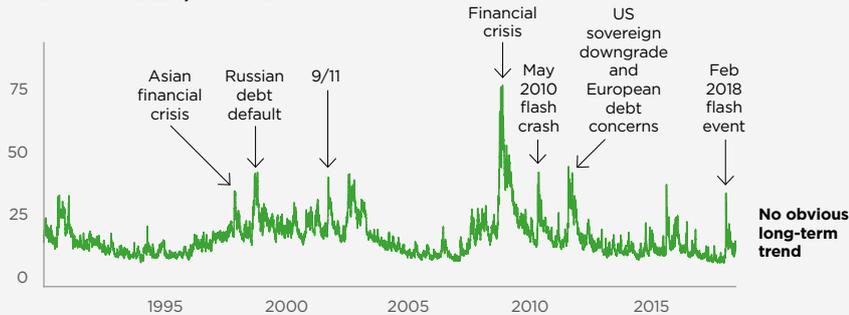
What is algorithmic trading?

Algorithmic trading strategies vary in both objectives and design. Some have the goal of minimising costs and market impact when executing an order. An institutional investor making a large share purchase would typically have their order executed by an algorithm that breaks it up into small purchases. This avoids signalling the presence of a large, keen buyer. The algorithm also finds the best prices for these smaller orders, exploring many exchanges.

Other strategies seek to make trading profits, often very short-term profits, from historical price patterns that repeat themselves or from market inefficiencies. The mean reversion strategy used by funds during the quant quake would be one example. Another is statistical arbitrage or ‘Stat-Arb’, such as trading in a ‘pair’ of stocks that have an identifiable historical relationship between their prices. For example, Coca Cola and PepsiCo. If prices deviate from the historical relationship, the algorithm bets on this being restored.

And some algorithms are designed to identify longer-term opportunities, from either technical or fundamental factors or from market sentiment.

THE VIX® INDEX, 1990–2018



Sources: Cboe Options Exchange; Yahoo! Finance

J.P. Morgan Research built a test algorithm using machine learning and natural language processing to read and interpret 100,000 news articles to determine market sentiment. The resulting portfolio outperformed a number of equity indices over the 12–18-month testing period. Social media has been earmarked as a source of data for similar techniques. J.P. Morgan has also used satellite imagery and machine-learning based image recognition technology to count cars in retail car parks and identify trends in the retail sector.

Another area of algorithmic trading to gain prominence in recent years is high-frequency trading (HFT). The adoption of HFT grew between 2005 and 2010. The peak market share came in 2009 and 2010 when it made up over 60% of equity trading in the US and over 40% in Europe, according to Tabb Group and Deutsche Bank. This share has since stabilised at under 50% in the US and around 35% in Europe.

Common strategies aim to exploit market inefficiencies and arbitrage opportunities, but some HFT strategies are considered ‘predatory’. Algorithms might see a new buy order in the market. A sell order, at a lower price, might already be in the market. Before they are matched, an HFT will spot the difference in price, fill the sell order itself and immediately sell this on to the purchaser at a price closer to what was originally bid, pocketing the difference. They are only able to do this because the speed of their transactional capability is higher than the other parties.

Measuring and trading in volatility – the VIX® Index

Flash crashes and their association with algorithmic trading has highlighted concerns about increasing market volatility.

There is a dominant measure of volatility, the Cboe Volatility Index, or VIX, sometimes referred to as the ‘fear index’.

Calculated by the Chicago Board Options Exchange, it provides a measure of how much the market thinks the S&P 500 Index will fluctuate in the next 30 days, based on real-time, mid-quote prices of S&P 500 Index call and put options. When markets trend higher, the VIX tends to fall. Market sell-offs see the VIX spike.

Save for the volatility spike around the financial crisis, it is debatable whether markets have become more volatile. But what is a feature of the past decade are spikes in the VIX as a result of ‘flash events’. Prior to the financial crisis, major spikes were all associated with fundamental market events.

The VIX has also become a major tradable financial instrument in its own right. Using VIX futures, options and exchange-traded funds (ETFs), traders take positions on volatility itself. And because of its general inverse correlation to equity market direction, buying the VIX is a common hedge for ‘long’ investors against a market sell off.

Pros and cons of algorithms

Professor Albert from VU Amsterdam says algorithmic trading is a double-edged sword: “I’ve reviewed a decade of more than 100 academic studies and found that because of algorithmic trading and HFTs, bid-ask spreads have fallen and fees such as exchanges’ charges have come under pressure.” He also highlights the benefit of being able to execute large orders more quickly, with less impact on market prices.

However, the downsides are real. From his analyses of trading data he has

found that when an institution executes a large order, HFTs supply liquidity, take the other side of the order and find markets for it across many trading venues. But sometimes, if a large order is executed over a longer period, it causes markets to trend in one direction. HFTs then not only stop taking the other side of the institution’s order, they actually open positions in the same direction as the order, creating an even larger price move than the original order would have.

He also worries about algorithms being too similar: “If everybody starts trading, in an algorithmic way, from the same pool of data, then everybody’s trading starts to be correlated in a mechanical way. If that is the case, it can create an explosive situation for a market.”

Addressing the dangers

Regulators are attempting to address the dangers. The Markets in Financial Instruments Directive II (MiFID II) places extensive demands on algorithmic trading, such as ‘kill’ switches that cancel all outstanding orders at all trading venues. In the UK, the Prudential Regulation Authority recently closed a consultation period on its proposals for governance, risk management and risk controls for companies using algorithmic trading.

Albert says these regulations are important but there is also room for improvement in the design of today’s exchanges: “In my discussions with sector participants, nobody is opposed to things like intelligent circuit breakers. These flash crashes are in some cases detectable, and it would be sensible to design a way to stop the market and let everybody rethink their trading strategy at times of stress. That needs to be coordinated across the main market venues. But it is not trivial to implement. And while it is obviously important to introduce risk management at a company level, I would like to see our central counterparty clearing houses using data to detect correlated positions between HFTs and then do something about it. That should also be part of our risk management system.” ●



Did you know that asset managers can find alpha from their own big data sets? Read our interview with David Lauer, managing partner at Mile 59 cisi.org/datasets

Algorithmic trading's upside for investors

ALGORITHMIC TRADING HELPS INVESTORS ACCESS MULTIPLE EXECUTION CHANNELS FOR 'BEST EXECUTION'



Dr Robert Barnes,
Chartered FCSI

Global head of primary markets and CEO of Turquoise, London Stock Exchange Group

“The vast majority of investments in electronic markets today are deployed via computer algorithms, designed and employed by modern investment and specialist trading firms, global banks and domestic brokers.

Algorithmic trading is a software process that creates orders detecting and acting on patterns of market inefficiencies using mathematically sophisticated models of disparate market data. It also determines how orders are deployed to market venues, such as stock exchanges, via telecom lines, satellite and/or microwave links.

These algorithms reap benefits by selecting from a number of execution channels. These channels could be actual trading venues like stock exchanges or multilateral trading facilities (a 'non-exchange' financial trading venue, typically electronic-only, operated by an investment firm or a market operator). Or they could be trading mechanisms like 'lit' and

'dark' order books (lit order books have visible pre-trade prices, dark order books do not display prices 'pre-trade').

Given multiple physical venues and mechanisms with which to trade, modern software and smart order routing create a single virtual pool of liquidity where each execution channel is like an extra knob on the radio dial that helps investors get business done. Order entry and trading

execution is now so fast that today's markets have matching engines that can continuously process buy and sell transactions in less than one-millionth of a second – faster than the blink of an eye.

Volatility has reduced

In recent years, regardless of market, the trend has been a significant reduction in market volatility. Algorithmic trading actually may be contributing to this trend.

Logic suggests that because there are so many more algorithmic trading strategies in the market today trying to take advantage of market inefficiencies, the net result is in fact fewer inefficiencies as counterparties logically elect to engage

in venues that minimise asymmetries between their trading strategies.

Mechanical features like static and dynamic circuit breakers – an

“Markets can process buy and sell transactions in less than one-millionth of a second – faster than the blink of an eye”

enforced temporary halt in trading, usually triggered by a large and sudden price move – put in place on a per stock basis further protect the quality of markets in London and Europe. UK and European markets featuring these circuit breakers have avoided 'flash crash' events like that of 6 May 2010 in the US.

If investors decide to execute a large trade, then it is important to be able to

do so without moving the market. That is more easily achieved in a market full of different strategies, both long- and short-term, which increase liquidity. The positive news is that today, large banks and brokers are using these state-of-the-art electronic trading strategies designed to optimise large orders to the benefit of their institutional clients, such as pension funds.

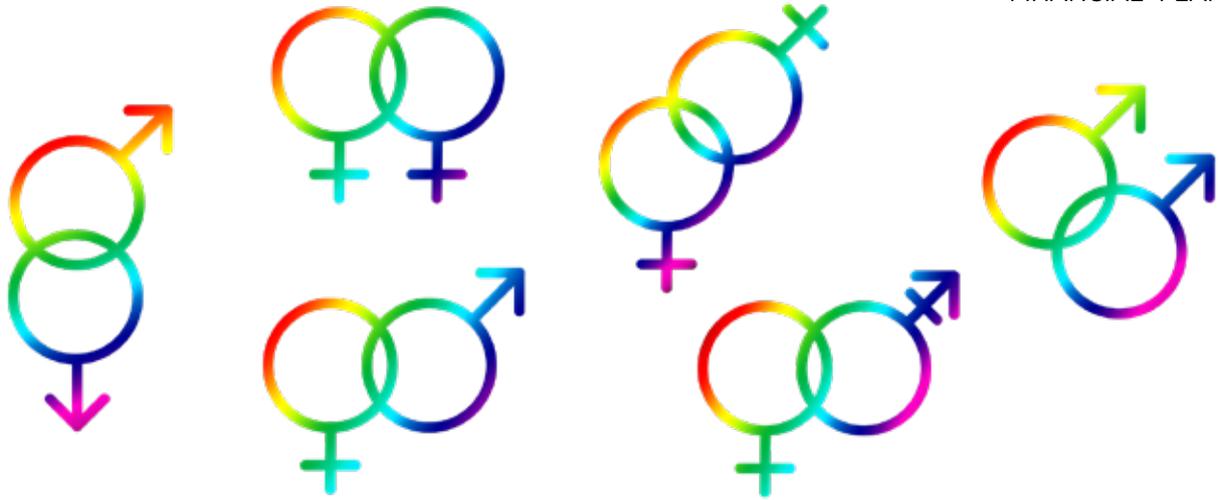
Some disadvantages are also being eliminated. Regulators are insisting on more robust risk management systems to protect against the dangers of algorithmic trading. And some more controversial practices, such as 'predatory' high-frequency trading, have become uneconomic with innovations that focus on quality of price formation rather than speed to win new business.

Algorithmic trading also helps investors to achieve 'best execution' – the obligation to execute orders on terms most favourable to the client – as defined by the revised Markets in Financial Instruments Directive (MiFID II).

So markets are continuing to evolve towards a point where the advantages of algorithmic trading, such as lower volatility and more efficient trading execution, are being felt by investors.

Many of these improvements are a result of a very healthy debate that has taken place over the past few years, and as market structures adapt and evolve post-MiFID II, this trend continues. ●

For more on dark order books, read our interview with Robert on page 48.



WHEN TWO PARTIES IN A COUPLE HAVE WILDLY DIFFERING APPROACHES TO MANAGING THEIR MONEY, HOW CAN FINANCIAL PLANNERS HELP THEM TO FIND COMMON GROUND?

EILA MADDEN AND **LAURA SUTER** REPORT

Clashing couples

// MONEY STANDS FOR A NUMBER OF THINGS THAT ARE EXTREMELY PERSONAL, INTIMATE AND IMPORTANT //

According to relationship charity Relate, money is the number one trigger of arguments for couples, while more than a quarter of couples questioned in the *It takes two: the quality of the UK's adult couple relationships* report from March 2017 say financial worries put their relationship under pressure. Dealing with conflicting attitudes towards money is one of the biggest challenges a planner will face when working with a couple.

“The reason those conflicts come up in the first place is because money stands for a number of things that are extremely personal, intimate and important to a client,” says George Kinder, founder of the Kinder Institute of Life Planning.

Money can represent the hard work you put in to earn it, or it can represent the value of the personal contribution each individual feels they make to the economic security of the couple. Most importantly, says George, money represents the degree of freedom we each have to live the life that we most want to live – which he describes as our “dream of freedom”. These representations can often lead to feelings of strength and adequacy, or of inadequacy, within the relationship.

It may sound counterintuitive, but conflicting attitudes towards managing money can often surface between a couple undertaking financial planning because the discussion they have with their planner is about money. That, says George, who pioneered the concept of financial life planning, is not an appropriate focus – at least not in the early stages of the financial planning journey.

Kathleen Burns Kingsbury, a wealth psychology expert who specialises in women and couples, agrees. “When the conversation is just about numbers, couples can get stuck,” she says. “If you can get them to talk about how they think and feel about money, and the values they are honouring with their actions, you might discover that they have shared values. If they don’t, a planner can at least help a couple to understand the underlying causes of their conflict and decide how to work towards a shared solution.”

Planners are practised in using their traditional toolkit, which includes exercises such as cashflow modelling and planning. But how can they get to a stage where the conflicts are resolved, and a couple is ready to crunch the numbers?

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One of the first steps in effectively dealing with conflicting attitudes is for a planner to gain the trust of the couple. Levels of trust are likely to be low if, in the first conversation you have, you attempt to establish their psychology when it comes to managing money. The couple will feel that you're patronising them, you don't understand them or you're trying to put them in a box, says George.

Jumping straight to the money conversation also does little to build trust, particularly at a time when society as a whole has reservations about the financial services sector. The *2018 Edelman Trust Barometer* shows that a steady five year rise in trust in financial services stalled in 2018.

The Trust Equation, developed by Charles H Green, founder of Trusted Advisor Associates and author of several books on trust, offers a guide for building trust. In it, credibility (your experience and designations), plus reliability (delivering on your promises), plus intimacy (your knowledge of your clients' hopes and dreams), divided by self-orientation (your degree of self-centredness), equals your level of trustworthiness. The higher the self-orientation, the lower the level of trust you will command. This means you need to be a better listener than you are a speaker.

Establishing priorities

Listening is a key part of the Kinder Institute's EVOKE financial life planning process, in which trust is established during the first of the five steps: Exploration, Vision, Obstacles, Knowledge and Execution.

In that first exploration meeting, a couple should be speaking for 80% to 90% of the session and the key question a planner should be seeking the answer to is: if the financial planning process goes well, what is the dream life that it will enable them to lead?

George uses three questions to help each individual within a couple to identify this dream. First, if you had all the money you needed for the rest of your life, how would you live it? The final two more serious questions are designed to sharpen each person's thinking about what will give them the greatest personal fulfilment. If the doctor said you only had five to ten healthy years left to live, how would you live your life? Finally, if your doctor stuns you with news that you have an illness that has come to term and you have 24 hours left to live, reflecting on your life and dreams, what did you miss?

The three questions should be answered separately by each individual to ensure their

answers are honest and not tempered by considerations for their partner. To achieve this honesty, it's often useful to ask the couple not to share their answers with each other prior to the financial planning session.

The answers are rarely to do with money, says George. They are more often to do with family and relationships, the values they wish they had lived by and achieving their creative potential.

George calls helping a couple to identify their dreams of freedom "lighting the torch". They may have two completely independent torches, or they may overlap, but a planner's role is to clearly identify each torch and plot the path towards delivering it.

"If the listening quality is good, at the end of the first meeting the couple is eager to work with you because you've listened to them both as a couple and as individuals," says George. By the end of the second meeting – the Vision meeting – the couple is often on a high, having visualised what their dream life could be like. At this point, they should be encouraged to imagine living that life on a daily basis, while putting potential obstacles to one side. During this process, a couple will often work through their conflicting attitudes to money themselves because the dream is so appealing.

As a result of the EVOKE process, trust levels between a couple and their planner can increase multiple times, says George. In these instances, conflicting attitudes between the partners tend to shrink dramatically and they are much more likely to take the planner's advice because they are confident that their planner's greatest concern is that they live their dream of freedom.

Identifying biases

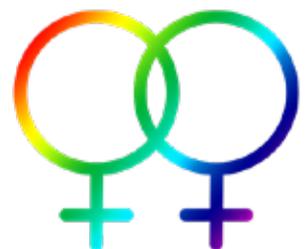
While George warns against putting a couple in a psychological box too soon, understanding what personal biases each partner has can help a planner tailor how they create and present a financial plan.

