The Quiet Insurer:

Mobility Of The ‘Other’ Financial Service

July 2016
By Shirley Beglinger

The Quiet Insurer
Mobility Of The ‘Other’ Financial Service

by

Shirley Beglinger

July 2016

Contents

Foreword

Long Finance aims to *“improve society’s understanding and use of finance over the long-term”.* Financial Centre Futures initiates discussion on the changing landscape of global finance, seeking to explore how finance might work in the future.

Insurance is one of the longer-term financial sectors. As our author, Shirley Beglinger, points out, insurance thinks long-term about finance but also about location. Insurers have clustered around London since the 16th century. Continental financiers were attracted to Sir Thomas Gresham’s homage to their bourses when he opened the Royal Exchange (Byrsa Londinensis) in London in 1571, as wars on the Continent forced them to decamp from the bourses of Antwerp and Bruges,

Despite the surprising nimbleness and jitteriness of some insurers, Shirley has a positive view of insurance clustering and London’s global role. She puts her finger accurately on the weaknesses of North American markets, Chinese markets, Middle Eastern markets and others. As a discussion point, I might point to London’s decades of downward-drifting market share or the ‘Spanish practices’ of a market that seems to feel revulsion towards much technology, but Shirley argues it’s only London’s market to lose.

To paraphrase Johnson, “when an insurer is tired of London, he is tired of [life] insurance.” Londoners will hope that future decisions over regulation and tax only strengthen their insurance cluster. Other financial centres will always examine an opportunity to poach business, and Shirley highlights perhaps Singapore as the leading long-term contender. London is heading toward a half-a-millennia run of success. Shirley wills London a good ten centuries. That’s what Long Finance is about.

Alderman Professor Michael Mainelli
Executive Chairman, Z/Yen Group Limited

1. Introduction

At the first sign of regulatory resistance to their excesses, bankers are quick to trumpet their determination to leave London (or Paris, or Frankfurt, or New York) for the greener fields and better opportunities of Singapore (or Hong Kong, or Qatar). Insurers by contrast rarely make such threats.

In truth though, it appears that bankers are dogs which bark but don't bite. Despite grumbles and rumbles about UK taxation (or French taxation, or German taxation, or Brexit), the last major bank to actually move its corporate centre was the Hong Kong and Shanghai Banking Corporation, which moved to London during the large acquisition of Midland Bank and morphed into HSBC in 1991. Since then of course it has registered a number of threats to move elsewhere, including back to Hong Kong.

Compare these histrionics with insurance, and note that at least five major insurers have quietly decamped in the last 5 years (Ace from Bermuda to Switzerland, XL from Bermuda to Ireland, Catlin from the UK to Switzerland, Brit from the UK to the Netherlands, Canopius from the UK to Switzerland… etc.). Insurers, it seems, don't make a lot of noise. They just go.

Is their departure cause for concern, or should it be? UKTI trumpets its successes in securing foreign licenses for British franchises, but they are very coy about discussing numbers. However, a scholarly report by Maurice Kugler and Rheza Ofoghi (University of Southampton) based upon statistics from the Association of British Insurers, summarises the case rather well:

> In 2003, the UK insurance industry was the largest in Europe and the third largest in the world, accounting for 8.4% of total worldwide premium income. Both the UK life and general insurance markets are the largest in the Europe. Penetration rate (Premia as a percentage of GDP) is the highest in the Europe and second in the world. About 348,000 people were working directly and indirectly among 772 insurance companies in the UK - which is a third of all financial services jobs. Almost 568 of these companies were active in general insurance, 159 are permitted for long term insurance and 45 have authorisation to do both. UK insurance exports (premium minus claims) amount to just under £6.4 billion. It is about a third of total UK food, beverage and tobacco exports and almost a half of the value of UK oil exports.

This paper examines the relative attractiveness of insurance centres and considers the factors which prompt this surprising mobility in an industry otherwise famed for its stodginess.

2. Definitions and Explanations

The prime focus of this paper is on non-life (or general) insurance. Somehow life assurers and pensions providers have pulled the ultimate marketing trick, namely to have a word automatically associated with your product (e.g., Kleenex, Hoover, Tarmac, Aspirin). In the present case, if you say ‘insurance’, most people automatically assume you mean life insurance or pensions.

