Combining safety, efficiency and competition in Europe’s post-trade market

Peter Norman
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Foreword

First, I want to thank Peter Norman for the Stakhanovite effort he has put into his year as the DTCC-CSFI Post-Trade Fellow. Not only did he pull together a comprehensive programme of round-table events in London, but he (and we) also took the show on the road – to Brussels, Paris, Frankfurt and Zurich. I wish I could have convinced him to do a second year.

Second, thanks also to the DTCC – which underwrote Peter’s efforts while at all times respecting his complete independence. The conclusions he reached are his alone, but the assistance that the DTCC (particularly Larry Thompson, Diana Chan and Andrew Douglas) provided was immense – and much appreciated.

As readers of Peter’s two books on the subject already know, Europe’s post-trade space is complex, difficult, almost impenetrable to a layman, and constantly evolving. It is also extraordinarily important – both as a source of strength for the financial system and as a point of potential weakness (something that was not, perhaps, properly appreciated when the G20 gave it new responsibilities). Boiling down the issues the system faces was a formidable task, but Peter has come up with a laundry list of recommendations, guidelines and principles – incorporated into an Agenda for Action and a (longer-term) Awareness Agenda – that should be mandatory reading for regulators and practitioners everywhere. Not just in Europe.

Andrew Hilton
Director, CSFI

The DTCC-CSFI Post-Trade Fellowship was established by the Centre for the Study of Financial Innovation (CSFI), with financial support from the Depository Trust & Clearing Corporation (DTCC), to explore ways of improving the post-trade architecture in Europe.

It was launched on June 1st 2011, with Peter Norman, the author of this report, as its first Fellow.

This report is the second and final report of Peter Norman’s tenure. Drawing on an intensive research programme, it puts forward recommendations and principles that are intended to contribute to the safety, efficiency and competitiveness of the post-trade sector in Europe. It builds on the Interim Report disseminated by the Fellowship as a discussion document in April 2012. The Fellowship thanks all who responded to the Interim Report and helped inform this final report.

The CSFI is an independent London-based think tank set up in 1993. It is the publisher of both reports. The Fellow and the CSFI are responsible for their content.

The Fellowship is grateful to the DTCC for supporting a project that has been independent throughout. Both the CSFI and the DTCC share the same goal: to provide thought leadership for the post-trade sector in Europe at a time of great change and uncertainty.

This report was completed in early August 2012.

PN
Preface

The European post-trade space is undergoing transformative change, spurred by concurrent regulatory initiatives aimed at improving the transparency and integrity of financial markets. Driven by the G20 group of nations, this regulatory overhaul, while primarily targeting the OTC derivatives markets, also comes at a time of significant change in the exchange-traded markets.

Given the scope and scale of change we have seen since embarking on this project a year ago – spanning clearing, settlement and reporting - this report could not have been more timely. Its unique value is in in the achievement of a balance between the pressing need to simultaneously educate the marketplace on the current state of post-trade in Europe while, at the same time, stimulating a debate about the direction of the evolution of the region’s post-trade structure.

Against this fast-changing environment, the report captures, in some detail, the importance of a number of issues that warrant action or call for further public discussion with the aim of making markets more stable and efficient. It goes further than other initiatives to date by addressing Europe’s pre-crisis and post-crisis agendas in a clear acknowledgement of the need for continuity in the process. This is particularly important as post-trade will not only play an essential role in mitigating risks in the financial system by addressing the gaps that regulators faced in the 2008 crisis; but the success of the current overhaul will further depend on Europe’s ability to create an infrastructure that can both keep up with and anticipate the markets’ fast-paced evolution.

A safe and efficient market will be crucial to re-building trust in the financial system, stimulating financial activity in the region, encouraging capital flows and contributing to economic growth. Europe’s position within the global financial system will benefit from and be strengthened by its successful efforts to harmonise and standardise market practices in the post-trade space. There is a unique opportunity to create a robust framework towards an efficient post-trade market structure founded on the pillars of safety, integrity and innovation.

In conclusion, I would like to thank the CSFI and our Post-Trade Fellow, Peter Norman, for their unwavering commitment to this project against an environment of constant flux. The initiative would not have been possible without the integrity of their research, the independence of their thought and the rigour of their approach. Their ability to bring to the table the industry, policymakers, regulators and members of the public from all corners of Europe to ensure they all have a share of voice will undoubtedly contribute to the longevity of the debate, legacy of the project and the creation of an efficient market structure for Europe’s financial markets.

Larry Thompson
General Counsel
DTCC
I Summary and conclusions

The world’s post-trade infrastructures are going through a period of profound change - and nowhere more so than in Europe.

The specialist financial firms which provide vital but unglamorous services, such as clearing and settlement for financial and commodity markets, have been cast by world leaders and regulators as a first line of defence against a repeat of the 2008-2009 financial crisis which almost destroyed the global economy.

At the end of 2012, the nations making up the Group of 20 leading industrialised and fast-growing economies are due to have in place a globally-agreed architecture to tame the US$650 trillion, bi-laterally negotiated, “over-the-counter” (OTC) derivatives market which policy-makers have blamed for spreading the crisis around the globe.

Marking a new era for post-trade infrastructures, central counterparty clearing houses (or CCPs) are, therefore, due to take on the task of clearing and risk-managing most OTC contracts from 2013 onwards. Those contracts that cannot be standardised for clearing will be penalised by the imposition of higher capital requirements on the banks and other trading partners that arrange them.

For the European Union, the end-2012 deadline will signal even greater change. On 1st January 2013, the first ever EU-wide law covering important post-trade infrastructures will enter into force to regulate the clearing of OTC derivatives, CCPs and Trade Repositories. It will be followed by many more laws that will eventually regulate all post-trade infrastructures, their services and their users in an all-embracing single EU-wide post-trade market that will replace markets that are presently largely divided along national lines.

Europe’s post-crisis post-trade agenda is primarily safety-oriented. However, it is also absorbing and expanding a pre-crisis programme to create a single market for trading, clearing and settling equities in which greater efficiency, competition and falling costs were the main goals.

Before the collapse of Lehman Brothers in September 2008, EU post-trade policies placed heavy reliance on voluntary agreements among market participants to bring more competition and sharply lower costs for clearing and settling equity trades across national frontiers. Those agreements were partially successful. Fees for trading and processing equity trades have since tumbled following the launch of new trading platforms and clearing houses and interoperability at the clearing level.

Since 2008, the main EU policy aim has been to ensure that post-trade infrastructures support the safety of the financial system as a whole, while never themselves
posing a threat to it. Like others in the G20, the EU is seeking to create a financial architecture that will prevent taxpayers ever again having to rescue banks and other financial institutions that are too big or too interconnected to fail.

The EU’s post-trade agenda has become much broader in reaction to the crisis. It now covers derivatives (previously unaffected by EU initiatives) whether futures, options or swaps; based on commodities or financial instruments; or traded on exchanges and other regulated platforms or bilaterally over-the-counter.

Financial infrastructures, previously regulated only by national authorities, are now being made subject to uniform EU-wide rules. Since the arrival in Brussels of Michel Barnier as Single Market Commissioner in February 2010, the EU has turned to legislation to bring change, with heavy resort to Regulations. In EU terminology a Regulation (with a capital “R”) is a law which applies with binding force throughout the 27 member states.¹

The first of these laws – the European Markets Infrastructure Regulation, or EMIR - will mandate clearing in the OTC market and regulate CCPs and Trade Repositories across the EU from 1st January 2013.

While EMIR is being implemented – work which is likely to last until the third quarter of 2013 - other draft laws and initiatives will be emerging from the European Commission and going through the EU’s legislative processes, in which the European Parliament and the EU Council of Ministers (representing the member states) scrutinise, amend and approve Commission proposals as co-legislators for the EU’s single market. It follows from this that Commission proposals – which are often presented in the press as Brussels “decisions” – are always subject to change.

Already in the Commission’s pipeline is a proposed Regulation that will create a single market for securities settlement and regulate the Central Securities Depositories (CSDs) and International Central Securities Depositories (ICSDs) that ensure the safe delivery of securities such as shares or bonds to new owners in return for payment after a trade. The draft will be considered in the months to come by Parliament and Council.

The Basel III bank capital rules will also impact on post-trade infrastructures and the trading platforms, banks and other businesses that use them after they have been translated into EU law. So too will revisions to the 2007 Markets in Financial Instruments Directive (MiFID), which are currently going through the EU legislative mill.

The Commission is also working to harmonise securities law, having disinterred a project that dropped off the priority list in the late 2000s, with the aim of producing proposals around the end of 2012.
The EU’s post-trade agenda involves a huge amount of work. Proposing, approving and implementing laws and Regulations is a convoluted process at the best of times - and especially so in a polity as complex as the EU. The post-trade sector is in itself complicated and abstruse, so that lawmakers rely on a significant input from industry when producing legislation. This in turn means extensive consultations and hearings, which are labour-intensive and time-consuming for all participants - and a happy hunting ground for lobbyists. There are obvious benefits to be derived from the participation in the legislative process of post-trade industry representatives, market participants and their advisers and consultants. But there are also risks – above all, regulatory capture by vested interests.

The regulatory tsunami building up in Brussels has triggered frenetic activity among post-trade infrastructure providers and the companies that use them or supply them with services. The EU’s post-trade agenda is demanding wholesale change: in business models and services provided, in risk management and business practices, in IT equipment and programs. Decisions taken in Brussels will produce winners and losers - and companies, including post-trade services providers, are jockeying for position accordingly.

Against this background of regulatory change and private sector effort, the CSFI launched a one-year Post-Trade Fellowship in June 2011, with the financial support of the DTCC. The aim was to take a fresh look at the post-trade sector in Europe, with the aim of producing suggestions to improve its architecture.

This report marks the conclusion of the Fellowship’s first year and, with that, the author’s tenure as DTCC–CSFI Post-Trade Fellow. It is the second of two reports produced by the Fellowship in this period.

This report draws on insights gained from a series of well attended round-table discussions (held under the Chatham House Rule) organised by the CSFI and from additional research. It has benefited from readers' responses to the Fellow’s Interim Report, which was disseminated in April 2012 as a discussion document to stimulate debate between the Fellowship and interested parties with the aim of informing this report’s conclusions.

This report explains the focus of the Fellowship’s work on post-trade infrastructures, summarises the services they provide and gives details of the work programme. It explores the background to the Fellowship’s activities, notably the emerging EU regulatory agenda and how that interacts with the post-trade business. It describes policy and corporate developments that have happened since the start of 2012. It outlines some of the uncertainties (the “known unknowns”) which also influence the Fellowship’s view of the future.

The report recognises that the end-December 2012 deadline for completing the G20 commitments, which was agreed at a leaders’ summit in Pittsburgh in September 2009, is an important moment for European and global post-trade sectors. But in Europe, it will be only one episode in a continuing process.
Several months of 2013 will pass before EMIR is fully up and running, while the host of regulatory initiatives in preparation will mean years of change and adjustment for post-trade infrastructure companies and their users.

The Fellowship has taken this crowded agenda into account when drafting the recommendations and other ideas in this report.

It may be that some readers will be disappointed at an absence of “blue sky thinking” and by a focus on “process”. But the Fellowship has not been working with a clean slate. This report’s recommendations, principles and guidelines build on today’s realities.

A key aim of the Fellowship’s proposals is to smooth the passage of regulation for the sector in the short and medium terms.

Another important concern has been to reconcile the EU’s pre-crisis and post-crisis post-trade agendas. The practical and political imperatives behind the “safety first” agenda are indisputable. However, greater efficiency and some competition in post-trade services are essential: to encourage dynamism and innovation among service providers, to curb the vested interests that permeate the sector, and more broadly to help create conditions for the faster economic growth that Europe desperately needs.

This report’s recommendations, principles and guidelines constitute an “Agenda for Action”. It recommends:

1. The speedy establishment of an effective resolution regime for central counterparty clearing houses (CCPs): The recovery and resolution regime that should be applied to CCPs which run into trouble is an open question of huge importance for the EU. In an ideal world, this should have been agreed before clearing houses were given expanded, systemically-important responsibilities. Instead, EMIR and its related technical rules will be in operation without this vital prop to the European and international financial systems in place. This recommendation was strongly supported in feedback to the Fellowship’s Interim Report.

2. A competition policy investigation into the pros and cons of more liberal access to CCPs, notably in the listed derivatives market, to be balanced by a simultaneous examination into whether open access can be safely applied in the listed derivatives sector: The EU needs to define the appropriate balance between safety, efficiency and competition in the post-trade sector. Although the EU now puts safety first, EMIR demonstrates that it has not abandoned all previous single market goals. However, the balance between safety and competition in the post-trade sector is being defined in individual items of legislation, in a piecemeal and potentially uneven manner. The focus is currently on provisions in the draft legislation to revise MiFID, and relates to access to CCPs serving listed derivatives. Competition authorities have been...
largely absent from the post-trade space since 2006. Investigations into the
appropriate balance between safety and competition in this case would guide
present and future law-making and help ensure a level playing field for the
planned single market for EU post-trade services. One possible aim of the
investigations could be to establish a scale of acceptable competition for post-
trade infrastructures that would be related to the riskiness of the asset class
involved.

3. More resources for ESMA: The EU’s post-trade regulatory tsunami has
resulted in an especially heavy work load for ESMA, the European Securities
and Markets Authority. ESMA is a young organisation with only a small staff
to handle a fast-growing list of responsibilities. It needs more resources, which
could be financial or take the form of more support from member states.

4. Greater transparency of central bank post-trade policies: Directed primarily,
but not exclusively, at the European Central Bank, this recommendation urges
improved transparency in the very early stages of policy formulation, and
stresses the importance of prior consultation before proposals are made.

5. A resuscitation of the Giovannini programme for removing barriers to a single
market for clearing and settling equities and - where appropriate – legislation
to revise it: The Giovannini programme was a central plank of the EU’s pre-
crisis post-trade agenda. It identified 15 barriers to cross-border securities
settlement in the EU and described how to remove them. It failed because it
relied largely on industry action, which made only limited progress, while
national governments failed to deliver their part of the programme. Some
barriers will be removed under EU-wide laws in the pipeline. It is time to
revisit Giovannini, identify new priorities as appropriate, and apply legislation
to remove barriers where feasible.

The Fellowship is also putting forward three proposals, aimed at improving the
process of law-making and regulation. They are:

6. Smaller and more frequent changes to EU post-trade legislation so that
it can easily be adapted to changing circumstances: Long an objective of
EU reformers, this recommendation is more urgent today because of the
vast amount of new regulation being produced, which is bound to contain
unintended errors. The idea was strongly supported by industry speakers at a
Fellowship round-table in July 2012.

7. Using the opportunity provided by post-trade legislation to alter the sequence
of future revisions to EU post-trade laws: This would capitalise on the large
flow of laws in the pipeline. By varying the periods of time before reviews or
sunset clauses apply, the EU could over time bring about a more sensible order
of post-trade legislation.
8. **Action to eliminate coordination defects in and around European post-trade legislation:** Related to recommendation 7 above, this item addresses coordination and consistency problems in EU policy-making, both inside the EU and beyond.

In addition, it suggests action to uphold the ethical standards and professional qualities of post-trade personnel in the face of increasing demands on the sector.

In its Interim Report, the Fellowship put forward two broad principles, two supporting guidelines and a “Cui bono?” test to guide post-trade professionals and regulators through the changes ahead.

Applied in combination, the two principles are intended to help reconcile safety and competition as follows:

1. All regulatory and corporate decisions affecting post-trade activities must be conducive to financial stability and safety.

2. Accepting the differentiated risk characteristics of post-trade infrastructures, such decisions should contribute to a competitive, open European single market in post-trade services to the extent that they are compatible with principle 1.

The supporting guidelines provide “rules of thumb” to help avoid pitfalls and policy errors. They suggest that all changes should, where possible:

- go with the grain of the market(s); and
- approach the challenges ahead with appropriate humility.

The first guideline is self-explanatory and is intended primarily as a reality check for investment decisions or proposed regulations concerning the post-trade sector. The second is meant as a reminder of the many complexities and unknowns facing the European post-trade sector - which policy-makers, regulators, managers and employees will have to master.

The second guideline should apply particularly to CCPs, because CCPs are where the greatest risk in the post-trade sector is concentrated. CCPs have existed in one form or another for more than a century to risk-manage trades on organised exchanges and wholesale financial markets, and to ensure that trades are completed should one or other of the trading partners default. But, while mitigating risk, CCPs also concentrate risk in the markets that they serve because they function as the buyer to every seller and the seller to every buyer.

As a result of the G20 commitments, CCPs are taking on huge responsibilities for clearing hitherto opaque and little-understood OTC instruments. However, it cannot be stressed often enough that CCP clearing is not a panacea or “silver bullet” for dealing with the aftermath of the crisis.
The final element of this report’s “Agenda for Action” is: a “Cui bono?” test to be applied to post-trade decisions. The Interim Report argued that the simple question “who stands to benefit?” is essential when assessing a sector riddled with vested interests. This test was strongly supported in feedback to the author’s Interim Report.

* * *

In the short term, 2013 will be an important year of adjustment and adaptation to the EU’s emerging post-trade regime. The above recommendations, principles and guidelines that make up this report’s Agenda for Action are offered in the belief that they can facilitate the transition to a new EU post-trade architecture. They are also intended to help balance the twin objectives of making Europe’s financial system safe while promoting an efficient and competitive economy that helps bring growth and jobs.

The report’s Agenda for Action should stand the test of time. But looking beyond EMIR and the other EU laws in the pipeline, there are many other issues preoccupying Europe’s post-trade sector.

This report, therefore, continues with an “Awareness Agenda”. This is a catalogue of important issues where conditions are insufficiently clear to prompt specific recommendations at this stage, or where initiatives - some in the private and some in the public sector – are under way and it would be premature to pass judgement.