Kathleen, who is the founder of KBK Wealth Connection, based in the US, says those biases can often be found in an individual's 'money mindset' – the sum of all their thoughts and feelings about wealth. She trains planners to establish their clients' money mindsets through a list of 20 revealing questions, which include: What did you learn from your parents about money? How would you describe your comfort level talking about money? What is your biggest fear or concern about money?

"This is a great exercise to do with couples as they learn more about each



// JUMPING STRAIGHT TO THE MONEY CONVERSATION DOES LITTLE TO BUILD TRUST //



other's mindset and that can help them plan and communicate about finances more effectively," says Kathleen.

She believes no two money mindsets are the same, although a number of people have identified money personalities, which can help in understanding why people interact with money in the way they do. According to Courtney Pullen, a psychologist and adviser, and Kathleen Parks, an independent practitioner, people can broadly be split into two financial camps: preservers and creators of wealth. Their work featured in a 2005 article, 'Planning for couples', in the *Journal of Financial Planning*.

Others have come up with alternative categories. Dr Kathleen Gurney, founder and CEO of Financial Psychology Corporation, says people tend to fall into one of nine money personalities: entrepreneur; hunter, high roller; safety player; achiever; perfectionist; money master; producer; and optimist. Olivia Mellan, author of *Money harmony: a road map for individuals and couples*, identifies five major money personality types: hoarder; spender; money monk; avoider; and amasser.

Managing tension

When differences in attitudes to money do lead to conflict between a couple, it can manifest itself in different ways during a meeting. One partner might be less forthcoming than the other, they might interrupt, scowl or even look in the opposite direction when their partner is talking.

"At times of tension, pause, listen, share empathy and show that you're really there for them and you really want both of them to live their dream of freedom," says George. "This allows the couple to feel safe to explore the answers themselves. They know the answers, and what compromises might be there, much better than I do." This is also a good moment to 'relight the torch' and remind the couple of the dream of freedom that they are working towards together.

Listening and empathising is not always easy, particularly if your instinct as a planner is to solve problems. Putting your own agenda – whether that be thoughts about landing the client, fees or payment structures – to one side can help.

It's also important to be aware of the personal biases you might bring to the conversation. Kathleen encourages planners to go through the money mindset exercise themselves: "If you're self-aware, you can get out of your own way and really be there for the client," she says.

George advocates mindfulness as a tool to help with unbiased listening. It enables a person to let go of their thoughts and be in the present, heightening their levels of emotional intelligence and patience.

Couples may unconsciously want you to take sides, so it's important to be aware of when you're identifying with one partner too much or know one partner better than the other. If that happens, planners need to acknowledge that they have lost neutrality, get curious about both partners' perspectives and actively listen to each person in order to regain a neutral stance, says Kathleen.

Talking to other planners through study groups or working with a coach can help a planner to work through problems they might be having with remaining neutral.

Embracing conflict

Ideally, processes such as EVOKE will help a couple to work through their differences about money themselves. However, differences often can, and do, persist and one challenge a planner faces is helping a couple to draw them out before they can move towards a plan of financial security. This is difficult because we live in a society that is conflict avoidant and where talking about money is often taboo, says Kathleen.

She believes busting the top three myths about conflict can help. The first myth is that conflict is bad and should be avoided at all times. "Avoiding conflict means not resolving issues," says Kathleen. "Conflict is healthy and an important part of a couple's financial planning process. As a planner, you need to remind the couple that financial disagreements from time to time are healthy and can help to clarify goals and objectives."

The second myth is that conflict has a winner and loser. Planners can remind a couple that the goal of conflict is to understand each other and not to win the fight. A planner can play a mediation role, teaching each partner to listen to the other.

The third myth is that conflict is an innate skill. In fact, engaging in healthy conflict is a learned skill, which planners have an opportunity to teach to couples.

"My belief is that conflict is not a bad thing and when we work through it, we actually become closer to the person that we've worked through the conflict with, so it increases intimacy," says Kathleen. "It also fosters trust, increases mutual understanding and is really something that provides value to a couple's life and to their relationship with their planner." ●



How to manage tension between a couple during a meeting

George Kinder, founder of the Kinder Institute of Life Planning, says there are a number of simple things you can do to diffuse a tense situation between a couple during a financial planning meeting:

- Acknowledge the tension
- Tell the couple that it's important to you, as their planner, to give each of them the freedom to describe their ideal lifestyle
- Remind them that you want to help them find a way to live their dream life individually, and as a couple
- Ask each individual to give their partner free reign to express themselves
- Reassure them that you will give each of them time to have their say
- Stress that you are not there to take sides
- Ask them to listen respectfully to their partner.



ILLUSTRATION: ANDREW BAKER/IKON

The recruitment challenge

A GROWING NUMBER OF FINANCIAL PLANNERS ARE REACHING RETIREMENT AGE AND FEWER NEW RECRUITS ARE ENTERING THE SECTOR. HOW CAN THE PROFESSION AVERT A RECRUITMENT CRISIS? **EILA MADDEN** REPORTS

During the next decade, financial planners, advisers and wealth managers will face a challenge not yet witnessed by the sector. An increase in demand for services will occur at exactly the same time that the number of practitioners available to meet that demand falls. To avert a crisis of confidence in the sector, triggered by an inability to service clients, firms must look to the new generation of workers coming on stream to fill its financial planner and paraplanner vacancies. The problem? Financial planning firms are struggling to attract younger recruits and when they do, they are often dissatisfied with the results.

This situation is not sustainable. How can firms attract, retain and gain value from the brightest and best young candidates?

Demand for services rises

A 2016 EY report – *The next generation of financial advisers* – says the imminent retirement of baby boomers (people born between 1946–1965) will drive the need for wealth management services, contributing to the 32% growth expected by the sector between 2016 and 2026.



In addition, there is a general shift towards a savings culture, evidenced by the introduction of government initiatives in the UK, such as pensions auto enrolment, and the boom in budgeting apps, such as Monzo and PensionBee. This is likely to lead to greater awareness of, and desire to experience, the benefits of financial planning and advice. Research by pensions provider Royal London and the International Longevity Centre finds that people who take financial advice are, on average, £40,000 better off ten years later compared with those that do not (see cisi.org/stevevebb).

A decreasing pool of qualified talent

The wider advice sector might struggle, however, to meet the rising demand for its services. The EY report finds that aging and retirement have contributed to a 4.3% reduction in the number of practising financial advisers between 2006 and 2016. The average age of a financial adviser is now 50 and this figure continues to rise. And for every financial planning graduate that enters the sector, two advisers become eligible for retirement, the report suggests.

Low turnover of qualified planners and advisers is an added issue. Sam Oakes, director at Bristol-based recruitment firm Recruit UK, recently researched the LinkedIn profiles of 7,200 people with ‘financial planner’ or ‘paraplanner’ in their job title. He found that 15% of financial planners and 28% of paraplanners in the UK moved jobs in 2017.

The *9th annual executive survey: talent trends for 2018*, from US-based executive search firm Kathy Freeman Company, confirms the low turnover trend. Respondents to the survey, conducted in the fourth quarter of 2017, all have established careers in a range of financial services, including asset management, wealth management, and private banks and trust companies. Just 10% of respondents changed jobs in 2017 – the lowest rate since the survey began in 2009 – and one third of these moves were due to redundancy.

Recruiting new entrants

One solution to this shortage of candidates is to recruit from the regular supply of school, college and university graduates coming onto the job market each year. Although this would require firms to invest in in-house training and development, there is an appetite to recruit from this pool of new entrants. ‘Industry demand for financial planning graduates’, a study published in the *Financial Planning Research Journal* in 2016, surveyed 191 financial planning practices across Australia about their recruitment plans for the five years up to 2019. The researchers – Diane Johnson and Mark Brimble of Griffith University and Ric Zanetti of Zanetti Recruitment and Consulting – found that 85.1% of financial planning firms wanted to recruit financial planners in the five years up to 2019 and 64.5% of those firms would be seeking graduates for those positions. One reason for this discrepancy, the researchers suggest, may be that small and medium-sized firms are reluctant to replace a qualified person with a less experienced one because they do not have the capacity to absorb the work required while training the new entrant.

This touches upon one of the biggest recruitment challenges financial planning firms face – managing the transition of graduates through the first stages in their career. In ‘Easing college students’ transition into the financial planning profession’, a 2005 study published in the *Financial Services Review*, Joseph Goetz *et al* argue that it takes two to three years for a

new graduate to generate more value for a firm than an entry-level wage. This is because employers must incur the costs of in-house training, certification and licensing, and supervision. Employers hope to recoup this cost when the value of the employee to the firm surpasses the wage paid, but this is typically when ambitious graduates tend to leave, attracted by employers who are willing to pay higher salaries for their new skills. This leaves graduate financial planning firms less willing to hire inexperienced candidates in the future.

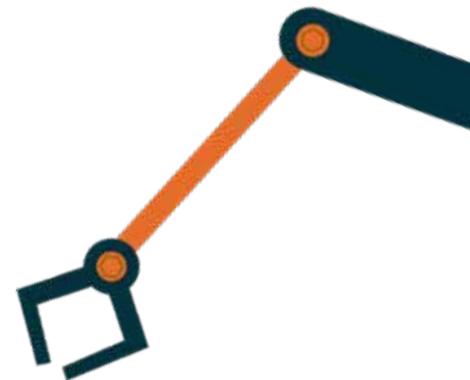
Ten or so years later, not much had changed. In the Griffith University study, conducted between July and September 2014, responses to open-ended questions revealed a concern that younger recruits expected to progress up the career ladder faster than they were ready to. “It is extremely difficult to manage expectations of Gen Y entrants. They generally want to achieve so much in very little time, so staff retention becomes very challenging,” the respondent from one financial planning firm said. (Generation Y, also known as millennials, is the generation born between 1980 and 2000.)

Structured career pathways

The study suggests this cycle of turnover can be slowed with the introduction of a structured graduate recruitment process and career pathway through the initial years into a financial planning career, established through a collaborative approach between educational institutions and the sector. The pathway would include a smooth transition into the sector through, for example, a structured year with a financial planning firm. Of those firms that intended to grow staff numbers, 81.8% said they were in support of such a pathway.

The CISI already provides a clear qualifications pathway for those interested in becoming a paraplanner or a financial planner. Starting at foundation level, the pathway begins with a qualification in the Fundamentals of Financial Services (level 2) and the Foundation Qualification – Introduction to Investment (level 3). At qualifying level (level 4), practitioners wishing to become paraplanners complete the Certificate in Paraplanning while those wishing to become a financial planner will complete the level 4 Investment Advice Diploma, which includes the mandatory Financial Planning and Advice unit, followed by the level 6 Diploma in Financial

// FIRMS MUST LOOK TO THE NEW GENERATION OF WORKERS COMING ON STREAM TO FILL VACANCIES //



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// THE NUMBER
ONE REASON WHY
MILLENNIALS LEAVE A
JOB IS TO FIND A MORE
FULFILLING ROLE //

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Top tips

HOW TO ATTRACT AND RETAIN MILLENNIALS

- 1** Highlight the career opportunities available for bright young people
- 2** Introduce a structured graduate recruitment process and career pathway through the initial years into a financial planning career
- 3** Introduce work-life integration benefits, such as flexible working practices and healthcare provision
- 4** Millennials want to make a difference. Give them the opportunity to actively shape their work environment by, for example, inviting them to present their ideas to the board
- 5** Overturn negative perceptions that millennials have of financial services by demonstrating the sector's commitment to corporate social responsibility and highlighting its positive economic impact

Planning. Once candidates hold the diploma in financial planning and experience requirements are met, they are then able to apply for the globally recognised CERTIFIED FINANCIAL PLANNER™ designation.

Such structured pathways would be valued by new entrants to the profession if studies about the characteristics of millennials – the latest generation to join the workforce – are anything to go by. The Kathy Freeman Company report says that mentoring, with a focus on skills development and laying out a clear career path, are critical to attracting and retaining younger talent. *The millennial study: work remixed*, by investment company Accel and data company Qualtrics, finds that 51% of millennials versus 25% of baby boomers and generation Xers (those born between 1966–1980) worry about having the right skills to succeed in the workplace, suggesting that training and development is extremely important to them.

In fact, job-jumping millennials may give the impression that they lack focus and commitment, but the reality is somewhat different. While millennials have, on average, 2.29 jobs (versus 1.67 jobs for generation Xers) every five years, 82% of millennials say their job is an important part of their life. This is higher than older generations. And while money is important to millennials, the number one reason why they leave a job is to find a more fulfilling role. Satisfaction and stability also top compensation when it comes to the things they value most in the workplace.

What makes millennials tick

If millennials are to be the solution to the sector's recruitment challenge, firms need to get better at understanding what makes them tick, why they are not joining and staying, and how to change that. The Kathy Freeman Company report identifies a number of reasons behind the younger generation's reluctance to join a financial services company in the first place.

First, the sector has a perception problem. Many millennials believe financial services firms are responsible for the 2008 financial crisis and the resulting recession. Second, many hold earning a living and making a positive contribution to society as a dual priority and they don't believe financial services can fulfil the second priority. Third, the technology sector is beating financial services hands down on offering millennials responsibility, the

chance to make a difference and the chance to make money. And fourth, millennials expect to work in a diverse environment and believe that the financial services sector lacks diversity. As a case in point, the Griffith University found that women were underrepresented in financial planning and director level roles and overrepresented in lower-paid client service officer and paraplanner roles. The researchers raised concerns that the overuse of personal networks for recruitment – it was the most popular hiring method – was contributing to this lack of diversity.

Beyond laying out a clear career path, the Kathy Freeman Company report suggests several ways in which firms can attract and retain younger talent. With so many millennials saying their job is an important part of their life, firms should introduce work-life integration benefits, such as flexible working practices and healthcare provision. Young people want to make a difference so firms should create a culture that actively involves millennials in shaping their work environment. One suggestion is to give them the opportunity to present their ideas for innovation to the board, and for the board to act upon the ideas that have potential. Finally, the report urges firms across the sector to work together to overturn the negative public perception that exists among millennials about financial services. Highlighting career opportunities for bright, young people, demonstrating the sector's commitment to corporate social responsibility, and highlighting the sector's positive economic impact are all ways to overturn that perception.

Young people are looking for a structured pathway from education to qualification within a flexible working environment that offers them responsibility and the opportunity to make a difference. Firms that can offer that will not only solve their recruitment challenge, they will feel the benefit of employing a generation for which work is an important part of life. ●



We asked financial planners and young recruits to the sector to share their stories and tips on what firms can do to attract and retain millennials. Go online to find out what they told us: cisi.org/recruitment

“THE RISE OF THE #METOO AND #TIMESUP MOVEMENTS HAVE BROUGHT THE TOPIC OF SEXUAL HARASSMENT IN THE WORKPLACE TO THE FOREFRONT OF PUBLIC CONSCIOUSNESS” p.44



“Dark pools mitigate potential market impact by allowing orders to reside in an order book where the price and size of an order are not displayed until after the trade”

Dr Robert Barnes, Chartered FCSI, CEO, Turquoise p.48

pp.42–48
Tips, tricks and know-how to make you a better financial services professional



Life planning exercises, such as visualising the future under different scenarios, and deciding where you want to be within specific timeframes, help establish what is truly important to a client ”

Michael Fairweather CFP™ Chartered MCSI, founder, Real Life Financial Planning, pp.42–43



“UK retail clients with overseas investments have enjoyed positive performance over the past 15 years. But how much of that has come from the currency risk clients may not even have known they were being exposed to?”

Ben Raven, Chartered MCSI, director, Tavistock Wealth, pp.46–47



PHOTOGRAPHY: ISTOCK

Everyone needs life planning

THE BRIEF

A young couple, Amy and Alex (not their real names), came to see us with concerns about retirement planning. As is often the case, these concerns were transformed into an uplifting life planning experience.

Amy was a vet who wanted to retire at age 65 and live in comfort. She had some money in a personal pension. Alex was a physiotherapist with 18 years' worth of a National Health Service pension. They were living in a big old house that needed constant repairs and improvements, which was becoming a drain on their finances and time. Amy was working full time plus running her own private limited company, and felt that she wasn't spending enough quality time with her husband.

There wasn't enough time for her passion for outdoor sports, and holidays were limited to the UK in a campervan, which they enjoyed but were keen to travel further afield with the children in the future.