In 2011 global life insurance premium volumes amounted to US$2,627 billion, while non-life insurance premiums totalled US$1,970 billion (Swiss Re Sigma 3/2012), making the split 57% life to 43% non-life. Prima vista therefore, the fixation on life insurance is absolutely justified. In actuality though, most of the “premium” is a contribution to a retirement savings pot which does not inure to the insurer when the risk has expired (i.e., the punter has died).

Both in the EU and globally, creating international retirement savings mobility is one area where every effort has been spared. Even in this era of ever greater population mobility, retirement savings created in one jurisdiction are usually marooned there when the punter moves on. This in turn means that life assurers themselves are not mobile: once they have set up shop in a country, their liabilities accumulate in that country and so perforce does their asset base. It is nigh on impossible for them to uproot their capital base and move elsewhere. Were a life insurer to do as Prudential has repeatedly threatened, and re-domicile, that re-domiciliation could only apply for new business because national regulators would not allow them to move assets associated with in-country liabilities beyond their purview. Thus the re-domiciled entity would find itself starting from scratch – rather like the person who came second-best in a divorce battle.

Non-life insurers, by contrast, collect their premiums from a wide swathe of the global population, and they retain all of those monies once the risk has expired. Their business model – with premiums collected up front, and losses paid out somewhere in the future – means that their assets are completely liquid, while their liabilities are substantially illiquid. To put it crassly, they can stick their wallet in their pocket and decamp any time they choose.

The figures quoted above would seem to suggest that the non-life insurance industry is economically important. In terms of job creation and wealth creation, it seems eminently desirable. But what differentiates successful centres of insurance from the unsuccessful ones?

3. The History of Insurance

The Code of Hammurabi – dating back to around 1750 BCE – makes the first reference to insurance as we know it. Then, as now, insurance wasn't a standard product, but it was possible for a merchant to pay a 'premium' to a wealthy family who would make good his loss if his goods were destroyed or stolen en route.

In 750 BCE, merchants of Rhodes who were shipping goods on the same ship would each contribute premium to a mutual 'pot'; if someone's goods were jettisoned during transport, the pot would be paid over to him. Athenian merchants took out a form of maritime loan to finance shipments of goods. If the ship was lost, the loan was cancelled. Rates for these loans differed according to the time of the year, being lower in safe sailing seasons and higher when the autumn storms began. This suggests an instinctive pricing of risk which could fairly be described as "insurance without the maths".

Funeral insurance was common in ancient Rome, usually administered by the roadside confraternities for their members and families. Again, there was no statistical base, but high child mortality meant that 'premiums' for boys under the age of 12 were higher than those for their fathers. Girls and women outside the patrician class did not usually merit a funeral and so attracted no additional charge. The descendants of these friendly societies were still going strong well into the 20th Century.

From around the early 16th Century, it was common in England for the master of a ship to borrow money on security of the ship itself – its 'bottom' – hence the loan was described as 'bottomry'. If the ship returned safely but the loan was not repaid on the agreed date, the ship fell to the creditor. If on the other hand the ship was lost, the loan was cancelled. Here again, the rate of interest differed depending upon the time of year or the voyage route to be taken.

Simple marine insurance as we know it was documented in Genoa as far back as 1347. Of course, it was expensive, because true insurance (as opposed to hybrid finance/insurance) is based upon probabilities.

Probabilities in turn require some sort of statistics, and statistics require mathematics. A prerequisite for mathematics is the existence of that wonderfully simple system of Arabic numerals which we take for granted today: 1-9 plus a zero, all arranged in value positions. The Italian mathematician Fibonacci first described and demonstrated these wonderful numerals in *Liber Abaci*, published in 1202. Juan de Yciar of Zaragoza in Spain demonstrated them again in his book *Arithmetica Practica* in 1549. But they didn't come into wide use until the late 17th Century. Until then, most people still used Roman numerals and made calculations using notches cut into a stick.

No matter how clever, no-one is going to develop a science of statistics which says that the mean of a distribution is L, but its mode is XVII and therefore its standard deviation is XXXVII. Nor can you swiftly figure out that X% of CXX is XII. So until those wonderful Arabic numerals with the magical zero appeared, neither statistics nor probabilities could be used effectively.

