Risk

RISK MANAGEMENT | DERIVATIVES | REGULATION

RISK.NET JUNE 2013

Goldman and the OIS gold rush

How fortunes were made from a discounting change

The Wild West

Editor Duncan Wood

The fact that swaps traders at Goldman Sachs and a handful of other dealers made a lot of money in 2008 and 2009 as a result of the industry's switch to collateral-based valuation is an open secret. Exactly how they did it, and how much they made, has never previously been revealed.

Thanks to a host of interviews with current and former traders on the buy- and sell-side, this month's cover story sheds some light on what was arguably the most dramatic change in the history of the over-the-counter derivatives market, during a time when the financial system itself was coming apart at the seams.

"It had a Wild West-type feel, and it was breaking new ground," one swaps trader says. "With hindsight, they were fantastic times. I learned more in those two years than in the previous 10 years of my career."

What everyone learned was that trades should be discounted at the rate paid on the accompanying collateral – the overnight indexed swap (OIS) rate for cash-collateralised trades – and that swaps portfolios across the Street were valued incorrectly. What made it interesting was that everyone learned this at different times, with Goldman Sachs a couple of years or more ahead of the pack.

It meant Goldman could pre-position its books to benefit – the switch to OIS from Libor meant the value of derivatives assets and liabilities would grow, so the bank tried to boost the former and constrain the latter. From what little public information is available, that seems to have been hugely successful. In 2008, the bank's annual report shows it received $137 billion in cash collateral – a 132% increase on the previous year – while the amount of cash it posted grew only 22%.

It also meant the bank had more time to comb through its collateral agreements and amend them so counterparties – when they woke up to the new pricing orthodoxy – would not be able to take advantage. A former Goldman trader says the bank had a team of 10 lawyers devoted full-time to the task. Other banks soon started to use the same tactics.

We don't know exactly how much Goldman Sachs made as a result, but traders at other banks claim to have earned up to $600 million over a three-year period specifically from OIS-driven trades and they are convinced Goldman made more – possibly as much as $1 billion.

That is an extraordinary sum to extract from the minutiae of credit support annexes, and it explains why one of the traders that agreed to speak – reluctantly – only did so out of a sense of historic duty: "Before all of this gets completely lost in the myth-making that follows this kind of stuff, someone should sit and write it all down."

Read it first online
Articles from this issue are published first on our website, along with other news articles that aren't published in the issue. Set up your online access or reset your password here: *www.risk.net/home/forgot_password* and enter your email address.
Problems? Contact customer services on +44 (0)1858 438421 (UK) or +1 212 736 1888 (US) or email: incisivehv@subscription.co.uk.

Editor Duncan Wood
duncan.wood@incisivemedia.com
European Editor Lukas Becker
lukas.becker@incisivemedia.com
Technical Editor Mauro Cesa
mauro.cesa@incisivemedia.com
Features Editor Matt Cameron
Supplements Editor Luke Clancy
Senior Staff Writers Laurie Carver, Peter Madigan
Staff Writers Tom Osborn, Joe Rennison, Michael Watt
Reporter Tom Newton
Deputy Technical Editor Laurie Carver
Assistant Technical Editor Nazneen Sherif
Contributing Editor Clive Davidson

Editor-in-chief Nick Sawyer
nick.sawyer@incisivemedia.com
Commercial Editorial Manager Stuart Willes
Commercial and online subeditor Peter Ellender
Chief Subeditor Jonathan Lloyd
Subeditor Gary Fox
Production Manager Rachel White
Designer Lisa Ling

Publisher Nat Knight
nat.knight@incisivemedia.com

Commercial Director Phil Ansley
phil.ansley@incisivemedia.com
Commercial Manager, US Laurie Vormawah

Business Development Managers
US Madelyn Sminkey
Europe Moira McCarthy, Ewa Rosol

Marketing Manager Rainy Gill
Risk Research Max Chambers

Subscription sales
Head of site license sales Chris Zachary
chris.zachary@incisivemedia.com
Head Office James Hubbard
US and Canada Office Ian Roure
Asia-Pacific Office Terry Poon
Corporate Subscriptions Pat Courtney
Renewals Aaraa Javed
risksubscriptions@incisivemedia.com

Managing Director Matthew Crabbe
Editorial Director Nick Sawyer

Customer services
Please direct customer service, subscription and books queries to:
T. (UK) 0870 787 6822
T. (ROW): +44 (0)1858 438421
F. +44 (0)20 7504 3730
T. (US) +1 (212) 736 1888
F. (US) +1 (646) 417 7705
incisivehv@subscription.co.uk

UK Office
Incisive Media, 32–34 Broadwick Street, London, W1A 2HG
T. +44 (0)20 7316 9000

US and Canada Office
Incisive Media (US), 55 Broad Street, 22nd Floor, New York, NY 10004-2501. Tel: +1 646 736 1888
Fax: +1 646 417 7705

Asia-Pacific Office
Incisive Media Publishing Ltd, 14th Floor (Unit 1401-3), Devon House, Talkoo Place, 979 King's Road, Quarry Bay, Hong Kong, SAR China
T. (852) 3411 4888 F. (852) 3411 4811

Singapore Office
Incisive Media, 105 Cecil St, 06-01 The Octagon, Singapore 069534
T. +65 6827 4408

Reprint enquiries Ewa Rosol
ewa.rosol@incisivemedia.com

RISK (ISSN 0952-8776) is published monthly (12 times a year) by Incisive Financial Publishing Ltd.

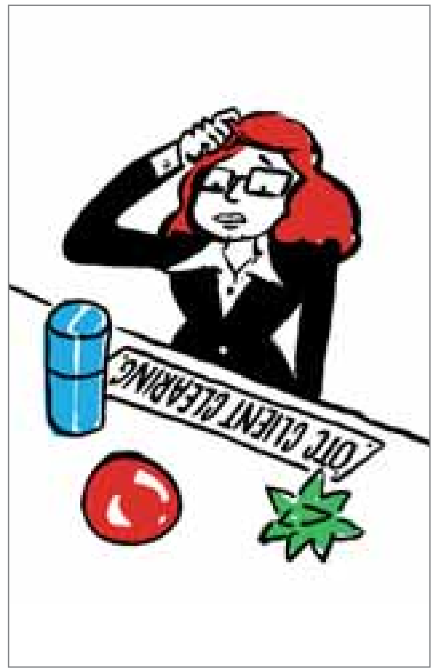
Printed in the UK by Wyndeham Grange, Southwick, West Sussex. Published by Incisive Financial Publishing Limited

Cover detail: Rough Fields, France, monotype, 75 x 88cm, by Howard Jeffs
Contact: Anne-Marie Bainbridge Contemporary Art
T. +44 (0)20 7460 0636
URL. www.anne-mariebainbridge.com

REGULARS

Elbert Pattijn of DBS.

IN DEPTH
CLIENT CLEARING



THERE'S MORE TO RISK THAN RISK MAGAZINE

Are you missing out on exclusive online-only stories?

Risk

Priority Subscription Order Form

Become a Risk Subscriber TODAY

Despatch Address

Name

Job Title

Company

Dept

Street address

Zip/Postcode

Country

Tel (inc. country code)

Fax

E-mail

"The world's favourite risk magazine"

Phillippe Jorlon,
Chancellor's Professor, Professor of Finance
Paul Merrage School of Business University
of California-Irvine

Trial reference (if applicable): RSK-MKNB-PDF2011

☑ Yes, I would like to subscribe to **Risk**, the format that best suit my needs is ticked below:

SUBSCRIPTION BENEFITS (please tick)	AMOUNT
☐ **Print magazine and online** (premium package) MOST POPULAR • All the benefits below for just US$110/€110/£50 more	US$2035/€1595/£1149 Everything below included with your payment
☐ **Online only** (no print magazine): • Full access to **risk.net/risk-magazine**, plus a 10-year archive • Tailored news alerts from across **risk.net** • Mobile-friendly web access	US$1925/€1485/£1099 Included with your payment Included with your payment Included with your payment
☐ **Print magazine only** (no online access): • 12 print issues of **Risk**, delivering in-depth market insight • Free special reports and supplements on important topics • Unique foreign language editions on key markets	US$1925/€1485/£1099* Included with your payment Included with your payment Included with your payment
All subscribers also qualify for special subscriber discounts to **Risk** books and events	*Please note all prices are exclusive of any applicable sales tax

Billing address

Please state billing address below if different from despatch address above:

Name

Job Title

Company

Dept

Street address

Zip/Postcode

Country

Tel (inc. country code)

Fax

E-mail

Payment Options – pay by credit card and **save 5%** on the prices above

We can only process your subscription if you complete this information in full.

