



# "We Are a Living Knowledge Repository"

In this, our third Brickendon Journal, we hope to share with you some new developments in the financial sector, as well as some of our own thoughts and opinions about new products, market developments and regulatory changes.

Whilst many of you are already experts in some of these areas, we hope this will nevertheless act as a thought leader, giving you some new ideas and encouraging debate within your organisation about how the financial world is changing.

Here at Brickendon we strive to think ahead, and by looking at what has gone before, hope to recognise opportunities for businesses to keep ahead of the game in a bid to maintain their profits and competitive edge.

The expertise of Brickendon's individual consultants is gathered together, organised and shared internally across the organisation, providing the basis for continuous learning and professional development. Through collaboration with Brickendon's Knowledge Leadership team, consultants create and transform innovative ideas into strategic solutions which form the basis of a Brickendon Approach.

The Brickendon Approach is a distinctive, innovative and bespoke solution that can be applied to all parts of a client's business, ranging from processes through to people and technology. It is a unique way of providing added value to our clients and has been developed based on the distillation of our experience and observations, and formalised through our Knowledge Leadership function.

Within the last 12 months, we have grown our Knowledge Leadership function from a pure research facility to a knowledge sharing centre, producing unique case studies and innovative solution papers, as well as a series of training materials. Today, the KL team underpins our consultancy and serves as a platform where the experience, ideas and observations of individual consultants can be gathered together, organised and shared across the organisation.

This living knowledge repository provides the basis for professional development for all of our consultants and ensures everyone is kept briefed and abreast of all subjects, even areas outside of their specialisms.

Most recently, the Knowledge Leadership team initiated the production of this, our Brickendon Journal, aimed at sharing the knowledge and expertise of our specialised consultants with new and existing clients in a less formal manner.

With the help of our KL team, which comprises experienced writers and researchers, our consultants have been able to turn some of their thoughts and ideas into articles with the aim of provoking a new thought, idea or discussion amongst our clients. The overall goal is to foster the culture of innovation, helping our consultants to think outside of the box and encouraging them to solve an old problem in a new way.

This generates a win-win situation for all, as Brickendon consultants benefit from sharing their ideas, and clients reap the rewards of the shared ideas in the form of bigger, better and more efficient bespoke solutions to help their businesses outperform in all environments.

We hope you find the articles in this third edition of the Brickendon Journal both interesting and informative and we are always keen to hear from you, our readers, with any suggestions you may have as to how we could help you develop your business.

Nathan Snyder Brickendon Director and Head of the KL Function "Reap the rewards of shared ideas."



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### Is There Life After Banks for the Commodities Sector?



#### What do Barclays, JP Morgan Chase, Standard Bank and Morgan Stanley have in common – aside from being large international investment banks?

They have recently sold off all or part of their commodities businesses.

Barclays, previously one of the largest banking players in the sector, in April announced it would sell most of its commodities and energy trading operations. This came hot on the heels of JP Morgan Chase, which in March sold its physical commodities division to a private trading firm based in Switzerland. Standard Bank sold its London-based commodities division to Industrial and Commercial Bank of China in January and Morgan Stanley kicked off the trend by selling its physical oiltrading division to Russian oil giant Rosneft back in December.

So what is going on? According to Chris Burke, managing director at Brickendon, commodity trading is no longer such an attractive proposition for investment banks.

"Regulators seem to have approached this business from two stand points," says Burke. "Firstly they have taken the view that the systemic risk of a failing financial firm being in the physical commodity business poses substantial risks to the nonfinancial economy, and secondly, they have decided that banks shouldn't be involved in the whole commodity-value-change from the physical business to derivatives and hedging."

While the first point is subjective, as a sizable failing bank will in any case impact the wider economy, Burke is quick to add that the second point ignores the increasing impact and dominance of non-banking trading houses like Glencore-Xstrata, Vitol and Trafigura who often own all or part of the whole value chain.

The move by many banking institutions out of such operations comes amid tighter regulation, prompted by the implementation of Dodd-Frank in the US and EMIR in Europe, as well as higher capital requirements in the form of Basel III. The Volcker Rule, part of Dodd Frank, bans banks from the proprietary trading of securities and derivatives, including commodity derivatives.

Slender volatility has also contributed to a lack of client hedging and trading opportunities, denting the revenues of bank commodity desks and making the investment needed to remain in the market much less attractive.

According to research firm Coalition, commodity-trading revenue for the ten biggest banks fell by more than two thirds to \$4.5 billion last year, from more than \$14 billion in 2008. In 2012 the figure was \$6 billion and \$8 billion in 2011. The headcount on commodities trading desks is now almost a fifth lower than it was three years ago, Coalition said.

However, it is worth noting that in addition to the increased regulatory burden, this could also be attributed in part to collapsing volatility in the oil and gas sector following the shale revolution in the US and weak demand during the post-crisis recession, especially in Asia.

Add to that increased concerns about risk and more focus from the regulatory authorities with regard to price-fixing opportunities, and banks may feel they have enough to contend with.

"What is important to note is that when volatility is low there is little need for firms to hedge" says Burke. "But when volatility returns and the hedging options are reduced and costly, then this will impact non-financial firms substantially.

"Not being able to hedge your risk in a commodities market will cause pain outside of the financial sector and this cost remains unknown and currently seems beyond the concern of the regulators."

In fact, this opens up a wider debate about what banks should be involved in. In the US, Democratic Senators have urged the Federal Reserve to prohibit banks from trading, warehousing and transporting oil, metals and other commodities, saying the businesses create a conflict of interest and pose a risk to the financial system that could in turn harm consumers.

Back in January, the Fed sought public comment, saying it had serious concerns about





banks' ownership of physical commodities, citing the BP oil spill in the Gulf of Mexico in 2010 and other environmental disasters, but it has so far failed to make a definitive ruling.

Federal law already restricts banks from owning non-financial businesses unless they have special exemptions.

By contrast, the National Association of Corporate Treasurers, representing companies including Boeing, Hershey and Dow Chemical, wrote a letter to the Fed saying that banks help them hedge risks in commodities and they will not easily be replaced if they are driven out of the business because of increased regulation.

Others, including the Securities Industry and Financial Markets Association and the Financial Services Roundtable, agree, arguing that having banks in the commodities business helps such operations by increasing competition and improved liquidity.

So what is the impact of these banking players leaving the market, and what does it mean for the sector in the long run?

While the reduction in the number of players in the market is impacting liquidity, it is also creating opportunities. New players, such as Hong Kong Exchanges and Clearing, which used to focus on equities but bought the London Metal Exchange in 2012, is already planning to offer local futures contracts for zinc, copper and nickel (in Chinese renminbi) and for thermal coal (in dollars).

Large energy trading firms, including BP and Shell, could also see it as an opportunity to become more heavily involved in the trading side of the commodities sector. Both companies have energy trading arms that registered this year as swap dealers under the Dodd-Frank Act, a status that allows them to market their risk management services to end-users.

