

Exchanges, Trading & Clearing

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Industry strives to find its form

Low volatility, new rivals and rules take their toll, reports Philip Stafford

On retiring from Sanford Bernstein last month, veteran analyst Brad Hintz penned some observations about the capital markets in which had worked for 30 years.

In a memo to clients, he pointed out that the trading businesses of Wall Street were still generating returns far below their cost of capital six years after the crisis. Even so, he noted, most investors expected returns to rebound once services had been repriced to reflect increased regulatory costs.

"But this is far from certain," wrote Mr Hintz, who spent 13 years at Sanford and was once chief financial officer at Lehman Brothers. "Are the new rules coming from Washington, London or Basel just the fine-tuning of already established regulatory models or is there a conscious strategy to shift the capital markets business from the universal banks to smaller and presumably less systemically important participants?"

Noting the rise of electronic trading venues, clearing houses and interdealer brokers, he added: "It appears the invisible hand of economics is at play."

Banks, under pressure, have pulled back on commodities and fixed income trading, leaving a gap in the market to be filled by new actors, such as hedge funds and other lightly regulated entities. Regulation has boosted revenues at clearing houses, which are mainly



owned by exchanges. Equally, the market structure industry, which includes exchanges, clearing houses, brokers, traders, banks and data providers, has had to deal with its own set of post-financial crisis problems.

National pride and concerns about systemic risk and competition have slowed deal making by exchanges in the past few years, with the notable exception of Intercontinental Exchange's \$11bn cash and shares purchase of NYSE Euronext. The deal, in November 2013, transformed Atlanta-based ICE into one

of the world's largest exchange operators. It also broke up an underperforming cross-border conglomeration put together at the height of the 2005-07 financial bubble.

Exchanges, blocked from making big deals and with their profits hampered

by low market volatility, have been starting afresh with longer-term projects such as clearing and collateral management services. Deals have been more focused, such as the London Stock Exchange Group's \$2.7bn agreement to buy Russell Investments, the US benchmark provider.

"I think we will see exchanges start to evolve away from each other a bit more," says Bob Greifeld, chief executive of Nasdaq. "Some will choose indexes, others will choose technology. I think we will see that exchange comparisons are harder to make."

One of the biggest focuses for the industry has been growth in Asia in general, and China in particular, as it opens its capital account and begins to integrate its markets with the rest of the world. "To date, most of the volume in derivatives has come from speculative domestic retail activity in China. We are now seeing the widespread introduction of market-based pricing, initially in the underlying commodities markets," says William Barkshire, managing director of Agora Partners and a former co-president of the Hong Kong Mercantile Exchange.

In the US, the new breed of equities trading venues - dark pools - face fresh regulatory scrutiny.

In the derivatives markets, toughened standards have been a two-edged sword for operators. The rules stipulate that where possible, trading of all standardised over-the-counter (OTC) derivative contracts be conducted on regulated trading platforms and that more bilateral swaps should be cleared through central counterparties (CCPs or clearing houses) to manage their risk better.

Regulators, operators and market
Continued on page 2

Inside

Oil price swings throw cutbacks into question

Even if volatility is here to stay, regulations will weigh on revival

Page 2

Search for liquidity tests innovation

Electronic platforms are focusing on larger deals

Page 2

China reforms help foster integration

But officials have prioritised risk prevention

Page 3



Legislation boosts crowdfunding route

Exchanges also see new opportunities

Page 4

Clearing members fear cost of future failures

Recovery plan would place unacceptable burden on investors

Page 4

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Reforms boost integration with global markets

China Modernisation of the financial system has been swiftest in areas such as swaps and commodity futures, reports *Gabriel Wildau*

Despite the slow progress in implementing many of the large-scale economic and financial reforms endorsed in a landmark policy blueprint last year, China has made headway in modernising its financial market infrastructure and launching new financial and commodity derivatives.

At the Third Plenum meeting in November 2013, Communist party leaders pledged to give markets a “decisive” role in resource allocation, including liberalising interest and exchange rates and putting privately owned companies on a par with state-owned enterprises.

Though there has been little substantive progress on these broader issues, regulators have overseen swift development in margin trading, swaps clearing and commodity futures, among other

changes. Margin trading began in earnest in late 2011 with the creation of the China Securities Finance Corp (CSFC), jointly owned by the Shanghai and Shenzhen stock exchanges and the China Securities Depository & Clearing Corp.