They weren't keen on the local state schools, so school fees for two young children were a big part of their plans.

Alex's main priorities were to find a new job that was challenging and stimulating and to feel more financially secure. He was also keen to become thinner and fitter.

MICHAEL FAIRWEATHER CFP™
CHARTERED MCSI, FOUNDER OF
REAL LIFE FINANCIAL PLANNING,
PROVIDES AN INSIGHT INTO THE
LIFE PLANNING PROCESS

The sort of personal details provided by the couple at the initial meeting emerged as part of the life planning process, which focuses on what clients want from life, rather than just on their money. George Kinder, father of life planning, has a five-stage process called EVOKE (Exploration, Vision, Obstacles, Knowledge and Execution). Knowledge is the financial plan and Execution is the implementation of the financial plan, so it is the first three stages that make up life planning.

In the first meeting (Exploration), I began by asking them if there was anything urgent they needed to achieve. A few answers about pensions and insurances came out. I then asked the more important question of "What would you like to see happen as a result of us working together?" and practised the art of active listening while the information came out. When they reached a natural pause, I kept quiet,

allowing them time to reflect, which enabled them to soon pick up the narrative of identifying their life goals without interruptions from me.

Once I had a clear grasp of their life goals I moved on to their finances and established what we had to work with.

The second meeting (Vision) was all about inspiring Amy and Alex about their dream future lives. George Kinder explains that life planning exercises, such as visualising the future under different scenarios with three questions, and deciding where you want to be within specific timeframes, help establish what is truly important to the client. Then the life planner's job is to filter this information and feed it back to the client in the form of a statement that presents the client with a vision of their dream future life – Kinder calls this the 'torch' statement.

In Amy's case, the statement became:

"If as a consequence of our work together, we were able to deliver to you a life where:

You have more quality time with your husband rather than him always being at the back of the queue behind the kids and your work.

You live in a house that isn't falling apart. You have managed to get the necessary work done to your home so that it is damp and rot free and is looking good. You no longer have massive bills and you have managed to accumulate some spare cash as an emergency fund.

You feel less tied up with work, and have managed to sell your business for a good price.

You are spending more time with your friends and family, and being more patient with them.

You are travelling more, doing trips with the kids in the campervan in the UK and Europe and are starting to plan your first long haul family holiday where you can afford to choose between places abroad.

How would that feel?"

Getting this statement right tends to elicit emotional responses and it's easy to tell that you're on the right track when their faces flush and their eyes light up.

The Vision meeting with Amy and Alex concluded with me encouraging them to continue visualising their dream future life with other life planning exercises called Ideal Day, Ideal Week and Ideal Year, and to consider the question: "What could possibly stop you from having all of this?"

At the third meeting (Obstacles) we focused on getting all their obstacles down on paper before resolving them. The

MICHAEL FAIRWEATHER CFP™ CHARTERED MCSI

After spending ten years as a financial planner in London, Michael began to think about a change of career. He attended an IFP London branch meeting in 2008, where George Kinder presented on his approach to life planning.

Michael was inspired to sign up for a short training course, followed by residential training and a six-month mentorship, to attain his Registered Life Planner qualification.

Michael moved to Edinburgh in 2011 to set up Real Life Financial Planning, which is built around George Kinder's teachings.

standard phrase is: "I have some ideas about how you could go about resolving these obstacles but how would you solve them?"

Amy and Alex were therefore encouraged to come up with their own solutions, which is one of the best bits of life planning, instead of an 'expert' financial planner telling them what they should do. They came up with all the big decisions themselves, including:

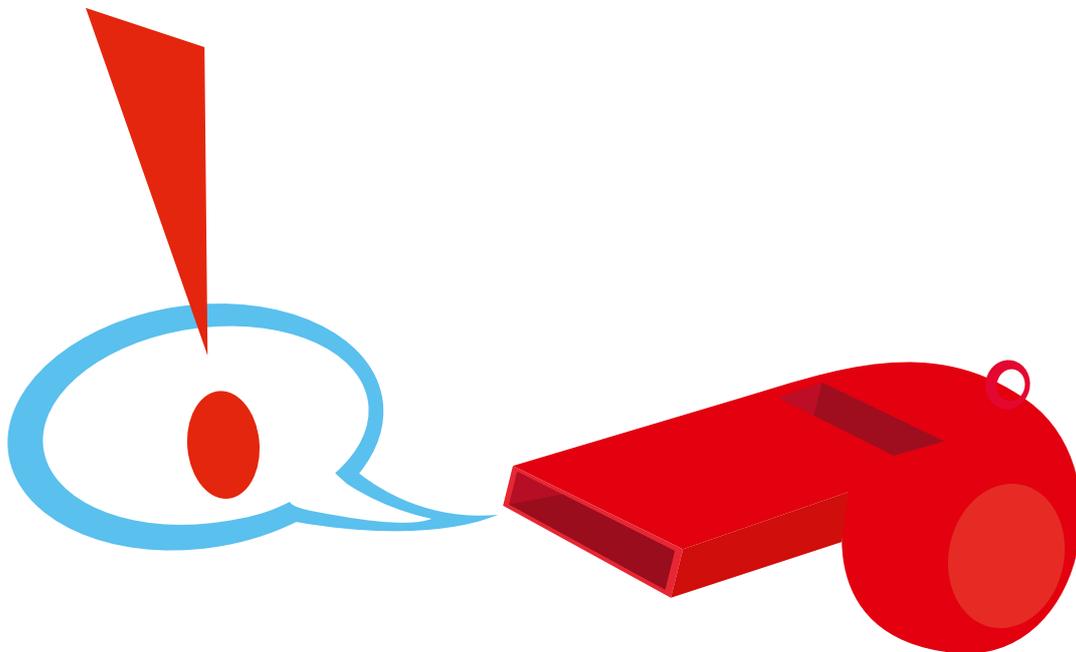
- ▶ Amy taking a new job with excellent salary and benefits package.
 - ▶ The whole family moving from Scotland to England for her new job.
 - ▶ Buying a new house using the government Help to Buy scheme.
 - ▶ Selling her private limited company.
- The Knowledge and Execution part of the process, the financial plan and its implementation, involved:
- ▶ Transferring Amy's existing personal pension and advising her to stop making personal pension contributions and start making employer pension contributions instead from her private limited company.
 - ▶ Advising her to stop paying herself a salary from their private limited company.
 - ▶ Transferring some of her shares in the business to her husband for tax efficiency of dividend income.
 - ▶ Advising her to apply for replacement life assurance, family income benefit and income protection insurance. ●

// GETTING THE 'TORCH' STATEMENT RIGHT TENDS TO ELICIT EMOTIONAL RESPONSES //

WHAT HAPPENED NEXT?

Fast forward three years and they are settled in to their brand new home. The local state schools are excellent, which has lifted the burden of future school fees. They've completed the sale of their limited company.

Alex is now three stone lighter and has taken a position as school governor. He has started building up his own private physiotherapy practice and feels they now have sufficient financial security to be confident about their future and free to pursue their dream lives.



Grey matters: World tour

THIS 'GREY MATTERS', ABOUT SEXUAL HARASSMENT IN THE WORKPLACE, WAS ORIGINALLY PUBLISHED IN *THE REVIEW* IN JULY 2008 AND UPDATED AND REWORKED FOR THIS EDITION. THE RISE OF THE #METOO AND #TIMESUP MOVEMENTS HAVE BROUGHT THE TOPIC TO THE FOREFRONT OF PUBLIC CONSCIOUSNESS. TEN YEARS ON, WOULD WE RECOMMEND DOING ANYTHING DIFFERENTLY?

Robert is managing director for an international retail bank. The bank has recently appointed a new non-executive director (NED), Henry. As part of his induction, Henry is undertaking a series of visits to the bank's overseas branches, accompanied by members of Robert's team.

Robert liaises with colleagues overseas to ensure that Henry is introduced to appropriate staff members, local business leaders and government representatives. All the visits are high-profile, with a significant amount of press coverage.

However, Robert is concerned at feedback he receives from members of his team who accompany Henry on his visits. During one long-haul journey, Henry had liberally enjoyed the refreshments available on the aircraft. The flight was followed by a large reception at which Henry met senior members of the bank's local staff, business leaders and several government representatives.

Robert's team member, Stephanie, tells him that Henry continued drinking at the

reception, which, compounded by his earlier indulgence, resulted in him slurring his words. Additionally, he seemed to be concentrating heavily on entertaining the female guests, including Stephanie, who were made to feel uncomfortable by his close attention.

A further incident was reported to Robert by an overseas colleague, Mark, who attended a reception for Henry, at which he conspicuously pestered a female guest, one of Mark's valued clients, to go out to dinner. The client told Mark that she accepted the dinner invitation only to avoid causing a scene and that she was not happy about it, suggesting that she was unsure whether she wanted to remain a client.

These two incidents concern Robert for many reasons, including their potential to reflect badly on the bank, and the possibility of legal action. Accordingly, he feels that they must be reported, and makes an appointment to see the chief executive.

The chief executive tells Robert that, while he has done the right thing in speaking up, he does not feel inclined to take it any further. Robert feels as though he

// STEPHANIE SAYS THAT UNLESS SOMETHING IS DONE, SHE WILL FEEL COMPELLED TO SPEAK UP //



Go online to watch our Annual Integrity Debate on the whistleblowing dilemma. To access the video, point your smartphone or PC camera at the QR code, or do the same with a QR code scanning app, downloaded onto your smartphone from the App Store. Once online, logging in will take you straight to the video.

has done everything possible at this stage to take appropriate action, and advises Stephanie and Mark that the incidents have been reported.

A month later, following a further overseas trip during which Henry was again accompanied by Stephanie, she returns and tells Robert that Henry made several suggestive remarks to her. She is very upset and says that unless something is done about it she will feel compelled to speak up using any channels available to her, including social media.

Robert assures Stephanie that he will see that something is done but, having reported previous incidents to the chief executive to no avail, privately he wonders what more he can do. The chief executive is currently with Henry on one of his overseas visits (which is being covered heavily in the press), and Robert is hesitant to approach him again until he is back in the office in a couple of weeks.

What should Robert do?

- Go back to the chief executive once he returns to the office, even though this could mean that Henry's bad behaviour continues unchecked on the current visit. Let Stephanie know what he plans to do, and encourage her to not say anything publicly until he has had a chance to speak with the chief executive again.
- Report the matter to the HR director as the senior staff member for personnel issues, which this has now become. Let the HR director know that the matter has been reported to the chief executive, but that nothing (to his knowledge) has been done.
- Report his concerns to the chairman, and advise the chairman of the previous report to the chief executive. The chairman is, after all, the only person who has the power to dismiss a NED.
- Email the chief executive while he is away, letting him know that another report has been received about Henry's unacceptable behaviour, and that if nothing is done, the staff member concerned will almost certainly make her accusations public on social media. ●



WHAT WOULD YOU ADVISE?

Visit cisi.org/worldtour and let us know your favoured option. The results of the survey and the opinion of CISI will be published in the Q4 2018 print edition of *The Review*.

Sign of the times: The verdict

This 'Grey matter', published in the Q2 2018 print edition of *The Review*, deals with familiar issues, including grief and stress, and a lack of support at a time when a crucial decision must be made. Many will empathise with Holly's situation, where she finds herself doing something wrong, but with the best of intentions. This dilemma was inspired by real-life events, as told to us by a CISI member, for which we offer our thanks. Should you wish to suggest dilemmas, please contact us at principles@cisi.org. Suggested solutions and results are as follows:

A. Holly should be fired for gross misconduct. She was not a witness to the trustee's signature, and has therefore fraudulently inserted her name in the document. (16%)

B. Alex should acknowledge that Holly was left in a tough position and did what she thought was right in the circumstances. However, she did make some serious mistakes, so should be required to undertake further training, and must have all her work strictly supervised for a set time. (26%)

C. Holly clearly knows that her actions are wrong, and Alex trusts that she would not behave in this manner under normal circumstances. Furthermore, Alex realises that her own actions, including telling Holly to ensure the paperwork was completed with minimal disruption to the Harris family and leaving her without supervision during a critical time, contributed to the issue arising. Therefore, she should not take any further action at this time. (14%)

D. Holly should face disciplinary action, but the sanction should be short of dismissal, considering Alex's responsibility in the situation arising as well as the exceptional circumstances presented by this case. (44%)

Responses received: 252

What Holly did is, essentially, fraud. She signed a document as a witness, despite having not actually witnessed the trustee's signature.

However, ethical dilemmas are never 'black or white'. Holly was told by her manager to ensure that the documents be signed with as little disturbance to the Harris family as possible. Holly wanted to honour this, especially as she had also suffered a bereavement.

Many comments note that while Holly's actions were wrong, her intentions were good. While the majority of the 252 respondents said Holly should face disciplinary action, it was felt that mitigating circumstances should mean any sanction should fall short of dismissal.

The CISI's recommended option is in line with this. Holly should be held accountable for her actions, but those actions should be considered in line with her intentions and the situation she found herself in.

Currency hedging: the next scandal in UK financial services?

INVESTING IN GLOBAL PORTFOLIOS IS RISKY. RETAIL CLIENTS NEED TO BE MADE AWARE, SAYS **BEN RAVEN**, CHARTERED MCSI, DIRECTOR OF TAVISTOCK WEALTH



Let's wind the clock back 20 years. A UK retail client has an adventurous risk profile and is recommended a portfolio of UK equities. Fast-forward to the present day and the geographical breakdown of the client's portfolio will look very different. The reason is the global diversification of client portfolios, made possible by the development of an almost unlimited investment choice.

The same client now may have three-quarters of their portfolio invested overseas. There are numerous benefits for UK clients diversifying around the globe (current UK inflation and GDP vs the rest of the world being examples) and a financial adviser is able to construct, or recommend, a portfolio for retail clients that invests almost anywhere, in almost anything.

Global diversification of investment products has coincided with another significant development in the UK: the weakening of GBP. Over the past 15 years, GBP has lost 29% vs the USD, 25% vs the JPY and 10% vs the EUR. So, clients have seen their UK exposure decrease, their overseas exposure increase, and begun to own more assets denominated in overseas currencies. These currencies have then been strengthening against GBP, meaning their portfolio is likely to have benefited from GBP weakness, although this will depend on whether or not their overseas exposure is being hedged back to GBP.

Where does this leave UK retail clients in 2018? They've probably enjoyed positive performance over the past 15 years. However, what proportion of these returns has been derived from the asset allocations they were advised on at the outset, and what proportion has been derived from the weakening pound? Put another way, how much has come from the currency risk clients may not even have known they were being exposed to?

If we use the IA sector as an example, over the past ten years the IA Japan, North America and European Smaller Companies sectors have made the total returns in their respective native currencies (that is, a Japanese client investing via a JPY share class) in the table shown on the right.

However, UK retail clients tend to invest through GBP share classes and if

we look at the returns of these same sectors, in GBP terms, the results are strikingly different (see table, below right).

Some funds operate with multiple share classes, but IA sector returns are calculated using only one share class per fund: typically, an unhedged GBP share class. IA sector analysis therefore fails to identify the proportion of returns arising from asset allocation vs the proportion arising from currency moves, nor does it explain the considerable additional risks that currency markets expose clients to.

What does this mean for clients? A large portion of their returns may not have been derived from the investment strategy they agreed with their financial adviser. The weakening GBP has 'boosted' many clients' returns. This was neither part of the intended investment strategy nor a risk that was explained to the client. Their expectation was that they were investing in, for example, equities. In reality, they were investing in two asset classes: equities and foreign exchange.

Volatile currency markets

Would we ever deem it appropriate to recommend a currency fund to a cautious client? The answer is almost certainly no, because currency markets tend to be more volatile than other asset classes. Why, then, do advisers recommend investments in global bond funds via unhedged GBP share classes, which are riddled with currency risk? Advisers may not knowingly place clients into such funds, but, inadvertently, it has become common practice for retail clients to be heavily invested in globally diversified, unhedged portfolios, carrying an equivalent or an even worse exposure.

IA SECTOR RETURNS IN NATIVE CURRENCY

IA Sector	Native currency	IA performance in native currency
IA Japan	JPY	70.05%
IA North America	USD	112.22%
IA Eur Small Comp	EUR	141.00%

Source: Lipper for Investment Management & Thomson Reuters Eikon. 31/03/03–31/03/18.