☐ Cheque enclosed payable to **RWG (Americas) / Incisive Financial Publishing (ROW)**

☐ Credit Card: Please charge to ☐ Amex ☐ Visa ☐ MasterCard ☐ Switch

Start date Expiry date

Card no Issue No.

Signature Date

☐ Please invoice me/my company. My subscription will start immediately on payment.

Please add billing address if different from address given above.

Subscribers in E.U. member states please write your VAT/TVA/BTW/MCMS/MWST/ FPA/IVA number here:

PLACE YOUR PRIORITY ORDER NOW!

FAX: +44 870 606 0106 (UK/ROW)/ +1 646 390 6612 (USA/Canada),
CALL: +44 870 787 6822 (UK/ROW) / +1 646 736 1894 (USA/Canada),
ONLINE: risk.net/subscribe
EMAIL: incisivehv@subscriptions.co.uk
Mail this form to:
UK & RoW: Incisive Media (c/o CDS Global), Tower House, Sovereign Park, Market Harborough, Leicestershire LE16 9EF, UK
US: Subscription Department, Incisive Media, 55 Broad Street, 22 Floor, New York, NY 10004, USA

DATA PROTECTION STATEMENT – Please read carefully

Incisive Media* will use one or more of your various contact details to contact you regarding Risk magazine, including your registration, reader research and other related products or events. In addition we will send you information about our other relevant products and services. If you do not wish to receive this please tick the following relevant boxes: mail ☐; phone ☐; email ☐.

Incisive Media may also allow carefully selected third parties to contact you about their products and services. If you do not wish to receive this information please tick the relevant boxes: mail ☐; phone ☐.

Please tick if you are happy to receive relevant information from carefully selected third parties by email ☐

*For a list of companies included in Incisive Media please see our website: www.incisivemedia.com/privacypolicy

CFTC approves Sef rules – and eyes block trade controversy

The US Commodity Futures Trading Commission (CFTC) may even-up block trade rules for swaps and swap futures, it announced on May 16, as long-awaited requirements for swap execution facilities (Sefs) were approved at an open meeting in Washington, DC. As things stand, swaps are subject to CFTC-set block thresholds – which allow big trades to avoid real-time reporting requirements – but exchanges can set their own thresholds for futures contracts.

Critics have argued this disparity hands the exchanges – formally known as designated contract markets (DCMs) – an unfair advantage in cases where they are trading products that are economically equivalent to over-the-counter swaps (*Risk* April 2013, pages 48–50, *www.risk.net/2257576*). The CFTC appears to be listening.

"The staff as a team is looking at issues relating to the setting of block sizes on DCMs and is contemplating some sort of potential commission action, regulation or rule-making that would address issues related to the setting of block sizes on DCMs – in particular, with respect to the so-called futurisation of swaps that happened last year. That's something we're looking at," said Richard Shilts, acting director in the division of market oversight at the CFTC.

This was immediately welcomed by Lee Olesky, chief executive of New York-based electronic execution platform Tradeweb. "The different treatment between the ability of DCMs to set their own block sizes and the CFTC-mandated block sizes for Sefs is a serious inconsistency, especially as it relates to the goal of transparency. Our view has long been that economically equivalent instruments, whether traded on a DCM in the form of a swap future or over the counter as a swap contract, should have the same block standards. The fact that the commission mentioned the issue and its willingness to investigate it is a positive step in equalising these two types of provision."

Lee Olesky, Tradeweb

The block rules for swaps were finalised during the May 16 meeting, establishing a 67% notional size threshold. Any trades above this point in a given product's range of notional sizes can be executed bilaterally (*Risk* April 2012, pages 26–29, *www.risk.net/2163871*), away from a Sef, and will be subject to a reporting delay of at least 30 minutes – meant to give liquidity providers time to hedge themselves before the market is notified of a large transaction. The CFTC has calculated that roughly 6% of swaps will qualify as blocks under the final standard but, during the first year of the new regime, the block threshold will initially be set at 50%.

Under the final block rules, the threshold applies to all swaps, regardless of whether they are traded on a Sef or a DCM. Market participants could sidestep this rule, however, by electing to instead trade a swap futures contract that is economically equivalent to the swap – the fear of Tradeweb's Olesky and other critics – thereby becoming subject to the DCM's own block threshold rather than adhering to federal limits (*Risk* April 2013, pages 38–41, *www.risk.net/2257042*).

Beyond the CFTC staff's decision to review this disparity, trading platforms generally lauded the final form of both the block trade and Sef core principles. Proposals for both sets of rules had been hugely contentious.

"I think the commission has come up with a great rule, notwithstanding the arguments and delays that led up to it," says James Cawley, chief executive of Javelin Capital Markets, a New York-based Sef. "I think the block rule is the most significant measure passed, because requiring Sef execution for all trades larger than 67% of notional swaps size translates into 94% of all swaps traded, and that's a big win for transparency and for competition. Combine that with the made-available-to-trade rules, which give autonomy to Sefs to list products and self-certify, and this is a big step in getting this market rolling."

The final design of the Sef core principles provided little in the way of surprises. The proposal that requests for a quote would need to be sent to a minimum of five market-makers – potentially making it more difficult for these firms to manage their risks, critics claimed – has been watered down. During a one-year transition period, quote requests can go to two participants, and three thereafter.

As expected, voice broking is permitted to continue as an execution method and the 15-second crossing rule delay is also retained. The latter means a customer order has to be displayed for a minimum of 15 seconds and cannot be instantly filled, giving other participants a chance to provide a better price.

Sefs will be allowed to start operating as soon as they receive a temporary Sef registration from the CFTC, rather than being required to wait for a full registration. And in a departure from the normal 90-day waiting period, the Sef rules go into effect just 60 days after they are published in the Federal Register – a move some platforms have interpreted as an apology from the CFTC for the lengthy period of regulatory limbo that preceded today's vote.

"That 60-day approval could be interpreted as a tip of the hat by the CFTC to the long delay the market has endured and toward moving things along a little faster. What these rules have provided is clarity, and we can now get down to the business of submitting our applications and beginning to serve clients," says Christian Martin, chief executive at New Jersey-based DCM, TeraExchange.

Peter Madigan

Eurex may copy CME swap futures

Eurex is consulting with dealers and buy-side firms on the potential launch of a euro-denominated interest rate swap future contract that may mimic the design of contracts traded on US rival CME Group, *Risk* has learned. The CME product begins life as a future, but users can opt to be delivered a cleared over-the-counter swap at the contract's quarterly settlement dates.

The German exchange is understood to be seeking legal advice on whether the US patent behind the CME product – which is held by Goldman Sachs and is used by CME under licence (*Risk* October 2012, page 6, *www.risk.net/2206844*) – applies only to products traded in the US, according to two people familiar with the matter.

Eurex declined to comment on its specific plans. However, a spokesperson for the bourse in Frankfurt says "sufficient market demand is a key prerequisite for any successful product launch".

The patent used by CME, *Method and apparatus for listing and trading a futures contract that physically settles into a swap*, was filed by Oliver Frankel, a managing director in Goldman's securities division in New York on June 12, 2007 and granted in 2011.

CME launched its dollar-denominated deliverable swap futures in December, supported by four dealer market-makers, including Goldman Sachs. The contracts have enjoyed steady growth since their launch, generating notional turnover of more than $33 billion so far this year, according to a CME spokesman.

But whether the patent is enforceable in Europe – and where responsibility lies for ensuring it is not infringed – is unclear. "They do not need to license the patent if no US person is going to trade or clear it. The patent is a US one, not a global one. That said, it would be very hard for them to know no US person was trading the contract," says one industry source.

According to one senior intellectual property lawyer: "A patent grants the holder a monopoly right over a product or a method claim only within the jurisdiction in which it was granted. In order for a party to infringe on a US patent – for example, by a developing a business method based on the method claim that patent protects – the infringing act would have to take place in the US."