The Fellowship’s Awareness Agenda discusses collateral issues and the much-feared collateral shortage, portfolio and cross margining by CCPs, the position of the buy-side as a result of the G20 clearing commitment, and the challenges facing clearing members of CCPs in the European post-trade sector’s new regulatory and commercial environment.

Other issues covered include Target2-Securities (T2S), the ECB’s revolutionary and much delayed project for a single platform to settle cross border securities transactions, as it moves towards start-up in 2015. The Awareness Agenda also advocates a broader consideration of competition in the post-trade space. It also reminds readers that there are important participants in the post-trade sector in addition to the main infrastructure providers, and very briefly notes some of the barriers to technical innovation.

This report’s Agenda for Action and its Awareness Agenda have been written against the background of a post-trade environment where the unpredictable is the norm and in the context of a tsunami of regulation whose economic impact on Europe’s post-trade sector has yet to be fully felt.

There will, however, be difficult challenges ahead. Falling fees and interoperability mean that equities clearing is no longer a particularly profitable business in Europe. Regulation will involve large-scale investment in IT for infrastructure providers,
Major challenges ahead...

their users and their clients along the value chain that will cut into profits and present daunting operational challenges.

The proliferation around the world of CCPs preparing to clear swaps is also emerging as a major unintended consequence of the G20 commitment, adding to the already considerable uncertainties surrounding the transition to central clearing of financial instruments that were previously cleared bi-laterally, if at all.

CCPs, in particular, will have to manage new relationships: with clearing members experiencing a squeeze on their own profits, and with buy-side investors, which (on the evidence of the Fellowship’s round-tables), are looking towards the central clearing of OTC derivatives with foreboding if not with hostility.

In the course of the eurozone sovereign debt crisis, CCP margin calls have graduated from being of interest only to niche sectors of the financial markets to readily identifiable signals of sovereign borrowers moving deeper into difficulty. In consequence, CCP managers have come to expect hostile phone calls from government treasury departments. To a sovereign borrower in trouble, a CCP’s margin call in such circumstances looks more like a pro-cyclical kick to a country when it is down than a case of prudent risk management.

Dealing with these is a business sector going through a difficult period of adjustment that is likely to last for years rather than months. In these circumstances, it is important that the post-crisis, public policy consensus in favour of CCPs and other post-trade infrastructures holds firm. In the EU, the introduction of a credible resolution regime for systemically important CCPs would help build confidence. This is one reason it is placed at the top of this report’s action points.

The conditions in which Europe’s post-trade infrastructures are currently expected to do their job are, in many respects, as dangerous as, if not more dangerous than, those which existed in the summer of 2008 - before the bankruptcy of Lehman Brothers, which presented the world’s clearing and settlement providers with their greatest ever test.

Clearing and settlement infrastructures in Europe and around the world rose successfully to that challenge. The hope must be that they will achieve similar success in the future, should that be necessary.

But ensuring post-trade infrastructures can successfully manage the next great crisis in the world economy will require constant vigilance: from post-trade professionals, policy-makers, regulators, market participants and from independent observers. It is with this task in mind that the DTCC-CSFI Post-Trade Fellowship has produced this report.
The main post-trade services and infrastructures in a nutshell...

Metaphors of plumbing and pipes are much used to explain the post-trade business. But it is better to think of the key post-trade infrastructures as highly sophisticated users of high speed information technology, to which are wedded the mathematical techniques and very human skills of risk management. They are complex organisations, with differing characteristics, adapted to the markets that they serve.

The prime function of the Central Counterparty Clearing House (or CCP) is risk management. By acting as the buyer to every seller and the seller to every buyer in the markets that it serves, a CCP ensures the completion of trades if one or other of the trading partners defaults.

It provides this service for a select group of counterparties (its clearing members), which are usually large commercial and investment banks and sometimes big hedge funds which aggregate the trades of numerous investors and intermediaries who are their clients in order to clear these trades at the CCP. In return for committing to clearly defined rules and obligations to support the CCP, clearing members not only have the assurance that their trades will be completed, but also enjoy commercial benefits.

CCPs take margin (or collateral) from clearing members to safeguard their business. A CCP will also maintain a “waterfall” of resources to use in case losses exceed the margin funds provided by its defaulting clearing member(s). The waterfall will include a default fund, provided by clearing members but sometimes with a contribution (“skin in the game”) from the CCP, other financial resources such as insurance or funds and guarantees provided by its owners, and its capital. By netting the positions of counterparties, CCPs minimise the cost for users of providing margin funds and increase the liquidity of the platform on which they trade. They also provide anonymity for trades.

CCPs are essential for the functioning of exchange-traded derivatives markets where they manage the risks in contracts as long as these are open. This can be a matter of days, months or years. Their use in equities markets and Over the Counter (OTC) derivatives markets (where some swaps contracts are written to mature after decades) is relatively recent in historical terms.

Securities settlement is all about transfer of ownership, and ensuring the safe delivery of securities such as shares and bonds in return for payment after a trade. With most securities held in electronic or non-documentary form rather than as physical certificates, the specialised infrastructures - Central Securities Depositories (CSDs) and International Central Securities Depositories (ICSDs) - manage the transfer of ownership by “book entry” through changing the entries in their computerised records. In Europe, securities are settled in two or three days, depending on the jurisdiction.

The other functions of Europe’s CSDs and ICSDs vary, reflecting the fact that CSDs are still primarily domestic institutions that grew up in nation states while the ICSDs, which handle trades in international securities and some cross-border transactions in domestic securities, were originally established at the end of the 1960s to settle trades in the then nascent market for “Eurobonds”.

The CSDs and ICSDs (Euroclear Bank of Brussels, Clearstream Banking Luxembourg and, on a smaller scale, SIX SIS Ltd of Switzerland) are the infrastructures where issuers issue (or record) their securities in book entry form. The (I)CSDs can thereby hold the securities and carry out administrative tasks (or “corporate actions”), such as paying dividends or interest. CSDs and ICSDs are increasingly suppliers of collateral to financial markets.

The Trade Repository is a relatively recent innovation among post-trade infrastructures, having appeared only in the past five years. It is a centralised registry that maintains an electronic database of open OTC derivative contracts of a given asset class, and thus provides some transparency in hitherto opaque markets. Development of Trade Repositories is strongly supported by regulators as part of the post-crisis agenda.

In addition, there are a host of ancillary and supporting activities in the post-trade space. This is a fast changing world where entrepreneurial companies spring up, invent, grow and - in some cases - fade away, so far largely outside the scope of specialised EU regulation. These companies create and supply the software and data needed for the main post-trade service providers to operate; facilitate connections between the service providers; and, increasingly, help them to manage the details of the still emerging flood of regulations. A fast growing post-trade service is trade compression which can sharply reduce the number of outstanding contracts in an OTC derivatives market by “tearing up” swaps contracts that cancel each other out.
II The focus of the Fellowship’s work

As the name implies, the post-trade sector covers activities that take place after a trade. Once the parties involved have made a binding agreement to exchange an asset for cash, post-trade infrastructure providers take on the tasks needed to complete the transaction.

Post-trade infrastructures operate in wholesale financial and commodity markets, performing tasks that are commonly summed up as clearing and settlement. As the summary on the preceding page makes clear, a range of post-trade services is supplied by different types of infrastructure provider in different types of market at different stages of the process between the execution and completion of a trade.

In performing their unglamorous back-office duties, post-trade infrastructures are crucial to the successful operation and safety of the markets that they serve. Some companies handle financial instruments whose overall value appears nothing short of astronomical, giving them – and the post-trade sector more widely - systemic importance. For instance, the CSDs and ICSDs which operate the EU’s securities settlement systems settled trades worth around €920 trillion in 2010 and held securities worth nearly €39 trillion on their books.

On any given day, CCPs have huge, matching assets and liabilities on their balance sheets, reflecting their core business of absorbing counterparty risk. For example, when LCH.Clearnet, the Anglo-French clearing house group, drew up its accounts for the year to 31st December 2011, the assets and liabilities of its clearing business on that final day of 2011 were €540 billion.

Without realising it, we all depend indirectly on the services of the post-trade sector: the businessman seeking finance to expand, the pensioner looking for a better return on savings, the young family wanting to move to a new house and the government that borrows to cover its budget deficit.

The Fellowship’s work has focused on the main services and infrastructures: central counterparty clearing, conducted by central counterparty clearing houses (or CCPs), and securities settlement, which is handled in Europe by Central Securities Depositories (CSDs) and International Central Securities Depositories (ICSDs).

Together with trade repositories, CCPs, CSDs and ICSDs are the main elements of post-trade ‘plumbing’ in the financial system. They are also at the centre of a large number of new and complex regulations that are emerging in Europe and elsewhere in the world following the great financial crisis of 2008-2009.
A. The Fellowship research programme

The DTCC-CSFI Post-Trade Fellowship was launched in June 2011 with the financial support of the DTCC. The goal of the one-year programme has been to take a fresh look at the post-trade sector in Europe and come up with suggestions to improve its architecture.

The Fellowship was launched at the same time as a radical programme to regulate Europe’s post-trade sector at an EU-wide level was still taking shape. The interaction of regulation and post-trade services has been a central theme of the Fellowship.

The EU’s regulatory agenda is part of a global effort, which has been defined and driven forward by the Group of 20, to make the world’s financial markets safer and banish the prospect of another financial crisis on the scale of that of 2008-2009.

But, as will be described in some detail later in this report, the “safety first” element of European regulation is colliding with an older pre-crisis agenda of bringing more competition to financial markets, including the post-trade space.

The Fellowship was launched at a special event on June 1st 2011, at which Paul Tucker, the Bank of England Deputy Governor responsible for financial stability, gave the keynote speech and the Fellow outlined his agenda for the year. A high-level panel then discussed key post-trade issues.

In pursuing the Fellowship’s objectives, the Fellow has engaged in a wide-ranging research programme. Special round-table meetings, organised by the CSFI, have formed an important part of the Fellowship’s research.

The CSFI has organised nine Fellowship round-tables.

Led by small panels of expert speakers, these meetings have attracted large attendances, representing providers and users of post-trade services, regulators, lawyers, policy-makers and some media. There have been six round-tables in London and one each in Frankfurt, Paris and Zurich. There have also been two high level Fellowship dinners – one in Brussels and the other in London – where a prominent guest speaker led the discussion. More details of the Fellowship events are provided in Appendix I at the end of this report.

In addition, the Fellow has arranged briefings and interviews, and has participated in meetings with small groups of market experts. He has kept up to date with developments by attending conferences and other post-trade events, often to moderate or chair panel discussions.
The Fellowship has its own dedicated page on the CSFI website, which carries information about round tables and summaries of past discussions. The page - http://www.csfi.org/index.php?option=com_content&view=article&id=232&Itemid=83 – has enabled interested participants to keep up with the Fellowship’s progress despite the round-tables being held in different locations.

In April 2012, the Fellow produced an Interim Report in the form of a discussion document to stimulate debate and help inform this final report. The Interim Report was disseminated to CSFI members and other interested parties. A link to the Interim Report was provided on the Fellowship’s CSFI web page and a special e-mail address set up to which readers could send their reactions.

B. The pre-crisis background to the Fellowship’s work

Until the crisis of 2008-2009, post-trade services and infrastructures in the EU were almost entirely unregulated at the European level.

Since September 2008, the main European Union policy aim has been to ensure that post-trade infrastructures support the safety of the financial system as a whole, while never themselves posing a threat to it. Like other leading G20 economies, the EU wants to regulate and restructure its financial architecture so that taxpayers will never again have to spend billions of taxpayer euros, pounds and dollars rescuing banks and other financial institutions that are too big or too interconnected to fail.

However, both before and since the crisis, the fragmentation of Europe’s post-trade infrastructure along mainly national lines has been an important matter of concern for policy-makers and users of post-trade services. There are currently 41 companies belonging to the European Central Securities Depositories Association (ECSDA), of which 27 are in the EU. The European Association of CCP Clearing Houses (EACH) lists 23 companies operating CCPs in Europe (both inside and outside the EU).

In some markets and post-trade infrastructures - such as those for listed derivatives or European equities traded on multilateral trading facilities - national frontiers are less relevant and significant economies of scale are possible. But, overall, the persistence of national barriers to cross-border activity among Europe’s post-trade infrastructures has been a major obstruction to the greater efficiency, and therefore the international competitiveness, of Europe’s financial markets.

Before the crisis, the EU’s post-trade policies were geared to creating a single market for equity trades, in large part through more competition and sharply lower costs for clearing and settling trades across national frontiers.
Pre-crisis, the EU’s post-trade policies relied heavily on self-regulation and on creating conditions to encourage the industry to consolidate and liberalise access to its post-trade services for equities transactions.

Two important strands, supported by the European Commission, relied on self-regulation:

- The so-called Giovannini programme, drawn up in 2001-3. Aimed at harmonising the technical, legal and fiscal conditions in which national infrastructures operated, this programme relied on industry and public sector commitments to remove barriers to cross-border clearing and settlement of equities.

- An industry Code of Conduct, brokered by the EU Commission in 2006. According to this, exchanges and post-trade infrastructures serving equity markets committed to price transparency, fair and non-discriminatory rights of access to each others’ services, unbundling of services and - most far-reaching of all - interoperability among providers of financial market infrastructure services.

The European Central Bank, by contrast, took a distinctly dirigiste approach when it launched a bold initiative, Target2-Securities (T2S), in 2006. Its hitherto untested concept was to concentrate Europe’s securities settlement services for equities trades into a single facility run by the central bank. T2S is now scheduled to start operating in 2015.

All three initiatives have yielded lessons of relevance to post-trade policy today that are reflected in this report’s recommendations.

But, insofar as the pre-crisis agenda has succeeded, the fall in fees for trading and processing equity trades that has taken place in the EU in recent years owes more to the 2007 Markets in Financial Instruments Directive (MiFID) than to the Giovannini programme, the Code or the prospect of T2S. MiFID allowed the creation of Multilateral Trading Facilities, a new form of pan-European trading platform for equities. MTFs broke exchange monopolies and spurred the launch of new clearing houses for equities trades, which have gradually introduced competition and interoperability at the clearing level.

C. Economies of scale and vertical integration: the example of CCPs

Post-trade infrastructures meet several needs and present several challenges at the same time. Primarily, they contribute to the safety and efficiency of financial markets. As network industries which benefit from economies of scale, they can also add significantly to the profitability of the trading venues that they serve and the market participants that use them.
Among the main post-trade infrastructures, CCPs occupy a special position. Reflecting this and Europe’s regulatory agenda, they have occupied proportionately more of the Fellowship’s time than other post-trade infrastructures.

CCPs concentrate risk in themselves as a consequence of intervening between counterparties (which are their clearing members) to ensure that their trades will not fail. They can also help the markets that they serve obtain and maintain a distinct competitive edge over rivals.

The competitive advantages provided by central counterparty clearing are most apparent in derivatives markets, where CCPs provide the essential post-trade services of managing the risk and netting the positions of their clearing members.

The total of outstanding trades on a CCP’s books is its ‘open interest’. The amount of open interest carried by the CCP determines how far it can offset the long and short positions of its clearing members - and this, in turn, influences the amount of margin (or collateral) the CCP demands from them.

As a rule, a CCP with a large open interest should be more attractive to clearing members than one which clears few transactions. Should there be a choice of CCP, liquidity should shift to that which has the biggest number and value of open transactions. Where there is no choice of CCP, as in a vertically-integrated exchange group with its own clearing house, clearing members may gain from the economies of scale, but only to the extent that the owners of the exchange and CCPs permit.

Where a vertically-integrated group operates in a closed manner, the CCP’s owner is in a powerful position to extract profit from the market. Whether an integrated exchange group operates as a “silo” in a profit-maximising manner is not inevitable, however. It depends on regulation, whether competition exists among exchange groups trading similar products, and/or on the exchange group’s governance, which in turn can depend on who its owners are.

Integrated structures can also provide benefits for users: for example, in their ability to bring new derivatives products to market more quickly than in cases where the exchange and clearing house are not members of the same corporate entity. But verticalisation has been a cause of concern since the demutualisation of exchange groups and their conversion into for-profit entities began in earnest in the 1990s.

This is especially the case with exchange-traded derivatives, where the scale benefits are potentially greater than in securities markets. This is because derivatives contracts stay open much longer than the two to three day settlement interval that applies for securities trades, resulting in a commensurately larger open interest at the CCP. An exchange that owns its own clearing house can exploit the position in a for-profit environment. It controls the intellectual property of the derivatives contracts, the data feed to the CCP, and can grow the liquidity of the market within its own silo until it becomes dominant.
In the absence of external constraints, exchanges in Europe and elsewhere have been enthusiastically building vertically-integrated groups in recent years, either through the acquisition of CCPs or by establishing new clearing houses.

A large open interest and the economies of scale that it confers on incumbents have made clearing a difficult market for new entrants. There have been cases where a CCP has been able to take over the open interest on a given market by persuading the clearing members to abandon their existing clearing house. But such instances have been rare.

The capacity of post-trade infrastructures to enhance the efficiency and profitability of markets while underpinning their safety helps explain the complexity that often surrounds post-trade corporate manoeuvrings and policy. CCPs, in particular, are a locus for conflicts of interest among a multiplicity of stakeholders. These include the exchange or other venue where the trades they clear take place, the market participants, the CCP’s owners (which may or may not be the same as the trading venue’s owners), their regulators, and the clearing members which are the users or counterparties of the CCP.

D. The legacy of demutualisation

The vertically-structured exchange group has been a more contentious issue in Europe than in the US, probably because the demutualisation of exchanges and their associated infrastructures in Europe took place in the absence of the continent-wide regulation which had existed in the US since the 1970s.

On both sides of the Atlantic, the demutualisation of exchanges and their conversion, first, into for-profit and, later, into listed entities ushered in a clash of interests between the exchanges and their previous owners, which were mainly large commercial and investment banks. In Europe, this developed into a proxy war fought over clearing and post-trade infrastructures.