PHOTOGRAPHY: ISTOCK

Fortunately, over the past 20 years, this hasn't really mattered because investment returns have been 'boosted' by currency moves. Whatever the outcome, however, the client was being exposed to a type and level of risk they were most likely unaware of.

While GBP weakness has helped many retail client portfolios, we must remember that GBP is at the low end of historical averages against other major currencies. UK inflation and expected interest rate rises over the short to medium term are also likely to trigger a GBP recovery.

What happens if GBP returns to the levels of 20 years ago? Investment returns from global holdings would be substantially worse than historically, including delivering potential losses to clients, even when the underlying asset classes made gains. Cue perhaps the next misselling scandal in UK financial services.

Cause for complaint

Clients will have a legitimate complaint based on exposure to a type and level of risk if this was not explained to them at the outset. A portfolio risk rating represents the aggregate, historical, volatility of the specified asset classes within the asset allocation. A blend of 60% equities and 40% bonds may produce a portfolio risk rating of a six. However, as soon as the currency markets start moving around, this six could quickly become a seven, an eight or even a nine.

Would it be a viable defence to the regulator to say that clients were invested in a GBP share class and one assumed this mitigated currency risk? Or, claiming that currency risk is disclosed in the small print of the portfolio literature? What about the fund provider telling an adviser they deliberately decided not to hedge? Let's consider each.

It is a widely perceived fallacy that investing in a GBP share class prevents a client being exposed to currency risk. When purchasing any asset denominated in a different currency, everyone is exposed to exchange rate movements during every trade. The risk is only mitigated if they either invest in a GBP hedged share class or have this exposure hedged elsewhere.

Fund providers have to make full disclosure in the small print, but fund providers do not make investment recommendations to clients. Clients must be made aware of all risks affecting their portfolio prior to

investment. Whether or not the fund provider is highlighting these risks, it is the financial adviser's job to 'look under the bonnet' as they are the liable party.

Fund providers may decide not to hedge because hedging overseas exposure results in a higher ongoing charges figure, or because currency markets tend to 'even themselves out' over time. Either is a legitimate position for them to adopt because their goals are raising assets under management and generating the best risk adjusted returns for the fund. Their outlook and timescales often contrast markedly with a client's best interests. Imagine a client invests when the GBP cycle is in a 'trough' and sells when it is at a 'peak'. GBP strengthened and the client was detrimentally affected – no issue for the fund provider, but a big one for the adviser making the recommendation.

What about fund providers who do not hedge because there are separate currency trades forming part of their investment strategy? **WARNING – READ CAREFULLY:** currency exposure as part of a macro trading strategy is not the same thing as hedging overseas exposure back to GBP. The former is a trading call within the context of the fund's investment objective, the latter is a type of risk that can quickly cause a portfolio to become unsuitable for a client.

These three reasons for not hedging are valid within the context of making decisions in the best interest of the fund. Why, then, would fund providers not be completely forthcoming with financial advisers about the impact of currency risk on a client portfolio? Why should it be up to the adviser to sift through 100 pages of small print across a range of offering documents to find the information?

The simple truth: the interests of a fund provider are often quite different to those of an adviser. Fund providers make decisions in the best interests of their funds. Advisers must make every single decision in the best interests of their client.

How can advisers better understand these issues and the risks they pose to their business? Always ask their fund provider the simple questions: what percentage of my client's portfolio is invested overseas? Is this exposure being hedged back to GBP? If so, how? If not, why? They must conduct adequate due diligence and ensure they make informed decisions in the best interest of their clients. They should no longer be willing to accept the perspective that 'currency markets even themselves out over time', or that other currency trades/exposures form part of the investment strategy.

The landscape in UK financial services has changed dramatically. We may be on the brink of the next financial sector scandal with the indicators staring us in the face. A silver lining for advisers is that the bomb has not exploded yet and there is still time to act. Are you certain your clients are taking the level of risk they signed up for? Is your business prepared for when GBP rallies? ●



BEN RAVEN,
CHARTERED
MCSI,
DIRECTOR -
TAVISTOCK
WEALTH

See CISI TV for a talk on this theme by Ben Raven

Quick quiz answers:
1.B, 2.D, 3.A, 4.D

IA SECTOR RETURNS IN BRITISH POUNDS

IA Sector	IA performance in GBP	Percentage difference
IA Japan	125.49%	79%
IA North America	200.68%	79%
IA Eur Small Comp	165.02%	17%

Source: Lipper for Investment Management & Thomson Reuters Eikon. 31/03/03–31/03/18.



Ask the experts: Shedding light on 'dark pools'



For an extended version of this interview, go to cisi.org/darkpools

Dark pools have become popular among fund managers who are keen to buy or sell large blocks of shares with minimal market impact, while avoiding signalling risk that can alert other investors to their intentions and push the price against them. Dr Robert Barnes, Chartered FCSI, explains

What is a dark pool and how is it different to traditional stock exchange 'lit' order books?

Lit order books display price and size of bids and offers on screen so that orders are visible prior to execution. The benefit is certainty of trade. The challenge is potential market impact.

Dark pools mitigate potential market impact by allowing orders to reside in an order book where the price and size of an order are not displayed until after the trade. Users of a dark book have no certainty – pre-trade – that another order is in the dark pool. The benefit, however, is the ability to place orders without revealing one's intention, pre-trade.

Furthermore, an investor can peg the non-displayed price of the order in the dark pool to follow the mid-point of the bid and offer displayed on the reference lit Primary Exchange. After a dark pool trade, the price and size of the completed order is published. This adds to transparency for all investors, because post-trade transparency is pre-trade transparency for the next trade.

Consider the analogy of buying a house. The real estate agent provides a 'pre-trade' price, but it also helps to know the actual price of the house recently sold next door, 'post-trade,' before making an offer.

How do dark pools work?

Brokers and regulated markets run dark pools. Investors who use dark pools can benefit from potential price improvement but like any tool, it is important to understand how it works to get the best result.

On a traditional stock exchange, prices and order sizes are displayed prior to a trade. For example, Stock A might show a bid price of 98 for 5,000 shares and an offer of 4,000 shares at a price of 102. If we want to buy 1,000 shares, we can tell our broker to lift the offer and pay 102 a share for 1,000

shares, which equals 102,000 paid. The insight is that we have to pay a higher price, 102, for immediacy to complete our order.

Consider this second example of a broker that receives an order to buy 1,000 shares from one customer (us) and a sale of 700 shares from another customer. One action is to match the buyer (us) and seller for 700 shares at a midpoint price halfway between 98 and 102, that is 100, and work the balance of our purchase of 300 shares in the market by lifting the offer and paying 102.

Just before the broker matches these 700 shares, that broker is a human 'dark pool' because the price of 100 and size of 700 shares are not displayed to the market before

“Like any tool, it is important to understand how dark pools work to get the best result”

the trade (more recently, this process has become automated via algorithms). After the trade, a public print shows a trade of 700 shares at a price of 100. We pay 100 per share for 700 shares, which equals 70,000, plus 102 per share for 300 shares, which equals 30,600, leading to a total of 100,600. The effective price is 100.6 per share.

In the second example, we achieve price improvement since we have purchased our 1,000 shares at only 100.6 instead of 102. We benefit in the second example because we achieved the opportunity to meet a seller of 700 shares at the midpoint price.

How is the revised Markets in Financial Instruments Directive (MiFID II) affecting dark pools?

The first MiFID directive encouraged the use of alternate venues, including dark

pools, as competition for order execution. MiFID abolished the 'concentration rule', which previously constrained competition and innovation by forcing investors to trade only on a country's primary stock exchange for instruments listed on that exchange.

MiFID II introduced the concept of double volume caps (DVC), which the European Securities and Markets Authority (ESMA) implemented in March 2018. It stated: "The purpose of the DVC mechanism is to limit the amount of trading under certain equity waivers to ensure the use of such waivers does not harm price formation for equity instruments. More specifically, the DVC limits the amount of dark trading under the reference price waiver and the negotiated transaction waiver."

Even in the presence of the DVCs, investors can continue to benefit from midpoint matching that can save implicit cost of half the bid offer spread: as long as an order received by a market operator in a respective stock symbol is above the ESMA Large In Scale (LIS) size for that symbol. The smallest LIS threshold today is €15,000. With the average trade size in Europe shrinking being €10,000 or less, small-sized trades will be blocked from most continuous dark pools. So some pools will see a drop in activity, and some may close.

DR ROBERT BARNES is global head of Primary Markets at London Stock Exchange Group (LSEG) and CEO of Turquoise, the European multilateral trading facility majority-owned by LSEG. Prior to joining Turquoise LSEG in 2013, Robert worked at UBS for more than 19 years, where he founded UBS Multilateral Trading Facility, which became the leading dark pool in EMEA. Robert is a Chartered Fellow of the CISI.

George Littlejohn MCSI, editor of the *Review of Financial Markets*, tells us to prepare for a roller-coaster ride through the varied landscapes of financial mathematics and psychology, pp.54–65



Christopher Bond, Chartered MCSI takes a tour of the latest regulatory developments on Brexit, the Senior Managers and Certification Regime, cyber security, financial crime, auditing, and environmental, social and governance (ESG) issues, pp.50–53



72%

The proportion of 22- to 29-year-olds in the UK paying into a pension in 2016. The way the next generation will invest is changing.

*Andrew Davis comments
p.66*

*pp.50–66
The latest updates in regulation and academic research to help you keep abreast of what's new*

INTRODUCTION

THIS SECTION HIGHLIGHTS RECENT REGULATORY CHANGES AFFECTING THE FINANCIAL SERVICES SECTOR IN THE UK. THE REPORT CAN ALSO BE ACCESSED AS A PROFESSIONAL REFRESHER AT CISI.ORG/PR OR LOG IN TO MYCISI.

CHRISTOPHER BOND, CHARTERED MCSI, EDITOR, REGULATORY UPDATE, CHRISTOPHER.BOND@CISI.ORG

GENERAL REGULATORY CHANGES

1. Brexit

Now that the Markets in Financial Instruments Directive II (MiFID II) and General Data Protection Regulation (GDPR) are implemented, senior management in firms with EU clients is focusing on this. The lack of progress is causing uncertainty to the extent that affected firms are considering moving beyond hiring staff in their chosen EU base to deliberately not recruiting in the UK – even to fill vacancies. This applies to most if not all affected financial sectors. The split in City thinking between ‘mutual recognition’ (rather than passporting) and ‘equivalence’ is unhelpful. Firms’ project teams are frustrated by the lack of information.

Some interesting developments:

- The Bank of England has warned that a disorderly Brexit could lead to interest rates being kept artificially low, causing sterling devaluation.

- The UK Chancellor, Philip Hammond, has warned firms not to expect a bonfire of ‘red tape’ post Brexit. The UK should be the “safest and most transparent place to do business”.
- There seems to be some acceptance of the principle of asset management delegation, that investor assets can be managed for EU investors on a ‘back-to-back’ basis, and sub-managed by a UK entity – but the EU regulators will want knowledge and staff on the ground. (The French AMF said: “We do not question existing business models that rely on delegation.”)
- The pressure on obtaining Tier 2 (skilled person) visas under the UK immigration system has eased for financial services companies, given the government’s decision to exempt NHS staff from the quota (currently they account for 40% of Tier 2).



Visit CISI TV for the latest instalment of Brussels for Brunch, our regular webcast about Europe. Euro guru Graham Bishop discusses developments in Europe with his good friend Dr Andrew Hilton of the Centre for the study of Financial Innovation. Brussels for Brunch – July



Point your smartphone or PC camera at the code, or download a QR code scanning app from the App Store.

- The FCA's 2018/19 Business Plan says that Brexit will be its primary focus. It plans to monitor the impact of the transitional arrangements on firms (expect questionnaires and questions during visits).
- There are millions of contracts which are at legal risk post-Brexit. UK companies may be unable to perform financial contracts if access is prevented. Examples are insurance policies, (around 30 million EU policy holders), pensions, medium and long-dated derivatives contracts and revolving credit facilities, custody agreements and prime brokerage contracts. Continuity laws will be needed if there is no access.

2. Senior Managers and Certification Regime

The FCA has issued two papers on the SMCR – one policy statement (PS18/14) with near final rules, and one consultation paper (CP18/19) on the new register for certified employees.

PS18/14 makes minor changes to the original FCA proposals in CP17/25. This is disappointing given the large number of responses to it. The only features of interest are: the FCA's comments; the detail of the near-final rules (awaiting only a Brexit review); and the timing.

The FCA comments are well worth reading. They include information of interest to groups; enhanced firms; firms with chief operating officers; HR staff with regard to making criminal checks; and whoever reports breaches to the FCA.

SMCR will start for existing SMCR firms at the beginning of 2019; and for new SMCR firms in December 2019, although there is a 12-month transition window for certified staff. The FCA expects firms to start preparing now – and there is little sign of the encouraging oral statements at the time of the CP that preparation should be proportionate to the size and complexity of the firm.

The FCA has listened to requests for a register for certified staff. It plans a 'directory' that will contain more information than the current Register for Approved Persons, such as role held, any regulatory sanctions, location of individual and whether there are mandatory qualifications. It should open in December for existing SMCR firms, although they have 12 months to complete data – firms new to SMCR start in December 2019 and also have 12 months to complete. There will not be a



Visit *The Review* online to read our expert's guidance on the SMCR extension in 'Ask the experts: Senior Managers and Certification Regime extension'



transfer of data from the existing Register (which will continue for senior managers) but there will be a link to historic information held on it to the public. The obligation on providing and maintaining the data is squarely on firms – the FCA will not check it.

3. FCA priorities

The 2018/19 Business Plan is important reading for senior managers of all regulated businesses. It sets out its priorities for the year. These include culture, particularly the SMCR (you may also note the Upper Tribunal's criticism of the FCA for pursuing junior staff for LIBOR behaviour while not going after senior managers with vigour: "The senior people somehow manage to keep their fingerprints off the relevant documents sometimes"); encouraging the use of fintech and regtech by firms (including its impact on competition, use of big data, machine learning, algo trading and artificial intelligence); implementation of the recent Market Abuse rules (a paper on 'Approach to market integrity' will be published in 2018/19) and MiFID II rules by wholesale firms (there is an unexpected emphasis on conflicts of interest); financial crime prevention is still a top priority (it will publish a thematic review on the money laundering in the capital markets); and developing a new prudential capital regime for asset managers.

Underlying all this is the more assertive stand the FCA is taking on

changing firms' business models – for competition purposes. The asset management study and later new requirements is a good example. Would the FSA have ever addressed the level and disclosure of fees charged by managers? Private wealth management is another; and its promotion of fintech and regtech (such as the 'sandbox' for testing new products).

The BoE and the FCA are working on exploring how artificial intelligence and machine learning could be used to make reading their rulebooks easier, reporting regulatory data quicker and analysing that data more efficiently. This is part of

// THE FCA HAS LISTENED TO REQUESTS FOR A REGISTER FOR CERTIFIED STAFF //

a more general rethink of how the new financial developments should be regulated in the future. An example

is the more streamlined approval process for new banks. This has been very long and sometimes difficult in the recent past.

There has been a big increase (33%) in the number of senior managers who are interviewed by former senior practitioners for the FCA in respect of their roles over the past year (183 in 2017). Is it anticipating the SMCR? The PRA routinely interviews many senior managers and directors.

4. Cyber security developments include:

- UK Finance has warned firms that they need to change their cyber risk assessment and prevention policies as

they adopt new technologies such as AI and blockchain - with a direct impact on possibly increasing prudential capital. Regulators also need to change how they assess firms' policies. ("As firms adapt, so too must the regulatory principles under which they operate. This process should consider both how to achieve a consistent treatment internationally and also how capital charges could be evolved.")

- GDPR forces firms to report a data breach to the regulator within 72 hours. Publicity internally and externally will follow, so communications teams must be prepared. There could also be heavy fines from the regulator (the Information Commissioner's Office). Failure by a firm to conduct regular conduct risk assessments could be costly.
- See the focus on firms' cyber prevention policies in the FCA's 2018/19 Business Plan described in point 3 earlier.

5. Fintech

The onward adoption of fintech and regtech with the support of the regulator continues. Statistics abound but one telling one is that at least 30% of activities generally carried out by 60% of businesses will become automatable. However, job reductions have been offset by the rise of new types of jobs in financial services - IT

and fintech being examples (the number of adverts for IT and engineering roles at banks in the EU have increased 11.4% since 2015

and accounted for 17% of bank job postings). One quote from a firm: "There are not an awful lot of reasons if you are a young tech millennial to be in London with the exception of, it is where the work is, and if the work drifts away, you might see quite a big impact."