Moreover, major commodities players such as Glencore-Xstrata, Mecuria and Vitol, which have been less affected by the sweeping regulatory overhaul, look well positioned to increase their activity in the range of commodities to fill the space left by the retreating banks. The impact of this is already leading to wider spreads and more costly hedging - and this is in a low-volatility market.

The real impact of the banks' exit from the sector will not be known until volatility returns to the market.

### What Does the Introduction of T2S Mean for the Post-Trade Landscape?

More than ten years after the introduction of the Euro and despite the creation of a single currency area across 17 countries, the provision of post-trading services remains highly fragmented. As well as being a drain on technological and financial resources, the lack of uniform market practices are a major factor in higher systemic risk. (*See figure 1*)

There are currently a number of Central Securities Depositories (CSDs) of varying sizes for each local market, both within and outside of the Eurozone. The latest figures from the European Central Bank, show that in 2009 there were 59 CSDs, leading to gross inefficiencies in post-trade securities processing. (See figure 2)

"T2S is expected to bring about significant changes to the current operating model...."

In response to this, the ECB has introduced a new initiative called Target 2 Securities (T2S), with the aim of creating a Single European Financial Market. By creating a platform that offers local and crossborder securities settlement services to CSDs - something that currently generates significant revenue for local market custodians - T2S is expected to bring about significant changes to the current operating model of the CSDs, global custodians and local agent custodians when it goes live in 2015.

This article looks at the current operating models of the three main industry participants in the securities settlement market that are likely to be impacted the most as a result of the introduction of T2S, namely Central Counterparty Clearing Houses (CCPs), CSDs and global custodians. It also highlights potential changes within the securities settlement industry after the introduction of T2S. (*See figure 3*)



Figure 1: shows the disparity between the post-trade landscape in the EU and the US (Source - ECB http://www.ecb.europa.eu/paym/t2s/about/about/html/index.en.html)

#### CCPs (Central Counterparty Clearing House)

Following the introduction of new rules on the Interoperability of CCPs by the European regulator ESMA in March 2013, the clearing market has already started to see consolidation. The merger of EuroCCP and EMCF, announced in March 2013, reflects the change required within the clearing landscape, pushed forward by the Interoperability initiative. (This new legislation required each CCP to apply the same daily risk management methodology it applies to its interoperable CCP positions as it does for its member positions.)

For CCPs wishing to generate more revenue, the next focus is expected to be increased presence in the entire vertical value chain of the securities market (i.e. clearing, settlement and asset servicing). The London Stock Exchange, which owns London Clearing House or LCH's CCP, announced in July 2013 that it plans to open a new Luxembourg-based CSD, which will provide a full range of settlement and custody services for the Eurozone. This expansion by the CCP, along with the vertical value chain, is also in part driven by EMIR's new CSDR legislation. However, the contribution of T2S in the decision for vertical expansion will likely be quite substantial both with and without EMIR's CSDR.



Figure 2: Shows the current complex and fragmented landscape of EU Settlement market.



Figure 3: Shows the streamlined and consolidated EU Settlement market as a result of the introduction of T2S as a single platform for settlement of securities across all of Europe

#### CSDs (Central Securities Depository)

The settlement of securities forms a major part of the revenue stream for CSDs. With cross-border and local settlement services now expected to be performed by the T2S platform, with a uniform price across all European markets, the requirement to settle through different CSDs is eliminated since all CSDs will be connected to the T2S platform. Market participants (buy-side firms, custodians etc.) can connect to the T2S platform for settlement either directly, or via any one CSD, to gain access to the whole Eurozone.

Therefore, for the CSDs remaining in the post-trade environment once T2S has gone live, the volume of settlement flows may primarily define whether it decides to consolidate or diversify:

- Consolidation: In smaller markets where the settlement flows are likely to remain within a single country, the smaller CSD may prefer to merge with a larger CSD or multi-country CSD in order to achieve critical mass.
- Diversification: A smaller or single-country CSD with sub-optimal scale may look to diversify into specialized services to achieve higher margins on revenue, e.g. by providing specialist asset-servicing, tax services, or legal transaction services.

#### Global Custodians

The true impact of T2S on global custodians like JPMorgan, BNY Mellon, State Street, or Citi, and their likely strategies may remain unknown until quite late after T2S is introduced, mainly because these companies are organized globally. However, below are some possible paths that the global custodians may follow:

- Consolidation: Unlike the consolidation discussed earlier, this relates more to the consolidation of the custodian's local-agent networks in the Eurozone. The larger global custodians are more likely to seek access to the T2S platform directly, or via a CSD, as they can afford to make the required significant investment in infrastructure. It is also possible that they may seek to form alliances or partnerships with CSDs that fit their business models.
- Status Quo: This is more likely to be adopted by smaller global custodians for a shortto-medium term period after the introduction of T2S as they don't have sufficient investment capabilities but can still remain competitive using local-agent networks. However, maintaining a full status quo over a longer period of time is unlikely, as further regulations may drive the cost of settlement and custody higher, thereby affecting the already shrinking margins of smaller global custodians. The consolidation of smaller competing global custodians may also impact the settlement volumes and business models of the smaller players.

What actually happens when the T2S platform is fully implemented remains to be seen, but one thing that is certain is that the current custody and settlement landscape can expect to see a significant and fundamental change in the near future.





Financial markets are all about regulation today. The constant stream of new rules in different jurisdictions requires significant time and resources, which can easily take the focus away from growing the business and making money. Brickendon's highly-experienced consultants can help you align the two aspects, keeping your business ahead of the competition and ensuring it is ready to tackle the challenges of tomorrow.



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# Ecuador Goes Digital

If you don't know where Ecuador is, then you should investigate. Located on the equator of South America, sandwiched between Colombia and Peru, it's a small country exhibiting great contrasts of beautiful scenery, from jungles and beaches to volcanoes and the Galapagos Islands.



However, Ecuador and its president, Rafael Correa, are about to be known for something else of wonder – the world's first digital currency issued by a bank.

If all goes to plan, in December, Ecuador aims to adopt a new domestic digital currency, which will be used alongside the US dollar. The way has already been paved with the approval over the summer by Ecuador's National Assembly, and the consequential banning of Bitcoin and other non-centralised cryptocurrencies.

The exact details of the new currency have not yet been released, but

Fausto Valencia, the official in charge,has stressed that it won't be a so-called cryptocurrency like Bitcoin. It is likely to be based on technology already used by mobile phone companies in Paraguay, with the amount created to be led by demand. A monetary authority will be established to regulate the currency, which will be backed by "liquid assets."