Before demutualisation around the turn of the century, exchanges were clubby institutions owned by their users. Their post-trade infrastructures, insofar as anyone noticed them, were seen as boring back office businesses that provided the plumbing for markets to function.

The historic doziness of exchanges may have been one factor that encouraged the banks to sell their holdings and realise windfall profits immediately after their IPOs. Another important reason was that banks needed to repair the damage inflicted on their balance sheets by the collapse of the dotcom bubble in 2001-2.

Whatever the reason, the banks quickly succumbed to sellers’ remorse as some of the newly demutualised, for-profit exchanges identified clearing and settlement as profit generators and began integrating CCPs and, in some cases, settlement services into
vertical silo structures. It was not long before accusations flew thick and fast that some for-profit exchange groups were charging monopoly fees.

In response, investment banks became strong advocates of ‘horizontal’ trading and post-trade strategies, where trading and clearing and settlement are separated among legally distinct institutions. The argument was that these systems were far more likely to share scale benefits through fees that were at (or near) cost, particularly when the infrastructures concerned were user-owned and user-governed.

In pursuing this policy, the banks drew inspiration from the situation in the US where regulations meant that only the operators of listed derivatives exchanges stood to make stellar profits from demutualisation.

At the turn of the century, the US was an inspiration to many in Europe because of its consistently faster growth - which was attributed in part to it having superior financial markets. In particular, the US was envied for having:

- In the DTCC, a user-owned user-governed monopoly, providing continent-wide clearing and settlement for all US cash equity trading venues, which competed vigorously against each other.

- A monopoly clearer for the traded options market, the Options Clearing Corporation (OCC), that originated as well as cleared US traded options. As a result, the options were fungible and tradable on numerous competing options exchanges.

When it came to exchange-traded derivatives, the US had provided the model for most futures markets around the world some years before. The predominant structure for futures trading, when financial futures were invented and first regulated in the US in the 1970s, was a vertical structure in which the exchange created and owned the intellectual property of the futures that it offered for trading, which were themselves cleared in a CCP that it also owned. This model, which raised no serious competitive concerns as long as exchanges and their CCPs were mutuals owned by their users, had been pioneered by the Chicago Mercantile Exchange in 1919. The CME was also one of the first exchanges to trade financial futures.

The CME model was the one that was copied in most European countries in the late 1980s, when financial reforms allowed the creation of financial futures exchanges in Europe. (Britain was an exception because the Bank of England had earlier nudged London’s newly created LIFFE financial futures exchange into using ICCH, an existing clearing house for commodity markets which was later to become the UK part of the LCH.Clearnet group.)

In 1980s Europe, regulation of financial market infrastructures was fragmented along national lines, and this was still the case when demutualisation of exchanges got underway.
So, when the European Commission launched a programme to create a single market in financial services in 1999 – and started to think about the creation of a single market for clearing and settlement in 2002 – demutualisation was already transforming Europe’s exchange landscape and creating a cast of winners and losers. The future structure of financial market infrastructures in Europe’s single market became a focus of the proxy war between exchanges and (mainly investment) banks.

The battlefields where this war has been fought were determined by the changing priorities of the EU institutions. Before the financial crisis, the Commission (and therefore the European Parliament and the member states) focused on creating a single market for equities in an attempt to emulate the US, and paid far more attention to trading than post-trade activities in the value chain.

In an age of “light touch” regulation, the Commission and EU institutions shied away from prescribing either vertical or horizontal structures. The Commission also had no plan for derivatives markets, where vertical and horizontal structures co-existed.

This hands-off approach encouraged exchanges to extend and strengthen their control of post-trade services in vertical structures for the clearing of securities and exchange-traded derivatives and sometimes for the settlement of securities to the exclusion of outsiders. The most successful exponent of the integrated model was the Deutsche Börse Group, whose silo channelled exchange-traded derivatives and equities trades to clearing and settlement infrastructures under the Eurex and Clearstream brands.

The investment banks in return promoted horizontal trading and post-trade strategies for equities, centred on user-owned, user-governed financial market infrastructures. Trading of equities was the one area where the EU legislated to create a single market, and its instrument was MiFID, a huge piece of legislation that took effect in 2007.

Investment banks lobbied successfully for the creation under MiFID of the Multilateral Trading Facility (MTF), a new form of pan-European trading platform that broke exchange monopolies. Banks also became the owners of Euroclear, the Brussels-based ICSD for settling international bonds. In 2009, they won control of LCH.Clearnet, the Anglo-French CCP, which clears many asset classes from equities and commodities, through exchange-traded derivatives to bonds, repos and swaps.

There are signs that the conflict is now becoming more nuanced on both sides of the Atlantic, suggesting that at least some members of the two camps are rediscovering shared interests.

In 2009 and 2010, for example, the US exchange operator NYSE Euronext sold stakes in its NYSE Amex options market and NYSE-Liffe, its then nascent US futures exchange, to groups of banks and trading companies. This year, the banks have agreed to sell a controlling interest in LCH.Clearnet to the London Stock Exchange Group.

But as will be discussed later, the two opposing camps are still lobbying vigorously to influence the future shape of EU post-trade regulation in the listed derivatives space.
E. The relevance of the crisis

The world’s post-trade infrastructures were among the few success stories in the acute financial crisis that followed the bankruptcy of Lehman Brothers in September 2008. There were some problems. In Hong Kong, for example, Hong Kong Exchanges and Clearing Ltd incurred a loss of around US$ 20 million, which meant it had to dip into the guarantee fund provided by its clearing members. But no CCP failed in its main task of ensuring the successful completion of trades on the financial markets where it operated.

In the aftermath of Lehman’s default on September 15th 2008, CCPs successfully completed trades worth trillions of dollars in a multitude of financial instruments across listed and over-the-counter markets in difficult circumstances. For example, the SwapClear service of LCH. Cleartex, the Anglo-French CCP, was faced with its first ever default of a clearing member bank in an important OTC market – that for interest rate swaps - and successfully managed Lehman Brothers’ $9 trillion interest rate swap portfolio at no loss to investors. In the US, the clearing and settlement arms of the DTCC successfully processed four consecutive days of record high equity trading volumes. The crisis also demonstrated the worth of Trade Repositories – which were then still a novel infrastructure – when information from the DTCC’s Trade Information Warehouse (TIW) on market participants’ exposure to credit default swaps written on Lehman bonds calmed a nascent market panic.

Post-2008, public policy embraced clearing in particular as a way of mitigating risks and increasing transparency on OTC derivatives markets, so reducing the chances that states – and therefore taxpayers – would in future have to bail out ‘too big to fail’ financial institutions.

There was a consensus among policy-makers after 2008 that the bilaterally negotiated OTC derivatives market had greatly exacerbated the crisis. Optimism about the ability of CCPs to mitigate the risks in OTC derivatives markets was reflected in the communiqué of the leaders of the G20 nations after they met for a Summit in Pittsburgh in September 2009. The G20, which included rapidly-growing new economic powers such as China and India, as well as the long-established industrialised nations of the US, Europe and Japan, had taken command of the world’s economic recovery. Marking a new era for financial market infrastructures, it declared that:

“All standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest. OTC derivative contracts should be reported to trade repositories. Non-centrally cleared contracts should be subject to higher capital requirements.”

The G20 statement on clearing contained some important qualifications. For instance, it referred to “standardized” OTC derivative contracts and made clear that there would in future still be non-centrally cleared contracts. But for some policy-makers, clearing was perceived as a “silver bullet” - and some still give this impression.
It is in the context of this global G20 initiative, with its end-2012 deadline, that the EU’s post-trade architecture is being reshaped.

Since the arrival in Brussels of France’s Michel Barnier as Single Market Commissioner in February 2010, the EU has relied on legislation to bring change. Financial infrastructures, previously regulated only by national authorities, are being made subject to EU-wide laws, with heavy resort to EU Regulations. Such Regulations apply with binding force throughout its 27 member states.

The post-trade agenda is also much broader. Derivatives were previously unaffected by EU initiatives, thanks mainly to effective lobbying by the trade association representing Europe’s exchange groups. In contrast, post-trade policy now involves futures, options and swaps, derivatives based on commodities or financial instruments, and those traded on exchanges and other regulated platforms or bilaterally “over the counter”.

In the first months of the Fellowship, there was little to be seen of the new post-trade agenda. The negotiations on new Regulations were taking place in EU committee rooms, and the corporate manoeuvring was behind closed doors in the companies involved.

Since January 2012, however, there has been a flurry of decisions that allow us to begin to understand and re-evaluate the tidal wave of regulation that is re-shaping Europe’s post-trade sector. At the company level, some long-planned initiatives have crystallised – and, in one significant case, foundered.

Although the EU now puts safety first, the Commission has not abandoned all previous single market goals. Its proposals for post-trade regulation combine some elements of the pre-crisis pro-efficiency agenda and the present pro-safety imperative. The big question now is whether its policy mix will be that which is finally adopted after its proposed Regulations have been considered by the European Parliament and the EU’s Council of Ministers, which have rights of “co-decision” when legislating single market laws.

Having seen the pendulum swing from a hands-off policy aimed at increasing the efficiency and lowering the costs for users of post-trade infrastructures serving European equities markets before 2008 into one based on comprehensive legislation in which safety was the main objective, Europe is now in the midst of an institutional and lobbying battle to find a new balance in post-trade policy in which safety, efficiency and greater competition all have a role to play.

At the level of high policy, the choices lie on a spectrum in post-trade architecture between one geared above all to preventing a repetition of the 2008-2009 crisis (or worse) and one that accepts Europe needs more growth and jobs and that competition is the best way of achieving this. At the level of the company lobbyist, these aspirations often boil down to a battle between those wanting to maintain the vertical silo for exchange-traded derivatives and those advocating more liberal access to post-trade infrastructures - and especially CCPs.

At the time of writing, the battle is being fought over the Commission’s proposals for revising MiFID. The MiFID II debate follows some significant regulatory developments, which are outlined below. However, it is only one of several “known unknowns” that will affect future developments.
III Developments so far in 2012

A. Regulation

On the regulatory front, key events during the first half of 2012 included:

1. **Agreement on EMIR, the first EU-wide law with a real impact on the post-trade sector**: EMIR, the European Market Infrastructure Regulation, will regulate the over the counter derivatives market, CCPs and Trade Repositories. It cleared its last legislative hurdle at the end of March, allowing it to become law well ahead of the end-2012 G20 deadline for mandated clearing of OTC derivatives and their reporting to trade repositories.

   Of significance for further legislation, the part of EMIR covering the clearing of OTC derivatives stipulates (subject to conditions) that the venues envisaged by the G20 for OTC derivatives trading can have access to any CCP handling that sort of business and that CCPs can in turn access the trade “feeds” from OTC trading venues. In addition to this two-way open access, EMIR provides detailed rules for the organisation, governance and safety of CCPs that will apply across the EU. It also sets down rules for interoperability among CCPs, but limited its scope to securities CCPs until at least the end of 2014. That is when ESMA is due to have reported to the Commission on whether to extend interoperability to other asset classes.

   Even after the legislation was approved, there remained some 20 technical standards to be clarified by ESMA before EMIR can be fully implemented. The EMIR text specified that ESMA should consult on the standards as part of its work before submitting its results to the Commission for endorsement.

   All this activity means that the standards cannot be completed much before the end of 2012. Time will then be needed before important provisions can be implemented. To take just two examples:

   - the process of authorising CCPs to operate in the EU (to be done by ESMA) will take until the middle of 2013; and

   - the details of which OTC derivatives are to be cleared will not be finalised until the second or third quarter of 2013.

2. **Publication of CPSS-IOSCO standards for FMIs**: The CPSS-IOSCO group of officials from central bank and securities regulators published overarching principles for financial market infrastructures (FMIs) on 16th April 2012. The 24 principles, agreed for application globally, aim to ensure that payment,
clearing and settlement systems around the world are in future more robust and better able to withstand financial shocks. The principles require that FMIs have robust risk controls, strong governance standards and contingency plans in place so that they can help maintain financial stability. A key aim of the CPSS-IOSCO principles is to make FMIs so strong that they will never require bailing out by governments using taxpayer funds.

3. A Commission proposal for EU-wide regulation of Central Securities Depositories (CSDs) and International Central Securities Depositories (ICSDs): The proposed Regulation provides an EU-wide legal definition of (I)CSDs and prescribes strict rules for their operation. With the aim of increasing safety in the securities settlement business, the Commission proposes:

- to impose the issuance of securities in book entry or electronic form;
- to harmonise the period for settling securities at two days, against the current two to three; and
- to impose tough measures to deter settlement fails.

As with EMIR, the proposal aims to further the single market by giving (I)CSDs the right of access to the securities settlement systems of other (I)CSDs as well as trade feeds from other CCPs and trading venues. If eventually approved, one important provision will give issuers the right to issue their securities in any authorised (I)CSD in the EU.

Publication of the proposal was delayed until March 7, because of disagreement between the Commission and the ICSDs over proposals that (I)CSDs using commercial bank money to settle securities trades should do this through settlement banks, rather than any in-house bank. This proposal, if left unadulterated, would, the ICSDs claimed, have seriously damaged their business and jeopardised their ability to provide collateral to financial markets.

The published draft maintains a bias in favour of CSDs using settlement banks - but with a provision for an (I)CSD, if licensed as a bank and backed by its home regulator, to gain special Commission permission to offer banking services ancillary to settlement. The derogation has, however, been criticised by ICSD representatives for lacking precision.

More work evidently needs to be done to find a solution that addresses the Commission’s fears about the systemic risk which it sees in the ICSD business model and the ICSD critique that the Commission’s preferred solution to that problem would push business and risk into large settlement banks, some of which (unlike ICSDs) have experienced disastrous losses since the onset of the crisis.
B. Regulatory “known unknowns”

While the first half of 2012 saw advances on the public policy front, it was also a period in which difficult issues came into sharper relief. At the time of writing, there are several of these regulatory “known unknowns” affecting Europe’s futures post-trade architecture. They include:

- The outcome of negotiations in the European Parliament and the Council of Ministers on the EU Commission’s draft proposals to revise MiFID: The legislation proposed by the Commission to revise the 2007 Markets in Financial Instruments Directive (MiFID) contained access rules for CCPs serving Europe’s listed derivatives market that are similar to those covering OTC derivatives clearing in EMIR. Made up of two parts – a proposed EU Regulation (MiFIR) that will apply across all member states and an EU Directive (MiFID II), to be transposed into national laws - the draft MiFID II package has since become the object of fierce opposition from representatives of vertically-integrated exchange and post-trade structures in markets for exchange-traded derivatives.

At the end of March, Markus Ferber, the European Parliament’s “rapporteur” for MiFID II, launched the Parliament’s consideration of the draft laws with publication of his evaluation of the proposal and suggested amendments. Hopes of an early agreement on the MiFID II/MiFIR package have since crumbled because of divisions in the Parliament over market structure issues, including the question of two-way open access between trading venues and CCPs handling listed derivatives. In July, members of the European Parliament’s important Economic and Monetary Affairs Committee (Econ) postponed until after the summer a vote on Mr Ferber’s text, as modified to reflect a host of proposed amendments from fellow MEPs.

The modified Ferber text would permit two-way access between trading venues and CCPs clearing OTC derivatives (as allowed under EMIR) and equities CCPs clearing “transferable securities and money market instruments”, so long as this did not threaten the smooth and orderly functioning of the CCP or the safety and smooth running of financial markets. However, it put tougher conditions in the path of two-way open access for listed derivatives. It also said, that for “other financial instruments” CCP access to a trading venue through its feed should “be granted only where such access would not require interoperability or threaten the smooth and orderly functioning of markets in particular due to liquidity fragmentation and [where] the trading venue has put in place adequate mechanisms to prevent such fragmentation”. It would be left to ESMA to define liquidity fragmentation.

As drafted, Mr Ferber’s amendments would preclude CCP interoperability in derivatives markets, which the EU Commission in any case considers too risky in current circumstances. They also set a considerable hurdle to CCP
access in the listed derivatives sector in cases where trades are currently cleared by a CCP which is integrated with the trading platform in a silo structure. In another sign of push-back against the Commission’s more liberal stance, parliamentarians deleted a Commission proposal to allow CCPs and trading venues access “on a reasonable commercial basis” to the proprietary information that underpins derivatives based on benchmarks such as indices.

The MEPs’ deliberations are only part of the EU legislative process. The member states in the Council of Ministers have also to agree a common position before reaching consensus with the Parliament. The Council has been moving more slowly than the Parliament, but if the EMIR negotiations are any guide, its eventual decisions will be very important. However, little progress is expected during the second half of 2012 because Cyprus, the holder of the Council’s rotating presidency, is likely to be preoccupied with another “known unknown” - the eurozone sovereign debt crisis.

- The impact of Basel banking rules on clearing: As part of their commitment to regulate OTC derivatives markets, G20 leaders agreed that “non-centrally cleared contracts should be subject to higher capital requirements” from the end of 2012.

This commitment has been met on paper through the Basel III bank capital rules, although the timing of implementation will depend on the progress of legislation in the jurisdictions involved. The Basel III rules are only part of a very complex story, however.

The G20 commitment was subsequently expanded to include margin requirements for non-cleared contracts. In addition, clearing member banks with exposures to CCPs have been caught in the Basel net.

At the time of writing, the Basel Committee on Banking Supervision (BCBS) and IOSCO are consulting the industry on the principles that should apply to the margin requirements, which are intended to be global in scope. Although the consultation will run until late September, the aim is have a global agreement on margins for uncleared derivatives before the end of 2012.