Machine learning, as in Google's Deep Mind playing the game 'Go' against itself until it had learnt enough to defeat the

// ONE POPULAR APPROACH IS TO AUGMENT AI WITH HUMAN DECISION-MAKING //

human world champion, is being adopted by banks in particular who have also invested in fintech incubators to develop relevant services.

One popular approach is to augment AI with human decision-making. To quote a US data scientist: "AI is weak where humans need their full decision-making ability". So, human asset managers may still be needed for active management.

6. Financial crime developments

- The next EU Money Laundering Directive (MLD5) is progressing. Proposed by the Commission, it is now under discussion in the EU Parliament. It addresses terrorist financing (post the Paris terror attacks) by increasing the transparency of financial transactions and legal entities. It will not start until 2019 at the earliest.
- The UK government has forced its overseas territories, such as the British Virgin Islands, to publish information on the beneficial owners of offshore companies registered there. Andrew Mitchell MP said that the UK's overseas territories are "central to this nefarious activity [money laundering]". This will make it easier for financial firms to conduct due diligence on customers.
- The new law on UK corporate entities not facilitating tax evasion anywhere requires firms to take reasonable steps to prevent this. The net is wide - agents are covered as well as employees. Some firms have responded by adopting a Board policy and training their staff and agents (including introducing brokers).
- The US sanctions against certain Russian oligarchs and companies they control continue to restrict UK firms' customer relationships. For example, Rusal manufactures more than 10% of global aluminium.
- The FCA and the Insolvency Service are to share data to address corporate and financial misconduct and crime
- The FCA has fined a bank (Canara Bank) nearly £900,000 and banned it from accepting deposits for 147 days for failing to maintain proper anti-money laundering procedures for three and a half years. The problem was at all levels of the bank, including senior management. They had been warned.

7. Auditing

The Carillion debacle triggered the government's review of the future of the



Using AI for investment decisions is no longer the exclusive domain of 'quant' funds. Visit cisi.org/ai or scan the QR code to read about how asset managers, financial advisers and hedge funds are adopting the technology.



PHOTOGRAPHY: ISTOCK



When discretionary fund manager Beaufort Securities went bust in March, investors assumed their money was safe and would be returned. This isn't necessarily the case. How was this allowed to happen? Read our analysis in 'The aftermath of Beaufort Securities'



audit regulator, the Financial Reporting Council (FRC); and indirectly raised questions about the purpose of company audits and even the possibility of disbandment of the Big 4 audit firms (Deloitte, Ernst & Young, KPMG, and PwC). The FRC has in turn heavily criticised KPMG for an unacceptable deterioration of its audit quality. Stephen Hadrill, the FRC's CEO, has said: "At a time when public trust in business and in audit is in the spotlight, the Big 4 must improve the quality of their audits and do so quickly". The review of the FRC is likely to be a turning point in auditing, with considerable consequences for audits – including their costs and Board representation letters.

8. Environmental, social and governance

The trend towards ESG investing continues by both wholesale and retail investors. Some developments:

- The lack of definition of ESG is troubling. Is it sufficient to avoid 'toxic' investments such as armaments and tobacco? Or should there be a positive duty to make 'social good' investments – perhaps with measurable impact? And since there is no agreed definition of ESG stocks, do you look at the total 'score' of all three factors or at them individually? So, if an airline scores well in corporate governance and social factors, should it be failed because of a

poor environmental result? And energy stocks? For example, when the UN applied its Principles for Responsible (PRI) Investment to its signatories, it found that 10% (185) failed to meet the minimum standards. Others criticise the PRI for lack of rigour.

- Global warming is becoming a major concern to Western governments as they struggle to meet their commitments under the Paris Accords. Mark Carney, governor of the BoE, has repeatedly warned banks to take this into account in their lending, for example, to coal mines, and the PRA is also concerned. These concerns apply to managers and investors too.
- The government is considering how to redress the gender balance in both Board appointments and senior management. The FCA has not yet pushed regulated firms on this but may do so in the future.
- The FCA has said that it will use the SMCR to take action on sexual harassment.
- This is implicitly covered in SMCR under the 'fitness and propriety' consideration.

Client assets

The Beaufort Securities failure has raised fears among investors that they cannot expect the return of their investments or cash without deductions being made for

the costs of the professional firm brought in to wind up the firm's business. PwC proposed to charge £100m for this role, reduced to £50m after protests from investors and the regulator. Only those clients whose assets were small enough to be protected (up to £50,000 against each Beaufort firm) will escape liability to contribute to these costs. The others with higher amounts of investments will contribute to PwC's costs. This liability exists even if the investments are held with a nominee. Some retail clients are very unhappy about this, and want a review of the present position.

Some possibilities include the Financial Services Compensation Scheme (FSCS) carrying the whole cost of winding up

firms in default (not popular because of the FSCS's difficult financial position and the effective subsidy given to the investors by other firms through FSCS

// THE FCA WILL USE THE SMCR TO TAKE ACTION ON SEXUAL HARASSMENT //

levies); requiring firms to insure against the possible risk and costs; creating a 'captive' insurance company under which firms underwrite the costs of other known firms (effectively requiring firms rejected by the captive to insure externally); and clients having their own direct account (not nominee account) with a custodian (ideal but difficult for retail clients to negotiate with a firm).

BEHAVIOUR, BLOCKCHAIN, AND CYBER – A BOARDROOM BBC

In July 2018, Britain's Financial Conduct Authority published its near-final rules on the extension of the Senior Managers and Certification Regime to almost all regulated firms. While the obligations for 'enhanced' firms are very similar to those that currently apply to banks, the combination of personal liability for senior managers and the potential of a career crash driven by a conduct breach will mean significant cultural shifts in many firms. Issues around 'behavioural finance' – understanding the true needs of clients – the use of blockchain for greater operational and cost efficiency, and dealing with the many-headed Hydra of the cyber threat, all covered in this edition, will feature on many boardroom agendas.

Keith Robertson, Chartered FCSI, long-time investment and financial planning guru at the CISI, has spent much of this spring distilling his seminal – and at times controversial – contributions to the debate on behavioural finance for our Review of Financial Markets. The following pages are a gateway to his full paper, available at cisi.org/rfmq3-18

Robertson believes that "finance has worn a theoretical straightjacket since the end of WWII. The history is fascinating, but not for this paper. At its core, modern financial theory (MFT) is composed of a pick-and-mix collection of individual theoretical conjectures including Modern Portfolio Theory (MFT), the Efficient Markets Model (EMM), the Capital Asset Pricing Model (CAPM) and the Black-Scholes equations for options pricing; this

last-mentioned is ignored for current purposes. Also in the mix would be a trio of quasi-behavioural theories: Utility Theory, Expected Utility Theory and Decision Theory". All these share some common factors, he explains:

// FINANCE HAS WORN A THEORETICAL STRAIGHTJACKET SINCE THE END OF WWII //

- Fundamentally, all are mathematical or econometric 'models', but not sufficiently tested to meet the scientific definition of a 'theory', like Relativity Theory, Evolutionary Theory, Quantum Theory; far less could any of them hope to ever qualify for the optimal status of being a scientific 'Law'.
- All have been developed by brilliant minds; yet all remain essentially unproven conjectures.
- A mathematical theorem takes the format: if certain assumptions are true, then a given conclusion follows: ie, the validity of the output rests on the validity of the underlying assumptions used.
- The assumptions in fact used are not to be found in the real world.

"For the sake of good order," he says, "it is worth stating the assumptions on which MPT is founded. The above clutch of associated hypotheses requires a 'rational' and perfect neoclassical economic environment":

- All agents/investors will behave rationally to optimise their own economic self-interest.
- All relevant information is freely available and effectively instantly priced into the market.
- Markets are permanently 'frictionless', fully liquid, and without costs, taxes or delays in employing dividends, capital and so on.
- Each price change is random, conforming to the Random Walk Hypothesis.
- Each price change is independent of its predecessor and successor price changes.
- Price changes are normally distributed [while this assumption is often termed thus, it is generally accepted that price changes have a lognormal distribution, and returns have a normal distribution].

"All this has resulted in the employment of deductive logic and the general mathematisation of finance, which is where we remain today," says Robertson.

The full paper covers three related aspects of psychological behaviours in finance:

- Psychological biases and traits.
- Prospect Theory, which provides absolutely fundamental insights for advisers.
- The ever-present role in finance of cognitive dissonance and narrative fallacy.

It will certainly spark debate, some of it heated. Feel free to send me your comments, and suggestions, to the email address below. Or tweet to #futureproof. And prepare for a roller-coaster ride through the varied landscapes of financial mathematics and psychology.

George Littlejohn MCSI, editor, *Review of Financial Markets*, and CISI senior adviser.
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BEHAVIOURAL FINANCE – TIME TO LOOK IN THE MIRROR?

KEITH ROBERTSON, CHARTERED FCSI, ARGUES THAT THE INVESTMENT WORLD SHOULD GET ITS OWN HOUSE IN ORDER BEFORE POINTING THE FINGER OF IRRATIONAL BEHAVIOUR AT INVESTORS

We are all prone to biases, and so the recognition of behavioural finance and its contributions in recent decades is to be welcomed, says long-time financial planning and wealth management expert Keith Robertson. But take care, he warns, to weigh that work against the solid achievements of the mathematical giants – starting with Daniel Bernoulli almost 300 years ago – on whose shoulders much of it stands, oft-times rather shakily. The “asymmetry of skill and knowledge between fee-charging professional and fee-paying layperson ... should prod us into considering whether we are quite as smart as we appear to believe”.

Financial advisers, as a sub-species of Homo sapiens, are remarkably incurious. They have a tendency to accept and absorb any information which looks to help their businesses, without necessarily troubling themselves to subject such information to the higher mental processes. For example, behavioural finance is most often presented [as in Nick Edwards’ briefing paper – see cisi.org/behaviours] as the study of investors’ flawed decisions, caused by naïve misunderstandings and underlying psychological biases. The lack of critical thinking is worrying. Martin Wheatley, as CEO of the shiny new FCA, in 2013 introduced *Occasional paper no.1 – Applying behavioural economics at the Financial Conduct Authority* with: “A rapidly growing literature on behavioural

economics shows that some errors made by consumers are persistent and predictable.” He goes on in like vein with “consumer choice in retail financial products and services is particularly prone to errors,” or “people are generally bad (even terrible) intuitive statisticians and are prone to making systematic errors in decisions involving uncertainty,” and “stress, anxiety, fear of losses and regret, rather than the costs and benefits of the choices, can drive decisions”.

The received opinion in our sector is that investors are really rather stupid, poor things. They make terrible decisions and are worse. As advisers, we should therefore tread carefully and be aware how irrational and dangerous customers might be. This view is reinforced by seminars, statements from the regulator, books, and articles, explaining all the biases and errors to which investors are prone. This attitude is dangerously short-sighted. While stupidity exists, and egregious errors are without doubt made in investment, a moment’s thought will show they are made primarily by the investment sector itself, not by retail investors.

After WWII, most stock exchange transactions were still undertaken directly by individuals; not now. The growth of the investment sector, as a sector, has taken place during the past 50 years. Today, for all practical purposes, retail investment (including pension funds) is entirely intermediated. It may be a convenient fiction to maintain that clients make the flawed decisions but, in reality, it is more likely to be advisers who do so. By definition, clients are acting on our advice, not their own fallibility. Clients do not make their own free investment decisions, even if they have signed-off on risk profiles and proposed investment strategy. Clients are overwhelmingly likely to always act under their adviser’s influence. Who, therefore, is making the errors?

AS SMART AS WE APPEAR?

If money is lost in markets it is we, as professional intermediators, who are as likely to have made all the mistakes and irrational choices as the clients whom we ridicule. All the worst things that have happened historically (such as market crashes, illiquidity, major banks and fund managers going bust, zero savings rates, wholesale fraud in foreign exchange, LIBOR, swap contracts, money laundering, mega bailouts, sub-prime mortgages, collateralised debt obligations and other derivative-based investments) have not been the result of behavioural financial errors on the part of private clients. We need to look critically at our behaviour and uncertain

knowledge, and consider how much we really understand about the processes we use to manage other people’s money. As in medicine, if things go wrong, it is likely to be our fault, not

// ARE WE QUITE AS SMART AS WE APPEAR TO BELIEVE? //

our clients’. Asymmetry of skill and knowledge, between fee-charging professional and fee-paying layperson, inevitably brings responsibility which, in turn, should prod us into considering whether we are quite as smart as we appear to believe.

For sure, people are prone to biases and making flawed decisions, and the recognition of behavioural finance in recent decades is to be welcomed, but the growing body of work needs to be assessed critically and sceptically and not swallowed whole.

If recent original behavioural research is examined, much of it has nothing to do with investment or finance but simply takes an experimental view of people’s behaviours in certain hypothetical circumstances and contexts. It is unfortunate that researchers find using monetary gambles and simple probability scenarios so useful, because that increases the chance that results will be automatically applied to personal financial decisions and the economic choices which have to be faced in life. Very few (if any) experiments have been done using real people and their own



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hard-earned money in real-life scenarios. To the extent that real-life behaviours have been studied, the experiments have been ex-post facto, looking back on historical events and trying to deduce or imply ex-ante behaviours. Such experiments are of course likely to be contaminated by hindsight bias and vulnerable to data-mining to suit researchers' premises.

In behavioural finance or economics, many of the experiments use graduate and undergraduate students and others in artificial and contrived situations to see how they react to simple probability or lottery type scenarios which, while interesting or amusing, have zilch relevance to real-life financial advice. Numerous (mostly American) papers in the field draw on public statistics, for instance assuming that owning equities is proof of risk appetite, without questioning *why* subjects own these assets. As in the UK, most investment is mediated and uses collective and multi-asset funds, and automated pension funding. Subjects are thus likely acting under professional guidance or discretionary management, not personal error. Particularly where utility and expected utility responses are being explored, quantitative data is collected, whereas in real life investment scenarios, behaviours and utility are usually qualitative and often deeply personal, quirky, and at odds with theory. A better way to understand behaviour might be to talk to our clients and ask them how they felt, what went through their minds, when markets ineluctably spiralled down in 2007-09. Understanding the sick feeling in the pit of the stomach when one loses much more real money than bargained for is probably a more useful lesson than the behaviour of a group of bright students playing a game with pretend assets in a psychology lab.

So, when considering behavioural finance, it may be worth examining how much some of the errors and 'irrational' responses apply to ourselves, rather than classifying them as pitiful characteristics of less-informed clients. And we should remember that it is nearly always the investment sector (not excluding advisers) that does damage to other people's finances, rather than its being self-inflicted by themselves. Particularly after a market fall, failure by clients to buy

undervalued assets is not down to just their irrational fear; it is our failure to explain the cyclical nature of asset markets and the countercyclical behaviour needed to profit from this eternal phenomenon.

PERSPECTIVE AND CONTEXT

Behavioural economics is interesting in its own right, but the context in which advisers can make use of it is not as a sort of mental 'I-Spy' game, observing clients' confused and erroneous notions.

It is crucial in understanding our own behaviour when interacting with clients, and realising that the way we present information will determine the strength of the

// OUR FAILURE TO EXPLAIN THE CYCLICAL NATURE OF ASSET MARKETS //

clients' intellectual grasp and belief in what we tell them. In short, if we appear lucid and confident in what we tell them, it is a racing certainty that clients will accept our advice and recommendations without question. In turn, that means our understanding of our own investment proposition must be impregnable. Clients are overwhelmingly likely to believe and accept what we tell them. Knowing that, we must guard against taking advantage of clients' relative ignorance, or tricking them, just to benefit (whether knowingly or unthinkingly) from the sorts of psychological biases to which they may be prone.

The elephant in the room is the painful suspicion that, as a sector, financial planners are still subliminally motivated to accumulate assets under influence and get clients fully invested as fast as decently possible, rather than provide well-informed objective advice focused on risk. When an overwhelmingly predominant 'black box' process (the by-now orthodox risk profiling-cum-asset allocation (RiPAA) into multi-asset portfolios with systematic rebalancing is embraced by virtually the entire sector, one knows something is not right.