CSFC borrows cash or securities from brokerages, banks, fund management companies and insurers and lends to brokerages for use in margin trading and short selling.

Margin trading has grown quickly, with margin loans outstanding reaching Rmb685bn (\$112bn) by late October, up from Rmb90bn at the end of 2012, according to Choice, a Chinese financial data provider. Securities lending trails, however, and totals just Rmb4.2bn.

This slow development in part reflects rules that make CSFC the only channel through which brokerages can borrow securities on behalf of clients. “CSFC sets a high price for refinancing securities,” says Pan Hongwen, non-bank financial institutions analyst at UBS Securities in Shanghai.

Chinese banks, which have little involvement in overseas derivatives markets, have been unaffected by the US financial reform law known as Dodd-Frank, which required US banks



to conduct swap trades via central clearing houses. Nevertheless, the People's Bank of China began phasing in central clearing of interest rate swaps this year via the Shanghai Clearing House, one of two state-backed clearing houses for the interbank market.

China launched interest rate swaps in 2006 in the interbank market. Regulated by the National Interbank Funding Center, an affiliate of the central bank, the key reference rates are money-market interest rates, including the seven-day bond repurchase rate and the Shanghai Interbank Offered Rate.

Officials stress that financial innovation should serve the needs of the real economy

The Shanghai Clearing House plans to offer central clearing of currency forwards and swaps, and the State Administration of Foreign Exchange says it plans to require central clearing of these products eventually.

In September, the Shanghai Clearing House signed a memorandum of understanding with CME Group. Xu Zhen, chairman of the SCH, has said it hopes to roll out a new product every two to three months over the next three years.

Other areas of the swap market are languishing. China launched credit default swaps – officially known as credit-risk mitigation instruments – in 2010, but the market barely trades.

Significant changes are also occurring in the area of commodity derivatives. The Shanghai Gold Exchange launched its international board last month, allowing foreign institutions to trade the metal for the first time.

Local affiliates of foreign commodity traders could already trade on the local gold exchange, but the latest move will eventually allow for arbitrage between the international and Chinese gold markets, where prices frequently diverge.

China wants to assert greater influence over gold pricing, following its emergence as the world's largest gold con-

sumer in 2013. It also hopes renminbi-denominated gold contracts will boost the global clout of China's currency.

The gold futures contracts follow the launch of a central clearing service for premium swaps on copper, iron ore and thermal coal by the Shanghai Clearing House, which the central bank created for the interbank bond market. Premium swaps are derivatives based on the difference between the spot and futures prices.

A crude oil futures contract is expected to be launched by the Shanghai Futures Exchange within months.

Western exchanges have sought to develop links as China integrates its markets with the global economy. Trading has centred on four exchanges – Shanghai Futures Exchange, Dalian Commodity Exchange, Zhengzhou Commodity Exchange and China Financial Futures Exchange.

It will take years for China to rival the breadth and sophistication of foreign markets. Officials have prioritised risk prevention and continuously stress that financial innovation should serve the needs of the real economy.

Additional reporting by Ma Nan in Shanghai

A simple but highly efficient approach to managing risk

Interview
Per Sjöberg
Chief executive, TriOptima

Compression has enormous benefits, hears *Philip Stafford*

TriOptima was founded in Sweden in 2000 to manage risk in derivatives. It has “compressed”, contracts with notional values amounting to trillions of dollars that have been made redundant because two positions are hedged perfectly (for example, the purchase and sale of \$20m five-year swaps with the same maturities). It is owned by ICAP, the interdealer broker.

Cumulatively, you have compressed \$516tn in notional value since 2003, but \$59tn in the six months to September 30. Why is that?

It's primarily because during 2013 LCH.Clearnet had to postpone all compressions for six months during a system upgrade. The inventory just piles up. But clearly, the demand for compression is very much there. You reduce your risks by compression and there are some regulatory incentives to compress.

For example, the Basel leverage ratio for banks creates a capital cost to outstanding notional value [of derivatives]. It has had a very significant impact on what we do.

There are two parts to TriOptima that are really established: TriReduce for portfolio compression and TriResolve for portfolio reconciliation and dispute prevention. They are two separate businesses and do very distinct things.