Meanwhile, after much deliberation, the BCBS published interim capital requirements for clearing member banks with exposures to a CCP late in July 2012. Whereas, previously, bank exposures to a CCP were zero-weighted, Basel III recognises that such exposures are not risk-free because CCPs can run into trouble. Accordingly, the BCBS announced that bank trade exposures to a CCP that conformed with the CPSS-IOSCO principles for FMIs should have a nominal risk weight of 2 per cent and that banks should also set aside capital to cover exposures to CCP default funds. Capital exposures to non-conforming CCPs will be punitively higher.
Meeting the G20 commitment on uncleared swaps has proved to be a fiendishly complex task because of the way the components of the package interact. At various stages of the process, proposals emanating from Basel have threatened to make clearing OTC derivatives in a CCP more expensive than bilateral clearing of contracts.

- **Extra-territoriality**: The complexity of extra-territoriality makes the issue another “known unknown”. While there is always hope that international standard-setting bodies such as the Basel Committee and CPSS-IOSCO can agree global standards that can be applied across jurisdictions, the dovetailing of legislation enacted in different jurisdictions is full of hazard. And so it has proven with the US Dodd-Frank Act, which was passed into law in July 2010, and the corresponding EU legislation, which is coming forward in several Regulations, starting with EMIR.

Although extra-territoriality is a global issue, the main theatre of potential conflict is between the EU and US and centres on Section 722(d) of Dodd-Frank. This says that US swaps reforms shall apply to activities outside the US if those activities have “a direct and significant connection with activities in, or effect on, commerce” of the US. The provision has acquired added potency in 2012 because of the large $5.8 billion derivatives trading losses incurred by JP Morgan’s London branch.

Regulators on both sides of the Atlantic are heavily engaged with the extra-territoriality issue. Meanwhile, derivatives trade associations on both sides of the Atlantic have come together to call for “a framework of transatlantic inter-jurisdictional regulatory accreditation and recognition”. But it is easier to will this than actually to achieve mutual recognition or “substituted compliance”, where the US would rely on local jurisdictions to apply equivalent regulations.

Amid EU warnings against US overreach, the CFTC was scheduled to vote on proposed guidelines for extending the application of Dodd-Frank outside the US on June 21st. It called off the decision at short notice.

- **The eurozone sovereign debt crisis**: Efforts to recast Europe’s post-trade architecture have continued as the eurozone has lurched from one crisis to another. The working assumption of this report is that the eurozone will continue to muddle through. However, the big “known unknown” for Europe’s financial markets and post-trade infrastructures is the likely impact of a default – disorderly or otherwise - of a significant eurozone sovereign.
C. Change among post-trade infrastructures

Key developments among or affecting post-trade service providers this year have included:

- The launch of interoperability on a significant scale between CCPs that clear equities in Europe: After a long wait for regulatory approval, four CCPs clearing equities and bonds started in January to interoperate with one another by offering users of Bats Chi-X Europe, the region’s largest trading platform, a choice of clearing locations. In March, another platform, Turquoise, allowed its customers a choice of three CCPs to clear their equities trades. Although interoperability has existed in equities clearing since 2003, the involvement of multiple CCPs serving multiple platforms in agreements that allow platform users to access just one CCP to clear their securities transactions has signalled a considerable scaling up of the practice - and an important step towards increased competition and a Europe-wide single market for securities clearing and settlement. The number of equities trading platforms which enable some form of interoperability in Europe has continued to grow. However, at the time of writing, there is no sign of the practice spreading to the Frankfurt equities market, operated by Deutsche Börse, or to the equities exchanges of the NYSE-Euronext group in Paris, Brussels and Amsterdam.

- Rejection on February 1st by the EU Commission (for reasons of competition policy) of the proposed merger of the Deutsche Börse and NYSE Euronext exchange groups: The ambitious merger project foundered because the merged group would have had a dominant position in the European market for exchange-traded derivatives. Consideration of the vertical silo model was, therefore, not central to the Commission’s decision. But the Commission’s decision stymied the transformation of Deutsche Börse’s Eurex Clearing operation in Frankfurt into a single vertically integrated clearing infrastructure for Deutsche Börse and NYSE-Euronext markets in Europe.

- Europe’s CSDs decide to join Target2-Securities: A large majority of CSDs have now decided to join Target2-Securities, the European Central Bank’s project to concentrate securities settlement in Europe into a single technical platform. They will, therefore, outsource their core securities settlement operations to T2S after it starts operating in 2015. Nine CSDs signed the Framework Agreement to join T2S at a ceremony at the ECB on May 8th. By the end of June 2012, 24 CSDs in and outside the eurozone (including SIX SIS Ltd of Switzerland) had agreed to join the project.

Early in the development of T2S, EU member states persuaded the ECB to develop a multi-currency system that could serve CSDs in the eurozone and...
outside. However, T2S looks set to be first and foremost a eurozone infrastructure. Only Denmark, among non-eurozone countries, will have T2S settle securities denominated in its own national currency: the krone will be part of the system from 2018. Other non-eurozone CSDs (including SIX SIS Ltd, which is based outside the EU) have joined to settle cross-border business denominated in euro.

CSDR has been designed to work in harmony with T2S, and the two measures are bound to have a major impact on the settlement landscape. How Europe’s CSDs and custodians will react individually to these profound changes is another “known unknown”.

- **London Stock Exchange Group to acquire an initial controlling stake of up to 60% in the UK-French CCP operator LCH.Clearnet Group**: Costing up to €463 million, the planned acquisition, announced early in March and since approved by LSEG and LCH.Clearnet shareholders, should be completed by the final quarter of 2012.

Of great significance for the post-trade sector are LSEG’s promises that it will continue to run LCH.Clearnet on an “open access” basis, that would allow the LCH.Clearnet CCPs in London and Paris to clear trades transacted by non-LSE clients on other trading venues. This would mean that an LSE-controlled LCH.Clearnet group, in which other shareholders are likely to end up with 49% of the capital, will not follow the exclusive “vertical silo” policy of fully-integrated exchange groups, such as the Deutsche Börse Group in Europe and the CME Group in the US, where access to clearing is denied to trades not executed on group-owned trading platforms. In this respect, the LSEG-LCH.Clearnet deal (which is still subject to regulatory approvals) is going with the grain of EU regulation, as proposed by the EU Commission.

An indication of what the LSEG policy for LCH.Clearnet means came in June 2012 when the NASDAQ OMX exchange group announced plans to launch NASDAQ NLX, a platform for trading listed short and long-term interest rate futures which would be cleared by LCH.Clearnet. The euro and sterling-based derivatives traded on the platform would compete with futures products of Eurex and NYSE Liffe. According to Charlotte Crosswell, CEO of NLX, the initiative was linked to “market structure changes in this space, partly driven by Dodd-Frank, EMIR, MiFID II and Basel III”.

NASDAQ’s plan is one of many private sector initiatives announced since the crisis of 2008-2009 to take advantage of opportunities created by new regulations for trading and post-trade in Europe and around the world.

- **Proliferation of CCPs**: Roll back the clock to the days before the financial crisis, and the overwhelming expectation among policy-makers and post-trade professionals was that there would be a consolidation of post-trade infrastructure providers in Europe.
In 2006, when 11 CCPs and 32 CSDS, from both inside and outside the EU, signed the Commission-brokered Code of Conduct, eyebrows were raised at the large number of companies involved. At the time of writing this report, 23 CCPs and 41 CSDs are members of their respective European trade associations.

The increase in the number of CCPs has been especially significant. Numbers have more than doubled inside the EU and in Europe as a whole over the past six years, while London has developed into something of a CCP hub. In 2006, eight of the CCPs signing the Code were EU-based with one (LCH.Clearnet Ltd) located in London. Of the 23 CCPs listed on the EACH website in July 2012, 18 were located in the EU - and of these five had London addresses.

There are a number of factors behind this expansion. The transformation of European equities trading as a result of MiFID and the authorisation of MTFs prompted EMCF and EuroCCP to start equities clearing, with EuroCCP, a DTCC subsidiary, locating in London.

US exchange groups ICE and CME have also established clearing houses in London to challenge LCH.Clearnet, the long-established incumbent. NYSE Liffe, already listed as an EACH member, is currently building a CCP in the UK to take over clearing operations previously outsourced to LCH.Clearnet. A sixth UK CCP is planned: the London Metal Exchange intends to clear its own trades, which were previously handled by LCH.Clearnet.

The growth of CCPs in Europe is also part of a world-wide phenomenon - the proliferation of swaps clearing houses since the financial crisis to take advantage of regulatory change. Following the G20 commitment, CCPs in countries such as Poland and South Korea have announced plans to clear interest rate swaps (IRS). In some cases, the motive has been entrepreneurial. In other cases, governments have been keen to see CCPs established to clear swaps denominated in their home currencies.

When Lehman Brothers collapsed, LCH.Clearnet’s SwapClear was the only clearing service for swaps. In July 2009, two months before the G20 commitment, both ICE Clear Europe and Eurex began clearing credit default swaps in Europe. While ICE quickly established a dominant market position, this did not deter LCH.Clearnet SA of Paris from expanding its offering to include CDS clearing in 2010. CME Clearing Europe, meanwhile, clears OTC commodity derivatives in London and is planning to clear IRS.

In some respects, the proliferation of CCPs has brought benefits. The newcomers that emerged to clear the equities traded on MTFs boosted competition and helped produce a sharp fall in clearing fees. The global proliferation of swap clearing houses is more problematic, however. They risk fragmenting a hitherto global market. It is uncertain whether all the newcomers will have the expertise to manage the unfamiliar risks that swap clearing entails.
IV Achieving a balance between safety, efficiency and competition

What the Fellowship concluded...

Taken together, the outcome of the regulatory, anti-trust and corporate moves outlined above will determine how Europe’s post-trade policy eventually balances the twin needs of achieving safety in the financial system and promoting efficiency and competition to lower Europe’s generally higher costs of doing business on financial markets in Europe, compared with regions with similar economic power such as the US.

The Commission’s approach of combining the two goals in its draft legislation is one for which the Fellowship has a lot of sympathy. The practical and political imperatives behind the safety-first agenda are indisputable. However, greater efficiency and some competition in post-trade services are essential: to encourage dynamism and innovation among service providers, to curb the vested interests that permeate the sector, and more broadly to help create conditions for the faster economic growth that Europe desperately needs.

But the Fellowship’s round-table meetings and some of the reactions to the Interim Report have emphasised the risks of some of the changes being proposed.

What therefore needs to be done to promote an appropriate balance between safety, efficiency and competition in the future?

This report’s response is twofold.

The first element is an “Agenda for Action”, comprising recommendations, principles and guidelines. Most of these were aired in the Interim Report and have stood the test of time and comment. But there have been some modifications to reflect developments and comments since the Interim Report was written and to take account of new developments and the previously mentioned regulatory “known unknowns”.

The second element is an “Awareness Agenda”, comprising issues to watch where developments are too fluid for action now but where action may well be required when there is greater clarity. The Awareness Agenda appears in this report after the Agenda for Action.

The recommendations in the Agenda for Action fall into two main categories: the first five involve big questions for policy-makers, including legislation. The following three recommendations are concerned more with issues of process. Among these, the proposal for smaller and more frequent changes to EU post-trade legislation has been given greater prominence than previously to reflect strong support from industry representatives at the July 2012 round-table meeting that was held to discuss the Interim Report’s findings.

A ninth recommendation, proposing action to uphold professional standards and ethics, is addressed to the post-trade sector and its users.

The principles and guidelines are unchanged from before, reflecting broad approval. The “Cui bono?” test, in particular, attracted favourable comment and is especially relevant given the state of debate over MiFID II/MiFIR at the time of writing.

...an Agenda for Action...

...and an Awareness Agenda
A. The Fellowship’s “Agenda for Action”

The “Agenda for Action” consists of nine recommendations, two principles to support those recommendations, two guidelines and a ‘Cui bono’ test - implementation of all of which should be undertaken as soon as possible. First, the recommendations:

1. The establishment of an effective resolution regime for central counterparty clearing houses (CCPs) to ensure that they cannot pose a systemic threat to the financial system by being too big or too interconnected to fail: This is an urgent necessity – a fact emphasised by speakers at the Fellowship’s round-table in July 2012.

Commissioner Barnier said in March that the Commission would bring forward proposals “within weeks” for resolution regimes for the winding up of systemically-important financial institutions (SIFIs). However, its first step – publication at the end of March of a consultation paper on the “bail-in” debt write-down tool for banks – did not deal with the possible failure of financial market infrastructures such as CCPs.

CCPs are inherently more risky than other post-trade infrastructures. They have been described as the nuclear power stations of the financial sector. By interposing themselves in trades to become the buyer to every seller and the seller to every buyer, they neutralise the risk of counterparty default. But in doing so, they become concentrated risk nodes in the financial system. Moreover, new regulations around the globe mean they are being required to clear ever more financial instruments, with widely-ranging and sometimes exotic risk profiles.

CCPs have had a very good safety record in recent years. But there have been failures in the past. The CCP clearing the Paris sugar futures market failed in 1974; that serving the Malaysian palm oil futures exchange in 1983; and, most seriously, the CCP for the financial futures market in Hong Kong failed in 1987.

The consequences in Hong Kong were grave. The futures and cash markets shut for a week. The clearing house required a multi-billion HK$ rescue. Prices for futures and cash equities crashed after markets re-opened. Given globalisation and the vast increase in the size and complexity of financial markets since 1987, a CCP collapse today would have immeasurably greater effects.

At the launch event for the Fellowship on June 1 2011, Paul Tucker, the Bank of England’s Deputy Governor responsible for Financial Stability, observed “it is an understatement that it would be a disaster if a clearing house failed”⁸⁸. A few months later, he described the consequences of a CCP failure as: “mayhem... as bad as, conceivably worse than, the failure of large complex banks.” Mr Tucker knows what he is talking about. As a young official, he was despatched by the Bank of England to help clear up the mess left by the Hong Kong clearing house failure.
The potential risks for society posed by a CCP depend greatly on the size and complexity of the market served. A CCP clearing complex derivative instruments, such as credit default swaps, in a large global market is far more systemically important than one clearing trades in a market for standardised products, such as equities, in a national jurisdiction with only one legal system and currency.

Work on this important matter is progressing in forums other than the EU institutions. In particular, standards setting out the responsibilities, instruments and powers needed for national resolution regimes were published in November 2011 by the Financial Stability Board (FSB). Although these mainly related to banks, there were some ideas directed at FMIs, including the idea of ex-ante loss-sharing rules for a CCP that ran into trouble.

The FSB has continued to pursue questions relating to CCPS, and in January 2012 it identified four safeguards for CCPS clearing OTC derivatives. One of these called for “resolution and recovery regimes that ensure the core functions of CCPS are maintained during times of crisis and that consider the interests of all jurisdictions where the CCP is systemically important”.

At the beginning of August 2012, the CPSS-IOSCO committee of officials from central banks and securities regulators released a consultative report on “Recovery and resolution of financial market infrastructures” to obtain comments (by 28th September) that could inform further work. At the same time, the UK Treasury issued its own consultation paper on resolution regimes for financial market infrastructures as a step towards preparing domestic legislation.

Both these reports emphasised the importance of providing recovery and resolution regimes for CCPS because they take on credit risk as principals and can have systemic importance. At the same time, it is the objective of policymakers to avoid public sector bail-outs of a CCP.

One of the problems with a failing CCP is that traditional bankruptcy rules could cause it to cease functioning and plunge the financial system into chaos. For this reason, the CPSS-IOSCO report underlined that special resolution laws will be required to overcome this obstacle and to ensure the continuation of an ailing infrastructure’s critical operations - as well as to give the authorities tools to manage the resolution.

Resolution is easier said than done, however. Speakers at the July 2012 Fellowship round-table pointed out that one possible solution canvassed in the Fellowship’s Interim Report – that a CCP’s clearing member banks should be made responsible for a CCP’s losses “down to the last drop” – could have unwelcome consequences. For example, banks joining CCPs as clearing members would then be tempted to do so through ring-fenced vehicles with the minimum capital permitted, which the parent company would let fail in the event of a clearing house needing support.
The CPSS-IOSCO and UK Treasury documents look at other possibilities for loss-sharing, where again there are pluses and minuses. Margin “haircutting” among still solvent clearing members is one possibility, although it could cause them and their clients financial problems. Imposing losses on the owners of CCPs is another, although there might be risks to other financial market infrastructures in cases where the ailing CCP is part of an integrated exchange group.

The two consultation papers explore other possibilities - including the transfer of ownership of a failing CCP or, if this is not possible, the creation of a bridge institution as an interim measure until a permanent solution is found.

The UK Treasury paper noted how “The role performed by CCPs means they are particularly exposed to wider market risks, such as the failure of large clearing members”. It added “This exposure will increase as EMIR is implemented”.

The UK’s analysis underlines the importance of creating an EU resolution regime for CCPs. However, the motive for the UK drawing up its own laws for resolving systemic CCPs is hardly encouraging in this regard. As the Treasury paper also observes:

“...The UK expects that, in due course, the European Commission will propose measures to require member states to introduce resolution regimes for CCPs in line with, or closely following, recommendations set out by CPSS-IOSCO. But the timetable for this is unclear – CCPs are not within the scope of the RRD [Recovery and Resolution Directive] – and could be a number of years.”

Launch a competition policy investigation in Europe’s post-trade space to determine the appropriate mix of safety and competition for different asset classes: The Commission should launch a competition policy investigation into the pros and cons of more liberal access to CCPs serving the listed derivatives market, including the issue of intellectual property in the listed derivatives market and its impact on clearing.

To ensure the right balance between safety and competition, there should be a simultaneous examination by a qualified authority into whether the open access policy can be safely applied in the listed derivatives sector.

The investigations would enable an objective appraisal of the access policy of the Commission, as well as the pros and cons of horizontal and vertical structures. They could lead to the establishment of a scale of acceptable competition for post-trade infrastructures related to the riskiness of the asset class involved.