Statistics in Europe didn't originate until John Graunt published his *Natural and Political Observations upon the Bills of Mortality* in 1663. Around the same time, Pierre de Fermat (he of "last theorem" fame) and Blaise Pascale were developing the mathematical methods of probability, basing their discussions upon the slightly frivolous question of the fair division of stakes in an interrupted game of chance. It wasn't until 1713 that the Swiss mathematician Jacob Bernoulli's seminal work *Ars Conjectandi* on probabilities was published. Gauss calculated the likely orbit of Ceres from just a few observations using a form of least squares regression which is much beloved of statisticians today… but he didn't do it until the 19th Century.

It wasn't until 1812 that Laplace published his *Théorie analytique des probabilités*, which laid out the basis by which one could use statistical observations to calculate the likelihood of a loss occurring, and – once it had occurred – the probable value of that loss. Thus was laid the foundation of modern insurance pricing and reserving.

Of course, human instinct served where human ingenuity was stymied, so the lack of a sound price-finding mechanism didn't stop the rise of insurance. Following the Great Fire of London in 1666, Nicholas Barbon set up England's first insurance company, "The Fire Office", to insure London's brick and timber houses. Supposedly he simply took a flying guess at what the premium should be.

In the 1680s Mr Edward Lloyd's coffee house became popular with merchants and shippers. They could gather over a cup of the fashionable brew and catch up on all the latest shipping news. The coffee house evolved into a meeting place for people wishing to insure their cargoes and ships, and those willing to grant the insurance. Typically, the merchant or captain would come to the coffee house with a slip of paper describing the vessel, its cargo and its proposed route. Those willing to take on the risk would fix a premium, then sign their name at the bottom of the slip. Because they wrote their name *under* the risk details, they became known as *underwriters*.

Nowadays Lloyd's is no longer a coffee house but a market place, where underwriters still sign their name to risks presented on a slip (which is a legally binding interim contract). Around Lloyd's, a vibrant centre of insurance has grown up in the Square Mile. Insurers (both at Lloyd's and not), brokers, advisers, lawyers, claims handlers – anything and anyone with any kind of loose association with insurance – all squeeze into EC3, jostling the bankers for space in the crowded restaurants.

4. Clusters and Insurance

Unwittingly, with no thought or design beyond increasing the clientele of his coffee shop, Mr Lloyd created something many national governments since have striven to create, a cluster.

The Oxford English Dictionary defines a cluster as "a close group or bunch of similar things growing together". In business terms, this seems counter-intuitive: if you were setting up a new business surely you would set it up as geographically far away from potential competitors as possible. It seems only common sense to imagine that your light will shine brightest where no other lights show. And yet we observe in our daily lives that the opposite is true: find a street with one good restaurant, and you will usually find half a dozen good restaurants clustered within a stone's throw of each other.

Similarly, during the Industrial Revolution, several towns sprouted up in the Yorkshire dales, all devoted to the spinning and weaving industries, which in turn grew out of Yorkshire's old role as the sheep heartland of England. Lancashire by contrast grew a huge cotton manufacturing industry based around easy access to the great port of Liverpool and ships hailing from the cotton sources.

In Germany, both Porsche and Mercedes are based in the small town of Stuttgart, even though they nominally compete for the same section of the luxury car market. In a similar vein, the two companies which merged to form the steel giant ThyssenKrupp started life as competitors and near neighbours in Duisburg-Essen. Watchmakers in Switzerland all crowd into a few small villages in the bilingual cantons which separate the German-speakers from the French-speakers.

So clusters and clustering are evidently not purely an Anglo-Saxon phenomenon; they must have some appeal in the rest of the world. Fashion has gravitated to Paris and Milan; hospitality seems to have gone to Lausanne (with its grand schools of hotellerie); high tech has gathered in Bavaria and so on.

Financial services – including insurance – seem determined to stick with their traditional hubs: New York, London, Zurich, Singapore and Hong Kong. This seems odd. The rise of the internet and the advent of instant communications should have had a centrifugal effect: If a banker can trade futures and options from a mountaintop in Mongolia, or structure a corporate bond issue while sitting at home in Hampshire, why are they not doing so? Why have smaller centres such as Frankfurt and Paris become smaller, while big centres like London and New York have grown?