Parrotting what others have told us is not sufficient; as their agents, we have to assume a sceptical perspective on behalf of our clients, challenging our centralised investment proposition (CIP) or any investment strategy. Presently, we simply do not challenge what

we have embraced; it is easier to believe the herd must be right. Every adviser's written statement of investment principles and risk should be shown to a third-party with instructions to challenge each element of it, and to provide evidence for accepting or discarding any part of it. Only then should it be given to your clients. There is a legal and ethical duty to have evidence that what you propose to do with other people's money is likely to work in 'normal' conditions and, to the extent it may fail, the conditions in which it will likely not produce the outcomes hoped for. The regulator and courts are concerned not with theory but with outcomes, and the extent to which investors have been educated about the myriad risks they will be exposed to.

BACK TO THE FUTURE

Behavioural finance is nearly 300 years old. Daniel Bernoulli was certainly on the case by 1738, when he published astonishingly perspicacious work on the theory of risk, and effectively laid the foundations for what would, in the later 20th century, become known as utility theory, expected utility theory, game theory and decision theory, loss-aversion or risk-aversion, prospect theory and the entire notion of subjective relative value. Morgenstern, von Neumann, Kahneman and Tversky et al are today's known names, but the credit lies with Bernoulli and the 18th- and 19th-century mathematical giants who developed the fields of probability and statistics. Let us consider some uncomfortable and inconvenient truths.

AUTOMATIC OR REFLECTIVE THINKING

It is unhelpful to make definitive statements on how the brain facilitates decision-making processes. There is good evidence that certain parts of the brain are involved in a range of physical and mental processes, but nobody knows how specific thoughts and reasoning occur in the brain. Unravelling



Daniel Bernoulli FRS (1700-1782) was a Swiss mathematician and physicist and was one of the many prominent mathematicians in the Bernoulli family.

that physiology is still in its infancy. If neurology is to be included in an article, it is important to not make simple errors of fact. Some claim that the “oldest parts of the brain” are used in the thinking process and lead to uncontrolled actions and decisions, citing reflexes and ‘gut instinct’ as examples. Reflexes form part of the autonomic nervous system, seated and controlled mostly in the hypothalamus and brain stem. This has nothing to do with thinking or decision-making. The whole point is that the ‘old brain’, evolutionarily speaking, cannot be controlled. You cannot ‘think’ your reflexes not to work, it is impossible to ‘think’ yourself to stop breathing or your heart to stop, whether awake or asleep: these functions are autonomous, outside the capacity of anyone to subjectively control.

Even if the reference to ‘gut instinct’ had been defined (it has no meaning otherwise) it has nothing to do with ‘automatic thinking’. Thinking, and other cognitive processes are a function of several parts of the brain working together, but significantly in the frontal cortex; if a thought comes into your head, it has nothing to do with the autonomic nervous system. Thaler and Sunstein in *Nudge* (2008), and Kahneman in *Thinking, fast and slow* (2011), speak of “gut instinct” and use the terms “automatic thinking” and “reflective thinking” as System 1 and System 2 respectively, but the words are journalistic shorthand, not scientific terminology.

ANCHORING

This relates to any decision that involves some quantitative or qualitative factor, as there is a well-known tendency to be influenced by a recently-stated number or quantity. Thus, if you try haggling in the souk and the trader starts at a price of 100, and you plan your counter-offer based on that (countering at say 50 or even 30), you are likely to finish up paying more than the item is worth. If you price-check the item elsewhere and find out the ‘correct’ value is 15, you can avoid this common scam. There is ample research, and lots of trick scenarios contrived to illustrate this well-evidenced anchoring phenomenon.

With a high anchor value, people tend to make higher estimates and guesses than if a lower anchor value is used. Advisers might consider whether some questions in a risk-profiling questionnaire

are framed in a way to take advantage of this heuristic. Many questionnaires do this, for example using (one presumes) average returns and volatilities to illustrate notional returns on a portfolio over different timescales. Investors are likely to anchor on attractive positive returns when set out against relatively modest losses. Advisers should be alert to such risk in all quantitative scenarios and decide how to explain this to their clients. Not to do so is likely to result in clients giving answers they have been subtly guided towards, and not give the answers they might really wish to have given, had they been more robustly informed. Indeed, the narrative some advisers themselves tell clients, perhaps regarding the long-term average returns from different asset classes, or qualitative ‘soft’ aspects of their proposition, are also subtle ways of getting clients to anchor their expectations on the wrong things. Risk of misguided client expectations will almost always lurk when cashflow modelling uses average returns and variance to generate future scenarios.

AVAILABILITY BIAS

The **availability bias** is one of the strongest in finance. Just as with anchoring, when you have information presented or hear a theory put forward confidently and persuasively for the first time, the chances are rather high that you will adhere to it. This bias is known in the academic world as the **availability error** where people tend to focus on recently presented (available) information and give it more weight in their minds. It inhibits critical thinking and is responsible for all sorts of biases. When the film version of *Jaws* was released in 1975, there was a sharp drop in the number of swimmers off the beaches of both east and west coasts of the USA. This was of course irrational, because the real risk of injury or death was many times higher driving to get to the beach than bathing off it. Making judgements on the basis of the first or most notable thing that comes to mind is the availability error. Your first thought might be right, but easily might not be. Being impressed is not enough to form an objective and rational view. It is so pervasive and subtle that mostly we don’t notice, and it requires a real effort of will and intellect to fight it; these are occasions that require deliberation.



Nassim Nicholas Taleb (born 1960) is a Lebanese -American essayist, scholar, statistician, former trader, and risk analyst, whose work focuses on problems of randomness, probability, and uncertainty.

Picture: Sarah Josephine Taleb

There are two key circumstances in which availability bias acts in financial advice. The first is when the advisory firm explains its whole process to the client: from introductory meeting through risk-profiling and asset allocation to implementation, systematic rebalancing and review meetings. In the absence of anything else, clients are overwhelmingly likely to embrace the entire process, but let us not fool ourselves that this is because they can rationally and systematically analyse the proposal against fact-checked evidence and rate it the best possible approach. Other investors go to other advisers who offer different processes, and there is no reason to suppose that those clients will be any less impressed by their adviser’s approach to planning and investment than yours. There are all sorts of psychological gymnastics going on when people make such choices.

From an investor’s perspective, meeting a new financial planner is likely to fall into the same category as meeting any professional adviser. If one requires any sort of professional help (such as legal, medical, engineering, physiotherapeutic, architectural), one will carry to a first meeting the presumption that the person one meets will be professional, qualified and competent, and that he will be able to provide the advice and action to meet one’s needs. Given the likely asymmetry of knowledge in such encounters, it is not surprising if a layperson wants to accept your proposition, not directly on its merits (because the client cannot objectively judge how good your advice will actually be) but because it is you. There is huge emotional and intellectual inertia in favour of the potential client sticking with you and becoming an actual client. To reject you on any grounds other than an immediate dislike of your personality takes a gigantic effort. He would have to listen to your explanations, understand and remember them, and decide there was something doubtful about the

proposition. He would then have to seek out somebody else, for whom he would need some sort of evidence to suggest was going to be better than you, mentally reconcile the same presumptions about competence (having already discovered he could be wrong about that), have a meeting and once again listen, understand, and then compare the merits of the new proposition with those already rejected. No, it must be close to a racing certainty that, subject to unacceptable behaviour on your part, if a prospect meets you he is going to stay with you.

And there is a further factor. Having invested so much effort and emotion in finding an adviser, the client is going to rate you very highly and recommend you to others. To rate you other than good would mean admitting he had himself been incompetent in selecting his adviser. Perversely, this could also be a subconscious motive for recommending you to acquaintances: by drawing others into the herd, if his worst fears are confirmed and something goes wrong, then at least he will not be in trouble alone.

The preceding three paragraphs describe how the availability error explains the way a client is very likely to sign up with the first adviser he finds and, once signed up, to be a loyal and sticky client – for reasons completely independent of the merits of the actual ‘professional’ proposition. But there is a second way, crucial and insidious, in which this availability bias works – how you, the adviser, selected the process which you retail to your clients.

In a very short time, say 20 years, the intermediary sector has embraced and sold-on to retail investors myriad investment strategies. Before the millennium we were still in the with-profits era, and then followed core-and-satellite, mean-variance optimised (MVO) ‘efficient frontier’ portfolios, passive and index investing, 60:40 asset allocation, model portfolios, multi-manager, multi-asset, to name a few, until now we

have the ubiquitous risk profiling-cum-asset allocation (RiPAA) with systematic rebalancing of a multi-asset portfolio. Why? It is unavoidably true that not one of these processes came from within the intermediary sector; all have been fed to advisers from the fund managers, discretionary investment advisers (DIMs), platforms – the sell-side of the sector in general. One doubts whether a single adviser in the UK can say “This is truly my own process, and here is the evidence for how and why I think it works.” Stop and think: every adviser will have changed its investment

proposition at least once, often more, in the past twenty years. Is this because every adviser has individually striven to improve what he does and all have come independently to a similar conclusion, or because it is fundamentally easier to market a similar process to everyone else and hope that someone somewhere has done the work to ensure this strategy is better than the old one?

Every adviser has at some point been to a presentation, or read in the trade press, where an investment process, probably RiPAA, looks and sounds impressive enough to re-sell to their retail clients. Better still, every other adviser seems to be using the same process – herd protection! This near universal adoption of a single investment process is not because of its inherent merits – those have never been vindicated to any sensible standard – it is because each adviser has fallen victim to the availability bias. It looks good, sounds good, and clients seem to think so too (how would they know better?), other people are using it, so let’s also use it. No need to look further or too deeply into what we are doing. As a class, the willingness of the intermediary sector to hand over their clients’ money to sell-side operators and DIMs, without serious examination or understanding of whether the chosen strategy is

demonstrably in those clients’ best interests, is as powerful a demonstration of availability bias as can be imagined. Their clients’ own surrender to the availability of their marketing story should not be taken as evidence that any of the agents and actors in this arrangement truly understand what is going on.

There is a related availability error – the halo effect. This is where one particularly salient (available) characteristic of a person stands out early in your acquaintance. This is why people can form false views of film stars, based on the sorts of roles they portray or how charmingly they smile. We ascribe all sorts of other characteristics to them or the value of what they say without any evidence or rational basis for doing so. (This is also why first impressions are

critically important, and why job interviews so often result in bad appointments.)

Combining these two types of irrationality and relating them to the investment world, if you hear a presentation by someone eminent, a chief investment officer or chief economist in the financial world, an academic with a string of letters after his name, an author (even of the quality of Thaler, Sunstein, or Taleb) with a catalogue of well-reviewed books, then obviously what such a person says has a much greater impact on you than something you might hear from, say, a colleague. Of course, often it may be the case that a leading authority is deemed to be so for good reason; but it is totally irrational to assume all you hear from any plausible source is immutable truth without subjecting it to critical thought. There are many sources of information open, and one should never make a decision on managing other people’s money on a single opinion or theory, no matter how attractive. But we live in a post-truth world, where wanting to believe something is right is equivalent to proof that a thing *is* right.

// HAVE ADVISERS
FALLEN VICTIM TO
THE AVAILABILITY
BIAS? //



John von Neumann (1903-1957) was a Hungarian-American mathematician, physicist, computer scientist, and polymath. He made major contributions to a number of fields, including economics, computing and statistics.

JOIN THE DEBATE

Keith Robertson’s full paper is available online at cisi.org/rfmq3-18. He will be discussing the implications of his work at a special Masterclass for Chartered Members and Fellows in London on the evening of Monday 24 September 2018, and at a CPD event in the CISI office in London on Wednesday 3 October 2018, which will be available to members globally by live webcast. Full details at cisi.org/events

DISTRIBUTED LEDGER TECHNOLOGIES – AN EMERGING CONSENSUS ON THE BUY-SIDE

BLOCKCHAIN HAS SLIPPED THE SHACKLES OF BITCOIN. IT HAS A VITAL ROLE TO PLAY ON THE BUY-SIDE, SAY IAN HUNT AND CHRIS MILLS

Asset management clients are becoming increasingly demanding, diverse, and knowledgeable – irrespective of their retail, institutional or wholesale beginnings. Research by Dr Ian Hunt and Chris Mills on distributed ledger technologies – DLT, aka ‘blockchain’ – indicates that “their expectations of investment outcomes are sharpening, their tolerance of poor customer service is disappearing, and their delivery mechanisms are now expected to include modern digital media.”

FAVOURED DLT USE-CASES FOR ASSET MANAGERS

As a part of the analysis carried out for the report, asset managers and other buy-side participants were canvassed for their favoured distributed ledger (DL) use-cases: these are the potential developments in DL technology with the best capability to deliver the benefits outlined above, and which are therefore of most direct benefit to the asset management and asset owner community. There is an emerging buy-side consensus on these use-cases, which reflects an increasingly strong ambition to yield the available benefits of DL technology.

The use-cases which offer benefit to the buy-side are often different from those with attractions for the sell-side. Payment banks, for example, tend to focus on the potential of DLT to accelerate the settlement of high-volume and cross-border payments and foreign exchange. These are useful and sensible initiatives, but of limited direct interest to asset managers. There is considerable sell-side interest in blockchain applications in trade finance too, which again is relevant but of limited appeal on the buy-side.

In the developed markets, a distinguishing factor in the establishment of successful DLT initiatives has been the existence of a dominant market infrastructure provider (like the ASX in Australia) which can mandate change. However, the focus of

DLT initiatives is by no means confined to developed markets: emerging markets are seen as attractive contexts for DLT development in the shorter term. The absence of complex regulation, the relatively simpler market structures and the smaller number of entities are all positive factors in the business case for change. Some participants went as far as to see emerging markets as the obvious starting point for buy-side DLT initiatives. Generally, the most accessible use-cases combine high value (to maximise the business case) with lower volumes, limited complexity and a small number of participants.

A subset of the relevant buy-side use-cases depend on ‘network-effect’, and would need to be delivered in the context of cross-industry cooperation; they are therefore logistically demanding. In each case, a collaborative structure would need to be established, and appropriate incentives provided for the developer of the application. Incentivisation is an issue, as in a network DL, there is no central controlling entity which will receive revenue benefit from its operation.

Other use-cases would not require wide-scale cooperation, and asset managers could make progress independently, or with a single cooperative counterparty, client or regulator. Collaboration would be limited or not required. Deployment of ledger and blockchain technology internally within an asset manager can offer real benefits (albeit generally less than those achievable from an industry-wide service), as well as making early progress easier to achieve, so the incentive for development would be transparent to the manager. For certain applications, there is a halfway house: managers could develop ledger platforms internally or in small-scale collaboration, and then deploy DLT to distribute the ledgers across counterparties, clients, regulators and service providers.

The most prominent initiatives, with the potential for progression by individual managers or small participations, are set out below. Their sequence is a reflection of the frequency with which they are cited by the respondents to the research:

1. Asset register or Investment Book of Record (IBOR), to deliver a position data service based on a single ledger of transactions. This could eliminate the maintenance of multiple internal books of record, reduce the need for internal reconciliations and provide better flexibility in the position records provided to users and applications.

2. Secure identity, to deliver a distributed entity data service, with embedded and shared ‘know your customer’ (KYC) and anti-money laundering (AML) checks. This could facilitate disclosure, eliminate parallel maintenance of client/entity data, reduce inefficiencies in client onboarding, support compliance with GDPR and reduce costs.

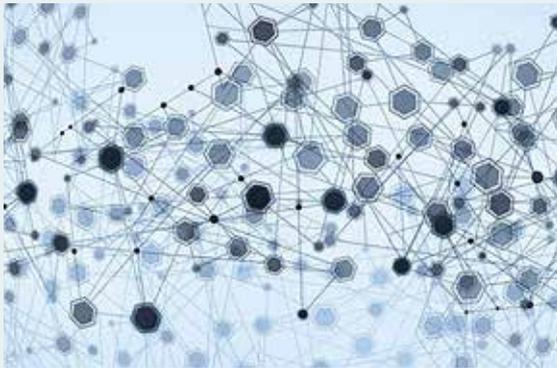
3. Smart contracts, to deliver practical automation to the processing of more complex asset classes. This could streamline the agreement and life-cycle management of OTC contracts, make complex loans and real estate accessible to conventional investment vehicles, standardise the application of compliance rules, and reduce costs.*

4. Direct reporting access, to deliver a ‘self-service’ report data extract capability for regulators and clients, based on a permissioned ledger. This could improve transparency, reduce the time and effort spent in report production and reporting data management, and reduce costs.