The competition policy investigation should also explore the contribution of clearing to the profits of integrated exchange groups, and should consider the feasibility and desirability of mandating transparency, including a breakdown of the respective profit contributions of trading and clearing in the profit and loss accounts of vertically-integrated structures.
More than six years have passed since the EU’s competition authorities pronounced on the EU post-trade sector. These six years have seen profound change as EU policy has switched from encouraging greater post-trade efficiency, through industry-led solutions in the securities space alone (the Code of Conduct), to a series of EU-wide Regulations and Directives, aimed primarily at safer markets. These cover all sectors of post-trade activity: in listed and over the counter derivatives as well as equities and bonds.

At the same time, verticalisation of financial market infrastructures has accelerated with demutualised exchanges acquiring clearing houses, primarily in order to control the open interest of their derivatives contracts and consolidate the income opportunities of CCPs in integrated groups.

The Commission’s decision to block the proposed merger of the Deutsche Börse and NYSE Euronext exchange groups on February 1st was explained in a brief press release and a short FAQs memo which singled out the threat to competition that the combined groups would have posed in the market for listed derivatives in Europe. These summary documents shed very little light on the Commission’s view of competition in post-trade services. At the time of writing, there is no sign of a long-promised, non-confidential, redacted version of the Commission’s reasons for its veto which might, or might not, give some additional insight into what views, if any, the EU competition authorities have concerning the vertically structured, integrated trading, clearing and settlement model.

Meanwhile, legislation is determining the balance between competition and safety in Europe’s post-trade space.

EMIR aims to prevent the emergence of exclusive vertical structures or "silos" in the market for clearing OTC derivatives. The law stipulates that venues for OTC derivatives trading can have access to any CCP handling that sort of business and that CCPs can in turn access the trade “feeds” from OTC trading venues. The question now is whether the two-way open access rules agreed in EMIR for clearing OTC derivatives from the end of 2012 should be applied to financial instruments more widely – and specifically to the listed derivatives sector.

This would happen if the Commission proposals for revising MiFID are eventually adopted. There is already consensus between the Commission and the Parliament’s rapporteur on MiFIR and MiFID II that (subject to conditions) CCPs that clear equities should have non-discriminatory access and interoperability. Two-way open access to CCPs clearing listed derivatives now depends on the legislative process of negotiation and amendment in the Parliament and the Council of Ministers.

The access rules in EMIR were hotly disputed in the Parliament and Council in 2011, when the UK fought – and failed – to have them applied to listed as well as OTC derivatives. If applied more widely than in EMIR, they would undermine closed vertical structures, such as those operated by Germany’s Deutsche Börse group.
The lobbying battle that surrounded EMIR is now being refought over MiFID II/MiFIR. Those lobbying for vertical structures in the exchange-traded derivatives sector have been stressing safety issues, while suggesting that the open access provisions in EMIR were intended only to incentivise the clearing of hitherto uncleared OTC instruments and have become erroneously conflated with competition considerations.

They underline that the risks involved in clearing equities, where access (and even interoperability) is allowed, are very different to those involved with listed derivatives. Risk is limited in a CCP that clears equities because only three (and soon two) days elapse between trading and settlement, while derivatives can stay on a CCP’s books for weeks, months or years - during which time they have to be risk-managed.

It is conceivable that Deutsche Börse will bow to legislation and open up its clearing for equities. This is a low margin business. Listed derivatives are a different matter because the integration of trading and clearing has great potential for profit if sufficient economies of scale are achieved.

Rather than dwell on the profit aspect, derivatives exchanges have claimed that proposals in MiFID II/MiFIR to mandate access to EU trading venues and CCPs for all futures contracts by unaffiliated entities could undermine the ability of the CCPs to manage the risk of listed derivatives. In a position paper, the NYSE Liffe futures exchange has additionally argued that two-way open access between CCPs and trading venues in the exchange-traded derivatives sector would tie up liquidity of clearing members, increasing the costs of CCP users on a day-to-day basis. It would also limit the ability of exchanges to deal with unforeseen events in a crisis.

Opponents of vertical silos have long maintained that they limit competition, and that more liberalised access to CCPs would bring competition to listed derivatives markets, lowering costs for users. This position is supported by the London Stock Exchange Group, whose plans to acquire a controlling stake in LCH.Clearnet include running its clearing houses subsequently on an “open access” basis.

However, the case in favour of non-discriminatory access to clearing for listed derivatives has not been properly made in connection with EU legislation. The proposal first emerged in the far from transparent discussions on EMIR in the Council of Ministers. It was not subject to a consultation or hearing when the Commission was in the early stages of planning the MiFID II and MiFIR legislation.

An inconvenient truth is that non-vertical or “horizontal” clearing infrastructures and the exchanges that use them have in some cases adapted to the onwards march of verticalisation by agreeing contractual arrangements that protect the exchanges’ open interest.
A more fundamental difficulty with simply legislating access is that it does not address a core feature of listed derivatives, which is that they are held to enshrine the intellectual property rights of the exchange that invents them. Derivative IP rights, unlike those applying to pharmaceuticals, for example, never expire. They help integrated exchange groups keep control of the business (the open interest) in their clearing houses. Until this issue is resolved, it is uncertain whether access provisions would properly liberalise the listed derivatives market.

There are genuine issues at stake here that are too important to be left to lobbyists. It has been striking that when the question of vertical versus horizontal in listed derivatives markets has surfaced at Fellowship round-tables, the debate has not polarised along the predictable party lines of exchanges versus investment banks. This is why the Fellowship believes a simultaneous investigation of the competition and safety issues in the listed derivative market is needed.

To be sure, there are problems with this idea. The proposed terms of reference fit uneasily with the priorities of DG Comp, the Commission’s competition department, which reacts primarily in clear cases of actual or potentially abusive exploitation of dominant market positions.

But there is a precedent. In 2003-6, DG Comp questioned national competition authorities and market participants for their views on “exclusive arrangements relating to the trading, clearing, settlement and depository of securities”, and published findings in favour of competition and against vertical silos for post-trade services in cash equity markets.

DG Comp should launch a similar probe today that would cover the listed derivatives market, including the IP aspect of listed derivatives. At the same time, to ensure the right balance between safety and competition, there should be a simultaneous examination by a qualified authority into whether access policy, which was originally conceived for EU equity markets, can be safely carried across and applied in the listed derivatives sector, where the risks managed by CCPs are inherently greater.

There is also a problem of timing. In an ideal world, such investigations would already be in progress so that they could inform the European Parliament and Council of Ministers as they consider the MiFID II/MiFIR legislation.

Even though Parliament and Council deliberation over MiFID II and MiFIR is now likely to last well into 2013, it is unlikely that meaningful studies could be completed in time to affect the proceedings. In these circumstances, a virtue should be made out of necessity. The aim should be to complete the proposed studies so that they can be considered alongside the promised ESMA report on whether or not to extend the scope of interoperability beyond cash securities. According to EMIR, ESMA’s report should be submitted to the Commission by 31st December 2014.
Another argument in favour of completing the competition and safety reports around the end of 2014 is that it would enable the issue of two-way access to the listed derivatives market to be judged in the light of other changes, especially OTC derivatives clearing, that will start coming into effect from the end of 2012. It is proposed elsewhere in this report that future revisions to post-trade legislation should be made more frequent and less cumbersome. A deadline of end-2014 should be viewed in this context.

3. **Strengthen ESMA:** The heavy work programme of the EU’s recently established European Securities and Markets Authority was one of the subjects discussed at a Fellowship round-table in Paris in February 2012. Paris-based ESMA has the job of defining the technical standards needed to implement newly-minted EU-wide legislation in line with mandates set by the European Parliament and Council of Ministers. In the case of EMIR, there are no fewer than 20. It has a woefully small staff given the many responsibilities that it has taken on. If ESMA is to do its job properly – and in particular have the capacity to respond constructively in its drafting to points made in the consultations that it holds – it must be adequately staffed.

This is not to deny the very limited availability of public funds. If budgetary problems prove an insuperable obstacle to boosting ESMA’s staff, the EU should make more use of national regulators to help ESMA do its work. Allowing ESMA to fail in its tasks through a shortage of funding or of assistance from the member states would be a grave error.

4. **Greater transparency of central bank post-trade policies:** This recommendation is directed primarily, but not exclusively, at the European Central Bank. It relates to process rather than content.

In recent years, the ECB has made a number of high profile interventions in Europe’s post-trade policy. In July 2006, it launched Target2-Securities, its securities settlement project of revolutionary design. Five years later, in July 2011, a paper on the oversight activities of the Eurosystem (the ECB and eurozone central banks) proposed that “offshore” CCPs located outside the eurozone should limit their euro-denominated business so that their daily average net credit exposure does not exceed €5 billion in any of the main euro product categories or 5% of the aggregated daily net credit exposure of all CCPs handling such euro products. It ruled that any CCPs exceeding these limits should be incorporated in the eurozone with full managerial and operational control over their core functions.

Both policies have proved controversial. T2S has already been mentioned and will be considered in some detail later in this report.

The ECB’s location policy has been justified on macro-prudential grounds. But it has prompted the UK government to initiate proceedings in the European Court of Justice on the grounds that it contravenes European law and single market principles. London hosts four CCPs, including LCH.Clearnet’s SwapClear service which clears more than 50% of the global interest rate swap market, including euro-denominated swaps. The UK will host two more CCPs if current plans of NYSE-Euronext and the London Metal Exchange are realised.
Leaving aside the content of the ECB’s proposals, there is a need for it to improve the transparency of its policy formulation. The T2S and location announcements were issued without warning and prior consultation. While the first news of T2S came in a low key press release, the location policy was simply published online on one of the ECB’s web pages without any publicity at all.

The main EU “community method” of legislating post-trade policy, which involves the Commission, the Council of Ministers and the European Parliament and, increasingly, ESMA, provides an example of how EU policy formulation can be more transparent, having improved in recent years.

Under the “community method”, it is now rare for a post-trade initiative not to be the subject of a “green paper” and extensive consultation before the Commission produces a formal legislative proposal. The proposal will then be subject to scrutiny by the democratically elected Parliament and the Council of Ministers, which for all their relative lack of transparency, are comprised of democratically elected politicians. Although not perfect, the community method provides many checks and balances, hearings and lobbying opportunities. ESMA, which has the job of drawing up technical standards prescribed in the legislation, has also built consultation and hearings into its work.

Admittedly, the T2S announcement has been followed by what seems like endless consultation involving users and infrastructures on the details of the project. Also the ECB rightly guards its independence.

But that independence exists to ensure that monetary policy is not subverted by politicians. The ECB should lean more to openness in the early stages of policy formulation, when its policies concern areas such as post-trade that are mainly in the private sector. This is especially the case when its policies will affect business structures. As a central bank, it is in a specially powerful position to forge ahead in pursuit of its goals because the banks and infrastructures which will be required to adopt and implement its post-trade policy are dependent on it in other ways. Such a privileged position requires greater openness, while society as a whole would benefit from earlier scrutiny of ECB plans.

5. A resuscitation of the Giovannini programme for removing barriers to a single market for clearing and settling equities and (where appropriate) legislation to revise it: A participant in the first DTCC-CSFI round-table summarised his priorities for the Fellowship as:

- the removal of national specificities in the settlement process;
- the implementation of market standards in corporate actions (described as a very risky and complex area);
- the provision of a harmonised legal environment in the EU for securities; and
- making Commission withholding tax proposals a reality.
These priorities were originally enshrined in a programme, drawn up in 2001-2003 by an expert group under the chairmanship of Alberto Giovannini, an Italian financial expert. In two reports, it identified 15 barriers to cross border securities settlement in the EU and described how to remove them within three years.

The Giovannini programme was a novel approach to the challenge of harmonisation. It was hailed as the answer to the main post-trade preoccupation of the day, which was how to create a single market for settling equities in a continent where the EU’s many CSDs operated within national boundaries, subject to national laws and tax systems, and where cross-border settlement was vastly more expensive than domestic settlement.

### The Giovannini barriers

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<tr>
<th>Barriers related to technical requirements and/or market practice</th>
<th>Responsible for removal</th>
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<tr>
<td>1. National differences in IT and computer interfaces.........</td>
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<tr>
<td>2. National restrictions on location of C&amp;S ...................</td>
<td>governments</td>
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<td>3. National differences for custody, corporate actions .........</td>
<td>mainly industry</td>
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<td>4. Differences/absence of intraday settlement finality.........</td>
<td>mainly industry</td>
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<td>5. Impediments to remote access of C&amp;S systems ................</td>
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<td>6. National differences in settlement periods ..................</td>
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<td>7. National differences in operating hours/deadlines ...........</td>
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<td>8. National differences in securities issuance ..................</td>
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<td>9. National restrictions on location of securities ..............</td>
<td>governments</td>
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<td>10. Restrictions on primary dealers and market makers, preventing centralised cross-border settlement ..........</td>
<td>governments</td>
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**Barriers related to taxation:**

| 11. Withholding tax rules hurting foreign intermediaries .......... | governments |
| 12. Integrated collection of taxes in local C&S systems .......... | governments |

**Barriers relating to legal certainty:**

| 14. Differences in legal treatment of bilateral netting .......... | governments |
| 15. Uneven application of conflict of laws ......................... | governments |

Source: Giovannini Group Reports I and II
The Giovannini programme was inspired by the US achievement of building, in the DTCC, a single continent-wide clearing and settlement infrastructure for equities trades. After its creation through a merger in 1999, the DTCC boasted what were thought to be the lowest settlement fees in the world. EU policymakers believed that America’s competitive post-trade infrastructure for equities helped explain the superior productivity of the US and set out to capture similar benefits for Europe. The Commission later (in 2006) estimated that cross-border equities trades in Europe cost investors between two and six times more than domestic transactions and that domestic transactions in EU post-trade infrastructures were up to eight times more expensive than in the DTCC.

Although it was intellectually coherent, the Giovannini programme failed, let down by the process rather than its content. Despite often conflicting vested interests, some progress was made by the private sector, which was given responsibility for removing six of the barriers. The governments and public sector, charged with removing the rest, were ineffective by comparison. The political will to implement or to enforce its provisions through legislation was missing. In one respect, the Giovannini programme was launched at an unfortunate time: the years after publication saw post-trade policy in the EU move decisively away from EU-wide legislation as a means of implementation and enforcement towards plans reliant on self-regulation by the industry. It took the financial crisis of 2008 to change this.

T2S, which was conceived three years after Giovannini’s second report, will help lift some barriers when it is up and running. Existing legislative plans will remove others. For example, barrier 5 - pinpointing impediments to remote access of clearing and settlement systems - should be tackled through a combination of EMIR and the proposals for MiFID II and CSDR.

With the EU in the midst of a wholesale regulation of the post-trade sector, it is time to revisit Giovannini and to apply legislation to remove other barriers where feasible - with the proviso that the laws in question are compatible with the post-2008 priority of promoting the safety of the financial system as a whole.

Unfortunately, some of the simplicity of the Giovannini programme has been lost in the meantime. A case in point is securities law legislation (known as SLL), originally conceived to overcome the absence of an EU wide framework for the legal treatment of book-entry securities (barrier 13). Long-awaited draft legislation was delayed after exceptions and extra provisions were heaped on a blueprint for legislation outlined as long ago as 2006 by a special Legal Certainty Working Group set up by the Commission. A legislative proposal from the Commission is now expected in the final quarter of this year.

The Fellowship is not alone in calling for a resuscitation of Giovannini. The Commission itself set up an Expert Group on Market Infrastructures in 2010, which reported in October 2011. Among the EGMI Group’s recommendations were proposals to “Reboot Giovannini” through a combination of actions by
...small and often...

the private sector, market infrastructures, intermediaries, industry associations, the European Commission and member states. The EGMI rebooting proposals included some useful additions, such as the introduction of Legal Entity Identifiers to aid harmonisation. This idea, raised also by a participant at the Fellowship’s round-table in Frankfurt, is being pursued as a global project.

In March 2012, a European Post-Trade Group was established under the combined auspices of the Commission, the ECB, ESMA and relevant industry federations headed by AFME (the Association for Financial Markets in Europe) to coordinate the work of the public and private sectors to drive reforms to improve the safety, efficiency and competitiveness of Europe’s post-trade sectors. One of its goals is to push ahead with the dismantling of the Giovannini barriers and other obstacles to a single European post-trade market that have developed since.

EGMI said political pressure for implementing an updated Giovannini programme would come from the Ecofin Council of EU economics and finance ministers which “should be invited to express support of the Action Plan”. In the Fellowship’s view, political pressure as defined by EGMI may prove inadequate. As suggested above, legislation should be considered to remove barriers where necessary.

6. Make provision for smaller and more frequent changes to EU post-trade legislation so that it can easily be adapted to changing circumstances: Long an objective of EU reformers – the idea was included in the Lamfalussy reports on financial services legislation in 2000-2001 – it has proved difficult for the EU quickly to correct errors in legislation or adapt it to changes in the US and other financial centres abroad.

The issue is more urgent today because of the vast amount of new regulation being produced on both sides of the Atlantic, which is bound to contain unintended errors. A US-based attendee at one of the round-tables pointed out that Congress has the capacity to change laws faster than the EU, and that this could open the way to non-equivalence and, possibly, to regulatory arbitrage.

One problem may be that the EU revisits laws only when required in existing legislation. This may help explain why the Commission’s proposals to revise MiFID, described by one parliamentarian as fairly brief, ran to 60 pages in the case of MiFIR and 196 pages in the case of MiFID II.

This recommendation was strongly supported by industry representatives who attended the Fellowship’s round-table of July 9th 2012.

7. Take the opportunity provided by post-trade legislation to alter the sequence of future revisions to EU post-trade laws: Completion of EMIR ahead of the provisions for OTC trading platforms in the planned Regulation and Directive revising MiFID is one instance of the EU putting the cart before the horse. Another is the delay in proposals for a CCP resolution regime in the EU, while the EMIR legislation to regulate CCPs has gone ahead.
...a more rational schedule...