An answer might be found in the theory advanced by Michael Porter in *The Competitive Advantage of Nations*. Porter defines clusters as "geographic concentrations of interconnected companies, specialist suppliers, service providers, firms in related industries and associated institutions in particular fields that compete but also cooperate". This is a sophisticated version of the earlier statement about the number of good restaurants on a street. They will compete savagely for the diner's dollar, but behind the scenes they may well be found to have pooled their buying arrangements, and the cousin of the maître d'hôtel at restaurant number 1 possibly works as sommelier at restaurant number 3. They probably all get their table linen from the same suppliers… You get the picture.

Clustering in insurance is perhaps a little more complex than the restaurant analogy. Strangely, although most governments seem dead keen to foster banking clusters, they almost uniformly ignore insurance. Qatar is the only visible exception to this rule: the Qataris seem determined to create a Middle Eastern financial centre at all costs, and if that includes insurance, they're only too pleased. Otherwise insurance clustering around the world occurs under a form of benign governmental neglect.

With one other exception – Bermuda – insurance clusters tend to turn up in the same place as banking clusters. So the global list includes New York, Bermuda, London, Zurich, Qatar, Singapore, and Hong Kong.

Two major insurance entities have their headquarters in Munich, but since the city does not otherwise figure in the Z/Yen Global Financial Centres Index (GFCI), it's hard to know whether that makes it a cluster or a coincidence.

Tokyo by contrast ranks 5th in the 2016 GFCI 19, but this is contradicted by a recent IMF study (Le Leslé et al., 2014), which comments that while Japan dominated Asia's financial landscape from the mid 1960s through to the early 1990s, and remains "the third largest financial market by size in the world after New York and London, its relative importance in Asia has diminished. Earlier attempts in three waves by Japanese financial institutions to expand abroad have had mixed success (Lam, 2013). Tokyo is no longer perceived as a truly global financial centre, but rather as a more domestic financial centre with a very large market. Parts of the regulatory framework and institutional structures and operations encourage an inward-looking view. Tokyo, for instance, mostly uses Japanese law and the Japanese language for their transactions, making it difficult to attract foreign business to Japan." In short, the Japanese financial and insurance centre is large, but it serves only domestic users. As such, the IMF seems to regard Tokyo as a regional centre but certainly not a global cluster.

With governments sublimely indifferent to their wellbeing, it seems that insurance clusters will be left to their multi-billion pound selves. And make no mistake, they are multi-billion pound selves. Aegis' 2012 annual report would have us believe that insurers contributed €11.7 billion to the UK government's coffers in 2011/12, and managed wealth equivalent to 26% of the UK's total net worth. That's a lot to ignore, but since the state has never been particularly successful at establishing clusters, perhaps being ignored is the best thing that can happen for them. According to Cooper, "*clusters will only succeed if they generate a viable and self-sustaining mixture of economic and social inputs and outputs"*. Those "social and economic inputs and outputs" cannot be commanded into being by governmental fiat but seem to arise most successfully out of the happy coincidence of circumstances – which takes us back to Mr Lloyd's coffee house and the success of London as a centre of insurance.

In 2003, the City of London Corporation published a comprehensive study by academics from the University of Manchester and Loughborough University, entitled *Financial Services Clustering and its Significance for London*. The report identifies ten key features which define a successful cluster.

Z/Yen's widely quoted Global Financial Centres Index (GFCI) groups these features under 5 headings with a total of 20 sub-headings (Yeandle and Danev, 2015).

Since the present report deals with insurance rather than banking, the emphasis and priority of those headings naturally shifts, but they remain key features. A successful centre of insurance must tick as many of those 20 boxes as possible, and really successful centres will tick them all, repeatedly.

Some of the most important features are identified below:

4.1. Human capital

Availability of skilled personnel: to paraphrase the 2003 City of London report, insurance companies need access to large pools of specialised labour. Bankers and regulators may look down upon non-life insurance as the other financial service where bad Eton schoolboys and East London wide boys finish up, but the fact remains that a vast pool of specialist knowledge is fundamental to the transaction of insurance.