In portfolio reconciliation, we ask clients to submit all the trades they have outstanding, and we match them up and compare them, and we tell the users where the differences are, both in the trade populations and the trade details, but also on the valuations.

We have 1,200 institutions worldwide that use the portfolio reconciliation service. It's a simple but extraordinarily efficient way of managing risk. If you take AIG, which was at a focal point of this financial crisis, if it had been regularly reconciling both the trade populations and the valuations of the trades that it had, it would have discovered much sooner that its

counterparties valued those trades completely differently. Just checking that you agree with your counterparty what the value of your trade is and what trade relationship you have is a simple and efficient way of making sure you are on top of things.

A lot of what you have compressed or you have reconciled is interest rates swaps, is that right?

We can compress anything that has sufficient liquidity in terms of outstanding contracts, so interest rate swaps and credit default swaps have traditionally been the biggest ones. We are active also in commodities, where we have seen a lot of take-up in the past couple of months. We are getting into inflation swaps and forex forwards for compression.

You are also looking at compression cycles for some emerging market currencies. Are you looking to do that for as many currencies as you can around the world?

Absolutely. We have expanded our coverage in terms of currencies during our entire existence. I think we're up to 27 currencies, so that is all the currencies where there is sufficient liquidity.

Where do you go from here?

If you look at the bilateral derivatives market – the part that will not be cleared – there is potential to make it as efficient and safe as the cleared market. It needs to put some more infrastructure in place so that we get more automation and straight-through processing. You need to reduce the dependency on manual intervention, which is still widespread. You need to make sure you engage not just the big dealing firms, but also the long, thin tail of smaller clients.

You could have a unique position within financial market infrastructure. How much regulatory capital do you have?

We have capital requirements coming from the Swedish Financial Supervisory Authority (FSA). We are sufficiently capitalised. It should be noted that we are a service provider and do not engage in the transactions themselves. We are not like a clearing house that steps in between. We are the arranger of the whole thing, so we aren't posing any risk to the system.

What is your view on being more heavily regulated?

We are regulated by the Swedish FSA as an introducing broker, but it is undoubtedly the case that most of the regulatory categories that have been defined don't really fit post-trade service providers, and we believe the regulators are thinking about coming up with a new category for market infrastructure providers that are not clearing houses or custodians or banks or anything like this.

That would be beneficial, because sometimes we are dropped into a category and other rules start to apply to us that are not relevant. Sometimes, the regulations can hinder the risk-reduction exercises.

Per Sjöberg – “The demand for compression is very much there”



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Exchanges, Trading & Clearing

NSEL bourse scandal highlights shortcomings

India

The incident has raised deeper concerns about the standards of oversight by local regulators, writes *James Crabtree*

In late October, India tried to draw a line under one of the most damaging scandals in the history of its financial markets, when a government order forced the defunct National Spot Exchange Limited (NSEL) to merge with its holding company, Financial Technologies.

A little over a year earlier, an investigation by the country's department of consumer affairs had alleged trading violations at NSEL, which was ostensibly a commodities spot exchange backed by Financial Technologies, a bourse operator, and its charismatic founder Jignesh Shah, who at the time also ran MCX-SX, one of India's three equity exchanges.

Investors pulled out funds, leaving NSEL with Rs55bn (\$868m) in unpaid liabilities.

October's order forced Financial

Technologies to absorb those liabilities, sending the struggling group's stock down 15 per cent, but potentially making it easier to reach an as-yet unspecified settlement with creditors.

Financial Technologies has denied wrongdoing, but Mr Shah was arrested in May on charges relating to fraud and misleading investors. He has since been released on bail, while aggrieved investors lobby for compensation.

Following shortly after 2012's well-publicised "fat finger" episode, in which a mistaken trade by a brokerage sent shares on the National Stock Exchange's "Nifty" index of leading shares down some 15 per cent, the NSEL incident has raised deeper concerns about market practices in India, and the standards of oversight by local regulators.

"Of the two episodes, the spot exchange crisis is much the more significant in terms of damaging global perception of the Indian ecosystem," says one senior US-based trader, who asked not to be named. "People were really stunned that something like this could happen."

Much of the subsequent investigation focused on the conduct of Mr Shah, a controversial and high-profile figure who earlier in 2013 had launched

MCX-SX as an upstart equity exchange competitor to both the NSE and the Bombay Stock Exchange, India's oldest bourse.