The EU began work on EMIR when it did because of the G20’s deadline. As suggested in this report’s sixth recommendation, work on other legislation has come to the fore because existing EU-wide laws contain review clauses, specifying that a review and possible revision of a law is due after a specific period, such as three years.

Another cause of the irrational sequencing of legislation may lie in the Commission’s internal proposal-crafting processes. It was suggested by a (non-Commission) participant from Brussels at a round-table, that silos are not confined to post-trade infrastructures. Indeed, it was alleged that the Commission has contributed to infelicitous sequencing of initiatives because of its practice of leaving separate departments (or silos) to draft legislative proposals, seemingly without communicating with one another.

Whatever the reason, the passing of the G20 deadline at the end of 2012 will provide an opportunity to re-think sequencing.

As Commission proposals go through the EU legislative process (in the Parliament and Council of Ministers), the opportunity should be taken to introduce amendments to bring the EU’s post-trade laws into a more logical sequence in future by varying the delays before review clauses kick in. This will not be of immediate benefit. But it will help when revision is necessary, as is certain in a business sector where the only constant is change.

8. **Action to eliminate coordination defects in and around European post-trade legislation**: This is an issue that has been raised at Fellowship round tables. Unlike the US, where the post-crisis re-regulation of the financial sector has been packaged into the Dodd-Frank Act, the EU’s post-crisis legislative programme is emerging in many laws.

...better coordination and consistency...

EMIR, the proposed revisions of MiFID and the CSDR are the main laws to affect the post-trade sector. But others are in the pipeline, including CRD IV – the revision to the EU’s Capital Requirements Directive that will implement the internationally agreed Basel III rules for banks - and the promised legislation on securities law. Apart from legislation, there are other important decisions and events to be taken into account. These include T2S and the updated international standards for financial market infrastructures from the CPSS-IOSCO group of senior central bank officials and securities regulators, which were published as 24 “principles” for FMIs in mid-April 2012.

The existence of so many different initiatives has produced some coordination and consistency problems within the EU. Earlier this year, for instance, it emerged that the draft provisions in CRD IV threatened to undermine part of the G20 commitment by making clearing OTC derivatives in a CCP more expensive than bilateral clearing.
Solving such inconsistencies requires painstaking and often very technical work. It is one of the objectives of the recently established European Post-Trade Group, mentioned above in recommendation 5. The limited success of previous initiatives to promote the Giovannini programme (for example, the so-called CESAME and MOG groups) highlights the difficulties of implementing good intentions. Coordination defects will not be eliminated unless technical expertise is backed up by political will to cut through the inconsistencies: in the Commission itself, and both in and among the EU’s Council of Ministers and non-EU forums such as the CPSS-IOSCO group, the relevant Basel committees, the Financial Stability Board, and the G20.

Coordination and consistency problems are part and parcel of extra-territoriality questions between the EU and its major trading partners.

Issues such as the extra-territorial demands of the US, the “overlap” and “underlap” of EU and US legislation, and the coordination of post-trade policies with other jurisdictions, notably in Asia, have been addressed tangentially in Fellowship round-tables. The impression gained from other meetings is that satisfaction with progress on international coordination at official level is not always shared by the industry. In these circumstances, mistrust can flourish and spread poison.

There must be greater political will to tackle coordination and consistency problems between the EU and jurisdictions elsewhere, notably the US. It is also worth considering whether an international regulator should be designated to provide leadership or a central view of extra-territorial post-trade problems. The Financial Stability Board – which is already assuming some of the attributes of an operational arm of the G20 – would seem to be well placed to assume this role. If it can grow in this way, it should take care to work closely with the EU institutions (and with such long-standing multi-national groups as CPSS-IOSCO and the Basel banking committees) to avoid any danger of a turf war.

9. Action to uphold the ethical standards and professional qualities of post-trade personnel in the face of increasing demands on the sector: One reason the post-trade infrastructures coped well with the crisis of 2008-2009 was the high level of ethical and professional standards among the managers and staff of the post-trade infrastructures and their users. Following the Lehman default, clearing and settlement professionals put the interests of the market before those of their own institutions.

This was evident when it came to managing down Lehman Brothers’ $9 trillion interest rate swap portfolio, handled by LCH.Clearnet’s SwapClear service. Rival traders from six clearing member banks, who had been selected according to a pre-arranged rota, cooperated in the hedging process immediately following the Lehman collapse without apparent regard to the profit interests of their employers.
Post-trade infrastructures and their users will face a challenge maintaining such professional standards and ethics as the post-trade sector expands in response to the G20 commitments. CCPs, in particular, will have to guard against a slippage of standards as clearing houses around the world proliferate.

The CPSS-IOSCO principles and EU Regulations such as EMIR (which gives great prominence to corporate governance in CCPs) have a part to play in upholding standards. But it would help to have initiatives closer to the level of the CCP, (I)CSD or trade repository.

One approach could lie in developing professional post-trade qualifications along the lines of the CFA for chartered financial analysts, or post-graduate courses producing MScs or specialised MBAs with post-trade qualifications. This may also be an area where Europe’s infrastructure trade bodies - EACH in the case of CCPs and ECSDA in the case of CSDs - would have something to contribute.

In addition to these recommendations, the Fellowship believes that some simple pragmatic principles and guidelines could help create a safe, efficient and competitive post-trade sector in Europe in a regulated environment that will be nimble enough to adapt to changing circumstances. In particular, it proposes:

**Principles...**

1. Two principles to support action: The Fellowship that the following principle should apply across the post-trade sector:

   - All regulatory and corporate decisions affecting Post-Trade activities must be conducive to financial stability and safety.

   However, such decisions should at the same time be judged in the light of a second principle, which is that:

   - Accepting the differentiated risk characteristics of post-trade infrastructures, such decisions should contribute to a competitive, open European single market in post-trade services (to the extent that they are compatible with the earlier principle).

   These two principles are to be applied in combination. All post-trade decisions, whether private sector or public sector, large or small, should be judged against them.

   The second of the above principles augments the standards set by CPSS-IOSCO with considerations of competitiveness and competition. It applies to the EU, rather than globally. Safety and competition are not necessarily opposed goals. However, as noted earlier, there may be cases for accepting different degrees of competition in a market depending on the riskiness of the asset class involved.
In cases where the safety principle is given priority over the second principle, the infrastructure involved should be required to explain transparently why this is the case - and publish its fee structure and a profit and loss account. Where competition in a market is constrained by regulation (by capital rules, for example), regulation should also ensure that the incumbent infrastructure(s) do not enjoy monopoly income.

2. **Two guidelines**: To be effective, the principle of safety within a competitive single market that lives up to the name will need a supportive environment. The industry and public sectors should therefore be invited to rally round supporting guidance. Based on past experiences and common sense, guidelines should act as a reality check on decisions concerning the post-trade sector, as follows:

- **All changes should, where possible, go with the grain of the market(s)**: The history of the post-trade sector demonstrates that the most successful (and useful) developments usually meet a demonstrable need and involve users, infrastructures and, where appropriate, regulators working together. An early example was the work of BASIC, the US Banking and Securities Industry Committee, which in 1970 set out to tackle the paperwork crisis that was crippling America’s stock markets. BASIC engaged security dealers, brokers, trade associations, banks and New York’s stock exchanges, with the result that the Depository Trust Company was set up in 1973 to immobilise stock and bond certificates and transfer title after trades by book entry.

  A similar paperwork crisis plagued the fast expanding OTC market for credit derivatives in the early years of this century. Under pressure from the New York Fed, the industry sought an infrastructure solution to the problem. The result was the DTCC’s Trade Information Warehouse, providing a global central registry for Credit Default Swap contracts. This – the first of the modern Trade Repositories - was launched in November 2006, after just eight months in development.

  T2S’s goal of enabling cross-border settlement meets an important need that was defined long before its launch and cannot be faulted. But, as discussed later, the revolutionary “insourcing” by the ECB of the securities settlement function was chosen for T2S to overcome a split in the central bank’s governing council. It is necessitating fundamental changes in the structure of the European market for securities settlement. Its design has gone against, rather than with, the grain of the market.

- **Approach the challenges ahead with appropriate humility**: This guideline should apply particularly to CCPs and their regulators, because CCPs are where the greatest risk in the post-trade sector is concentrated. Although central counterparty clearing has been at the centre of post-trade policy since the G20 Pittsburgh Summit of 2009, it cannot be stressed often enough that clearing is not a panacea for dealing with the aftermath of the crisis.
Not all policy-makers appear to be aware of this. Take, for example, the press release issued by the Danish Presidency of the EU on February 9th 2012, after political agreement was reached between the EU Council of Ministers and the European Parliament on EMIR. It claimed: “The new EU rules mean that all trades in financial derivatives shall now be cleared by a central counterparty.” The CCP, it added, “guarantees that both parties in a trade are always assured of getting what they are owed, even if one of the parties gets into difficulties” (italics added). As the foregoing pages make clear, these assertions are simply not true.

Not all bilaterally traded instruments are suited to clearing. The safety of CCPs can be threatened if they are required to clear products that are complex, illiquid and difficult to price. CCPs can only be one component in the overhaul of global finance. Other infrastructures and processes, including trade information warehouses and portfolio compression, have important roles to play in controlling risk. As noted earlier, CCPs have failed in the past.

“cui bono?”

3. A test for all Post-Trade decisions: A “Cui bono?” test should be applied to post-trade decisions. The issue of vested interests has been touched on in this report. The simple question “who stands to benefit?” is essential in a sector riddled with vested interests.

B. The Fellowship’s “Awareness Agenda”

In the short term, 2013 will be an important year of adjustment and adaptation to the EU’s emerging post-trade regime - all the more so because, in 2014, there will be elections for a new European Parliament and a new college of European Commissioners. The recommendations, principles and guidelines that make up this report’s “Agenda for Action” are offered in the belief that they can facilitate the transition of the European post-trade sector to EU-wide regulation.

They are also intended to stand the test of time.

Looking beyond EMIR and the other EU laws in the pipeline, there are many other issues preoccupying Europe’s post-trade sector. But in a business environment where the only constant is change, the author has decided not to put forward recommendations for the long term.

Instead, this report concludes with an “Awareness Agenda”. This consists of a catalogue of important issues where conditions are insufficiently clear to prompt specific recommendations at this stage, or where initiatives - some in the private and some in the public sector – are already underway and it would be premature to pass judgement. It follows that at some point in the future, one or more of the items on the Awareness Agenda could require action.
Some of these issues were debated at length at Fellowship round-tables. Others may have to be taken forward by the CSFI or merit consideration in other forums.

The Fellowship’s Awareness Agenda discusses collateral issues and the much-feared collateral shortage, portfolio and cross margining by CCPs, the challenges facing the buy-side as a result of the G20’s clearing commitment, and the challenges facing clearing members of CCPs in the new regulatory and commercial environment of the post-trade sector in Europe.

Other issues covered include Target 2 Securities - the ECB’s revolutionary and much delayed project for a single platform to settle cross-border securities transactions - as it moves slowly towards start-up in 2015.

The “Awareness Agenda” advocates a broader consideration of competition in the post-trade space, raising the issue as to whether a distinction can or should be made between “good” or “bad” competition. It also reminds readers that there are important participants in the post-trade sector in addition to the main infrastructure providers covered in this report, and briefly notes some of the barriers to technical innovation. It includes:

1. **The collateral shortage and portfolio margining**: The need for sufficient quality collateral to meet the requirements of CCPs and others in the new regulatory environment has shot up the post-trade policy agenda in 2012.

The Fellowship took advantage of a brief visit to London in March 2012 by Manmohan Singh, a senior economist with the IMF in Washington, and invited him to lead a post-trade round-table on collateral issues. The meeting, held on 20 March, focused on the growing need for collateral. Debate elsewhere has concentrated on ways of making up the shortage.

Mr Singh caused a stir in 2011 when he forecast that the planned shift of standardised OTC derivatives trades to CCP clearing from end-2012 would expose a collateral shortage of at least $2 trillion.

His reports, published by the IMF as “working papers” (and therefore not necessarily representing IMF views or policy), highlighted a significant under-collateralisation of bilateral OTC derivatives contracts through the exemption of counterparties such as sovereigns, municipalities and state-backed enterprises from the obligation to post collateral. His estimate of around $2 trillion of under-collateralisation referred to the 14-15 globally important dealer banks. His subsequent work, pointing out a slowdown in velocity of collateral use since the crisis, suggested that the effective shortfall of collateral could be higher, with figures of up to $4 trillion being bandied about.

Mr Singh’s estimates were followed by others suggesting that the move to OTC clearing would require between $1.4 trillion and $2.5 trillion of collateral – the latter figure being roughly equivalent to the UK’s annual nominal GDP.
Quite what such figures mean is moot. In its June 2012 Financial Stability Report, the Bank of England cited a wide range of estimates for the increased initial margin that the shift to OTC clearing would require. The estimates varied widely because of the differing assumptions underpinning them. Variables included the netting efficiency of the clearing process and the price volatility of the instruments to be cleared.

For its part, the IMF, in its April 2012 Global Financial Stability Report, identified upfront costs of the move to central clearing of standardised OTC contracts that were much lower than many estimates. After noting that shifting OTC derivatives to CCPs would eliminate the need for some bilateral collateralisation, the IMF estimated that initial margin (which typically is not posted in bilateral interdealer trades) and contributions to CCP default funds would require between $100 billion and $200 billion from market participants.xvi

The same IMF report examined the decline in the supply of safe assets that used to be considered “risk-free” collateral as a consequence of the sovereign debt crisis. Its projections pointed to a decline of some $9 trillion of safe public debt – or about 16% of the end-2011 total – by 2016.

In addition to collateral demand caused by ending the exemptions of certain counterparties in bilateral OTC deals, the round-table also highlighted various market and policy developments likely to exacerbate the collateral shortage. These included:

- A proliferation of planned swap clearing houses around the world since the September 2009 G20 commitment mandating OTC clearing. This threatens to fragment the hitherto global market in swaps and so limit the effectiveness of netting in the CCPs.

- Reduced prospects for rehypothecating collateral because of steps to protect investors, especially in the wake of the MF Global default, which had prompted some investors to opt for segregated accounts. The re-use (or “velocity”) of collateral has already fallen from pre-Lehman days. In the course of the discussion, one person warned that segregation could lead to “overkill” and an immobilisation of collateral.

- A negative impact of central clearing in the OTC derivatives space on those OTC contracts which would continue to be bilaterally cleared. Here, there is a risk of upsetting bilaterally cleared and collateralised swap arrangements and the ability of the leading 14-15 dealer banks to net positions among themselves.

Among other problems, it was claimed that liquidity was being tied up in the ECB because banks were re-depositing cash acquired through ECB liquidity operations with the central bank. Other negatives included the difficulty of
pricing corporate bonds for collateral purposes and a lack of enthusiasm among regulators over the possible use of equities as collateral for CCPs, even though markets for equities functioned well in terms of liquidity and price discovery in the very turbulent conditions that followed the collapse of Lehman Brothers.

So what is to be done?

The round-table heard of some positive developments amidst the gloom. It was pointed out, for instance, that the Repo market, which turns unsecured into secured lending, had recovered from its post-Lehman lows in Europe – although European Repo Council figures published in August 2012 suggested it was contracting once again.

Tri-party agents - which take responsibility for managing and monitoring collateral throughout the life cycle of a repo transaction agreed bilaterally between two counterparties - were also offering more sophisticated collateral management systems. The big banking institutions are now aware of the importance of collateral, and have acted to remove inefficiencies in supplying it for their own in-house purposes.

It is increasingly the case that for many companies, the collateral shortage is turning into a business opportunity. As will be discussed later, firms are developing collateral optimisation techniques and offering new IT solutions to help market participants obtain and move collateral in a timely manner between givers and takers to where it is required.

Clearing houses have a role to play in combating the collateral shortage. There has also been a cautious expansion in the range of assets accepted to meet margin requirements, including gold in some cases.

To reduce demand for collateral as margin, CCPs are embarking on portfolio (or single pot) margining of differing financial instruments where the price risk for one instrument or set of instruments is reliably shown to have a negative correlation with the price risk of other financial instruments.

Portfolio margining was originally tried in stress conditions in the Chicago futures and traded options markets following the 1987 market crash.

The technique has been given new impetus by the move to OTC clearing, with CCPs vying with each other to develop algorithms that combine the very different maths for risk managing swaps and futures. Portfolio margining has become something of a “holy grail” for CCP managers wanting to provide traders with greater operational and capital efficiency when risk managing “natural hedges” comprised of certain categories of swap and futures, such as standardised interest rate contracts.
There have been several announcements of portfolio margining projects during the past couple of years. The CME Group and Eurex Clearing are among CCPs developing their own product lines to provide one-pot margining of swaps and futures.

Starting in the summer months of 2012, the CME Group and Eurex scheduled phased launches of their offerings, which have differing risk management methodologies but promise significant savings. Depending on the composition of the portfolios, the CME has claimed margin savings ranging between 67% and 89%, while Eurex has claimed savings between 63% and 74%.

Cross-margining takes portfolio margining to another stage in that the technique is applied to products cleared at different CCPs. LCH.Clearnet Ltd (through its SwapClear service), DTCC, NYSE-Euronext and New York Portfolio Clearing (a joint venture of DTCC and NYSE-Euronext) are exploring a possible one-pot cross-margining venture in partnership.

ESMA included rules for portfolio margining in the consultation document it published at the end of June as part of the process of finalising draft technical standards for the EU’s EMIR Regulation on OTC derivatives, CCPs and Trade Repositories.

However, portfolio margining of swaps and futures has never been tested in stressed conditions such as the Lehman Brothers default. Some participants attending Fellowship round-table meetings were concerned that it could add to risks in clearing. It could also add to the difficulties of designing resolution regimes for CCPs.

Portfolio margining of swaps and futures as well as the broader issue of collateral shortage is, therefore, included in this report’s Awareness Agenda.