The silos of specialism are very deep, and it takes so long to acquire the various specialisms – in marine, aviation, liability, engineering, energy…. and a whole host of equally specialised fields – that there is almost no migration between specialisms. Even if they work for the same company, a marine underwriter will have almost nothing in common with a property underwriter. By contrast, our marine underwriter will have much to say to another marine underwriter, even if the latter is from the other side of the world and perhaps thinks in a different language; their common specialism unites them.

Similarly, there is almost no cross-migration between banking and insurance, despite their superficial resemblance to one another. The occasional banker makes the leap across the great divide, usually doing something related to investment or financial management. But simply changing employer does not transform the banker into an insurer: he remains a banker doing banking tasks, often with no understanding of the underlying business which generates the money he is investing.

Education and development: Notwithstanding rude remarks about failed Eton schoolboys and east-end barrow boys, insurers employ armies of highly skilled professionals. Many of those skills are developed in universities, think tanks and other temples of learning, but a far greater part is developed by the insurers themselves.

Probably very few insurers consciously set out to provide intensive on-the-job training, but the nature of insurance is such that a huge amount of knowledge is absorbed by a sort of workplace osmosis, through shared experience and informal exchanges. "Informal exchanges" may be casual conversations over a post-work beer, or a quick comment called across the width of an open-plan office. They happen far more frequently than any of us realise. The social aspect of knowledge is perhaps even more important in insurance than in banking. A wander around the City of London insurance markets in the early evening will find the bars and restaurants bulging with people in suits, mostly talking about business even if they do no formal business with each other.

Academics refer to this as the build-up of tacit knowledge, and they affirm that it is best created when agents are geographically close. We all thought technology would change this, rendering geographical centres obsolete, but the opposite has happened. No matter how many computers and smartphones we have, there is seemingly no substitute for the face-to-face transmission of knowledge. Even when a new generation of tech-savvy young people comes on, classrooms, offices and coffee shops will not miraculously empty. It seems modern man is still wired for flesh-and-blood human interaction just as his ancestors were.

Quality of life: In order to be successful, a marketplace must be inclusive: there must be a sense that professionals – even from different companies – are working together to deliver a high quality product to a demanding client. The mutual trust required to achieve that goal can only be developed through frequent face-to-face interactions. There is even some anecdotal evidence that mutual trust, built over many years, actively lowers the cost of doing business.

The human factor in insurance is arguably even more important than in banking. Insurers enjoy socialising together. Where bankers seem to scarper off home at the end of a workday, insurers will hang around for a post-work beer, talking shop or football. Brokers, underwriters and clients will interact at professional events. It is not unusual for longstanding friendships to form between brokers and clients, or between underwriters and brokers. There may be the occasional corporate golf day, or an evening at the dog-racing. Such occasions celebrate the social aspect of transacting insurance. Dennis Mahoney, now of RFIB, once commented that "insurance is not high-tech, it's high-touch". That remark rather encapsulates it: "where the social life cannot flourish, neither can the cluster."

The City of London study says the same thing, only in rather bloodless scientific language. "Personal relationships supported by close geographical proximity and an on-going face-to-face contact are vital processes that sustain the financial cluster". Localised relationships between skilled labour, customers and suppliers are a critical factor helping firms achieve innovative solutions, develop new markets, and deliver services and products to clients.

Insurance professionals tend to be fairly young, fairly mobile, and earn above-average salaries. Given a choice of locations where they might work, money is not the most important driver. The availability of quality housing in nice locations will be a factor, as will access to good education for young children. One of the most important decision-drivers will be the social one – ready access to friends and family and most especially to the workplace network of fellow professionals. Any centre which cannot or will not provide the facilities for such work and post-work interactions can only attract the necessary skilled professionals by paying substantially higher salaries and offering a particularly attractive way of life. As soon as either one of those two attractions erodes, the workforce melts away and so perforce does the marketplace.

<u>Language</u>: Simply by virtue of history, English has become the language of marine insurance and of reinsurance, and much of international commercial insurance has followed out of simple convenience. This is not to say that other languages don't dominate in their home markets – Frau Schmidt will certainly not buy her household insurance policy in any language other than German – but other languages seem to serve their home markets only.

Of the current major insurance centres, New York, Bermuda and London naturally speak English. Zurich defaults to English almost without thought. Qatar teeters on the brink between grudging English and a keen embrace of Arabic. Hong Kong and Singapore have always been quite heavily anglicised.