The electronic currency is designed initially to be used with mobile phone technology, allowing the poorer Ecuadorians who cannot afford traditional banking, to make and receive payments more easily, much like some of the privately-run initiatives in Africa. An estimated 3.5 million people, equal to 27 per cent of the country's population, are believed to be in poverty.

It is likely that the new digital currency will follow one, or a combination of, the following three models:

Bitcoin: The digital currency could be capped to restrict the circulation, and in effect, the possible dilution of funds by the government. This has been highlighted as a possible negative aspect of Bitcoin, but something which may actually appeal to the Ecuadorian government and their US debts. It would allow members of the public to mine the currency and therefore help improve and maintain the infrastructure at minimal cost.

M-Pesa: Developed by Vodafone for Safaricom in Kenya, M-Pesa has now spread across parts of Africa, Eastern Europe and Asia. It is a method for conveniently transferring money at reduced costs via mobile phones. It functions without the need for a smartphone and would easily be adoptable.

#### "The use of the currency is to be voluntary"

Estonia: The country has issued all residents with digital ID cards, which are linked to more than 600 e- services, ranging from paying for public transport, to filing tax returns and banking. Thanks to the high levels of encryption, there has been no reported security breaches in the past 10 years. It would take considerable investment to replicate this in Ecuador, but would allow for ease of payments concerning taxes, utilities, refunds and other bills. However, this would also no doubt require some sort of registration system, removing the anonymity that has always been seen as an advantage of a digital currency.

Ecuador has had some problems with its own currency in the past. For most of the last century its fiat currency, the Sucre, depreciated, with a climax in 1999, when the Sucre lost 67 per cent of its foreign exchange value during the year before dramatically losing 17 per cent in a week, to start the millennium at 25,000 per US dollar. Dollarization was implemented shortly after, becoming legal tender





in March 2000 in association with Ecuador's own centavo coins produced for the fractional units.

This resulted in stabilization of the currency and cut short the rapid inflation which in turn led to stability and growth in the economy, primarily in the exploiting of large domestic oil deposits. It also brought with it a variety of problems as the adopted currency wasn't designed for such tropical conditions or the rural living in which it was now commonplace and led to rapid degradation. As a result, the dollar coin became increasingly popular and the familiarity of the note was lost, leading to a flood of counterfeits in the market.

Sucre / Dollar Historical Exchange Rate, 1995 to 2000

Although the major problem has been Ecuador's inability to devalue its currency and the fact that its exports are in the hands of American monetary policy, dollarization also failed to curb any of the country's previous inherent issues, such as corruption, political instability or the government's spending problem. In recent years it is estimated that more than 10 per cent of GDP has been spent on public infrastructure projects and social spending in an attempt to reduce poverty in the country.

In addition, analysts are concerned about the level of sophistication of the software and programmers behind the proposed new digital currency. Bitcoin had a dedicated team of thousands, including some of the brightest crypto technologists around the world, yet it



was still hackable, and this was an evolutionary development in contrast to what appears to be a reasonably quick implementation by the Ecuadorian government following the July legislation.

There are also worries that unlike Bitcoin, the new currency will be based on a centralised closed source and controlled by the Ecuadorian government, which given Ecuador's history, could leave it open to manipulation. It also prompts several questions, such as: who will control the exchange rate? And how will the exchange rate versus fiat currencies be set? Not to mention the fact, that this will be the first time in 15 years that the Ecuadorian Central Bank has managed its own currency.

Some commentators believe that this is the first step towards Ecuador abandoning the dollar, although this is denied by Correa. According to Bloomberg, Ecuador has borrowed more than \$11 billion from China since the country's default in 2008, and would benefit from increased alternative financing sources.

If the sceptics are correct and Ecuador is planning to use the new digital currency as a means to repay its current deficit, then it is very likely that the previous problems associated with the Sucre could rear their ugly heads again. But if the government find a way to make the financial system more accessible, faster, easier and less corrupt, then this could be a very good thing for Ecuador's future.

So while the details of exactly how the new currency is to be implemented and what impact it will have on Ecuador's economy and prosperity remain unclear, there is one thing that is for certain: the process and its progress will be very closely watched around the globe and whether it's deemed a success or a failure, the concept will no doubt be copied many times in the future.



## Should I CoCo?

In 2009 Lloyds Banking Group raised \$21 billion of capital, including \$7.5 billion of 'enhanced capital notes'; known as CoCos (contingent convertible bonds). At the time, Lord Turner, chairman of the Financial Services Authority (FSA), spoke in favour of this new credit instrument, citing it as a major factor in a "more boring, less profitable banking system".

Now, in 2014, the Financial Conduct Authority (FCA), the regulatory body that superceded the FSA in the wake of the 2007-08 financial crisis, is restricting the sale of CoCos to exclude retail investors. So why the change of heart? When did the 'boring' investment become such a risk?

"A major factor in a more boring, less profitable banking system".

Banks have traditionally relied on debt in order to achieve a higher share price and greater return on equity through leverage. On the other hand, regulators insist on an equity cushion to ensure stability.

To solve this problem, the convertible bond was created. Whilst essentially being debt, convertibles could count towards capital ratios and therefore help meet regulatory requirements.

In theory, convertible bonds were structured so that in times of crisis, bondholders would share some of the pain of stockholders. However, in practice this didn't happen, and when the 43 per cent government-owned Lloyds looked to improve its capital ratio, the FSA was happy to support the creation of CoCos to achieve this.

CoCos are bonds that convert to equity based on credit events. The most common CoCos are ones that convert when Tier 1 Capital Ratios fall by a certain percentage (e.g. 5 per cent).



Post financial crisis, a number of factors have led to the increased popularity of CoCos. For one thing, banks have been looking for means of improving capital ratios and credit ratings, particularly in advance of the recent rounds of stress tests. CoCos have been equally attractive for investors as CoCos have higher yields in order to compensate for credit risk. The search for yield that has benefitted peripheral Eurozone government debt has also helped the CoCo market.

Whilst CoCo yields have fallen recently, they are still high compared to other investments. The FCA is concerned that unsophisticated investors will not be able to adequately assess the risk as credit risk is typically problematic to assess. The CoCo market compounds this problem due to the non-standard contracts and multiplicity of discretionary elements.



CoCo Value Factors

The FCA is not the only one with concerns. Others are worried about CoCos' ability to trigger a credit 'death spiral'.

CoCos with insufficient trigger discretion could have the same impact as a more serious credit event and cause a loss of confidence in the issuing bank. This could in turn lead to a drop in share price and a return to the credit-crunch concerns of an institution being 'too big to fail'.

Whatever the final outcome of the CoCo experiment, it is clear that for now the UK regulators are becoming more wary of these hybrid instruments. It remains a space to watch.



### What Happens When Your Company Share Price Hits \$200,000 a Share?

Berkshire Hathaway, Warren Buffett's company, in August passed the \$200,000-a-share mark for its A class stock, valuing it at around \$327 billion and making it the fourth-largest company on the S&P 500 index. This landmark comes nearly eight years after the shares first crossed the \$100,000 level in October 2006, and vastly overshadows the near 40 per cent increase in the S&P 500 over the same time period.