If the patent is deemed not to apply in Europe, then it could pave the way for Eurex to develop a contract with a similar delivery model, while avoiding the need for a potentially costly licensing deal of the kind struck by CME in the US (*Risk* October 2012, pages 34–38, *www.risk.net/2208967*). Under the terms of that deal, Goldman stands to collect 15–20% of the revenues generated by CME's contract, sources in the exchange industry have estimated. A Goldman Sachs spokeswoman in London declined to comment on whether the bank had received enquiries from Eurex regarding the patent.

CME is planning to offer a suite of fixed-income futures geared towards European market participants on its soon-to-be-launched European exchange, a move that could come in the second half of this year. The exchange is also considering the launch of a euro-denominated deliverable swap future, initially to be traded in the US.

But while Eurex has been consulting on specifications for a swap futures contract since January – and, it is understood, could be operationally ready to launch and clear such a contract this year – the exchange is said to be in no rush. Its first priority is a revamp of its Euribor futures contract – a market currently dominated by rival NYSE Liffe.

Tom Osborn

'No panic' as Nikkei vol spikes, dealers say

Equity derivatives desks in Japan claim to have coped with a large spike in volatility after the Nikkei 225 index experienced its biggest daily fall since the devastating tsunami that hit the country in March 2011. Short-end volatility on the index leapt more than 16 points on May 23, according to the Nikkei Stock Average Volatility Index, as spot plunged from the previous day's close of 15,627.26 to 14,483.98, a drop of 7.32%.

Despite that spike in volatility, equity derivatives dealers believe the industry emerged from the day's trading relatively unscathed, and claim there was little sign of desks scrambling to hedge short volatility positions.

"When you look at the skew the day before for an at-the-money option at strike 15,600, the implied vol was around 26, while for the 14,500 strike, vol was 29. Today, the vol for the 14,500 strike is around 34.5 – so that's a jump of 8.5 points. But three points of that was merely riding the skew, so re-marking of vol was around 5.5 points, which is not huge, given what spot did today. This suggests there weren't any panic buyers of volatility," says one equity derivatives trader at a European bank.

Another head of equity derivatives trading at a European bank agrees. "The move was driven much more by spot than short covering – there was panic in the move, but not panic in the market," he says.

The trader adds that volumes of options traded did not change radically from those seen in previous months. There was also no spike in the amount of puts traded, he says.

However, some dealers claim to have seen a small number of desks buying large amounts of volatility on the way up, and caution losses can't be ruled out. "There were a couple of dealers that were buying volatility in a big way but we don't know whether it was on the back of client flow or to cover short positions – it was very difficult to tell because the market was gapping massively intraday. But assuming the dealers were long delta, it is difficult to tell much about the Street's positioning on vega. It will be varied in terms of the impact," says one index volatility trader at a US bank in Hong Kong. Delta measures the change in an option's price for a change in the underlying, while vega measures a change in an option's price for a change in volatility.

Matt Cameron

US regulators to revise CVA capital charge

US regulators are said to have dismissed the idea of copying Europe's exemptions to the credit valuation adjustment (CVA) capital charge, and are instead planning to change the way hedges are recognised when they publish their own version of Basel III, possibly before the end of June.

"I understand perfectly why Europe's exemptions are there, but exemptions are the last resort of a legislative process and the US has no intention of mirroring them. They are more inclined to make different changes," says one industry source who has spoken with US bank supervisors.

If correct, that would create three versions of the charge and leave other jurisdictions in a difficult position. Canada's Office of the Superintendent of Financial Institutions (Osfi) decided late last year to defer implementing the CVA charge until January 2014 – the start-date for Europe and the US – to avoid putting its banks at a disadvantage. A common start date may still be possible, but it's not clear whether Canada would adopt the official CVA charge, or copy the European or US approaches – Osfi declined to comment on its plans. Other jurisdictions are also keeping a keen eye on developments.

"We see benefit in consistent Basel III implementation across jurisdictions and are naturally cautious with regard to exemptions that represent a relaxation of the standard – for reasons of regulatory arbitrage and any potential to concentrate risk geographically in the exempting jurisdiction," says a spokesman for the Hong Kong Monetary Authority.

In March, European politicians agreed to exempt trades covering corporates, sovereigns and pension funds from the CVA charge (*Risk* April 2013, page 8, www.risk.net/2252629). Proponents of the exemption argued the CVA capital charge doesn't make sense given Europe's clearing exemption for the same firms. The clearing exemption was granted because corporates lack the large stocks of liquid assets needed to satisfy clearing house demands for initial and variation margin. But uncleared, uncollateralised trades attract a big CVA capital charge unless the exposure can be hedged with credit default swaps (CDSs), meaning corporates would escape the margin demands associated with clearing only to face a hike in trading costs.

The exemptions have angered US dealers, which argue they will be disadvantaged when competing with European banks for derivatives business.

"While market participants globally have raised legitimate concerns about the CVA calibration, and we believe the Basel Committee should revise the calibration, the European exemption is troubling in that it is a diversion from a uniform application of capital standards

Kenneth Bentsen, Sifma

incongruous with G-20 principles and will result in an unlevel playing field for non-EU dealers," said Kenneth Bentsen, acting president and chief executive of the Securities Industry and Financial Markets Association at a House Financial Services Committee hearing on April 11.

Industry sources that have spoken to US regulators in recent weeks say the Federal Reserve opposes copycat exemptions, but is instead planning to modify the treatment of CVA hedges and is also reviewing the role of market risk hedges. The Federal Reserve declined to comment.

While banks typically hedge market risk incurred in client trades by entering into offsetting transactions, those hedges are not taken into account when calculating exposure for the purpose of the CVA charge – which is designed to capture counterparty risk – and the hedges themselves become subject to trading book capital requirements. The only way to mitigate the charge is to collateralise or clear the trade, or to purchase a CDS hedge, with the available hedges also strictly curtailed.

"We understand the US regulators are examining inclusion of market risk hedges for the CVA charge, which is driven by volatility in credit risk and the volatility in underlying market risk components. In the Basel framework, the credit risk is included and the market risk is excluded – but these market risk factors can be very significant, effective CVA hedges," says one regulatory policy expert at a European bank.

Risk also understands the Basel Committee has instructed its trading book group to consider the implications of the CVA charge for market risk in its fundamental review of the trading book – an about turn, after last May's consultation paper for the fundamental review made it clear the CVA charge was out of scope.

"When Europe created a potential un-level playing field by exempting trades with corporates and sovereigns from the CVA capital charge – which the US regulators did not agree with – there was a lot of pressure to revisit the charge and this is why it has shot right to the top of the agenda at the Basel Committee and hence why it's back in the trading book review," says one capital expert at a European bank.