Others blamed local brokerages for offering NSEL's service to their clients in the first place. Regulatory failings were also highlighted.

The resulting furore was followed avidly in India's financial media, as the exchange was shut down and the Forward Markets Commission declared Financial Technologies no longer a "fit and proper person" to operate exchanges.

By comparison, the NSE's troubles in the aftermath of 2012's "flash crash" were much less severe, although they too earned the opprobrium of markets authorities. In October, the Securities and Exchange Board of India (SEBI), the country's main regulator, censured the exchange, saying it had "not adhered" to various rules designed to stop excessive market volatility.

The NSE declined to comment, although the exchange has introduced measures to try to stop a repeat of the incident, including placing limits on order sizes and sharply reducing the time taken to halt the processing of orders.

Even so, SEBI has repeatedly said it holds the NSE responsible for the incident, and some senior figures at Indian brokerages say in private that neither the NSE nor the BSE has done enough to prevent a repeat occurrence.

Others are more sympathetic, however. Exchanges in western markets suffer many similar problems, says Sandeep Parekh, founder of Finsec Law Advisors, a Mumbai-based financial sector law firm, meaning that India is far from unusual in suffering occasional crashes.

"You can't completely stop this sort of thing happening, but you can control it by setting limits, and improving systems to limit the damage," he says. "Sometimes, it is just difficult to unscramble the egg."

Rather than spending time worrying over fat fingers, Mr Parekh says Indian regulators should look instead at another issue relating to its system of exchanges: the strict rules on foreign ownership, which restrict international bourse operators from holding more than 5 per cent in a domestic exchange.

"The single biggest issue that would help reform the Indian market would be to remove the 5 per cent cap on exchange ownership," Mr Parekh says.

'People were really stunned that something like this could happen'

Legislation to simplify capital raising boosts crowdfunding

Jobs Act Incumbent exchanges are also taking advantage of the reforms, writes *Tracy Alloway*

On a cloudy day in October, dozens of crowdfunding professionals gathered at a hotel in central San Francisco to discuss the up-and-coming sector. More than 150 years after thousands flocked to the US west coast to prospect for precious metals, crowdfunding is presenting another gold rush of sorts.

Buoyed by new US regulation and the advances of modern technology, crowdfunding platforms are developing momentum and potentially providing investors with hefty returns.

"People in this room are going to make a lot of money," Mark Roderick, a lawyer who specialises in crowdfunding and who sponsored the San Francisco gathering, told the assembled throng.

To their supporters, such platforms represent the democratisation of a financial sphere hitherto reserved for professional investors. To their detractors, they are a lightly regulated minefield rife with the potential for fraud.

The incumbent financial institutions – particularly the big stock exchanges that have dominated equity-raising – view the rapidly evolving crowdfunding landscape as providing both competition and opportunity.

Kickstarter and Indiegogo, which have used the power of the internet and social networks to create a place where people can donate money to start-ups and other projects, are perhaps the best-known platforms.

In places such as San Francisco, the crowdfunding possibilities are potentially limitless, with myriad loans, debt and land purchases up for grabs.

The effects of the "Jumpstart Our

Business Startups" legislation passed by US lawmakers in 2012 are likely to increase the popularity of such crowdfunding portals substantially.

Known as the "Jobs Act", the new law is meant to simplify the complex web of rules that govern US capital raisings and securities sales and will allow equity and debt raising to take place on crowdfunding portals.

Crucially, the act paves the way for platforms such as Kickstarter to move away from their traditional model of exchanging money for small gifts and allow donors to take equity stakes in the projects they are funding.

Yet large swaths of the act, including the provision that would allow crowdfunding platforms to raise equity, have yet to be implemented by the US Securities and Exchange Commission. The SEC appears to be concerned that loosening securities laws could lead to a wave of crowdfunding platforms with the potential to defraud investors.

In the meantime, the pillars of the Jobs Act that have been finalised have so far proved to be an opportunity for large stock exchanges, which are using them to augment their bread-and-butter business of facilitating public listings.

Under the Jobs Act, the number of shareholders a company is allowed to have before being required to register its stock with the SEC has been raised from 500 to 2,000.

The act has also lifted a long-time ban on "general solicitation" of private placements – a rule that limited certain deals to a select group of professional, or "accredited", investors.