It seems that we have forced our kids to learn (bad) Chinese, while the Chinese have forced their children to learn (excellent) English. We are concerned about the rise of a new world economic power, while they are simply determined to breach the linguistic barrier which surrounds the Middle Kingdom.

The dominance of English as a *lingua franca* in international insurance is probably not as important as English-speakers like to imagine. What matters is *that* the conversations take place, it matters not what language people converse in. Indeed, once upon a time such "trade" conversations would routinely have taken place in Aramaic (now spoken in just a handful of Christian villages in the Anti-Lebanon mountains of Syria).

English dominance in the world of insurance is largely owed to the dominance of English law and practise in marine and reinsurance contract disputes. The contract is usually in English, the chosen law is English, and most of the legal precedents are in English. Although judges from other linguistic backgrounds could theoretically interpret English contracts, they would be at a disadvantage both from a linguistic point of view (who, for example, knows what “eleemosynary” means?) and when considering which part of the vast body of legal precedent would apply to any given case.

This brings us naturally to the next major heading in the GFCI model.

4.2. Business environment

The rule of law. This is a fairly modern concept, but it’s worth reminding ourselves that commerce does not flourish unless the laws are applied equally to everybody, by an impartial and independent judiciary. If you buy something legally, it is yours and cannot be taken away from you without compensation. Where certainty of life, limb and property is not present, commerce, investment and progress dwindle away.

Capital Economics underlined this point in February 2014 by remarking: “*The eruption of anti-government protests in several emerging economies over the past month has led many investors to add ‘political risk’ to the lengthening list of reasons to be cautious on Emerging Markets (EMs). But in truth political risk has always been an issue for emerging markets – their institutions are inherently weaker than those in advanced economies, meaning they are more susceptible to political turbulence. The key to understanding long-run growth performance is to distinguish between those EMs with good (or improving) institutions and those where governance is either bad or is deteriorating*.”

In short, investment does not flow where the rule of law is weak, or where there is no faith in the probity of the institutions enforcing that law. One need not look far beyond the borders of Western Europe to find numerous examples of money racing for the exits while the home economy languishes far below its potential. Within Western Europe – and generally within the OECD countries – the rule of law appears to be widely accepted as a prerequisite for reasonably free inward capital flows with the resultant desirable economic outcomes. Until the rule of law is extended uniformly across emerging economies (be they Eastern European, Asian, African or Latin American), those economies will never be able to compete on a level playing field with developed economies for that all-important Foreign Direct Investment (FDI), without which they are relegated to the slow lane.

The other part of the rule of law is the legal system itself – does it provide a good basis for the practice of insurance, does it produce fair and predictable outcomes?

Of the currently successful insurance clusters, New York, Bermuda and London use common law, an interpretation of the law based upon legal precedent established over several hundred years and many thousand legal cases. Zurich uses code law, a codified set of laws written up in a rulebook. Some of that code law is absolutely binding, i.e., it cannot be overridden, while other parts automatically apply where no other legally binding agreement has been reached between the parties. Qatar, Singapore and Hong Kong all seem to accept English law with greater or lesser grace.

There is an argument to suggest that rigid application of code law may be a factor in the failure of France and Germany – two of Europe's most important economies – to have established successful insurance clusters. German law, for example, prescribes most precisely what cover an insured may and should have. The coverage purchased is standardised, as are the terms of the contract, and there appears to be no appetite to vary even those terms which are not absolutely prescribed. Small wonder then that competition in these markets is mostly on price, since the insured cannot expect better terms from a new insurer who is equally wed to the same codified contractual terms. Large policyholders seeking non-standard terms can either establish a captive insurer and access reinsurance markets directly; or purchase their insurance in one of the established clusters – usually London.

It has been suggested that some countries use their legal code as a barrier to entry – effectively walling off their home market from international competition. The US is cited as one such example. Outsiders regard its tort system as a major risk factor and may choose not to do business there, notwithstanding the siren call of a large and lucrative market. Certainly in recent years US courts have seemingly come down strongly on the side of "the foreigner pays". Where there is no convenient foreigner, the system punishes locals equally hard: overall tort costs in 2010 ran to US$265 billion, equivalent to almost US$1,000 per capita, or 2% of GDP ("Update on the U.S. Tort Cost Trends", 2011).