5. Repo/securities financing, to deliver near-instantaneous settlement for funding transactions. This could extend the scope of netting, make bilateral repo available as a source of liquidity to the buy-side, and reduce the cost of funding.

6. Collateral management, to automate the computation, agreement and movement of collateral on a day-to-day

**While this use case is targeted to support the more efficient processing of more complex assets, it will be important to start simple, and graduate to the complex – hence repo, simpler loans, money market instruments and mortgages may be addressed ahead of OTCs, for example.*



basis. This doesn't require a cash payment on the other side of the ledger entry, which greatly simplifies the process, and makes this a practical early initiative.

While these use-cases do not require wide-scale industry cooperation, the position data and entity data services could be broadened into sector-wide services, following implementation locally within individual managers. Data standards are emerging for position and entity data, and as that standardisation matures, so the delivery of wider services will become more practical. For any use-case which requires wide-scale collaboration, and a shared solution, there will be possible requirements for regulatory and legal change, along with questions over the potential liabilities which may arise from data loss or corruption. These issues will make early progress harder to achieve, but the benefits of going beyond the boundaries of the single business are very substantial. Many buy-side participants recognise that the ultimate benefit of DLT will be achieved only when we move to wide-scale applications across multiple businesses. Among those most favoured are:

7. A sector-wide, distributed entity data service, to support passporting of identity checks and approval status. Highly performant digital identity verification is the keystone in the creation of a trusted environment for transactions, and clearly essential where those transactions are both peer-to-peer and instantly settled. Regulators can be expected to insist on the existence of this service as a prerequisite to approval for widespread peer-to-peer trading and settlement on ledger.

8. A sector-wide, distributed asset register/position data service. This would enable us to rationalise the

current proliferation of asset registers, deliver higher-quality position data, reduce external reconciliations, and reduce costs. The position data management functions of custodians, accountants, depositories and transfer agents would evanesce as a result.

9. Real dematerialisation, to accelerate the processing and settlement of transactions, eliminate low-value tasks in post-trade processing, reduce counterparty risk and exposure to central utilities, improve cash and liquidity management and reduce costs.

10. Peer-to-peer distribution, to link asset managers and fund manufacturers directly to their end clients, and to eliminate the currently high cost of retail platforms and distributors. Criteria would have to be maintained (probably as part of the entity data service) to ensure that client/product suitability is preserved in a peer-to-peer context.

In addition to the use-cases listed above, about which there is a degree of consensus among the buy-side contributors*, there are other use-cases proposed by smaller numbers of asset managers. Some of these are of specific interest to those managers, while others are more generally accessible, but of lower expected benefit. Examples include:

- **Transfer agency (TA):** this is a business well-suited to the rationalised ownership registers which DLT can facilitate, but relatively limited in financial benefit because of the already low cost of TA as a proportion of the cost of investment (outside the KYC and AML processes addressed above). There is, however, a benefit in making ownership records immutable, particularly in jurisdictions where corruption is prevalent.
- **Proxy voting services:** this uses a distributed ledger to communicate with registered asset owners, and smart contracts to capture and process the votes. This could operate on a peer-to-

peer basis, or as a custodian-led service which should result in an improved service at lower cost to the asset manager/asset owner.

- **Class actions:** in a similar form to proxy voting, the record of a class action could be published, and participants could attach themselves as class members, through a shared ledger.
- **Smart contract-based margin payments** in digital coin for contracts for difference and exchange-traded derivatives: this is a subset of the application of smart contracts to complex asset processing, and may be a useful starting point due to relatively low volumes and (currently) thin regulation. The current clearing process and T+1 reconciliation is inefficient and outdated. A DLT-based solution could speed up clearing and guarantee agreed positions on trade date, thereby reducing execution and clearing risk.
- **Asset ownership and provenance tracking:** this is a use-case of potentially high benefit to managers with insurance businesses, and to those managing exotic assets, but of more limited interest to managers of conventional securities.
- **Open inventory:** the manager could give permissioned access to segments of their inventory, to enable offers to buy or borrow stock. Lending could move from a custodian-led activity to an asset manager process.
- **Immutable storage:** blockchains can be used to store a secure and accurate history of key investment documentation, and make access available in a permissioned form. Examples include: investment management agreements, key investor information documents, legal entity identifiers and records, client reports, and records of client positions and transactions.

WHAT THE BUY-SIDE NEEDS ITS PARTNERS TO DO

Asset managers cannot deliver the potential benefits of distributed ledgers to themselves and to their clients in isolation. There is a strong buy-side vendor community, and a set of outsource service providers on whom asset managers depend to varying extents for technology and operational efficiency. Benefits will often be delivered through their platforms. The regulators have a responsibility to facilitate and encourage beneficial change, and there is a need for standards bodies to broaden

**For example, in Q1 2017, KPMG published a buy-side paper, 'Getting Practical', which highlighted three of the listed use-cases: distribution, post-trade (middle office/clearing) and asset registry (for DLT enablement).*

their scope to standardise new interactions within a DLT framework.

The full report sets out the main planks of support which asset managers need from their various partners to accelerate and maximise the delivery of benefit, starting with the regulators. While there are some areas where DLT can be deployed to deliver benefits within existing regulations, it is clear that proactive and constructive support from its regulators, in reshaping regulation where necessary, will facilitate and accelerate the buy-side's deployment of distributed ledger technology.

New business models and new investment products will inevitably require changes to current regulatory frameworks. If the regulators do not take a positive stance, then this will at best delay, and at worst prevent the delivery of a substantial slice of the potential buy-side benefits of DLT. If the regulators clearly identify the potential benefits of the technology, and create a favourable regulatory environment, then this will drive commitment and investment from the buy-side, and accelerate the delivery of benefit.

The disruption caused by the new technology is likely to impact regulation, alongside other activities and buy-side business processes, and regulators will experience their own transformation. It is not just the rules that will change. The ways in which regulators monitor behaviour and access reporting data will change, along with the mechanisms of enforcement. One manager sees that "real-time surveillance and interpretation of data will be key themes and could foreseeably change how policy is implemented".

Managers emphasise the need for a cooperative approach with the regulators. One said that the "regulators need to gain comfort with technology, understand the implications for marketplaces in financial services and approve, or legislate, key infrastructure.

Furthermore, they will need to decide on the degree of oversight and transparency they require from DLT-based transactions ... we emphasise the need for a constructive engagement with the regulator".

REGULATORS' 'OPENNESS AND INTERACTION'

There are well-publicised instances of governments and regulators trying to wrest control away from DLT/blockchain innovators and establish a regulatory framework. High-profile examples are China's ban on ICOs and the SEC's inclusion of DAO tokens (from the so-called 'Decentralised Autonomous Organisation') as securities under the Securities Exchange Act. However, there is no sense on the buy-side that the regulators are negative about, or do not want to engage with the technology.

One representative manager asserted a belief that "the regulators in the UK are generally supportive to blockchain development". An FCA Discussion paper on distributed ledger technology, April 2017, bears this out, and suggests an openness to understand and embrace the technology. "We are committed to fostering innovation that advances our objectives ... DLT is an example of rapidly developing technology which offers exciting potential to support the needs of consumers and the market ... We are particularly interested to explore where the balance of risk and opportunities may lie in relation to DLT." Respondents to the FCA consultation were positive too, and expressed "particular support for the FCA maintaining a 'technology-neutral' approach to regulation and welcomed the FCA's open and proactive approach to new technology".

Elsewhere there are encouraging instances of positive support from regulators for DLT-based initiatives. Northern Trust's Private Equity initiative was actively supported by the Guernsey Financial Services Commission (GFSC). The design aimed to deliver compliance with current, local regulations, and to allow regulatory access when required. The GFSC was keen to accelerate the delivery of the benefits of trust and transparency that DLT could clearly enable. The GFSC stated that "Northern Trust has engaged with us as regulators from the start and we are pleased with the level of openness and interaction. This is another example of the Commission's approach to innovation in the Bailiwick's financial services sector".*

There are promising signs in Europe too. ESMA, in its paper dated February 2017, is equally positive, and asserts that

it wants "to understand both the benefits and the risks that DLT may introduce to securities markets, and how it maps to existing EU regulation. In turn, our aim is to assess whether there is a need for

// REGULATORS NEED TO GAIN COMFORT WITH TECHNOLOGY, AND UNDERSTAND THE IMPLICATIONS FOR MARKETPLACES //

regulatory action to facilitate the emergence of the benefits or to mitigate risks that may arise".

The French Regulator AMF has launched a new initiative focused on initial coin offerings, as it looks to formalise a regulatory framework for the blockchain use case. The Luxembourgian regulators have taken positive stances on DLT too.

The full report on which this *Distributed ledger technology - an emerging consensus on the buy-side*, is available by emailing co-author Chris Mills at chris.mills@stradegi.com.



Dr Ian Hunt is a well-known authority on buy-side business process and technology, with a strong reputation in order management, risk, derivatives and investment automation.

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DLT WEBCAST

Chris Mills will join Keith Bear of IBM and Paul Sinthunont of AITE in a CISI webcast on themes raised in his report on 11 September 2018.

[DETAILS AT CISI.ORG/EVENTS](http://DETAILS.AT.CISI.ORG/EVENTS)

**Emma Bailey, director of the investment supervision and policy division of the GFCR.*

INCIDENT REPORTING IN CYBER SECURITY

WITH THE CYBER THREAT NOW BITING MOST FIRMS' ANKLES, THE REGULATORS NEED TO KEEP TRACK OF THE DAMAGE, SAYS **RICHARD PARLOUR**

In June 2018, a joint Centre for European Policy Studies – European Credit Research Institute (CEPS–ECRI)* task force published a major report on ‘Cyber security in finance – getting the policy mix right’. A key element of this in the securities and investment sector is incident reporting requirements, and in this excerpt from the report on this area, Richard Parlour, a UK solicitor renowned for his expertise in financial crime, and his colleagues outline key recommendations. Richard Parlour acted as chairman of the group. Sylvain Bouyon, head of fintech and retail finance at CEPS and ECRI, and Simon Krause, visiting researcher at CEPS, were rapporteurs. Mr Parlour will be discussing the outcomes of the report at a CISI CPD seminar on 24 September. The seminar will also be available on CISI TV. And he will be chairing a Fellows and Chartered Members masterclass on 25 October. For details please visit cisi.org/events. He welcomes comments or questions to his email address (top right).

This paper includes references to endnotes. The full list can be found online at cisi.org/rofmq3-18

With the inexorable rise of ecommerce comes the inexorable rise of the ecriminal. Cyber crime is now the world's fastest growing crime. It has leapt to number two of the top ten business risks worldwide, from not even appearing in that list five years ago. For certain countries, cyber attack is now the risk of greatest concern. Gone are the days of concern about a low-level hack of a website by a script kiddie. Today's attackers are multi-faceted and

increasing in sophistication, ranging from advanced persistent threats, corporate espionage, organised crime and ‘hactivists’ to cyber terrorists, ever more competent, and ever better funded. Cyber security has moved from being a technical issue to a political and boardroom issue. Financial markets are particularly important as they oil the wheels of all major economies.

So what should the priorities of cyber security be? Is the rise of cyber crime so fast and extensive that we should be changing the focus more to one of cyber resilience? There are three core themes to address:

1. Governance (at all of organisational, international and national levels).
2. Risk management (both contextually and intelligence driven).
3. Capability (cyber security by design and by default, using a standard framework applied to context).

There are a multitude of issues that the financial sector needs to address. Our task force has chosen to focus on certain key issues rather than attempt to produce an encyclopaedic tome. Any report can only represent a snapshot in time and it will be particularly important to continue to communicate as technology and the threat advances. I hope that the work that our task force has undertaken in producing this report will make a valuable contribution to the advancement of cyber security policy and protection and safeguarding of the economies of the EU member states and the financial markets on which they depend.



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1.1 INCREASE IN LEGISLATION WITH INCIDENT REPORTING REQUIREMENTS

Several recent new EU regulations and directives include incident reporting requirements in the event of a cyber breach. The requirements for an institution or data controller to report or notify specific authorities, and in some cases the public, in the event of a cyber breach are notably covered in the following legislation:

- General Data Protection Regulation (GDPR) in Articles 33 and 34¹
- Payment Service Directive 2 (PSD2) in Article 96 as well as the corresponding European Banking Authority (EBA) Guidelines²
- Directive on Security of Network and Information Systems (NIS) in Articles 6, 14 and 16³
- Regulation on Electronic Identification and Trust Services for Electronic Transactions in the Internal Market (eIDAS) in Article 19⁴
- Cyber incident reporting of the European Central Bank (ECB)⁵
- TARGET2⁶

As shown in Table 1, high fragmentation can be observed between rules in taxonomy for reporting, reporting time frame, the template to be used and the threshold to trigger an incident. For instance, whereas there is no undue delay in the reporting time frame for the NIS, the deadline is 72 hours for the GDPR, 24 hours for the eIDAS and 48 hours for Target2. The template is not clearly defined in GDPR and NIS, while it is

**ECRI is an independent think tank that carries out research and contributes to the policy debate on financial services in Europe. It is managed by CEPS, a leading think tank covering a broad range of policies in EU affairs. This report is based on discussions in the CEPS-ECRI task force on ‘Cybersecurity in finance: getting the policy mix right’. The group met four times between September 2017 and May 2018. The policy recommendations offered at the beginning of this report reflect a general consensus reached by task force members, although not every member agrees with every aspect of each recommendation. A list of task force members, observers and invited guests can be found in the Annex to the main report. The members were given the opportunity to comment on the draft final report, but its contents may only be attributed to the rapporteurs and do not necessarily represent the views of the institutions to which the members belong.*

TABLE 1. CONDITIONS FOR INCIDENT REPORTING BY TYPE OF RULE

	GDPR	NIS	eIDAS Regulation	TARGET2	ECB (cyber incident)	PSD2
Taxonomy for reporting	High-level guideline	N/A	Yes, provided via doc for the ENISA reporting but not in MS	Yes, provided via doc in Annex II	Yes, provided in doc sent by ECB	Yes, provided via doc
Reporting time frame	Within 72 hours	Without undue delay	Within 24 hours	Within 48 hours	Within 2 hours	Within 4 hours
Template to send report	N/A	N/A	Yes, provided via doc for the ENISA reporting but not defined in MS	Yes, provided via doc in Annex II	Excel spreadsheet	Excel spreadsheet
Threshold to trigger an incident	Provided via scenarios/ examples in doc	Yes, provided via guideline from ENISA	Yes, provided via doc for the ENISA reporting but not defined in MS	More than 30 min limit for critical participants or up to relevancy of BCE	Yes, provided via doc sent by ECB	Yes, provided via doc
Reporting to consumers	Yes, reporting is required if data breach is likely to result in a high risk to the rights and freedoms of affected consumers	Yes, competent authority or CSIRT may request information of consumers, if public awareness is necessary or if disclosure of the incident is in the public interest	Yes, in case of security breaches or integrity losses "adequate information" on security breaches and security risk assessments should be provided to concerned parties, including consumers	N/A	N/A	Yes, if the incident has or may have an impact on the financial interests of consumers, the PSP shall, without undue delay, inform them about the incident and measures to undertake

Source: Compilation of CEPS-ECRI; based on information from BBVA, Intesa Sanpaolo and BEUC.

provided for the eIDAS (via document for the European Network and Information Security Agency (ENISA) reporting but not defined in member states) and for TARGET2 (via document in Annex II).

There is also great diversity in the types of authorities that have to collect incident reports (see Table 2). Some of these authorities are European bodies, such as the ECB for ECB cyber incidents. Others are national: national NIS authorities for the NIS Directive, National Competent Authority (NCA) for the PSD2 (the information is then reported to the EBA which eventually reports it to the ECB), national data protection authorities for the GDPR, national certification authority for the eIDAS Regulation and national central banks for Target2. Also, some requirements and the related authority in charge concern only financial firms: PSD2 or Target2. Some others are multisectoral: eIDAS, NIS Directive and GDPR. Finally, each piece of legislation defines a different set of criteria to determine the type of financial firm that needs to comply with the reporting requirements.

In addition to incident reporting to the competent authorities, most regulations require the notification of consumers which have been affected by a cyber security incident. The GDPR requires the supervisory authority, unless the financial institution has already done so, to inform consumers without undue delay if the data breach has a high risk to impact their rights and freedoms negatively. Similarly, the eIDAS Regulation requests

consumer notification with appropriate information in case of major security breaches or integrity losses. The NIS Directive defines either the necessity of public awareness or public interest as the threshold for incident reporting to consumers. PSD2 requires the payment service providers to inform their affected consumers without undue delay about both the cyber security incident and the remedial measures if the incident has or may have an impact on the financial interests of consumers.