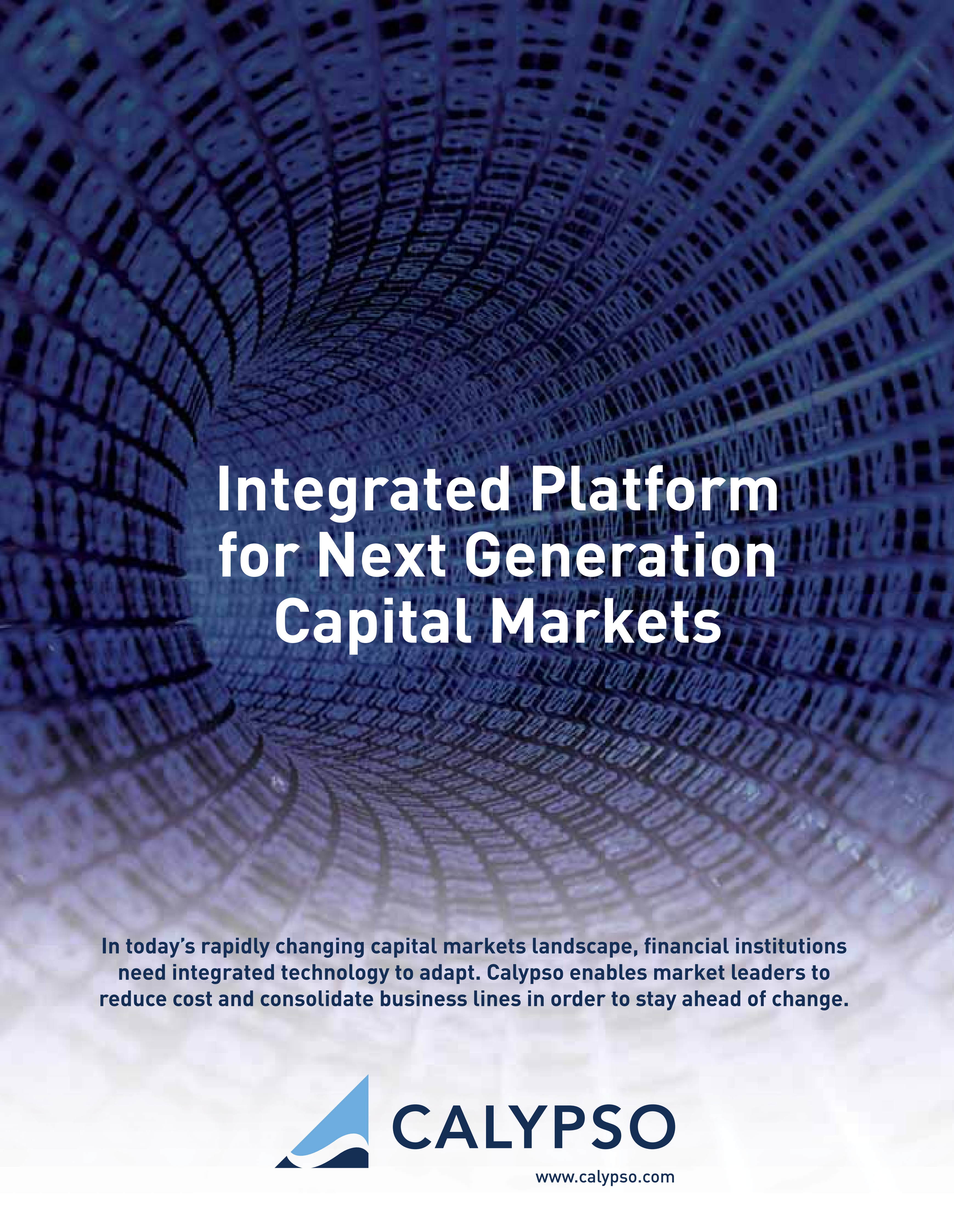
Matt Cameron

Former Fed chairman Volcker vents anger at US regulators

The fragmented US regulatory framework is "a recipe for indecision, for neglect and for stalemate", according to former Federal Reserve chairman Paul Volcker, who vented his frustration with the slow pace of Dodd-Frank Act reforms during an event at the Economic Club of New York on May 29.

"It was recognised that the Federal Reserve was ineffective in the run-up to the financial crash. Nonetheless, the Dodd-Frank Act implicitly reinforced the Federal Reserve's supervisory authority. I think it's clear now that the regulatory landscape has been little changed and the result is that we have been left with a half-dozen regulatory agencies involved in banking and finance. They all have their own mandate, their own institutional loyalties, their own support networks in the Congress along with an ever-growing cadre of lobbyists equipped with the capacity to provide campaign finance," said Volcker.

Peter Madigan


Integrated Platform
for Next Generation
Capital Markets
In today’s rapidly changing capital markets landscape, financial institutions need integrated technology to adapt. Calypso enables market leaders to reduce cost and consolidate business lines in order to stay ahead of change.
CALYPSO
www.calypso.com

Securities and Exchange Commission combats cross-border rule critics

A US Securities and Exchange Commission (SEC) official has rejected criticisms that the agency capitulated in the face of bank lobbying and watered down its cross-border rules, which include a narrower definition of 'US person' than in guidance issued last year by the Commodity Futures Trading Commission (CFTC). Critics saw that as evidence the SEC had succumbed to outside pressure.

"The suggestion that in trying to address international regulatory concerns we somehow sacrificed robust regulation is simply a reflection of a lack of understanding of the regulatory system that we are putting in place, full stop," said Brian Bussey, associate director for derivatives policy in the division of trading and markets at the SEC, speaking at an industry briefing organised by the Futures and Options Association (FOA) in London on May 15.

The 650-page proposal on cross-border security-based swaps activity was voted through unanimously at an open meeting held at the SEC's headquarters in Washington, DC on May 1. A key part of the proposal was the definition of US person – vital because it essentially determines who or what will be subject to Dodd-Frank entity-level and transaction-level requirements.

Under the proposal, a US person is defined as any natural person resident in the US; any partnership, corporation, trust or other legal person organised or incorporated under the laws of the US, or having its principal place of business in the US; and any account (whether discretionary or non-discretionary) of a US person.

Steven Lofchie,
Cadwalader, Wickersham & Taft

This is fairly similar to the current definition of US person under a CFTC final exemptive order, which came into effect on December 21 last year – the third definition of US person since the CFTC published its original interpretative guidance on the cross-border application of Dodd-Frank on July 12, 2012. However, the exemptive relief runs out on July 12 this year, and the CFTC is currently considering a much broader definition of US person that lawyers say will extend Dodd-Frank to cover a large number of entities also likely to be subject to overseas rules (*www.risk.net/2255184*).

That proposal sparked a storm of protest from market participants, who claimed the CFTC rules were extremely complex and would mean overseas firms are subject to multiple, potentially conflicting regulations. The SEC has taken note of these concerns, says Bussey.

"On the definition of US person, the staff is recommending a narrow territorial approach to the definition. Just as importantly, we have tried to make the definition easy to understand and to follow," he said, speaking when the proposal was published.

Another important aspect of the SEC rules is the concept of substituted compliance – a term introduced in the CFTC's original interpretative guidance last July. The framework is broadly similar to the CFTC's, in that non-US swap dealers, non-US major swap participants and foreign branches of US banks will be able to apply foreign regulatory requirements in certain circumstances, as long as the local rules are comparable to Dodd-Frank. However, the SEC is basing its determination of equivalency on outcomes, rather than requiring a rule-by-rule comparison of the regulations, as stipulated by the CFTC.

More controversially, the SEC proposal covers business conducted within the US. Both the CFTC and the SEC require non-US firms to register as swap dealers or security-based swap dealers if they exceed a *de minimis* notional value of swap transactions with US persons over the prior 12-month period – set at $8 billion. Under the SEC rules, however, non-US firms would have to count any transactions solicited or negotiated in the US, even if the trade is conducted with a non-US counterparty and is booked overseas. That means a foreign bank could come under the oversight of the SEC, even if it doesn't execute any trades with US persons.

This requirement – not included in the CFTC proposal – has been questioned by foreign regulators. "This is tricky because there are different approaches across all the major regulators on this, so there are real risks of overlap or underlap," said Tom Springbett, manager in the over-the-counter derivatives and post-trade policy team at the Financial Conduct Authority (FCA), also speaking at the FOA event. "The basis of the European approach on branches is to focus very much on the legal entity, because what we in Europe really care about is the robustness of the entities for which our taxpayers could be on the hook. That is not the case for a European branch of a foreign parent."

Bussey argued the rule was aimed at creating a level playing field for domestic and foreign dealers within the US, and ensuring all customers are subject to the same levels of consumer protection and transparency.

Overall, the rules have been welcomed by lawyers, who say the agency appears to be taking a more co-operative approach with foreign regulators.

"The SEC approach recognises that it is going to have to regulate the swaps markets by obtaining co-operation with non-US regulators. This is fundamentally different from the CFTC approach, which was to go it alone and to believe that if it put out its rules, then non-US entities would have no choice but to comply. Ultimately, I think this approach is impractical," says Steven Lofchie, co-chairman of the financial services department at law firm Cadwalader, Wickersham & Taft in New York.

Peter Madigan and Nick Sawyer

Regan quits Asia chief risk officer role at JP Morgan

Joe Regan has parted ways with **JP Morgan** just three months after being unveiled as the firm's new chief risk officer (CRO) for the Asia-Pacific region. He was promoted in March alongside Joe Holderness, who became CRO for Europe, the Middle East and Africa as the bank adopted a new, regional risk management structure.

A spokesperson at the bank declined to comment on the departure, but did indicate that a search for Regan's replacement is under way. It is understood that Regan was offered another opportunity in the financial sector.