2. **Clearing and the buy-side:** With the deadline for mandatory clearing of OTC derivatives drawing closer, there has been a regular flow of upbeat press releases announcing a growing uptake of OTC clearing among buy-side companies. However, while it is indisputable that very large buy-side investors, such as Alliance Bernstein of the US, have embraced the clearing of swaps by CCPs, the seemingly large figures put into the public domain by CCPs need to be put in perspective.

To take just one example: SwapClear, LCH.Clearnet Ltd’s clearing service for interest rate swaps, announced in June 2012 that it had cleared interest rate swaps (IRS) with a notional value of more than $1 trillion for buy-side clients. However, this seemingly huge sum appears insignificant when set against SwapClear’s $294 trillion notional outstanding of IRS that it has cleared for dealer banks and BIS figures that estimated the global OTC derivatives market at $648 trillion notional in terms of contracts outstanding at the end of 2011, of which $504 trillion were interest rate contracts.
If Fellowship round-tables are any guide, there will be problems ahead with buy-side clearing.

The Fellowship’s July 2012 round-table heard one futures industry expert estimate that only one third of buy-side participants in the OTC market had selected a clearing provider. One third had just started the process. And one third had not even started.

Earlier in 2012, the Fellowship’s March round-table on collateral issues heard that certain buy-side institutions were reluctant to provide collateral as margin for CCPs. Some pension funds and insurance companies, for instance, were said to have queried the solidity of CCPs. Insurance companies, with their experience of managing risk, were also asking why they should have to hand over collateral to a prime broker who would pass it on to a CCP.

On May 3rd, the Fellowship held a round-table dedicated to buy-side clearing, in which people spoke candidly (under the Chatham House Rule). The meeting was held to examine how buy-side clearing was progressing, where the difficulties lay, and whether it would give users added security or just add to costs. Important factors affecting the discussion were the impact of new legislation on clearing, as well as the default in 2011 of US broker-dealer MF Global.

The treatment of collateral was a recurring concern. Once again, there were complaints that buy-side firms would be handing over assets and putting them outside their control. Doubts were expressed about the proper segregation of collateral in CCPs and the portability of positions. Variations in bankruptcy law in Europe were seen as a specific problem affecting the portability of client accounts, and it was noted that the UK bankruptcy law would have to be changed to bring it into line with EMIR.

All in all, it was difficult to recall that buy-side companies were such enthusiastic supporters of the idea of CCP clearing at the height of the 2008 financial crisis that it was subsequently included in the September 2009 G20 agenda for reform of the global financial system. As the following complaints show, the buy-side appears to have become increasingly disenchanted with the idea of clearing for its OTC derivatives trades since Lehman’s collapse:

- It was claimed that regulators were pursuing a flawed agenda in promoting buy-side clearing, because the buy-side did not pose systemic risks. If a fund or its counterparty defaulted, the resulting problems were not systemic. Therefore, buy-side clearing was not worth the effort involved.

- The round-table was told that the buy-side already had procedures to distinguish between counterparties with good credit quality and those that were less good. It would lose out by having to post margin when clearing its trades.
- It was claimed that initial margin required by CCPs didn't take account of the true credit quality of counterparties. Buy-side firms used derivatives trades selectively to smooth out rates and to help cash flows, and did not have a multitude of offsetting trades. They would therefore lose out in a clearing environment to intensive users of derivatives.

- It was also pointed out that clearing houses could themselves create risks. If pushed into using CCPs, buy-side firms would no longer be able to know in detail how much risk they were taking on. Buy-side investors were warned that they could lose their collateral in the event of CCP failures.

One speaker warned that CCPs are exposed to big risks in their settlement banks. Another fear was that clearing would give comfort to weaker banks among the counterparties of CCPs. Banks could create leverage, mismatches and new risks when carrying out the process of collateral transformation. Transparency, one of the objectives of the G20 agenda, could be obtained through trade repositories. Who, it was asked, stood to benefit by forcing buy-side companies to clear?

In the meantime, unrealistic deadlines are adding to uncertainty, volatility and confusion about how to trade, as well as adding to fears of reduced liquidity in derivatives markets and rising costs. All these factors will reduce the yields due to savers.

Causing concern at a more micro level is the cost for the buy-side of implementing and understanding the changes underway. Concluding a litany of complaints about plans for buy-side clearing, one speaker suggested that buy-side involvement in clearing should be postponed two years to give regulators time to work out clear rules - and for dealers to satisfy themselves that there are no inconsistencies in the way clearing works.

From a CCP perspective, the main question is how to extend the exchange-traded clearing environment – which has operated successfully for many years - to OTC products that are less liquid and yet which could evolve eventually into cleared products.

The rationale for bringing the buy-side into clearing is the same as that for the existence of CCPs. It is to keep the “superhighway” of financial markets open at times of stress. Central clearing could keep markets functioning and keep open opportunities to hedge in a crisis. This is difficult in a bilateral environment.

It was pointed out that CCPs exist to cope with defaults among their members. They have very robust risk management standards. Increasingly, they put their own capital at risk in the “waterfall” of protections against default - and that should reassure the buy-side. CCPs take a very conservative view of margin offsets. There is very clearly no wish among CCPs to extend interoperability in clearing beyond
cash equities to derivatives. The provisions of EMIR should ensure that a CCP could withstand the collapse of its two biggest clearing members.

As far as systemic risk reduction is concerned, it was accepted that many cleared products are not systemically important. Moreover, there will be a continuing role for bilateral clearing of OTC instruments because there is demand for it from investors. But (it was pointed out) there had been pressure from the buy-side for clearing solutions after Lehman’s collapse.

A key issue is the procedure of CCPs after the insolvency of a clearing member. Not all buy-side institutions could take on the duties expected of clearing members of CCPs in default situations. One clearing house representative therefore suggested that an elective element could be brought into CCP membership, with different levels of protection depending on the size and responsibilities of the buy-side participants in the clearing house. CCPs clearing swaps depended on a limited number of participants who could help to manage the default of a clearing member. Buy-side participants that are unable to do this should perhaps be reconciled to having their positions in omnibus accounts.

Whatever the reservations expressed in the meeting, participants were reminded that buy-side clearing is coming and that they had better get used to the idea. The buy-side has to prepare for the inevitable. But the big and small clients of clearing member banks will be affected in different ways. In particular, many smaller buy-side firms will no longer be able to trade OTC derivatives bilaterally.

Buy-side membership of a CCP will suit only the very largest traders. Small and medium-sized firms will have to find another solution. This might be client clearing, to be provided by clearing member banks. In preparation, clearing members would at least have to segregate client from “house” positions, as well as offer the option of full segregation. If a clearing member went bust, the CCP should return assets to the client and not to the estate of the clearing member.

Two models of client clearing were outlined: the principal-to-principal model, where the client conducts a trade with the clearing bank, which then puts a corresponding transaction through the clearing house, and the US-type agency model, where the client has a direct relationship with the CCP and where the futures commission merchant (US clearing member) guarantees the performance of the client.

It was acknowledged that client clearing is one of the most challenging elements of EMIR. Uncertainty surrounds the availability of collateral, standards of documentation and the availability of suitable clearing brokers, as well as transparency of fees, and whether or not services will be bundled. It could take a long time - maybe two to six months - for the on-boarding process to complete.
If the Fellowship’s buy-side round-table was any guide, buy-side clearing has few friends among those it is supposed to benefit. And yet the ability of financial companies to unlock collateral held by buy-side investors and in cash-rich commercial companies will be crucial to achieving a viable balance between demand and supply of collateral.

Although EMIR, the Regulation most affecting buy-side clearing in Europe, will not become truly effective until around mid-2013 (at the earliest), the scale of unpreparedness – combined with the views expressed at the Fellowship’s buy-side clearing round table - means that a great deal of uncertainty surrounds the issue of buy-side clearing. Exacerbating the problem is a philosophical divide over the purpose of CCPs. Do they exist to protect financial markets as a whole, as CCP managers would argue? Or are they in the business of protecting consumers, as many on the buy-side appear to believe?

These are reasons enough to place buy-side on the Awareness Agenda.

3. Clearing members and the challenges that they face: CCPs are complex institutions, and part of their complexity lies in the mutually dependent relationship they have with their clearing members.

Clearing members have to be financially strong enough to meet the obligations that go with participation in a CCP. They are usually large commercial or investment banks and sometimes big hedge funds which aggregate the trades of numerous investors and intermediaries who are their clients and clear these at the CCP.

By using the CCP, the clearing members replace a complex web of multiple exposures to different counterparties with a bilateral relationship in which the CCP undertakes to complete all trades if one or more of its counterparties default. In return, the clearing members have to help provide the resources for a “waterfall” of measures which underpins the CCP’s ability to manage its risks and to ensure that it does not become a single point of failure in the financial system.

So, why do clearing members take on these obligations? The answer has been that a CCP could contribute greatly to their profits by netting or offsetting the positions concentrated in the clearing house. As the buyer and seller to a vast number of trades, the CCP could provide multilateral netting and so dramatically reduce the clearing members’ margin contributions, cutting their costs and increasing the liquidity of the exchange or trading platform that they use.

Whether these benign conditions will apply in the future is increasingly open to question. Clearing OTC instruments will require more complex and more conservative risk management standards than clearing familiar futures. Clearing member banks will have to invest heavily in new IT technology to adapt to OTC clearing and regulations in the pipeline. Other regulations under discussion also look set to squeeze profits.
For instance, new Basel capital rules will oblige clearing member banks to set aside capital in respect of their positions in CCPs. New provisions for the segregation of client assets will add to the operational costs of clearing member banks. Where clients insist on full segregation of their accounts, clearing members will have to post more collateral with CCPs, reducing the clearing banks’ profits.

Although special factors played a role, a lack of profitability was one element behind the respective failures in 2011 and 2012 of US futures brokers MF Global and Peregrine Financial Group, which collapsed amid allegations that they diverted customers’ funds to stay afloat.

Such events mean the population of clearing members is becoming less diverse. As business is concentrated among a few large institutions, so too is risk. In addition, clearing members need to bear in mind that resolution regimes that are under discussion are intended to spare the taxpayer the costs of CCP failure - meaning that clearing house members will be in the firing line in case of trouble.

The Fellowship is not alone in feeling that the members of CCPs need monitoring. The authorities’ need for a greater understanding of clearing members was one of the themes that emerged during the Fellowship’s roundtable in Frankfurt in December 2011. The state of clearing members forms another topic on the Awareness Agenda.

4. **T2S as it moves towards implementation**: As noted above, a large majority of Europe’s CSDs have decided to join the ECB’s T2S settlement platform - and so outsource their core securities settlement operations to T2S after it starts operating in 2015.

The Fellowship’s Interim Report, when disseminated in April, included a draft recommendation that the T2S project should be subject to an objective re-examination of its merits in the event of a significant number of CSDs declining to join the project. It was recognised that this recommendation could be overtaken by events before the Final Report was written - and that has been the case. But because T2S is a revolutionary step in securities settlement (and because its start-up is still some years hence), it is included among post-trade issues that warrant watching.

T2S has been in preparation since 2006, and is due to start in 2015. The project is taking far longer than originally envisaged: nine years is a long time for a sector where one of the few constants is rapid change. T2S investment costs – at €400 million for the Eurosystem alone - are high. The project will also require large additional investments by banks as well as settlement infrastructures. These will ultimately be borne by users and possibly taxpayers.
T2S is surrounded by many uncertainties. Although it will lower fees for cross-border settlement (the ECB says by around 90%), the delivery-versus-payment price of 15 euro cents per instruction, announced in November 2010, is high by US standards and based on what now appear to be optimistic assumptions of scale benefits. Nor is the 15 euro cent price guaranteed – as the ECB’s Jean-Michel Godeffroy, Chairman of the T2S Programme Board, made clear in London in late June 2012.xvii

Circumstances have changed since T2S was conceived. Netting of equities trades by CCPs, which was a relatively recent development in equities markets in 2006, is limiting the market for securities settlement. Combined with CCPs, MTFs - the cross-border trading platforms introduced after the MiFID reforms of 2007 – do a lot of the work that T2S was intended to handle.

The 15 euro cent price was based on the expectation that non-euro currencies would add one fifth to settlement volume. However, the UK, Switzerland and Sweden are not bringing their own currencies into T2S. Among non-euro currencies, only Denmark has firmly decided to bring its own currency – the Danish krone – into T2S, and plans to do so in 2018.

When T2S was launched, the European Commission had decided not to initiate legislation to create a single market in securities settlement. The EU is now legislating for this – through CSDR and MiFIR and MiFID II - while four CCPs are offering interoperability for clearing equities trades, transacted on a number of trading platforms. This practice is likely to spread.

On the positive side, T2S will foster harmonisation of Europe’s securities settlement market. But this will entail major upheaval in the CSD sector, with some CSDs expected to go out of business while others attempt to move “upmarket” by offering services that are currently provided by custodian banks.

This uncertainty has added to concerns that T2S will raise the cost of settling domestic markets, which is where most trades take place - although the ECB believes that competition among CSDs (which is envisaged under CSDR) will prevent this happening. If domestic settlement costs do rise, it will be a blow to those (generally smaller) markets where domestic equity trades, often involving small-cap companies, predominate.

Among less tangible costs, the time and effort that T2S has required have probably stymied other developments in the settlement space. After one of the EU’s bigger CSDs experienced serious technical glitches twice in 2011, one of the reasons cited by market participants was a delay in updating investment while waiting for T2S.

T2S has always been supported by users of settlement services – the custodian banks – because the system promises to replace the concept of cross-border
securities transactions with a single market that should lower their back office costs. And indeed the custodian bank representatives who attended the February 2012 Fellowship round-table in Paris were enthusiastically supportive of T2S.

But there were mixed reactions among custodians at subsequent round-tables, when the subject of T2S was raised. Anecdotally, conversations this year indicate a waning of enthusiasm among senior people outside the banking community who previously supported the project. A point that emerged when the ECB hosted a two-day conference on T2S in October 2011, is that infrastructure providers outside the EU show no interest in copying T2S.

Amid claim and counterclaim, it has been difficult for an outsider to form a definitive view of T2S. It has been easy to dismiss the objections of CSDs and ICSDs as equivalent to the complaints of turkeys being asked to vote for Christmas. As might be expected, several executives of CSDs have told the author that they signed the Framework Agreement with a heavy heart.

But even after taking due account of vested interests and partisan positions, it is difficult to view T2S as a project that goes with the grain of the market.

The revolutionary “insourcing” by the ECB of the securities settlement function was chosen for T2S in 2006 because it was the only way of overcoming an issue that had split the central bank’s governing council. A proven technique, which had been used in France to settle securities with central bank money since 2001, was unacceptable to the central banks of Germany, Italy and Spain because it would have involved the ECB handing over control of the euros needed for the cash leg of eurozone settlement transactions to outside service providers.

At the same time, it is perhaps no coincidence that the central banks of Germany, Italy and Spain – plus France - are responsible for building the project. This provides welcome employment for their IT departments. But among private sector suppliers, Cinnober of Sweden is on record as saying it could have done the work for tens of millions of euros.

Viewed politically, T2S is a very important project for the ECB. It has the very public support of the ECB’s governing council and this was emphasised by the presence of Mario Draghi, the ECB president, at the signing ceremony with the CSDs on May 8th.

It is clear that every effort will be made to make T2S succeed. Sceptics would be advised not to expect it to suffer the same fate as CCBM2, another ECB project launched in March 2007 to upgrade the Eurosystem’s collateral management procedures, which was quietly discontinued in June 2012.
The Fellowship hopes that T2S will be a success for the post-trade sector - although CCBM2 provides a cautionary tale of the risks of a “grand projet” in a sector of business where ambitious IT projects have a habit of generating costly failures for their promoters.\textsuperscript{xx}

The comments at the May 8th signing ceremony by Mark Gem, head of business management at CDS Clearstream International SA and Chairman of LuxCSD, are worth recording. Representing a securities settlement group that has supported T2S from the beginning, Gem said: “We are here, singing the praises of T2S as if it were a live system. It is not. An enormous amount of work and investment must be undertaken to get us to the goal of launching T2S and materialising the strategic vision that underpins it . . . So this is a start of a journey, not the end of one.”

If, following introduction of T2S, domestic settlement costs do rise, there should be a review to establish whether T2S is increasing the cost of raising capital for smaller, listed companies, on which the eurozone depends for new job creation, and what can be done to mitigate its effects.

In the meantime, T2S is placed on the Awareness Agenda and should stay there until its success is proven.

5. A broader consideration of competition in the post-trade space: This report has already recommended that the Commission should launch a competition policy investigation into the pros and cons of more liberal access to CCPs serving the listed derivatives market, with a simultaneous examination by a qualified authority into whether the open access policy, which was originally conceived for EU equity markets, can be safely carried across and applied in the listed derivatives sector where the risks managed by CCPs are inherently greater.

There is a case for taking a broader view of competition in the post-trade space.

The prime focus of regulation since the crisis has been to establish the safety of the financial system, and the question remains: How far is this compatible with competition, which is essential to stimulate innovation and economic growth?

Is it possible to distinguish between “good” competition and “bad”? In other words, are there areas where it is desirable that business is contestable and areas where it is not?

Take for example, the ICSDs – Euroclear and Clearstream. For most of their 40-plus years in existence, these companies have been bitter rivals. Yet under pressure from users, they have developed an effective “bridge” that makes their securities settlement systems interoperable. The two companies therefore cooperate on securities settlement, which is now a bread-and-butter service, and compete by developing new services such as collateral optimisation. This

...concerns about the broader environment for competition...
set-up, as far as can be gathered from conversations with users, keeps the two groups “honest”. It prevents complacency and gives some assurance of innovation. But it has also cemented in place what is effectively a duopoly. Is this good for competition or bad?