But why should we care? What does the high share price mean for potential or existing investors? And is Buffett ever likely to implement a strategy to reduce it?

Both Berkshire Hathaway and Buffett himself frequently feature in the international press and it is easy to see why. Headquartered in Omaha, Nebraska, Berkshire Hathaway, has grown from a small textile manufacturing company to an American multinational conglomerate with stakes in an array of companies, ranging from BNSF, Heinz, Mars and The Coca-Cola Company through to Wells Fargo, American Express and IBM. It has averaged an annual growth in book value of 19.7 per cent, has minimal debt, and hasn't paid a dividend since 1967. Buffett meanwhile takes a salary of just \$100,000, is heavily focussed on the long-term strategy of the company, and has been named by Forbes as the world's third-richest person.

Buffett purchased Berkshire Hathaway in a rare display of emotion in the 1960s. He was in the process of selling the company due to the poor performance of the textile operations, but a dispute over the sale price concluded with him taking control of the firm in 1965 at an average purchase price of \$14.65 a share. Since then he has grown the company into the diversified conglomerate it is today.

In addition to not paying a regular dividend, Buffett has also refused to split the A shares, a stance whose motive has been frequently questioned by investors and analysts.

A share split is where a company gives a certain number of new shares for each existing share owned by the shareholder. As no money actually changes hands, the net worth of the company doesn't increase or decrease. The process simply reduces the quoted price of the shares as there are more shares in the market.



Stock splits are not unusual and have traditionally been quite popular amongst rapidly growing companies.

For example, earlier this year, Apple and Google both split their stock. Back in June, Apple initiated a 7-for-1 stock split, closing on Friday 7th at \$645.57 and opening the following Monday at \$92.14 (or thereabouts). The aim was to incentivise potential retail investors to buy the stock, assuming they would see Apple shares below \$100 or even \$200 and want to buy in. Splitting the stock also increases liquidity, which opens the stock up to more buyers and sellers, and encourages high-frequency players into the market. "Buffett has spent his entire life living and breathing the benefits of compounded returns"

Until 2010, this lack of liquidity had prevented Berkshire Hathaway, despite its size, being added to the S&P 500.

Buffett, who recently turned 84, has defended his decision not to split the A shares and has spent his entire life living and breathing the benefits of compounded returns. He has said that reducing the stock price and encouraging firms and individuals to buy and sell it might incentivise them



to make a quick buck - something he is very much against, and one of the main reasons he has cited in the past for not splitting the stock.

Companies can also do reverse splits as RBS did in 2012 when the bank initiated a 10-for-1 reverse split consolidating its share price with the aim of boosting the stock. Moreover, a reverse split also gives a false impression the stock is doing well, as people might remember it 10-times cheaper in the past.

Another challenge facing firms that fail to split their stock is employee incentive programmes. Firms often give employees the option of purchasing stock in their company at a 10-20 per cent discount to the prevailing market price. But even with a 20 per cent discount, how long would it take the average employee to pay for a \$200,000 share?

Buffett's own argument about not wanting to encourage trading was thrown out of the window when he created the B class shares in 1996. There was a possibility of some unit trusts being set up to track the A stock and enable those who couldn't afford the A class shares to trade in the company's stock. To prevent this happening, Buffett created B class shares, which have less voting rights than the A class stock and have been split at key times during the company's history, such as during takeovers when a lower price is advantageous.

However, perhaps the greatest reason why the A class shares have never been split can be summed up by Buffett himself as recently covered in the Wall Street Journal. "My ego is wrapped up in Berkshire," Buffett told Fortune magazine in a 1988 cover story. "...I can gear my whole life by the price of Berkshire."

So, it is quite likely there will be many more years of appreciation in the Berkshire Hathaway share price, and a bet against it going further still could be seen as risky. Indeed, as long as Buffett is at the helm, who knows what we could see? It could be unwise to bet against a potential \$1 million a share.





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### Equity Giant Finds its Voice; Will Others Follow Suit?

"There is a growing trend for pension fund managers to take a more active role" Norway Oil Fund (Oljefondet), one of the world's largest pension funds, will start publicising in advance the way it plans to vote at company meetings. Until now, the legendary fund – second only in size to Japan's Government Investment Fund, according to Bloomberg data – has waited until after a company event to reveal how it has voted.

While the idea is not new - there is a growing trend for pension fund managers to take a more active role in their investments, it has been slow to take off in Europe. In the US, there is already an increased tendency for pension funds to publish detailed voting intentions on their web pages and fly round the world to make that voice heard. A particular bugbear addressed in this way is executive pay.

Oljefondet, which manages assets of more than \$880 billion, including holdings in Nestle, Royal Dutch Shell and Apple, various property investments and a variety of government and company bonds, already has a reputation for challenging accountability at some of its investments and is closely watched by many investors and asset managers. The fund's progress will no doubt now attract even more attention, and it will be interesting to see whether the tendency for increased transparency starts a trend.

The story of Oljefondet started when geologist Farouk al-Kasim left Iraq in 1968 to travel to Norway to ensure his youngest son, born with cerebral palsy, could get the treatment he needed. The story goes, that on arrival he had a day to kill in Oslo and so went to the Ministry of Industry to see if they were aware of any oil companies coming to Norway. This simple enquiry quickly turned into an impromptu interview with the members of Norway's nascent oil administration – all three of them. Al-Kasim left that day with the job of reviewing the North Sea exploration results. "The fund already has a reputation for challenging accountability"

At this point, most companies and even the Norwegian government itself had largely given up on finding oil. A government geological survey had dismissed the idea 10 years previously and a serious mining accident had made natural resources a political hot potato.

Companies too had searched and come back dry. Phillips Petroleum was the only organisation left still drilling and even it had asked to be relieved of its obligations. Al-Kasim and the oil administration refused its request, and in December 1969 Phillips declared the Ekofisk field – currently producing 300,000 barrels per day.

This and subsequent discoveries have led to Norway becoming the world's sixth-largest net exporter of oil. However, the discovery of oil is often associated with significant social, political and economic issues.

The Economist coined the term 'Dutch Disease' to describe the effects of the 1959 discovery of the Groningen gas field in the Netherlands. In this instance, increased revenues from natural resources and increased wages led to a shift of development focus away from manufacturing and towards extraction. This in turn strengthened the currency, making Dutch exports more expensive and imports cheaper.