Regan's career at JP Morgan stretches back to 1984, encompassing a period as the chief financial officer for the bank's asset management business. Prior to his brief final role at the firm, he was chief of staff for JP Morgan's Asian operations.

The creation of regional CRO roles was the latest in a string of management and risk function changes that followed the 'London Whale' trading losses in early 2012, when the bank's chief investment office (CIO) tried to reduce risk-weighted assets (RWAs) accumulated, in part, through the Basel 2.5 comprehensive risk measure. CIO traders engaged in a complex synthetic trading strategy that was supposed to cut RWAs and keep the unit's revenue intact. Instead, it led to an estimated loss of $6.2 billion.

As a result, Ina Drew quit her position as head of the CIO. Matt Zames, the firm's co-head of global fixed income and head of capital markets, was promoted in her stead – more recently taking on the role of chief operating officer for the bank – and Marie Nourie became the CIO's chief financial officer. Chetan Bhargiri was named as the unit's new chief risk officer. Barry Zubrow, group CRO in the years prior to the losses, retired from the industry in October last year, to be replaced by John Hogan, who has been on sabbatical since January. In his absence, Ashley Bacon, the bank's former market risk head, is acting CRO.

Other moves

HSBC has named **Dariush Mirfendereski** as global head of inflation trading for the US, the UK, Europe and Asia, effective immediately. He will be based in London and will report to Christophe Rivoire, head of North America rates trading, and Pasquale Cataldi, head of European rates trading.

Mirfendereski returned to HSBC as managing director of rates trading strategy in March this year after an 18-month sabbatical from the industry. Prior to this he was head of inflation-linked trading at UBS from March 2004 to July 2011, covering the US, UK, European, Japanese and Australian markets. Before his time at UBS, Mirfendereski helped build the inflation derivatives trading business at Barclays Capital from March 1996.

Dariush Mirfendereski: promoted at HSBC

According to an HSBC spokesperson, Mirfendereski's appointment is part of the creation of a unified inflation trading desk at HSBC, which was previously run separately in the UK, US, Europe and Asia. More focus will be put on expanding the UK and Asia franchises into other regions.

Credit Suisse has appointed **Brian Chan** as head of equity derivative sales for Asia-Pacific, replacing Min Park, whose four-year stint at the Swiss bank ended in April.

In addition to his existing sales management responsibilities for Hong Kong, Japan and Korea, Chan, who was previously head of equity derivatives retail products for Asia-Pacific, will be responsible for all structuring and distribution of equity derivatives products to private and retail investor clients in the region.

Chan will continue to be based in Hong Kong and will report to Ken Pang, head of equity derivatives for Asia-Pacific, a Credit Suisse spokeswoman confirmed.

Chan has been with Credit Suisse since 2009 and has worked in various leadership roles within the regional and global equity derivatives management team. Prior to joining Credit Suisse, he spent five years at UBS in trading and platform development roles.

Bank of Montreal Capital Markets has expanded its foreign exchange business globally, with four appointments in London, New York and Shanghai.

Greg Anderson, previously North American head of G-10 currencies strategy at Citi, becomes global head of forex strategy at the Canadian bank in New York. He will report to Ed Solari, managing director for forex sales. Anderson had been at Citi for just over two years, and before that was a currency strategist at Société Générale. He has held forex strategy roles at ABN Amro and Bank Boston, and owns a part-time forex consulting business called Harmonics FX.

The bank has also added to its forex strategy team in London, hiring **Stephen Gallo** as head of forex strategy for Europe. Gallo, who will report to Simon Watkins, managing director, forex and China capital markets, was previously a forex strategist at Crédit Agricole.

In Shanghai, **Angela Wen** joins as head of China forex sales, reporting jointly to David Mu, senior manager in the treasury function, and Lisa Xia, managing director for trading products. Wen's career spans more than 20 years and includes senior sales roles at Credit Suisse and ANZ.

Matthew Van Dyckhoff also joins the firm in forex sales. Based in London, he will cover the real-money sector. He most recently worked in forex sales at Brown Brothers Harriman.

Nomura has hired **Eric Miller** as head of interest rates sales for the Americas. He joins from Credit Suisse, where he took on a number of senior roles during a 12-year stint, most recently co-head of US dollar rates sales and US dollar swaps product manager.

Miller will be based in New York and will report to Henson Orser, head of global markets sales for the Americas.

Antti Suhonen has left his position as managing director of origination in equity and funds structured markets at **Barclays**. He had been with the bank for 15 years, and previously worked as a senior dealer for the Union Bank of Finland from 1993 to 1997. As of press time, no information was available regarding his plans.

Lloyds Banking Group has recruited **Matthew Elderfield** to be group director of conduct and compliance, a newly created position. He will start work in October this year, reporting to the chief risk officer, Juan Colombas.

Elderfield is the deputy governor of the Central Bank of Ireland, and previously worked as alternate chairman of the European Banking Authority and chief executive of the Bermuda Monetary Authority from 2007 to 2009.

"With a strong and diverse background in financial regulation and business conduct, Matthew brings a wealth of experience to the group. I look forward to him building on the work already being done through our compliance and conduct team," says Columbas.

In a speech last month at the European Insurance Forum, Elderfield pointed to a number of flaws in the Solvency II framework for insurance regulation – solvency buffers could be left too low by "overly optimistic" internal models, while complexity has "clearly gone too far" in some areas and looks set to worsen. He also indicated that the lengthy negotiation period on the new standards has led to "fatigue and exasperation" from market participants.

However, Elderfield stressed that the benefits outweighed the costs. "To be blunt: it is unacceptable that the common regulatory framework for insurance in Europe in the twenty-first century is not risk-based and only takes account, very crudely, of one side of the balance sheet," he said.

Coutts has announced the appointment of **Nigel Drury** as chief risk officer. Based in London, Drury will cover Coutts' risk management functions across all geographies of the wealth division at Royal Bank of Scotland (RBS), the private bank's owner. He will report to Rory Tapner, chief executive of Coutts and David Stephen, RBS group deputy chief risk officer. He will also continue to sit on the group risk committee and will join Coutts' executive committee.

Drury moves across from his position as group head of operational risk at RBS, which he has held since 2010. His career in financial services spans two decades, and he has previously worked in senior roles at ABN Amro and JP Morgan.

Commerzbank has appointed **Farzana Nanji** to its corporates and markets division as a director in foreign exchange bank sales.

Nanji started in her new role, which is based in London, in early May. She reports to Steffen Berner, head of forex bank sales for Europe, the Middle East and Africa, and is responsible for banks in the Middle East and Africa.

Nanji joins from Credit Suisse, where she most recently worked in the forex structuring group. She had been at the firm for seven years.

The German bank has also added **Julia Westcott-Hutton** to its forex hedge fund sales team in London. She reports to Mark Cudmore, head of forex hedge fund sales, and covers European real-money accounts, focusing on the UK and Benelux regions.

Westcott-Hutton, who has been in the financial industry for more than 25 years, recently left Société Générale Corporate & Investment Banking, where she was responsible for German real-money forex sales. She had been with the bank for 15 years. Prior to that, she was at Barclays in a similar role, focusing on the Swiss market. She has also worked at UBS in London and Zurich as a forex specialist to the Benelux region.

Lona Nallengara has been named chief of staff at the US **Securities and Exchange Commission** (SEC). He replaces Didem Nisanci, who left the SEC last December.

Nisanci's departure was one of a series of top-level resignations after former SEC chair Mary Schapiro decided to step down in November 2012. Schapiro has since been replaced by Mary Jo White, who was sworn in on April 10 this year.

Nallengara joined the SEC in March 2011 and served as deputy director for legal and regulatory policy in the division of corporation finance. In December 2012, he was named its acting director.

Matthew Elderfield: joining Lloyds

Previously, Nallengara worked as a partner in the capital markets practice group at Shearman & Sterling in New York. He also served as the firm's co-hiring partner, co-chair of its associate development committee and international associates and trainees committee, and as a member of the firm's diversity committee.

Prior to joining Shearman & Sterling in 1998, Nallengara practised in the corporate group at law firm Osler, Hoskin & Harcourt in Toronto.