Sensing the winds of change, both Nasdaq OMX and the New York Stock



Exchange – the two biggest US exchanges – have created their own private market offerings to take advantage of the changes introduced by the Jobs Act. NYSE has invested in ACE Portal, a platform that connects investors, broker-dealers and private companies, to help capture its own slice of the growing private market. Nasdaq created Nasdaq Private Market, or NPM, earlier this year.

"Companies are definitely staying private longer," says Jeff Thomas, NPM vice-president of sales. He estimates that during the late 1990s, companies would wait three to four years from founding to listing; now they might remain private for as long as a decade.

As for longer-term disintermediation by crowdfunding platforms once the entirety of the Jobs Act is implemented, most financial industry professionals are hopeful that the emerging industry

will complement their existing business rather than disrupt it.

Peter Williams, chief executive of ACE Portal and a former investment banker, says: "Theoretically there is a risk, but there is a lot that incumbent investment banks do – it isn't just matching investments with investors." He adds that banks are responsible for performing due diligence, managing regulatory issues and sourcing transactions.

In San Francisco, home of Silicon Valley and its army of venture capitalists, the sense of excitement over crowdfunding possibilities is palpable. Yet there is concern that a nascent industry could be tainted by a few bad apples.

"I'm going to ask you, as you go out and crowdfunding, just to bear in mind these risks," Mr Roderick said at the gathering. "We can all help make it work and, conversely, if there are bad actors, we can really ruin it."

Nasdaq: going for its own slice of the private market

– Brendan McDermid/Reuters

Start-ups
Making waves in Chicago

Last month, the world's largest futures exchange played host to a meeting of tech workers, venture investors and traders. CME Group had not formally organised the event, but it had provided the venue and Rumi Morales, representing the CME's new venture capital fund, was moving about the crowd, writes *Neil Munshi*.

CME's involvement demonstrates its appreciation of the important role that start-ups are likely to play in the future of the derivatives industry – and the city.

Derivatives trading is going through an important transition, as electronic trading cements its hold on the industry.

Broader technological trends are bringing down the cost of entry for financial technology companies, cloud- and web-based computing are making retail participation easier and new regulations are challenging the advantages of established incumbents.

Among the newcomers are AlgoFast, which aims to take complex algorithmic trading to the masses, and Social Market Analytics, which trawls Twitter for data sophisticated enough to be used by traders.

Then there is TopstepTrader, which allows retail traders to simulate futures trading with the aim of being invited to trade with the company's money.

The city's leading exchanges, CME and CBOE, both acknowledge that innovation may now come more from the start-up world and have started venture capital initiatives.

Mark Fields, managing director of CME's strategic investment group, launched the company's venture fund this year. It plans investments of between \$500,000 and \$5m to develop a pipeline of companies.

The fund's mandate is global and it has so far made investments in four companies: Wickr, a communications and cyber security firm; IQBit, a software company; Powerlytics, a data analytics provider; and payments start-up Dwoolla. None is Chicago-based, but Mr Fields says CME is looking in its home town. "We regard it as an extension of the 160 years of innovation and leadership in the financial industry that CME has had," he says.

"We [saw] a gap and recognised that technology was changing fast. We continue to innovate, but we wanted to look out three to five years in the future and the place you do that is in the venture community."

John Deters, chief strategy officer at CBOE, says his company's initiative – which invests from early-stage to full maturity – operates according to a similar philosophy.

"No longer are big ideas more likely to come from centralised, process-oriented R&D structures. It's equally if not more likely that big ideas are going to be sourced from a broadly distributed network of creative individuals who are applying their talents to solving a problem," he says. "We are concretely trying to make sure we're part of the conversation."

In March, CBOE invested in New York-based Tradelegs, an analytics platform like many new fintech firms, following an earlier investment in the Chicago-based Intellectual Property Exchange International.

Mr Deters notes that over the past decade, the decline of floor trading sent many people off to launch businesses, and has given Chicago's trading community "an appreciation of individual creativity and what people can do when they're out there with an idea."

Justin Bouchard, who founded AlgoFast in 2011, says the industry is "ripe for disruption". But he says start-ups face big challenges, including high market data prices, legal and compliance issues, and the generally secretive nature of the industry, which runs counter to the open-source ethos of start-up culture.

Joe Gits, founder of Social Market Analytics, says that the barriers can be high, but "the technology to get started isn't nearly as challenging as it was in 1997", when Mr Gits founded Quantitative Analytics, a data software company he later sold to Thomson.