Allowing foreign companies to exploit the resource can lead to the host nation seeing little in the way of revenue. Alternatively, total government control can lead to bloated bureaucracy and rentseeking, rather than profit-seeking, behaviour. In extreme cases, the so-called Dutch Disease has caused internal conflict and economic crises prompted by revenue volatility. In Norway, Al-Kasim played a



crucial role drafting a white paper that was quickly passed through parliament and turned into law. The paper established both the Norwegian Petroleum Directorate (NPD), the regulator, and Statoil, the national oil company. The trick here was to make the two institutions completely separate, with NPD providing rigid control over both Statoil and the private companies competing for a slice of the pie.

#### "These sensible, ethical policies have held"

Another major plank of the white paper was to limit the rate at which oil is drilled. If a flood of oil leads to an increase in currency value, leading in turn to a decrease in competitiveness of other industries, then Norway reasoned that they should downgrade the flood to a steady flow.

As a result, Norway has instituted limitations on the license blocks allocated each year and enforces regulations that maximise the extraction rate from those blocks. Whilst the average extraction rate worldwide is 25 per cent, Norway manages an average of 45 per cent.

Even more amazingly, Norway refused to funnel the oil profits into government spending – no new roads, new schools or other

vote-winning investments. In fact, all government parties agreed that oil policy would never be a subject of debate during election campaigns. Instead, the money was initially re-invested in the industry to develop the technology necessary to fully exploit the resources to hand. And once the industry was underway, the investment switched to the oil fund now called Oljefondet.

The remarkable thing is, that these sensible, ethical policies have held to this day. Oljefondet's recent voting record shows a keen interest in avoiding excess payment packages and a hawk-like attention to audits. Many activist investors and others in the ethical investment movement are keen to align themselves with the fund and its practices.

Oljefondet's latest announcement prompts the question of whether others will follow suit and many commentators are now predicting an increase in shareholder rebellions, especially in the companies where Oljefondet holds a significant stake.

Whether this will actually materialise remains to be seen, but there is no doubt that it will definitely be a space to watch.



"Commentators are now predicting an increase in shareholder rebellions"



# Regulation Hinders Technology Progress in Banking Sector

From its Babylonian roots, two primary forces have shaped banking: regulation and globalization. Today's regulations are extremely complex and ever changing, but they also serve many disparate goals, some of them oddly conflicting. By contrast, globalization has primarily exerted an expansionary influence and helped to level the regulatory pressures over time.

"Regulation inhibits the adoption and use of technology in its most disruptive form"

Upon reflection however, the tension between regulation - rooted in a national regulator and its government's domestic interests - and globalization, becomes one of the primary forces inhibiting and confusing the role of technology in banking. Regulation inhibits the adoption and use of technology in its most disruptive form. It forces the inventors, creators, and developers of technology to play within a confined arena, rendering disruption a remote possibility.

Today's banks are facing the challenges of tightening budgets and continuous demands to reduce costs, while at the same time handling the constant stream of new regulations. Examples include Basel III and European Banking Authorities CRD IV, as well as the Monetary Authority of Singapore (MAS) regulatory requirements. They are under immense pressure to meet the increasingly complex demands of the real-time, digital customer. Technology is inevitably playing a core role in helping them address these issues.

Missing the regulatory deadline not only puts them at a liquidity risk but it also impacts the bank's reputation and hence, the share price. But in the midst of this race, are we ignoring the long-term strategic solutions and enforcing less-favored tactical solutions on our clients and traders?

"Focusing on the deadlines leaves less opportunity for new innovative solutions to emerge," says Priyanka Parekh. "As a result, banks need to strike a balance between making money, ensuring



there is substantial liquidity and meeting regulatory deadlines, as well as keeping the client happy."

Unfortunately, maintaining the balance between technology and meeting regulatory deadlines is not easy. As banks focus on regulatory changes, the technical architecture is put on the back burner. Moreover, as compliance and maintenance costs rise, budgets shrink and large investments in new platforms become more difficult to fund. This also makes it difficult for banks to invest in new technology and strategic solutions.

Regulatory compliance is a drain on a bank's technology investment budget, as is the maintenance of existing systems, and it leaves little capital for developing truly transformational technologies. This goes a long way to explaining why banking doesn't have a reputation for being the most innovative of industries.



The speed at which technology advances makes it almost impossible for regulation-laden banks to keep up. This makes the decision over which technological innovations to adopt all the more important. While banks can be thought of as technology companies to a certain extent, the main difference between them and a pure technology company is that banks are heavily regulated.

"Makes it almost impossible for regulationladen banks to keep up" The way forward could be for banks to introduce new compliance requirements across all operational layers and align their IT infrastructure. Handling each regulatory requirement separately by adding patches to the existing architecture is very expensive and makes the IT infrastructure even more complex and unwieldy.

According to a recent report released by SAP, there is a growing disconnect between the expectations of regulators and banks' actual ability to meet compliance and reporting requirements. In addition, various regulatory bodies have admitted that existing IT infrastructure is not sufficient to cope with the required levels of risk and liquidity reporting.

Indeed, one regulator stated: "IT budgets have to significantly increase to meet the current and future requirements." It would

seem the sector is aware of this, as 61 per cent of the banking professionals surveyed said they expect to see their IT budget grow by at least 25 per cent over the next three years.

Given the current environment, banks are certainly exploring areas of collaboration with a view to relieving cost pressures and there is no doubt that pooling resources and shared utilities are becoming increasingly attractive options.

One such example is the Society for Worldwide Interbank Financial Telecommunication (Swift) KYC Registry, a project in which Deutsche Bank is participating. As things stand, there is a lack of standardised, on-demand sources for up-to-date KYC information – resulting in huge numbers of document exchanges and duplicated costs and efforts. Swift itself has stated that the 7,000 banks involved in correspondent banking on Swift have more than one million individual relationships, meaning that more than one million document exchanges are taking place. "The banking industry must be faster in its adoption of new technology"

There is no doubt that the banking industry must be faster in its adoption of new technology if it is to ensure regulatory compliance. "Banks must change the way they think about things," says Parekh, citing outsourcing as a good example of this.

Traditionally, outsourcing was promoted as a way of reducing costs by transferring projects to an external service provider. The reality has been somewhat different. Application complexity, disparate architectures, poor data management and bad business processes were passed on, negating many of the advantages of outsourcing.

Villains of the 2007-2008 financial crisis are plentiful, with greedy bankers and weak regulators topping most lists. In response, there is a push among governments and banks to harmonize the main aspects of global banking regulation. In fact, the Dodd-Frank Act already recognizes its own limitations in extraterritoriality and incorporates the concept of harmonization.

Moreover, as banks rise from the ashes of the crisis, consolidation will continue to leave the problem of too-big-to-fail ever present, necessitating more cooperation between banks and regulators in developing countercyclical tools and resolution scenarios.

In an environment where global economic and domestic regulatory forces demand greater cooperation between banks and regulators, why not consider spending a little money on R&D and IT infrastructure for standardization of risk and liquidity management?