Icap has named **Dean Berry** as its new chief executive officer of global broking e-commerce. Berry moves up from his role as Icap's regional chief operating officer for global broking in Asia-Pacific, and will now be responsible for defining and implementing the firm's global broking e-commerce strategy. He will report to David Casterton, head of global broking.

Credit Suisse has promoted **Joerg Schmuecker**, previously head of forex options electronic commerce and structuring for Europe, the Middle East and Africa, to global head of forex options in the private banking and wealth management division.

He began his new role, which is based in Zurich, on April 1, and reports to Urs Beeler, head of forex trading in Switzerland.

Schmuecker joined Credit Suisse in 2007 as a director in forex options structuring and trading, and was promoted to his most recent role in 2009. Before joining the Swiss bank, he was a managing partner at financial consultancy firm Ekkono. He has also worked at Dresdner Kleinwort.

Please let us know about your new appointments.
T. +44 (0)20 7968 4624
F. +44 (0)20 7930 2238
E. risk@incisivemedia.com


O.I.S. GOLDFIELDS
GOLDMAN SACHS

Goldman and the OIS gold rush

It's the untold story of the switch to overnight indexed swap discounting. As the Street haltingly adjusted to the new reality, some desks are said to have booked profits running into the hundreds of millions of dollars – earning grudging praise, or just grudges, from their peers. By ***Matt Cameron***

"They rang everyone on the Street with this one," says one head of swaps trading at an Asian bank, recalling how his firm was repeatedly asked by Goldman Sachs to step into a package of swap trades in 2008. The trades in question were two cross-currency swaps in the same currency pair – one would be out of the money for the new counterparty, while the other was flat. Goldman was offering to pay around $200 million to the bank to step in – money that would immediately be posted back to the US bank as collateral.

But it was not as straightforward as it seemed. Unknown to its prospective counterparties, Goldman Sachs had come to the conclusion that cash-collateralised trades should be discounted using an overnight indexed swap (OIS) rate – the rate paid on the collateral – rather than Libor, as was the practice at the time (*Risk* March 2010, pages 18–22, *www.risk.net/1594823*). Using the lower OIS rate to discount the trade would produce a bigger liability and ought to mean a bigger upfront payment – but a counterparty discounting at Libor would not twig.

"The problem was that everyone was valuing trades at Libor at the time, so we would have effectively been underpaid to assume the liability. It was sneaky," says the swaps trading head.

Everyone who is anyone in the over-the-counter market has a story like this. From one day to the next, the rules of the game changed – but only a few dealers knew it. Suddenly, fortunes could be won or lost on the minutiae of the credit support annex (CSA) that governs collateral posting between two counterparties. Banks that were in the know employed teams of lawyers to comb through those documents, and set up desks dedicated to trading on the information they gathered.

Was that sneaky, or was it smart? Traders, by and large, say it was smart. Some clients – particularly insurers that were asked to pay for the collateral-posting rights Goldman would lose on a trade unwind – say it was underhand. Whatever the ethics, it was massively profitable. One European bank made more than $500 million over a three-year period, according to a former trader; another ex-trader at a different European bank puts its OIS-related profits at $600 million over a similar period of time.

"We ensured we were the right way round and a market leader. We may not have made as much as Goldman but they started earlier, had the systems, and were able to be more aggressive," says the second swaps trader.

Risk spoke to six former Goldman Sachs traders to tell the story, for the first time, of how the bank – and a handful of clued-up peers – made fortunes from the switch to OIS discounting. But how much Goldman itself earned is still shrouded in mystery – and the bank declined to provide any official comment for this article. The bank's former traders also refuse to provide any numbers, but its rivals put it at around $1 billion. One of the

Illustration: Eoin Coveney, nbillustration

Goldman traders, asked about that figure, only says he "wouldn't want to understate the profitability of this enterprise".

Like any gold rush, the early months were the most lucrative. As the rest of the market gradually realised what was happening, opportunities disappeared – when everyone else was armed with the same knowledge, the gold field became a minefield. Collateral disputes multiplied, simple trade novations became a source of intense paranoia and dealers stopped backloading portfolios into clearing houses, where collateralisation practices change (*Risk* September 2011, pages 24–27, www.risk.net/2105032).

rate was working with valuations that were too low – the spread blew out from 6 basis points on January 3, 2007, to a crisis-era peak of 344bp on October 2008 (see figure 1). As a result, Goldman and others started positioning their portfolios to benefit when they made the switch from Libor to OIS discounting – they built in-the-money positions that would be magnified by the change, and tried to minimise trades with a large negative present value (PV).

This added up rapidly when applied across a whole portfolio. One ex-derivatives trader says using Libor rather than OIS to discount a $100 million notional

> "The idea is to shift money along the curve and monetise as much negative PV as possible – at the right price – by trying to unwind positions at Libor flat, or Libor plus a little, and build up as many collateralised positive replacement values as you can"
>
> Satya Pemmaraju, Droit Financial Technologies

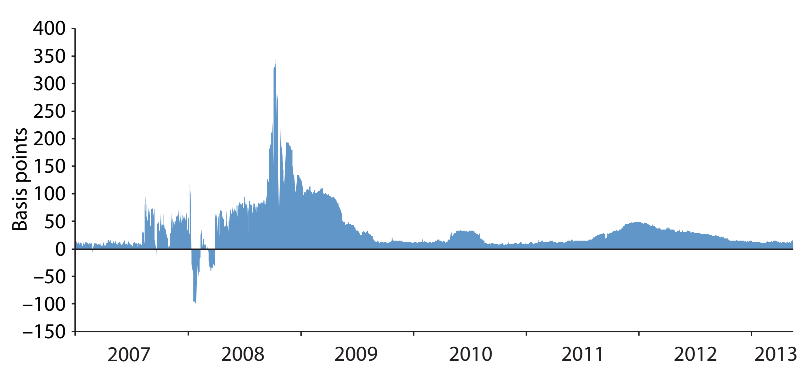
It was chaotic, unforgiving, bewildering. Traders had the time of their lives. "Everyone was fire-fighting. It was a very tense few years, and there was an awful lot of stuff going on. It had a Wild West-type feel, and it was breaking new ground. With hindsight, they were fantastic times. I learned more in those two years than in the previous 10 years of my career," says one swaps trader at an international bank.

So, how did it all play out? Put simply, Goldman and other dealers were able to profit in two ways. First, as the basis between Libor and OIS started to widen, it meant anyone using the higher Libor

five-year interest rate swap could result in a difference of around $2 million on a trade with a PV of around $10 million.

At a more complex level, dealers began to recognise the complexities associated with CSAs in which a variety of different currencies could be posted (*Risk* March 2011, pages 18–23, www.risk.net/2027812). Each currency requires a different discount rate to be used – the federal funds rate is paid on dollar cash collateral, while the euro overnight index average (Eonia) is paid on euro collateral, for example – which results in a different value for the swap. In order to optimise collateral usage, and swap valuations, a

1 Federal funds and three-month dollar Libor basis



Source: Bloomberg

dealer should theoretically post whichever currency is cheapest for it to deliver at any point in time, an embedded option that had been completely ignored up to this point, but which suddenly became valuable – especially as the cross-currency basis between dollars and euros blew out during the crisis. As a result of that basis move, it became hugely advantageous to receive dollars and post euros in CSAs – a position many banks sought to engineer.

While most dealers only started waking up to the new orthodoxy in 2008 and 2009, Goldman is believed to have identified OIS as the correct rate – and to have recognised the need for CSA-specific valuation – as far back as the early 2000s. It started building systems to deal with this new world in 2005.

"It took a lot of work to get the systems in place. But what was difficult was that because each counterparty had a different CSA, we had to read all of those agreements and build an infrastructure that could develop an individual curve for every CSA. It was essential in being able to price the cheapest-to-deliver collateral and create CSA-based discounting. This was a massive undertaking, and we had 10 lawyers who spent all their time going through CSAs," says a second ex-Goldman trader.

Once that work was complete, the bank analysed what would happen to its various portfolios in terms of profit and loss if it were to switch to OIS discounting, and then started a painstaking process of optimising and pre-positioning its portfolio to benefit from the move.

"We started to take an in-depth look at the portfolios and model what would happen if we were to flip the switch. Where that would result in losses, we looked to optimise the trades so as to protect the book," says the first former Goldman trader.