The progress of interoperability for equities clearing in the first quarter of 2012 has already been noted. Competition, spurred by interoperability, has already caused clearing fees for equities to tumble. According to clearing professionals, any further falls in fees could compromise the safety of the clearing houses concerned. And yet there is more scope for interoperability of CCPs in the European equities markets because venues accounting for about 50% of EU equities trades by volume are accessible to interoperating CCPs. Interoperability in clearing European equities appears to have served the market well. But what is to be done – and by whom - if more competition means higher risk?

In the case of OTC derivatives, the new legislation on both sides of the Atlantic provides for access to multiple CCPs. So far in important OTC markets, a pattern has emerged of one dominant CCP with others struggling to gain traction. Thus, LCH.Clearnet’s SwapClear has a commanding position, clearing 50% of interest rate swaps, while CME Group is only just beginning to build its business. With Credit Default Swaps, the ICE clearing houses in the US and London established an early lead, leaving rivals such as Eurex, owned by Deutsche Börse group, with very little business.

There has also been a proliferation of projects to establish interest rate swap clearing houses around the globe, in countries as varied as Poland and South Korea. If all these projects go ahead, a hitherto global market in which most CCP clearing of interest rate swaps was handled by SwapClear (while the rest were cleared bilaterally) could be fragmented, nullifying some of the economic benefits of clearing. The proliferation of clearing houses may also result in some less safe participants joining the market, with attendant risks for the financial system. The G20 commitment risks creating some unintended consequences. It has raised the issue of whether the right balance between safety and competition can co-exist with countries carrying out an internationally agreed policy at a national level.

In the case of both the OTC and listed derivatives markets, the consensus in the Commission and among other regulators is that interoperability is too risky – at least at this stage. This example shows how policies that are suitable for one asset class cannot automatically be applied to other asset classes. On present evidence, there may be a case for accepting different degrees of competition depending on the riskiness of the asset class involved.

6. **Beyond clearing and settlement**: The Fellowship’s work has focused on central counterparty clearing and securities settlement, which are the core tasks of the main infrastructures providing post-trade services in the financial system.
As mentioned near the beginning of this report, there are the many ancillary and supporting activities in the post-trade space. Here, established post-trade infrastructures and often young entrepreneurial companies are building businesses that supply services or create and supply the software and data that help the main post-trade service providers to operate.

Collateral optimisation, for instance, is turning into a huge global business involving networks of (I)CSDs, global custodian banks, agent banks and providers of collateral among buy-side investors and, potentially, cash-rich commercial companies. Among post-trade infrastructure providers, it is a fast-growing business for the two big European ICSDs – Luxembourg-based Clearstream and Euroclear, based in Brussels.

Clearstream has invested heavily in collateral services since the middle of the past decade, and claims to have €512 billion outstanding under collateral management and 335 regular users of its “Global Liquidity Hub”. Clients include global custodians, supranational organisations, global, regional, retail and private banks, broker/dealers and more than 50 central banks. In addition, Clearstream has agreed cooperation deals with European agent banks and CSDs outside Europe for managing and optimising collateral without moving it from where it is held.

Euroclear is also developing its collateral business. In July 2012, the Brussels-based ICSD, which claims to manage more than €500 billion of collateral outstanding each day, launched a global “collateral highway” to move securities held in the Euroclear group’s CSDs, other CSDs and banks around the world to wherever they are needed as collateral.

In addition, numerous technology providers are seeing and exploiting opportunities in a sector where back-office practices are often primitive - and even, in some cases, still paper and fax-based. Software providers, such as Omgeo and Calypso, are supplying automated algorithm-driven collateral management solutions to CCPs, clearing member banks and buy-side firms.

Another fast-growing business is portfolio compression, where companies such as TriOptima help market participants eliminate matching OTC trades in a risk-neutral manner. Its importance has been recognised by ESMA in the draft technical standards it has proposed for EMIR. These include a suggestion that financial and non-financial counterparties with at least 500 non-centrally cleared derivatives transactions should carry out a portfolio compression for their full portfolio at least twice a year.

It is important that these companies are allowed to operate in a competitive market environment because they can provide the seeds of new technical innovations that are sometimes difficult to achieve in core post-trade sectors. For example, the use of real-time technology in risk management has
been spreading in the clearing sector, sometimes following the sale of new techniques to infrastructures outside the EU. The success of such products outside Europe may be because legacy systems are less well-established in non-EU markets and because there are no large “bed-blocking” projects such as T2S.

The above comments have highlighted the positive contributions that ancillary and supporting activities can make to post-trade infrastructure. This year’s software disasters at the Royal Bank of Scotland group and Knight Capital provide another, more sobering, reason for keeping a close watch on the activities of suppliers to post-trade infrastructure companies.

It is also a fact that the problems encountered by CCPs managing the Lehman Brothers default in Europe arose through the interaction of the clearing houses with outside organisations, rather than inside the CCPs themselves.xxii

7. Technical innovation: Because of its focus on regulation, the Fellowship has given only limited time to the prospects for product innovation in Europe’s post-trade space. However, Harry Leinonen, an adviser to the Bank of Finland and the Finnish Finance Ministry, explained his vision for real time securities settlement at a round-table in London in December 2011.

The discussion highlighted the barriers to technical change in mature markets with well-entrenched legacy systems.

The post-trade sector’s focus on the regulatory agenda has left little in terms of time or financial resources to promote new technologies. There is a risk in this situation that technical innovation may in future originate in one of the “new” fast growing markets rather than the EU and US.

With this in mind, regulation should be framed so as not to impede technical innovation - provided the innovation in question is consistent with the safety of the post-trade system.
V Challenges ahead

The two agendas outlined in this report have been crafted against the background of a post-trade environment where the unpredictable is the norm.

Anyone looking into the future in 2006 – the last full year of the “great moderation”, before the onset of the financial crisis – would have come across confident forecasts of an imminent consolidation among European securities settlement providers and no fewer than three separate private sector initiatives proposing a single CCP for Europe.

It would have been a brave pundit who forecast what actually happened between 2006 and the present: a proliferation, rather than a reduction, in the number of post-trade infrastructure providers in Europe.

In one respect, conditions in 2006 were very similar to today’s. The industry itself was in a state of flux. In another respect, the post-trade environment in Europe could not be more different. Where there was once no EU-wide regulation, it is becoming all-pervasive and all-embracing.

It is in the context of this regulatory tsunami that the Fellowship has pursued its brief of exploring ways of improving post-trade architecture in Europe. And it is because of the constraints imposed by the EU’s well-developed regulatory agenda that this report refrains from proposing any radical blueprint for Europe’s post-trade sector.

This does not mean that it has no vision of the future. For example, a stratification of different post-trade structures and practices is considered likely for the three broad asset classes: equities, exchange-traded derivatives and swaps.

Stratification will emerge over time from developments that have been underway for several years and some still to unfold. Crucial will be the final details of access provisions in the legislation to revise MiFID, the 2007 Markets in Financial Instruments Directive, after revision by the Parliament and the EU’s member states on its way to becoming law.

From today’s perspective, the best guess for the future structure of clearing in Europe includes:

- a broadly horizontal arrangement for clearing equities, resulting from the growing adoption of interoperability among CCPs; and
- recognition of two way “open access” between trading venues and CCPs for the clearing of swaps, insofar as these can be standardised.

Still to be resolved is whether open access will be extended to the clearing of exchange-traded derivatives. Judging by the summer stand-off between verticalists and horizontalists in the European Parliament, it is tempting to predict an acceptance in law, after some difficult negotiations, of the present situation - with vertically-integrated exchanges and CCPs continuing as the norm for trading, clearing and risk-managing exchange-traded derivative contracts in competition with the horizontal structures that can survive.

Change is bound to come to the securities settlement side of the business. The prospect of T2S finally starting up in 2015, combined with elements of CSDR, will force change on CSDs – at least in the eurozone – and also among the ICSDs. The ICSDs are already responding to the commoditisation of their traditional settlement business by pursuing more lucrative opportunities such as collateral optimisation.

The progress made this year on T2S may finally usher in the consolidation of CSDs so confidently predicted in the early to mid-2000s. In clearing, the business may also be heading towards an inflection point between fragmentation and consolidation, when some of the new CCPs that were set up to clear equities or swaps will withdraw from the market because they are unable to build sufficient support among users to be profitable.

In general, however, the economic impact of regulation on Europe’s post-trade sector has yet to be fully felt. That said, difficult challenges lie ahead.

Falling fees and interoperability mean that equities clearing is no longer a particularly profitable business in Europe. Regulation will involve large-scale investment in IT for infrastructure providers, their users and their clients along the value chain, and this will cut into profits and present daunting operational challenges. On the other hand, there will be many ancillary and supporting companies active in the post-trade space that are beneficiaries of the regulatory tsunami. These companies – often young and fast-growing – supply the services, software or data that help the main post-trade providers operate.

The proliferation around the world of CCPs preparing to clear swaps is emerging as a major unintended consequence of the G20 commitment of 2009. It is adding to the already considerable uncertainties surrounding the transition to central clearing of financial instruments that were previously cleared bilaterally, if at all.

One way of looking at the move to CCP clearing of OTC derivatives around the world is to argue that it will create up to 40 pockets of systemic risk, comprising CCPs clearing swaps and big dealer banks, in place of the 14 to 15 leading
dealer banks which currently clear OTC trades bilaterally among themselves. While mitigating risk in OTC markets, CCPs will simultaneously be spreading concentrations of risk around the financial system as a whole.

CCPs in particular will have to manage new relationships: with clearing members experiencing a squeeze on their own profits, and with buy-side investors, which on the evidence of the Fellowship’s round-tables, are looking towards the central clearing of OTC derivatives with foreboding if not with hostility.

Europe’s sovereign debt crisis has already brought CCPs to the attention of newspaper headline writers, as clearing houses have (at times, dramatically) increased the margin required from traders in government bonds issued by troubled eurozone debtors.

From being of interest only to niche sectors of financial markets, CCP margin calls have become a readily identifiable signal of sovereign borrowers moving deeper into difficulty. In consequence, CCP managers have sometimes experienced hostile phone calls from government treasury departments. To a sovereign borrower in trouble, a CCP’s margin call in such circumstances looks more like a pro-cyclical kick to a country when it is down than a case of prudent risk management. Whereas large long-established swaps CCPs, such as LCH.Clearnet, stand up to such pressure, will the same be true of some of the new CCPs being created?

These are just some of the issues confronting a business sector that is going through a difficult period of adjustment that is likely to last for years rather than months.

It is important that the post-crisis, public policy consensus in favour of CCPs and other post-trade infrastructures holds firm. In the EU, the introduction of a credible resolution regime for systemically important CCPs would help build confidence. For this reason, it is placed at the top of this report’s Agenda for Action.

The Agenda for Action is intended to help smooth the journey of Europe’s post-trade infrastructure providers from the pre-crisis environment in which EU-wide regulation was absent to conditions in which it is the norm.

This report’s recommendations and principles are also intended to help define the appropriate balance in post-trade regulation between making Europe’s financial system safe and promoting an efficient and competitive economy that helps produce growth and jobs.

The action points in this report cannot claim to be comprehensive. The post-trade sector is constantly changing and throwing up new challenges. Some of these are outlined in the Awareness Agenda. Some may be triggered by “known unknowns” such as the sovereign debt crisis in Europe or an extraterritorial dispute between
Europe and the US. Others may be brought to the surface by as yet unforeseen events.

The conditions in which Europe’s post-trade infrastructures are expected to do their job are, in many respects, as dangerous if not more dangerous than those which existed in the summer of 2008, before the bankruptcy of Lehman Brothers which presented the world’s clearing and settlement providers with their greatest-ever test.

CCPs and (I)CSDs in Europe and around the world rose successfully to that challenge. The hope must be that they will achieve similar success in the future, should that be necessary.

But ensuring post-trade infrastructures can successfully manage the next great crisis in the world economy will require constant vigilance: from post-trade professionals, policy-makers, regulators, market participants and independent observers. It is as an independent observer that the DTCC-CSFI Post-Trade Fellowship presents this report.
Appendix I

The progress of the Post-Trade Fellowship in 2011 and 2012

Fellowship Launch
June 1st 2011
The DTCC/CSFI Post-Trade Fellowship launch. An evening event with speeches from Paul Tucker (Bank of England) and Peter Norman (DTCC/CSFI Fellow). Followed by a panel discussion with Dan Cohen (DTCC), Diana Chan (DTCC/EuroCCP), Alan Cameron (BNP Securities Services) and Paul Symons (Euroclear).

Round-tables and dinners
July 12th 2011
The European post-trade space: What should we be worried about? The first DTCC/CSFI’s Fellowship round-table in London, chaired by Peter Norman and Andrew Hilton with a panel comprising Dr. Werner Frey (AFME), Diana Chan (DTCC/EuroCCP), Natasha de Teran (LCH.Clearnet), and Jeremy Grant (FT).

September 5th 2011
Europe’s post-trade sector: Where is Brussels leading us? A high-level dinner discussion in Brussels on developments in the EU’s post-trade regulatory architecture, with Rogier Wezenbeek (DG Markt, European Commission) leading the discussion.

October 14th 2011
Europe’s post-trade policies and the City of London: The view from the European Parliament. A round-table discussion in London with Sharon Bowles MEP (chair of the European Parliament’s ECON Committee), Kevin Milne (London Stock Exchange) and Barry King (FSA).

December 1st 2011
Europe’s post-trade sector: The view of the European Central Bank. A round-table discussion in Frankfurt with Peter Praet (ECB), Marcus Zickwolff (Eurex Clearing) and Michael Hofmann (ABN AMRO Clearing, Frankfurt).

December 13th 2011
Securities settlement: A real-time vision. A round-table discussion in London with Harry Leinonen (Bank of Finland and the Finnish Ministry of Finance), Robert Barnes (UBS) and Tony Freeman (Omgeo).

January 31st 2012
A Post-Trade Fellowship dinner discussion in London with Paul Tucker (Bank of England). With support from Nabarro LLP.

February 8th 2012
Europe’s post-trade sector: The view from Paris. A round-table discussion in Paris with Verena Ross (ESMA), Joël Mérère (Euroclear and ECSDA) and Florence Fontan (BNP Paribas Securities Services). With support from Clifford Chance Europe LLP.

March 20th 2012
Collateral issues. A round-table discussion in London with Manmohan Singh (IMF Washington), Godfried de Vlids, (ICAP and the European Repo Council), and Stephen Lyle (LCH.Clearnet).

May 3rd 2012
Buy-side clearing: What must be done to make it work? A round-table discussion in London with Juan Landazabal (Fidelity), Paul Swann (ICE Clear Europe), Tom Springbett (FSA) and Brian Oliver (JP Morgan).

June 7th 2012
Europe’s post-trade sector: The view from Zurich. A round-table discussion in Zurich that focused primarily on interoperability, with Urs Wieland (SIX x-clear), Mark Estaugh (EuroCCP) and Reto Stutz (UBS). A joint event of the DTCC/CSFI Post-Trade Fellowship and SIX Securities Services.

July 9th 2012
Europe’s post-trade agenda: Filling in the Gaps. A round-table discussion to wrap up Peter Norman’s research programme as DTCC/CSFI Post-Trade Fellow with Richard Berlind (Deutsche Börse and FIA), Diana Chan (DTCC/EuroCCP), Richard Perrott (Berenberg Bank) and Edwin Schooling Latter (The Bank of England).
Notes

i). As opposed to a Directive, which has to be separately written into law in each member state – and, hence, is subject to national variance.

ii). Not to be confused with the present idea for “Eurobonds” that would be issued on behalf of the eurozone to support its stabilisation efforts.

iii). According to the European Commission’s Proposal (COM2012) 73/2) to regulate the securities settlement sector (CSDR).

iv). Figure taken from the March 16th documentation for the London Stock Exchange Group’s cash offer for the LCH.Clearnet Group.

v). In 2008 a newly founded London-based clearing house, ICE Clear Europe, successfully won the support of clearing members trading on ICE Futures, the former International Petroleum Exchange, to migrate from LCH.Clearnet, their existing CCP. In 2003-4, clearing members on the Chicago Board of Trade shifted the open interest of their trades from the Board of Trade Clearing Corp, their CCP of nearly 80 years, to the clearing division of the CME Group. CBOT later merged with the CME.

vi). During October 2008, rumours in New York put market participants’ exposure to CDS contracts written on Lehman bonds at around $400 billion. Responding to regulators’ concerns, DTCC rushed out a press release on a Saturday that estimated the overall net notional value of the market’s exposure to Lehman at around $6 billion or so. A comparatively low $5.2 billion was eventually transferred from the net sellers of CDS protection to net buyers.


xiii). For example, “Beyond the First 100 days”, published by NYSE-Liffe in February 2012.

xiv). The author of this report has joined the group in a personal capacity as one of two independent experts – the other being Alberto Giovannini.

xv). Suggested by Alistair Milne, Professor of Financial Economics at Loughborough University, UK, in correspondence with the author.


xvii). At the ICBI European Clearing and Settlement Conference, 27th June 2012.

xviii). As described by Jean-Michel Godeffroy, Director General at the ECB and (since May 2009) Chairman of the T2S Programme Board at the annual conference of the International Capital Market Association (ICMA) in Berlin in June 2007.


xx). For example, the London Stock Exchange’s Taurus project that was scrapped in 1993 and LCH.Clearnet’s Generic Clearing System, scrapped in 2006.


Peter Norman is a London-based author and journalist who has been writing on post-trade matters since 2005.


He joined the Financial Times in London as economics correspondent in 1988 and became economics editor in 1992. In 1995, he was assigned to Bonn as bureau chief and chief correspondent for Germany, where he was awarded the Ludwig Erhard Prize for Economic Journalism in 1998. In that year, he was posted to Brussels as FT bureau chief and chief correspondent, a post he held until March 2002. Between September 2002 and June 2005, he was a member of the Financial Times’s editorial comment team and a regular contributor to the FT of articles on European Union and financial policy issues.

Peter Norman became the first DTCC-CSFI Post-Trade Fellow in June 2011.
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