#### What Does Data Protection Mean for Global Business?

Divulging personal details to individuals or companies has taken on a different meaning since June last year, when Edward Snowden, a former contractor for the CIA, leaked details of alleged extensive internet and phone surveillance by American intelligence authorities.

The US National Security Agency (NSA) was allegedly found to have tapped directly into the servers of nine internet firms, including Facebook, Google, Microsoft and Yahoo, to track online communications, as well as monitoring phone calls.

Following the revelations, particularly regarding the NSA's alleged monitoring of various foreign leaders, many national governments have focused on increasing the ownership of data, which originates from, or is collected or stored in, their jurisdiction.

When Brazilian President Dilma Rousseff found out she was on one of the NSA's surveillance lists, she cancelled her visit to Washington and requested that her parliament speed up the process of enacting a privacy law. In April this year, the Brazilian lower house passed the bill, which among other things, dictates the location of servers tasked with collecting data from Brazil, and limits the metadata that can be collected from Brazilian internet users.

Meanwhile, German Chancellor Angela Merkel has expressed her desire to set up a European communication network with the aim of developing a unified response. In the EU, legislation has recently been updated to prohibit cross-border data transfers, meaning companies are no longer able to transfer or share data concerning EU citizens with non-EU countries without approval from an appropriate EU authority.

Interestingly, different nations have different priorities when it comes to data protection, and as a result, legislation varies dramatically depending on the jurisdiction. Moreover, cyber space is borderless, a fact which given the lack of a coordinated regulatory response, generates yet more confusion for international organisations.

For instance, according to the EU authorities, a US court ruling requiring Microsoft's server operation in Ireland to retrieve and submit email data to the US authorities is not sufficient for the company to hand over data residing in the EU without the US seeking cooperation from the European Commission.

So what does all this actually mean for individuals and businesses, and more precisely for London's global financial services industry? Currently, companies operating internationally are in a position where they have to carefully consider how to deal with restrictions relating to the holding and transfer of such data. This means that, in reality, not only have we moved into a world with more surveillance and control, but we are now heading towards more localised control over what is a global issue.

Many global institutions, in particular banks, have invested heavily to reduce their technology siloes and streamline their global processes to increase efficiency. The idea that in the future, global companies might have to operate differently in different jurisdictions, means that many of the efforts to reduce duplication, remove over complication and consolidate information gathering processes, may have been futile and companies may find themselves reverting back to data siloes again in order to comply with privacy laws.

#### "Cloud-based storage is not immune to privacy laws"

Without doubt, there will also be added costs and time associated with needing to host and coordinate servers in different countries and some global operations may suffer, particularly given the large investment made in recent years by global investment banks seeking to consolidate their technology systems.

One area that is expected to suffer is cloud computing. Many organisations that had considered moving to cloud computing to avoid the huge hardware bills and other problems associated with the traditional model of server farms, are changing their minds, realising that cloud-based storage is not immune to data-protection laws.

Neelie Kroes, European Commission vice president who speaks on digital affairs, recently pointed out that the lack of trust, in particular, between the rest of the world and the US government, means that many US data storage firms, especially cloud service providers, may miss out on business. Last year, the Information Technology & Innovation Foundation, a US think tank, said that US cloud providers could lose between \$21.5 billion and \$35 billion over a three-year period in the wake of the Snowden revelations.

In short, the fallout from the Snowden affair, particularly on international businesses, is difficult to quantify and its effects are likely to continue for the foreseeable future. The main problem will be managing expectations and requirements across regions, and without doubt, companies operating globally will face increased expenses from both an operating and legal standpoint.

In the long run, there is a risk that the consolidated global systems that have in recent years been advocated, will be discouraged, and that we might see the start of the so-called balkanisation, or in simple terms, a return to the old-fashioned silo system.

### Is Compliance the New Cyber Imperative?

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How long do you think it will be before regulators start revoking trading licenses for those financial institutions that don't have adequate adaptive cyber-security capabilities in place?

While the precise answer is not yet known, there is no doubt that a regulatory cyber-storm is already brewing in the US and its onslaught is likely to have a dramatic effect on how financial firms build, manage and protect their information and trading systems in the future.

Exposure to cyber-crime is not a new thing, with Adobe, Target and eBay being just a few of the high-profile organisations that have already fallen victim to cyber-attacks this year. Add to that the Heartbleed bug which earlier this year impacted many organisations across the globe, and it isn't surprising that the cost of security breaches, both for companies and consumers, is rising rapidly.

One positive in all this however, is that the increased cost and impact of such attacks is pushing cyber-security higher up the agenda of many companies and financial institutions, and it may not be a second too late.

According to David Higgins, a cyber-security specialist at Brickendon, there is now an increased focus on cyber-security from a compliance perspective, in particular in the US, where regulators are starting to take note of the issues surrounding potential cyberattacks. In fact, the Securities and Exchange Commission's (SEC) Office of Compliance, Inspections and Examinations (OCIE), and the Financial Industry Regulatory Authority (FINRA) recently issued a questionnaire to selected financial service institutions in a bid to ascertain how well prepared they were for a potential cyber-attack and how they would deal with such an incident if it occurred. "I believe the approach will be to undertake a review of a range of institutions and measure their ability to deal with a cyberattack." Says Higgins. "The results will be used to both assess organisations' readiness and to undertake gap analysis against what the SEC and FINRA think it should be."

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While the regulatory focus is currently very much in the US, Higgins is in no doubt that other regulators will undertake similar programmes of assessment.

In the US, commentators have even gone as far as to suggest that financial institutions may, in the future, not be accredited unless they are in the so-called 'adaptive tier'. Basically this means that financial institutions will be required to prove that they have adequate policies, procedures and processes in place to be able to respond flexibly to external and internal cyber-threats or attacks.

Moreover, US regulatory examiners have already issued guidelines as to what they expect companies to be doing in the areas of cyber-security. These include: ensuring they have plans in place for how to assess damage in the aftermath of a cyber-attack; guidelines as to when it is necessary to make statutory notifications and public statements regarding the type and impact of any intrusion; and rules as to what needs to be reported to the regulatory bodies.

As early as October 2011, the SEC released official guidance adding cyber-security risk and cyber-attacks to the list of events that fall squarely within a public company's reporting responsibilities. Until then, precisely what rendered an event 'material' and therefore needed to be reported, was up for debate.

Furthermore, in January of this year, FINRA announced its intention to focus on cyber-security, incorporating an

assessment of its member firms' approaches to managing cyber-security threats into its routine examinations. The aim, it said, is to:

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 better understand the types of threats that firms face;
increase its understanding of firms' risk appetite, exposure and major areas of vulnerabilities in their IT systems;
better understand firms' approach to managing these threats; and

4) share, as appropriate, observations and findings with firms.

While progress has so far been relatively slow, there is no doubt that regulators are starting to take the issue of cyber-security seriously, and that companies and financial institutions that fail to take note may be heading into stormy waters.