The pre-positioning of portfolios was simple in concept, and four other banks say they did something similar. Because many banks and clients were still discounting trades using Libor, which surged away from OIS rates during the second half of 2007, the present value of their positions would be a lot smaller than if the correct OIS rate was used. Therefore, a bank with a position that was significantly out-of-the-money could pay above market prices to unwind the trade, but still make money because it had paid less than the true value of the trade when seen through an OIS lens.

> "Some banks were charging for the optionality in unwinds, and I think that was very disingenuous. Essentially, these were documents signed 10 or 15 years previously to help increase business between us and the banks, and nobody back then valued the optionality" Terry Leitch, ex-Aegon

For example, if a bank owed a pension fund $100 million in 10 years' time, and the PV discounted at Libor was $80 million, the PV at OIS might be $84 million. The bank could then pay the client $82 million to unwind the trade – a better price than its peers would be willing to pay to step into the trade, but less than the true value of the swap.

"The idea is to shift money along the curve and monetise as much negative PV as possible – at the right price – by trying to unwind positions at Libor flat, or Libor plus a little, and build up as many collateralised positive replacement values as you can. When you are able to switch, those values become real and you recognise a substantial gain," says Satya Pemmaraju, founding partner of Droit Financial Technologies, and former managing director in fixed-income, currencies and commodities trading at UBS. Swaps with pension funds and life insurers provided fertile ground for this strategy – traditionally large fixed-rate receivers, falling rates left swap positions for many of these firms heavily in-the-money.

"Most dealers eventually picked up on the arbitrage," says a swaps trader at a US bank in London. "Take a lot of the European pension funds – they had massive in-the-money positions, and some wanted to liquidate those swaps because of counterparty risk concerns during the crisis. So if you were smart and discounted using Eonia rather than Euribor, you could lock in significant gains by unwinding or stepping into trades. The early movers were paying out much smaller values than they should have been, and that alerted other banks as to why they were losing trades."

Risk spoke to six insurers and pensions funds that say they received requests from Goldman and other banks to unwind or novate the trades away.

"There were definitely banks that were marketing the fact they could pay you more to unwind the trade or to re-coupon the swaps. The only question was whether that would be full OIS or not, which I suspect it wasn't. But we saw many bids better than Libor," says one head of derivatives at a US insurer.

Some dealers accuse rivals of taking advantage of clients by paying less than the true value of the swaps – with most of the criticism directed at Goldman. Its former traders defend the way the bank handled these transactions.

"We did a lot of education on this and presented papers not only to clients but also to regulators. We were offering better prices to unwind the trades than most on the Street and our clients knew why that was the case. This wasn't something we were trying to hide. Clients could also take advantage of the differential in discounting between different dealers and recognise some decent value," says the second former Goldman trader.

That is backed up by some swap end-users. "They gave us a presentation and explained the math behind it, so we knew fully what we were going into. And by the same token we were looking for opportunities too – if certain banks, like Goldman, were paying above market prices, then it made sense for us to do the trade with them. Others were significantly mispricing," says another swaps trader at a different US insurer.

Max Verheijen, head of trading at Cardano, a risk management and advisory firm that trades on behalf of institutional investors, agrees: "We definitely made use of the differences in pricing models used by banks. Often, it proved profitable novating swaps to other parties – instead of unwinding a trade with the existing party – because different models were being used for the same CSAs. We really have been able to make an opportunity profit on these transactions."

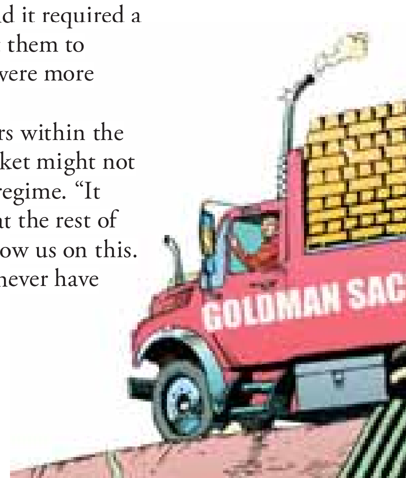
However, when Goldman did flip the switch to full OIS discounting – sometime in 2008, and two years before many of its competitors – it had a tougher time making it stick.

"Essentially, we present-valued the profit and loss that would have accrued over the life of the swaps trades, and when that switch was made and the valuations of the trades changed, we needed to receive the collateral to match those new valuations. This meant making calls to clients. There were a lot of hard conversations and upset counterparties. It took a long time and a lot of effort to educate clients and to explain how we were valuing trades and why we were calling for more collateral. It was really tough," says the fourth ex-Goldman trader.

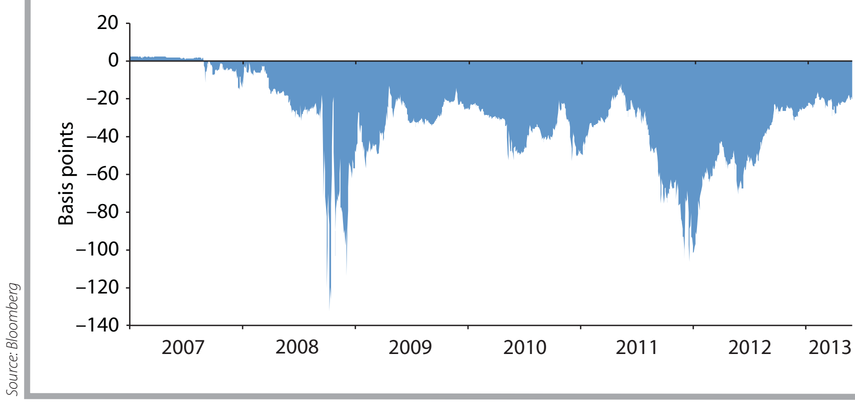
According to Goldman's 2008 annual report, the bank received cash collateral of $137 billion that year, a 132% increase on the $59 billion received in 2007. Meanwhile, the amount of cash collateral posted in 2008 was $34 billion, only a 22% increase on the $27 billion posted in 2007. Essentially, the bank's derivative assets ballooned massively in size, while its liabilities barely changed – which hints at the furious behind-the-scenes effort to optimise its book ahead of the valuation switch.

Another problem for the bank was that it became harder to compete against firms that were still discounting with Libor and producing too-low swaps prices. "This was another headache. Essentially, we would end up pricing ourselves out of the market on certain trades, and it required a lot of client education to get them to understand why our prices were more expensive," the trader adds.

As a result, there were fears within the firm that the rest of the market might not embrace the new valuation regime. "It was by no means certain that the rest of the market was going to follow us on this. The OIS-Libor basis might never have



2 Euro/dollar one-year cross-currency swap basis



spiked, and the market conventions might have stayed as they were. We were confident we were right, but the truth is we could not predict whether the market would move to this convention – that was definitely a risk," says the first former Goldman trader.

Apart from the high-level shift from Libor to OIS discounting, banks also found other ways of optimising their collateral posting – specifically, taking advantage of the widening cross-currency basis. During the crisis, this market became stressed as many European banks turned to cross-currency swaps to raise dollar funding when other avenues started to dry up – in turn, causing the basis to blow out. It became very expensive to raise dollars, but cheap to borrow euros. For savvy swap desks, this presented an opportunity (see figure 2).

As a simple example, take a swap desk with two offsetting trades, one under a euro-only CSA and the other under a dollar CSA. If the desk was in-the-money on the dollar CSA, it could in theory take the dollars it received and lend them out in the cross-currency swap market, being paid a large basis to borrow euros, which it would then post under its euro CSA. "Once you realised that euro was the cheapest-to-deliver collateral, it became completely obvious that you could optimise collateral posting so as to lock in the funding bases, and start moving your collateral around *en masse*," says Droit's Pemmaraju.

The one-year euro-US dollar cross-currency basis had generally floated around 1–2bp prior to the crisis, but widened to –21bp on June 2, 2008, and eventually peaked at –132.5bp on October 10. It has remained between –20bp and –60bp ever since, breaking out of that range a few times in late 2011 as the eurozone debt crisis again caused US dollar funding to dry up for European banks.

Prior to the currency bases blowing out, Goldman had tried to insulate itself from the risk that other counterparties would wake up to collateral-based valuation and would recognise the value of the options embedded in multi-currency CSAs. It did this by asking clients to ditch the option to post euros. Many agreed.