Rick Lane, chief executive of Trading Technologies, agrees. "Building tools for the professional trading community over the web isn't something that has been done a lot to date," he says.

"Cloud technology enables start-ups to compete, where a couple of years ago they might not have been able to because of the costs."

That ability to compete may also give Chicago a chance to retain some of the derivatives industry dominance that it has lost, as trading has migrated to the computer screen, says Mark Longo, a former trader, who left the floor in 2007 to start Options Insider, which provides news and analysis on the industry.

"This has been the mecca for derivatives since they were invented, and now that's going away," he says.

"You can't just walk off the street and start a derivatives-oriented start-up. You really need that deep knowledge . . . No where else is there a community like this, and if you want to keep it, you need to foster it."

'This has been the mecca for derivatives since they were invented. Now that's going away'

Members fear they may have to stump up in case of a failure

Clearing houses

Current recovery plans could place an unacceptable burden on investors, explains *Philip Stafford*

Post-financial crisis, regulators have been steadfast in their insistence that more of the derivatives market be passed through risk managers known as clearing houses. But many market participants worry about the implications of a failure of one of these institutions.

Clearing houses, which stand between two parties in a trade, and guarantee it in the event that one party defaults, are meant to act as the financial markets' shock absorbers.

Investors and banks in the US have

already begun to comply with a G20 mandate from 2009 to clear their derivatives trades through central counterparty clearing houses (CCPs). The EU and Japan are set to follow suit in the coming year.

Policy makers expect the move will bolster financial markets.

However, regulators, brokers and investors and clearing houses worry that policy makers have merely created a new set of institutions whose failure could destabilise the global financial system.

The issue of a "living will" for clearers has come to the fore in recent months because the Financial Stability Board, a co-ordinating body for the G20 economies, has expressed concern about institutions being "too big to fail".

This issue has generated intense and inconclusive debate between regulators, banks and some of the world's

largest asset managers. "All this debate is around what happens if the money is not sufficient," says Damian Carolan, partner at Allen & Overy in London.

Regulators have repeatedly stressed there will be no public bailout for clearers. This means, regulators will either

have to develop frameworks to keep a failing clearing house going, or they will have to close it.

To that end, the Bank for International Settlements and the International Organisation of Securities Commissions (Iosco), an umbrella group of regulators, have called for the drafting of a



recovery plan. In a report published last month the regulators said CCPs should be given the tools to "continue to provide critical services as expected, even in times of extreme stress".

Regulators included the option for CCPs to tear up derivatives contracts or apply a "haircut" to margins. The report also said clearing houses should be able to allocate any uncovered losses to their members and to replenish any funds they had used after a "stress event".

Users of clearing houses are "members", with certain responsibilities, such as contributing to a default fund and being prepared to share losses. As well as their own trades, members might act for their customers (such as asset managers), taking a cut.

Market participants have expressed fears that CCPs' powers are too wide-ranging. In September, JPMorgan cautioned that CCPs could potentially call

on members to stump up additional billions in a crisis – creating unquantified liabilities for banks such as itself. JPMorgan is a member of 70 CCPs.

JPMorgan wants clearing houses to have larger financial buffers to cover a greater range of potential disasters. In part that would require CCPs to increase their direct contributions to the guarantee fund or have more "skin in the game". Advocates say it would incentivise the operators to pay closer attention to risk management.

Clearers point out that new regulations such as the US Dodd-Frank act and the European Markets Infrastructure Regulation have already forced them radically to raise their capital buffers. In Europe, they also have to hold enough capital to withstand the default of two of their largest members on the same day.

"One possibility is to operate with more default funds to make it clear who

takes a hit on what. The flip side is that everything is more expensive," says Hans-Ole Jochimsen, president of Global Market Services at Nasdaq, which has a clearing house in Sweden.

Some institutional investors – now required to lodge collateral for the first time – are unhappy that their assets could be called upon to plug a funding gap. Pimco, the world's largest bond fund manager, has argued that clients' assets should be used as a last resort. Others say margin monies owed could be returned, rather than used to save the clearing house.

"Asking pension funds and other end-investors to write a blank cheque at a time when multiple bank failures have brought down several CCPs is the quickest way to exacerbate systemic uncertainty," says Richard Metcalfe, director of regulatory affairs at the Investment Management Association.