As Mary Jo White, chair of the SEC Cyber-security Roundtable, told delegates in March this year: "Cyber threats pose nondiscriminating risks across our economy to all of our critical infrastructures, our financial markets, banks, intellectual property, and....the private data of the American consumer.

"This is a global threat. Cyber threats are of extraordinary and long-term seriousness," she said, adding that such threats now even surpass terrorism in their seriousness ranking and that the resources devoted to deal with cyber-based threats is expected "to eclipse" those devoted to terrorism.

White also called on the public and private sectors to be "riveted in lockstep" in addressing the complex issues these threats pose.

Anyone wishing to find out more about how Brickendon's cybersecurity experts can help ensure your business is adequately prepared to deal with the changing regulatory landscape should see our website at **www.brickendon.com**.





# Let Brickendon Help You Get Ahead in FX Trading



Trading is not just about stocks. Having the right system to trade currencies is very important in today's financial environment, where speed, accessibility and accuracy are of the essence. Brickendon's consultants are highly experienced at developing bespoke FX trading systems, and could help you do the same to keep your business ahead of the game.

# Are Robots Taking Over the World?

The image of a robot sitting at your desk doing your job is both amusing and concerning at the same time. But the real question is whether it is actually realistic? Could you be replaced by a machine?

Earlier this year, labour and employment law firm Littler Mendelson, described robotics as the fastest growing industry in the world. It said that robotic systems, artificial intelligence and automation are developing at an exponential rate, creating work environments and conditions unimagined half a century or so ago.

Many people working in a range of different environments can probably empathise with this. Even as you read, mechanical arms are tightening screws on car doors, computers are interpreting results of medical tests and algorithms are assessing how different securities are likely to react after the release of a piece of market data. All of this is work formerly done by people, be it manual labourers on the production line, medical professionals or well-educated analysts who used to pull data from terminals, fill in spreadsheets and crunch numbers.

"Automation is both a positive and a negative at the same time," says Brickendon Director James Baker. "It has helped progress and development in a lot of areas, but in reality it can only do as much as can be standardized."

"Given the complex and dynamic environment that we live in, it will be unthinkable for machines to make a lot of progress without constant human intervention."

Unlike automated systems of the past, today's robotic systems don't just collect and process information, they draw inferences, answer questions and recommend actions. They use intelligent, networked devices, the internet, big data and artificial intelligence-led algorithms to automatically and continually sense, think and act. Basically doing



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what a human does, but faster, more efficiently, and without the risk of human error.

While this thought evokes fear in some, others see it as opportunity, with the International Federation of Robotics (IFR) predicting that the robotics industry will create more jobs than it displaces.

According to the IFR, robotics directly created between 4 and 6 million jobs through 2011, a figure that rises to 10 million if indirect jobs are counted. Moreover, the industry body is also predicting that as many as 3.5 million jobs will be created in the next eight years as a result of the increased use of robotics in the workplace.

"In Britain, take up has been slow"

And Finally

Industrial robots were first successfully used by General Motors in the US in the 1960s, but fears over job losses impeded widespread adoption across the industry. From the 1970s Japan established itself as the world leader in automation, and today has the highest operational stock of industrial robots in the world, with more than 300,000 in 2011, compared with 185,000 in the US.

In Britain, take up has been slow, with many firms, particularly in the manufacturing and financial sectors, opting instead to move work overseas to save money and remain competitive.

According to the IFR, the UK car industry uses just 622 robots per 10,000 workers, compared with almost twice that in Germany and Italy. Exclude automotive manufacturing, which commonly accounts for about half of new robotics installations, and the UK fares even more poorly, with just 27 units per 10,000 manufacturing employees, compared with 137 in Germany, 113 in Italy and 59 in France.

However, with wages in offshore locations such as Asia and India rising and governments seeking to strengthen domestic business, the application of robotics is generating renewed interest. According to the latest data from the British Automation and Robot Association, new robotic installations in the UK doubled to 2,477 in 2012, and last year, the then UK Science Minister David Willets singled out robotics as one of eight great technologies worthy of sharing £600 million of new funding.

So what is the real threat to our workplace, and which positions are likely to be most affected?

A 2013 paper by Carl Benedikt Frey and Michael Osborne of the University of Oxford argued that jobs are at high risk of being automated in 47 per cent of the occupational categories into which work is customarily sorted. This includes accountancy, legal work, technical writing and many other white-collar occupations. (See table 1)

The enhanced cognitive abilities of today's machines mean that it is no longer just industrial production jobs that are under threat. Analysts and researchers could be in the line of fire, with advances in machine learning and natural language systems making it easier to interrogate large amounts of data and to derive smarter answers in more intelligible forms.

Machines with the ability to learn are a relatively new phenomena. In fact, the term cognitive computing has only really come into use following the success of Watson, a pattern-recognising supercomputer developed by IBM. Back in 2011, Watson beat the past human winners in a special edition of America's general knowledge quiz show, Jeopardy.



Today, machines similar to Watson are being used extensively across companies such as Facebook, Google, LinkedIn, Netflix, Twitter, Apple, Adobe, Microsoft and many more, and it's not just tech companies that are seeing the benefits. Machine-learning technology is much in demand across industry with proven results at Wall Street investment banks and insurance companies.

#### "Remove the risk of human error"

"Automation in financial markets, when implemented effectively, will help streamline processes, remove the risk of human error and allow an institution to focus its resources on more complex or bespoke areas," says Samir Saied, a senior consultant at Brickendon.

"However, any automated process will only ever be as good as its designer. Incidents such as the 2010 Flash Crash demonstrate that a single large order in volatile market conditions can have an unprecedented effect due to the cumulative behaviour of sophisticated algorithms."

Paul Heffernan, a senior consultant at Brickendon specialising in algorithmic-trading platforms, agrees, saying that while automated systems allow banks to increase their trade volumes, they may sometimes yield unsuspecting outcomes due to erroneous software or unexpected glitches.

One benefit of increased automation however is increased transparency. According to Heffernan, automation of trading models gives a better view of how a bank trades and makes the bank less susceptible to market manipulation or insider trading allegations.

Going forward "it is likely that more over-the-counter instruments will be 'standardised' into products to facilitate automated trading," he says, citing the example of CME, a US futures and options exchange, which now offers options contract markets where the parameters have been standardised.

As a result, jobs for people with machine learning technology skills will be much in demand in the coming decade.

There is no doubt that the combination of big data and smart machines will take over some occupations totally, while in other cases it will allow firms to do more with fewer workers. Text-mining programmes will displace professional jobs in legal services, while biopsies will be analysed more efficiently by image-processing software than lab technicians. Accountants may follow travel agents into the unemployment line as tax software improves and machines are already turning basic sports results and financial data into news stories. Even highly paid professionals with specialist expertise are not immune. In areas such as law and medicine, machines are likely to produce better answers than humans, who often struggle to keep up with the latest knowledge in their fields.