"A lot of counterparties were posting us dollars anyway, and we didn't want to get stuffed by being posted the worst funding collateral. For example, if you allow both dollars and euros, you are short a switch option – changing that to dollars is in your favour. We were protecting ourselves by not being short that option. And we were able to get a lot of those agreements changed with firms that may have protested if they thought about it the same way we did," says the first ex-Goldman trader.

He says the firm also used novation as an additional safeguard, giving a hypothetical example: "If I had a trade on with Bank A, which had a CSA that allowed both dollars and euros, but got Bank B – with which I had a dollar-only CSA – to intermediate the trade, I would no longer be short that switch option."

There was a sneakier variant of this – an offensive, rather than defensive, move – in which one dealer would ask a client to approach its existing bank counterparty to arrange an assignment of the trade. The result would be that the new dealer could interpose itself between the two and hoover up valuable collateral from one side, while posting less valuable assets on the other.

"It was a simple mechanism – approach clients that had trades on with other dealer counterparties with which you had advantageous CSAs, and try and get those clients to agree to the assignments. For example, if you had a euro CSA with the client that was in-the-money, but a dollar CSA with its counterparty, you could step in between and extract value," says one swaps trader at a European bank in London.

When the bases between currency pairs started to widen, other banks saw the hidden value in multi-currency CSAs. As they did so, the practices used by Goldman became commonplace – every dealer was trying to arbitrage every other, either by exercising the switch option in a CSA or, in its more sophisticated form, by playing the novation game. And while traders may have understood and recognised what was going on, back-office and operations staff often did not. Frequently, traders were frustrated that their bank was agreeing to collateral substitution requests that could turn a profit into loss. But, sometimes, there was a way out.

"There was one really special day," says the international bank's swap trader, recalling a standoff his former firm – a large European dealer – had with Goldman in 2009.

"Somehow, someone in the firm agreed to the novation of a large out-of-the-money swap portfolio from a client, leaving us facing Goldman and posting a load of US dollars, which was an awful position to be in. This was at a time when dollars were really expensive to post, especially if you had to fund through the cross-currency swap market where the basis blew out," he says.

The bank decided it was going to fight fire with fire. It combed through the details of its CSA with Goldman and, to its delight, found it could also post US Treasury inflation protected securities (Tips), which had little value as collateral.

"No-one would touch Tips, so we promptly pulled all the cash back and posted them linkers, as we had full substitution rights. They weren't pleased at all, and it threatened the relationship for a fair while, escalating to just below board level. But it was in the terms of the CSA, so we told them they would have to live with it. Everyone knew everyone else was playing these games back then. They got us, but we got them back," the trader chuckles.

Most of the early action was in the interest rate swap market, but it migrated to other asset classes later on, where traders were unaware of the implications. "I remember being asked to step into a large out-of-the-money options portfolio," says one equity derivatives trader at a European bank in London. "The bank asking for the novation said its credit limits with the other bank counterparty had been breached and it needed to reduce its exposure. But the deal didn't seem right to me, there was something fishy about it. So I stalled. I was reviewing the transaction for two weeks, and eventually figured out the trick – the bank asking us to step into the trade had a euro CSA with us, and a dollar CSA with the original counterparty. But we also had a dollar CSA with the counterparty. If we had stepped into the trade, we would have received euros, posted dollars, and bled around $15 million on the cross-currency basis."

But one of the biggest arbitrage mechanisms was carried out by backloading trades into SwapClear, the interest rate swap clearing service at LCH.Clearnet. The clearing house only accepts cash collateral in the currency of the underlying trade – so, for example, a dollar interest rate swap would have to be collateralised with US dollars. Therefore, banks could persuade unsuspecting dealer counterparties with which they had in-the-money dollar swaps under a euro CSA to backload those trades into SwapClear. The bank would have effectively performed a collateral switch from euros to dollars.

While most traders bear no grudges about all of this, some clients see it differently. In one case, an insurer that sought to unwind a trade with Goldman Sachs was told it would have to pay the bank for the loss of the option in the CSA. It became a relationship-ending dispute.

"We certainly had some issues with Goldman. When we were trying to unwind, we were seeing a much lower value from them, and they told us they were charging for the optionality. But this was no small amount – to them it was extremely valuable, they were essentially trying to add a bid-offer spread to the unwind. In the end, we didn't unwind the swap, and instead did an offsetting transaction. To this day, we don't trade with them," says one derivatives trader at a US insurer.

Others have similar complaints. "Some banks were charging for the optionality in unwinds, and I think that was very disingenuous. Essentially, these were documents signed 10 or 15 years previously to help increase business between us and the banks, and nobody back then valued the optionality. Everyone was blind to it, so for banks to start charging for it out of the blue when it goes their way just doesn't seem fair," says Terry Leitch, former head of derivatives trading at insurer Aegon in New York.

The third ex-Goldman trader says the bank always explained to clients why it was charging them, and was consistent across the board. "We tried to communicate the pricing as early as possible, and most of the insurers said they understood it intellectually, but they said most of our competitors didn't price it, and that we were being a pain in the neck. But we were doing the right thing; we were pricing the trade, to the best of our knowledge, in the correct way."

Some clients agree, but were no less unhappy – in these cases, it was simply the age-old story of a dispute between buyer and seller. "I hold no hostility towards them. I understand their business decision and the math behind it – it makes sense. But we're talking about millions of dollars here on large portfolios, and it's not something I want to pay," says the head of derivatives trading at another US insurer.

Other dealers, though, argue that while the maths might make sense, banks should not charge clients for optionality in multi-currency CSAs because the value is impossible to realise. "In order to hedge the optionality, you need cross-currency basis options, which don't trade at all – and if they did, the bid-offer spread would be as wide as Kansas. Essentially, Goldman has marked stuff it cannot trade, and if that is the case, then it is questionable whether it should be charged to clients," says another swaps trader at a European bank in London.

For the same reason, any bank that has marked the value of those options on its books – and Goldman is believed to be the only one to have done so – will see the value bleeding away over the life of the trades. But the third ex-Goldman trader says the bank was extremely conservative when marking gains on what it calls cheapest-to-deliver valuation adjustment.

"Yes, it's very tough to monetise. While you can relatively easily price the intrinsic value by looking at the cross-currency forwards, there is no market for cross-currency forward options. So when you price the option, you have to be extremely conservative. There would be no point marking something we would then bleed over the next few years," he says. ■

The morals and manners of the OIS gold rush

Trading is a dog-eat-dog profession and, in the interdealer market, there is widespread – if occasionally grudging – admiration that Goldman Sachs was first to spot the opportunities in the new valuation regime. A different standard applies to trades between dealers and clients, of course, and Goldman has been widely criticised for ignoring this distinction in recent years, treating customers as counterparties. It's a claim some of the bank's rivals make in the context of the switch to overnight indexed swap discounting, and is one that former Goldman Sachs traders deny.

Here, three different takes on the behaviour expected of a swap dealer:

■ "I applaud them. I really do. They were the smartest guys on the Street. They thought about the issues before anyone else, built the systems to take advantage of the situation and implemented it before anyone else knew what was happening. Every other bank I know wishes they could have done exactly the same. I have the utmost respect for them. And they did us all a favour in the end – you just had to make sure you weren't lunch" – the head of fixed income at an international bank in London.

■ "Between dealers, all bets are off. If they don't get it, then that's tough. If two dealers fundamentally are valuing the same instrument differently, then there are trades to be done. If someone thinks the price is X and the other thinks it is Y, then that is what creates markets. But when dealing with clients, you have to sit down with them and explain why prices are different, and why you are asking to novate or unwind trades. And sometimes, you need to waive certain charges where it is disingenuous to levy clients. Otherwise it disincentivises clients to use the product" – the head of swap trading at a US bank in London.

■ "We weren't trying to profit unknowingly off people. This was a modelling issue. We valued swaps differently and it could have gone either way. And before this was made public, we had dialogues with our customers for years, because if someone comes to unwind and they get charged a lot more, they will ask why. So in no way was there any type of unsavoury behaviour. It wasn't our intent to go out and fool people. The price did all the talking" – an ex-Goldman trader