While these regulations all cover reporting requirements to consumers, significant heterogeneity can be observed in terms of the criteria, standards, thresholds, time frames and general approaches to consumer notification. Different interpretations across legislations might further raise the degree of this fragmentation. Moreover, the reporting requirements are characterised by discretion, meaning that for instance financial institutions are obliged to assess consumers' personal and financial risks arising from a data breach. Therefore, the consumer dimension and scope of cyber incident reporting as well as the difficulties due to legal fragmentations should not be underestimated.

1.2 NEED TO DEVELOP A COMMON TAXONOMY FOR INCIDENTS REPORTING

The development of a common taxonomy for incident reporting is needed for various reasons. First, as cyber space is global, cyber insecurity is

often a multi-country issue. Often, similar patterns of threat can simultaneously affect organisations located in different countries. As such, cross-border exchange of information is needed to address cyber security issues better and manage cyber incidents efficiently and effectively. Fragmentation in taxonomies across jurisdictions is likely to impede the efficiency of cross-border exchanges of information, as the process of understanding the incident could be slower. As such, convergence in taxonomies should contribute to help respond to multi-country cyber attacks better.

Second, as shown in Table 1, there is an increase in incident reporting requirements. A standard taxonomy, adopted across all regulations and directives, regardless of whether it is on a cross-border basis, should facilitate smooth and efficient interactions between authorities and computer security incident response teams (CSIRTs), especially by contributing to avoiding inconsistencies in the reported information.

In principle, the creation of a distinct taxonomy for each piece of legislation should not be justifiable. Finally, as emphasised by the European Union Agency for Network and Information Security (ENISA) (2018)⁷, persistent fragmentation in taxonomies will slow the emergence of automation in incident reporting and responses.

Nevertheless, the development of a common taxonomy for incident reporting

faces specific challenges. First, cyber space is constantly evolving. As a result, cyber attacks are changing on a regular basis and new forms of attacks continuously appear. A non-flexible taxonomy that sets rigid standards for long periods is therefore ill-adapted.

Second, existing taxonomies are often designed for specific economic sectors or companies. Organisations often have different needs and expectations. As such, CSIRTs often end up developing their own incident classifications for internal use (ENISA, 2018).

As highlighted by ENISA (2018), one possibility for strengthening convergence in incident taxonomies is to develop a centralised repository for hosting all relevant taxonomies. Questions remain about which body should be in charge of such a task. Given the global nature of many cyber attacks, it would *a priori* make sense to design a global repository. But the development of a final consensus at the global scale might be unrealistic. Therefore, as a first step, it would be preferable to focus on an EU depository developed by the EU agency in charge of cyber security, namely ENISA.

The next objective would be to develop only one taxonomy that encompasses all the processes in the scope. This taxonomy should include specific sections to cover the variants applicable to the different sectors, if relevant. Given the constant changes in the type and nature of cyber attacks, the common taxonomy should also be sufficiently flexible to be continuously updated.*

1.3 NEED TO DEVELOP AN EFFICIENT LEGISLATIVE AND INSTITUTIONAL FRAMEWORK FOR INCIDENT REPORTING

The emergence of different reporting requirements raises questions about the most adequate legislative and institutional framework for shaping the relationships between CSIRTs and authorities. Eventually, the objective is to ensure that the framework helps financial firms protect themselves from cyber attacks and, in case of cyber attacks, helps these firms activate timely and efficient responses.

Responses that are timely and efficient should contribute to limiting the short-term and mid-term damages to firms

**For example ENISA (2018) promotes the use of 'Other' or 'Unknown' in the 'Tag' field by the owners of taxonomies as an indicator to revise taxonomies. This field can be used if there is an increase in that category with incidents or events of the same.*

TABLE 2. ORGANISATIONS CONCERNED WITH INCIDENT REPORTING

Requirements	Authorities	Financial firms	
		Titles	Definition
NIS Directive	National NIS Authority	Operator Essential Service (OES)	Banks and financial institutions are considered as OES because they (a) provide a service which is essential for the maintenance or critical societal and/or economic activities; (b) the provision of that service depends on network and information systems; and (c) an incident would have significant disruptive effects on the provision of that service.
GDPR	National Data Protection Authority	Personal Data Processor/ Controller	Banks and financial institutions operate both as processor, which processes personal data on behalf of the controller; and controller which determines the purposes and means of the processing of personal data.
eIDAS Regulation	National Certification Authority	Trust Service Providers	Banks and financial institutions can operate with their trust services either as a qualified or as a non-qualified trust service provider.
PSD2	NCA/EBA/ ECB*	Payment Services Providers	Banks and financial institutions operating as Payment Service Providers.
ECB/SSM	ECB/Joint Supervisory Team	Significant Institutions	The ECB classify a bank as Significant or Not Significant based upon the criteria of size, economic importance, cross-border activities and direct public financial assistance.
ECB TARGET 2	National Central Bank/ TARGET 2	TARGET 2 Participants	A distinction is made between critical participants and non-critical participants depending on the market share in terms of value and/or the type of transaction processed.

** Incident reporting in the context of PSD2 has to be sent to the National Competent Authority (NCA), which sends it to the EBA, which sends it to the ECB.*

Source: Intesa Sanpaolo.

and, in some circumstances, are likely to prevent the expansion of attacks to other firms and sectors. The framework as developed should aim at reinforcing cyber resilience and business continuity as much as possible. In order to do so, regulators, supervisors and financial firms should focus on the following five issues.

Issue 1. Convergence in templates across the EU

For each piece of legislation whose purpose is to develop incident reporting, convergence in templates should be ensured across the EU. This priority concerns mainly the NIS Directive and the GDPR, as related templates should be primarily defined at national level. As regards the GDPR, one of the roles of the Data Protection Article 29 Working Party and the European Data Protection Board (the latter replaced the former once GDPR took effect, see Recital 139 of GDPR) should be to reinforce the harmonisation in those national templates.

Issue 2. Adequate governance at group level

For financial firms that have activities across different jurisdictions, high

fragmentation in templates and typologies could impede the ability of CSIRTs to understand the overall picture of the incidents impacting the banking group. Against this background, the banking group could be compliant with the respective incident reporting requirements at national level, while not being able to understand holistically what is at stake. Effective governance at HQ level, with adequate consolidation processes of the 'overall cyber risk' at group level, is therefore also needed. This is a key condition for the authority in charge to have a clear idea of the overall level of risks triggered by specific cyber incidents.

Issue 3. Assessing the possibilities to develop an infrastructure with bidirectional flows

At present, all incident reporting processes are defined with a single direction flow, from CSIRTs to authorities in charge. None of the legislation emphasises or designs two-way flows. There was a broad consensus within the task force that a bidirectional process with respect to incident reporting will eventually be needed. In other words,

authorities should be able to exploit the content of incident reporting to inform and advise CSIRTs in return.

One of the options to achieve two-way flows concerns the development of specific network infrastructure channels that provide secure messaging services. This would imply that financial firms use a common application to report incidents. The development of SWIFT messages on the interbank market could be inspirational in this respect. In the end, information about cyber incidents could be sent and received in a secure, standardised and reliable environment.

This model should contribute to streamlining incident reporting processes. High standardisation of templates should in principle increase processing speed and response. Given that speed is one of the main criteria for coping with large-scale cyber attacks, this benefit could be precious.

However, one of the main issues to address in order to create a common application for cyber incidents concerns the nature and type of information encoded in the message. The diversity of templates across pieces of legislation (and likely, for two of them, across countries) can be justified by the fact that each piece of legislation has a specific purpose.** The development of standard messages should ensure that this diversity can be replicated in that new system. The different authorities need to be able to retrieve the right information within the expected time. There is a significant risk that incident reporting based on standard messaging services might end up being too generic to be adequately exploited by CSIRTs and authorities.†

****Harmonisation of templates is a clear policy objective, but given the different purposes of the pieces of legislation as well as different interests pursued by national regulators, complete harmonisation will be very challenging. Yet it is worth striving for a more convergent implementation of European or international standards of templates. There are indeed possibilities for harmonisation within the existing legal framework for cyber incident reporting. For example, parts of the Target2 template are similar to the NIS template provided by ENISA. The sections 'description of the incident', 'cause of the incident' and 'remedial action' in the Target2 template are likely the same information as the sections 'general description of the security incident', 'detailed causes' and 'mitigating security measures' of the corresponding NIS template. Therefore, European harmonisation should start within the existing regulations and their templates, taxonomies and reporting standards before the policy process can move on to cushion the fragmentation between the different templates.**

Should the financial sector decide in any event to go in that direction, questions would remain about the funding of such an application: Should it be funded by financial firms? By governments, for the sake of cyber security? Or should it be a hybrid model combining both funding channels?

Issue 4. Assessing the possibility of developing a centralised hub

A hub should be developed with the objective of centralising all incident reports and dispatching them to the right authorities. The hub could be in charge of incident reporting for the whole financial sector and handle relationships with all concerned authorities, regardless of whether these authorities are national or European, and cover all sectors or only the financial sector. In return, the hub would be in charge of informing and advising financial firms on cyber incidents. By centralising all incident reports for the financial sector, the hub would have a broad and clear picture at any given time of the cyber risks in this sector.

Strong analytical capabilities would be needed in this respect. The purpose would not be to have a hub that is only a dispatcher of incident reports.

The hub could also play the role of coordinator between, on the one hand, all authorities in charge and, on the other hand, authorities and CSIRTs. Given the global nature of cyber insecurity, the hub should be established at European level. The mandate of existing European agencies such as ENISA could be significantly extended to cover these complex tasks or a new agency could be built from scratch to focus primarily on these attributes.

A priori, the former option that builds upon the existing institutional framework would be preferable. The objective is to avoid the multiplication of EU agencies that cover broadly similar topics. But, in order to be able to handle all reporting requirements and distribute key

†An example of such incident reporting based on standard messaging services is SWIFT's customer security programme (CSP), which legally requires all participating financial institutions to report and share their information on cyber threats and incidents as soon as they have occurred. In the case of SWIFT, the CSP is supported by an 'Information Sharing and Analysis Centre' to exploit the gathered data for data sharing and analysis. It was not possible to identify the extent to which this mechanism is used, but based on preliminary evidence, current usage is likely limited.

information to the right stakeholder, the chosen agency will need a large amount of resources in terms of staff and budget. In order to fulfil its mission of technical adviser, the centralised hub would also need a clear mandate from regulators.

Issue 5. Assessing the possibility of covering all economic sectors

So far, many of the recorded large-scale cyber attacks not only have affected more than one country; they have also disrupted more than one sector. The institutional framework therefore needs to handle a multi-sectoral dimension. The objective is to ensure that any cyber attacks are confined to one or a few firms in a specific sector and do not spread to others. If there is for example a high risk of a cyber incident spreading from the energy sector to the financial sector, the supervisor should be able to provide real-time information to financial firms on the nature of the attack and, if possible, on the best way to respond to it.

Two options can be considered to cover the multi-sectoral dimension of cyber attacks. The first is to build a centralised hub that is in charge of all sectors including the financial one. The second concerns the establishment of a multi-sectoral network for cyber incidents where one hub is developed for each sector of the economy, eg, finance, energy, telecommunications, food. Each hub would be in charge of one given economic sector for everything that relates to the dispatching of incident reports, such as notification and advice of firms in return, coordination of all stakeholders⁸. In order to handle multi-sectoral attacks, a network of sectoral hubs would be established, preferably at European level, with a hub of hubs.

The preferred option should be the centralised hub for the whole EU economy. One of the main risks of a network of sectoral hubs is the development of sectoral silos that struggle to find agreement on relevant topics.

Richard Parlour will be addressing the issues raised in his report at the CISI on 24 September 2018 in a live webcast meeting, and also at a special Masterclass for Chartered Members and Fellows on 25 October 2018, both in London. Details at cisi.org/events



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LAST WORD

Next-generation investing

FOR OUR CHILDREN, INVESTING IS LIKELY TO BE MORE COMMON AND MORE AUTOMATED

“As a parent of young children and a financial journalist, my instinct is to make sure they grow up with the knowledge and confidence to navigate the world of investment and personal finance. Recently, I’ve been considering how much the landscape might change by the time they reach adulthood. What will the term ‘investment’ mean to them and their peers? What will the act of investing involve? It’s an intriguing thought-experiment and there are plenty of clues out there to feed it.

Let’s begin by acknowledging some of the trends in the UK, where I’m based. The first is that, whether they realise it or not, in the future, more young people than ever will become investors, thanks to the impact of pensions auto-enrolment. Between 2011 and 2012, when auto-enrolment was introduced, and 2015 and 2016, the proportion of people aged 22–29 paying into a pension doubled to 72%, according to the UK Department for Work and Pensions. That trend will be reinforced during the next decade, when the UK government plans to cut the minimum age for auto-enrolment from 22 to 18. Although the majority of this investment will happen without their direct involvement – monthly deductions from their salary will be going to the National Employment Savings Trust, a workplace pension scheme set up by the government, or similar providers – over time many of tomorrow’s adults will need to engage with the world of investment.

Service innovations

If today’s trends are any guide, many of them will want to do so via their smartphones. In personal finance, you can already see the appetite for service innovations from the new generation of digital banks, such as Monzo’s system of ‘pots’ that allows users to allocate the money

within a single account to different goals and purposes. Simple, intuitive tweaks like this deliver convenience and control over their financial lives, enabling them to move money around instantly and without friction. This kind of innovation will set the baseline for a user experience that young adults will come to expect everywhere, including from investment providers.

On the providers’ side of the fence, automation is a crucial trend. It’s steadily becoming established, with basic investment services increasingly using ‘robo’ technology to deliver a low-cost, personalised service adapted to the individual user’s circumstances and preferences.

“In the future, more young people than ever will become investors, thanks to pensions auto-enrolment”

But these robo-services are still in their infancy. Automation has much further to go in this sector and you can see the direction it could take in new services such as Exo Investing, a retail-focused offshoot of Madrid-based institutional quantitative asset manager ETS. Algorithmically-driven asset management is nothing new in the institutional market. Extending this technology into the retail market, as Exo is doing, might offer a hint of what investment will come to look like over the next 20 years.

Exo’s service resembles other robo products, in that it uses an online questionnaire to gather information on each investor and establish their goals and risk appetite, and then invests their funds in portfolios of London-listed exchange-traded funds (ETFs). The big difference is that

instead of placing investors in one of ten risk-based portfolios that are rebalanced periodically to keep them on track, the algorithms construct each investor’s portfolio individually depending on their goals and risk appetite, any preferences they express for particular assets or markets, and the conditions at the point when they invest. Each portfolio is then managed actively, the mix of assets shifting automatically from day-to-day as the algorithms calculate the probability of different market outcomes.

The possibility that clever machines could end up managing a significant portion of future generations’ savings is intriguing and not all that far-fetched. If I’m correct, investment will become more of a black box for most people than it already is, and deciding who to entrust with your money could turn on comparing the performance of competing companies’ algorithms.

Intelligent machines

Who’s to say that by the time my children are old enough to take notice, investing won’t just mean transferring funds from a banking app to an algorithmic investment manager, which will allocate it automatically into funds and assets and monitor it, shifting the blend of assets constantly while the humans get on with their lives? If data scientists can create algorithms that can do this well enough and cheaply enough, active management by humans might eventually give way to automated active management.

Those days are still far off. But as algorithmically-driven investment services migrate into the retail market and reduce their minimum investment (Exo’s is currently £10,000), they become a more realistic prospect. If algorithms are able to manage money better than humans, the promise of 24/7 vigilance by intelligent machines could prove difficult for flesh-and-blood managers to compete against. ●



How does our new mandatory CPD policy affect you?

Our new CPD policy is now in effect for all CISI members (excluding student members). Below are the CPD requirements, depending on your membership level or status. Your CPD requirements must be met by 31 March 2019.

	Required Hours	Minimum Structured	Integrity & Ethics (inc Regulation, Risk)
Chartered Members (or members looking to become Individually Chartered), CERTIFIED FINANCIAL PLANNER™ professionals, SPS holders	35	21	3.5 (structured or unstructured)
Affiliates, Associates (ACSI) and Members (MCSI)	10	6	1 (structured or unstructured)

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