Still, as with all technological advances, the future is far from certain. Despite autonomous vehicles already having proved themselves safe in driving along some of America's highways, it is likely to be years before Google's pioneering driverless car leads to a fully automated taxi service.

What is more likely, is the emergence of drone trucks carrying goods on transcontinental highways, who then hand over to human drivers to negotiate the last few miles. For the time being, the human's ability to react, adapt and learn remains its trump card. For how long though remains to be seen.

#### Bring on the Personal Trainers

Probability that computerisation will lead to job losses within the next two decades, 2013.

Job	Probability
Recreational therapists	0.003
Dentists	0.004
Athletic trainers	0.007
Clergy	0.008
Chemical engineers	0.02
Editors	0.06
Firefighters	0.17
Actors	0.37
Health technologists	0.40
Economists	0.43
Commercial pilots	0.55
Machinists	0.65
Word processors and typists	0.81
Real estate sales agents	0.86
Technical writers	0.89
Retail salespersons	0.92
Accountants and auditors	0.94
Telemarketers	0.99

Table 1 Source: "The Future of Employment: How Susceptable are jobs to Computerisation?" by C.Frey and M.Osborne (2013)

### Can Sports Match Financial Products as an Asset Class?



To many people in the City and on Wall Street gambling is a dirty word. Suited executives at firms like Deutsche Bank and JP Morgan go to great lengths to differentiate the sober, serious profession of investing from what many see as the irresponsible, impulsive act of betting.

Many traditional investment houses are also eager to dismiss newer equity trading techniques as something more akin to spins of the roulette wheel or punts on a horse race than to long-term investment strategies. However, with one of the big trading firms reportedly announcing recently that its average hold time on a stock is just 11 seconds, investing and gambling may in fact be more closely aligned than many think.

In both situations, individuals are taking a forward-looking decision on the outcome of an event or process with the aim of profiting from it financially. Basically, as far as the process is concerned, there is little difference between making prices for currency or making lines for sporting events - you don't know if the market will go up or down any more than you know who will win the next horse race.

That said, traditionally trading has been the domain of the professionals, while gambling is seen more as a past time. This is starting to change.

In 2004, Cantor Fitzgerald, one of the world's pre-eminent capital markets investment banks serving more than 5,000 institutional clients, launched Cantor Spreadfair. It was a peer-to-peer sports gambling site, allowing users to set their own bets, which would be taken by other players or by Cantor. The site allowed for spread betting, whereby the payoffs are based on how closely you predict the final point difference between two teams.

They also set up a site called Cantor Index for financial fixed odds, allowing people to bet on the moment-to-moment changes in the stock market, as well as financial spread betting.

A few years later in 2009, Cantor launched Cantor Gaming, now known as CG Technology, with the aim of passing on some of its technical trading expertise to other parts of the gambling industry. Today, CG Technology runs the sports book at the infamous M casino in Las Vegas, claiming it is bringing the pace and style of Wall Street trading to betting on baseball, football and basketball.

The cornerstone of the operation is a piece of number-crunching software called Midas. Midas acquires information, processes it, finds mathematical patterns and correlations and uses all of that to define the ever-shifting odds at sports events.

The firm isn't alone in trying to bridge the gap.

In January 2008, a small group of investors and developers who believed they saw the potential to apply financial trading principles to the online sports betting world, set up Smarkets, a London-based betting exchange that offers a secure and transparent platform for trading on sporting, political and current affairs events.

Jason Trost, co-founder of Smarkets and formally a City boy himself, told Brickendon that sports betting is turning into a commodity and that the shift will not slow down.

"Sports betting is already influenced by finance," says Trost. "There are many proprietary trading companies that trade sports around the world, which use the same modelling that occurs on Wall Street and in the Square Mile." However, while there are plenty of similarities, including the benefits brought to both arenas thanks to the increased use of technology and enhanced transparency through the internet, there are also differences.

According to Trost, the biggest difference between the sports betting markets and the financial markets is the time horizons. "Sports betting markets are extremely volatile in comparison to financial markets and you can see huge swings in the price of contracts," he says.

"Where prices in financial markets change when a CEO steps down, prices in sports betting markets can change for reason as small as a single player being left on the bench.

"Modelling sports betting is obviously very domain specific, but the techniques to back test and validate the model are the same as in finance."

Moreover, traditional betting firms such as William Hill are now offering fixed odds and binary betting on financial products, such as commodities, foreign exchange pairs and market indices.

#### "Less oversight than a pitbull in Las Vegas"

Through William Hill's Day Trader service – a specially developed online system for amateur gamblers, non-financial punters can put money on the movement in the price of a barrel of Brent Crude Oil in US\$ as quoted on the London Futures Market, or on the UK100 – a special index derived from the share prices of the top publicly-quoted companies in the UK. They even have access to US-listed companies through the aptly named Wall Street – a special index comprising the top 30 publicly quoted companies in the US.

In total, Day Trader gives access to as many as 132 different betting opportunities per instrument at any one time, and even allows individuals to close out any open positions after they have been placed until the time the market closes.

Still, despite the obvious crossover between the two activities, for now it is unlikely that the stigma associated by some with the term gambling will go away. A few years after the financial meltdown of late 2008 Goldman Sachs executives were described by one senator as having "less oversight than a pitbull in Las Vegas" and the firm's CEO Lloyd Blankfein was dubbed the prince of casino capitalism by the media.

In fact, a piece in the New York Times described Goldman's synthetic collateralised debt obligation as "no different than betting on the New York Yankees versus the Oakland Athletics."

Still, if these preconceived prejudices can be got over, then in the long run there is no reason why Trost's vision of sports becoming an asset class traded alongside other standard financial products cannot become reality. He may just have to be patient.

#### Contributors

James Baker Chris Burke Paul Heffernan David Higgins Frida Johansson Priyanka Parekh Samir Saied Malek Shaw Claire Shoesmith Nathan Snyder Richard Warren Brickendon provide consultancy services to solve the challenges, both internal and external, faced by businesses operating in the financial markets.

Today's business and trading environment is ever gaining in complexity. Over the last few decades, we have seen that the ability of organisations to remain competitive in the overcrowded financial markets is critical. An increasingly challenging regulatory environment has also made it essential for market participants to have a clear understanding of changes in order to drive their own strategic vision.

At Brickendon, we undertake proactive research in order to be able to respond to industry developments in the financial markets as they happen. We constantly perform in-depth analysis and evaluate the operational implications in banking and trading organisations. We are committed to maintaining high-level research integrity in order to provide independent and first-class solutions to our clients.

Contact us at:

107 CHEAPSIDE LONDON EC2V 6DN T +44 (0) 207 397 3760 E INFO@BRICKENDON.COM W WWW.BRICKENDON.COM







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