Political stability: With the notable exception of Singapore, financial centres – and insurance clusters – never seem to flourish in places where wars have been fought. No scientific (statistical) research seems to support this hypothesis, but history provides numerous examples.

As far back as the 15th Century, Italians had invented double-entry accounting, and they were among the first to offer banking services as we would recognise them – deposit your money in Florence and withdraw it in Milan – even though you crossed several territorial borders in travelling from one city to the other. These ingenious innovations should alone have secured strong and durable financial services clusters for both cities. Instead, when King Ferdinand I of Naples refused to pay feudal dues to the papacy, Pope Innocent I called in King Charles VIII of France, whose invasion kicked off several centuries of inter-state warfare up and down the Italian peninsula. Garibaldi eventually managed to unite Italy (or divide Africa), but between European wars and opera buffo politics, financial services clusters have not taken root on the Italian Peninsula.

Amsterdam had similar advantages to London. There was a time when Dutch colonies were as far-flung as British colonies. The Dutch East India Company shipped the wealth of nations into the port of Amsterdam. There was sugar from the Antilles, exotic furs from New Amsterdam (New York to us normal folk), and spices from Indonesia. The Amsterdam exchange thrived; bankers and insurers did a roaring trade. In 1672 King Louis XIV of France launched a war against the Dutch United Provinces, which he saw as an obstacle to France's acquisition of various Spanish territories in Flanders, Hainault and the Franche-Comté. The withering of Amsterdam's financial cluster was collateral damage. In our own time, strange boots have marched over Dutch territory with sufficient frequency to stymie any renewed ambitions.

From the French Revolution onward, Paris never really had a hope. When Haussmann designed the wonderful wide thoroughfares of modern Paris, his object was not only to create architectural splendour (which he certainly did) but also to create broad, clean lines of fire for Napoleon III's artillery. The avenues were intended to enable swift movement between the casernes (quasi-military bases) of the city, while also enabling a comparatively small body of troops to effectively control the city from a few key crossroads. The famously militant Parisian mob could thus be kept in check. Even leaving aside the splendidly friendly fire, Paris has welcomed more booted boarders than the QEII. Small wonder then that not even France's rather unsuccessful efforts as a colonial power could jerk the Paris financial cluster from its torpor.

When Frederick the Great died in 1786, he had transformed himself from being the King *in* Prussia to being the King *of* Prussia. By prosecuting a number of quite brutal wars, he had geographically united his scattered territories. He modernised the bureaucracy, reformed the judiciary, and introduced harsh universal conscription. From this base Bismarck was able to drive forward the unification of modern Germany. Many historians still trace the death and destruction of both the First and the Second World Wars to Frederick's guiding, perhaps malign, spirit. Certainly most German cities have been bombed or trampled, and the unsurprising result is that there are no really successful financial clusters in Germany. Munich is home to both Allianz and Munich Re, but since there seems to be little cross-fertilisation between the two companies, it looks more like a coincidence than a cluster. Frankfurt has succeeded in attracting the European Central Bank and EIOPA, the new body administering European solvency rules for insurers. Deutsche Bank has its official headquarters there but does most of its real business outside Germany. So Frankfurt looks more like a Eurocracy than a cluster.

The surprise entrant might be Vienna (never actually invaded but besieged by the Ottomans in 1529 and again in 1683), which suffered bitterly when the Habsburg Empire fell away following the First World War. After the fall of the Iron Curtain, Austrian banks and insurers were among the first to scramble over the wreckage and reach out to their old hinterland in the Czech Republic, Hungary and the Balkans. The Viennese themselves may deprecate the resultant influx of strange names and foreign accents, but there seems to have been a surge of financial activity as a result. The financial chaos following the 2007/2008 meltdown may have slowed the growth of this new cluster, but it is one to watch in the coming decade or so.

<u>The regulatory environment</u> is a key attraction both for bankers and for insurers. Here again, bankers complain loud and long whenever a new rule doesn't suit them. There is a menacing undertone that regulation will kill whatever the latest invention might be, and that such a demise will certainly be a bad thing, rather than, possibly, a good thing.

Insurers – non-life insurers in particular – simply slog on with whatever regulators choose to inflict upon them. In Britain prior to the FSA, there was a rather loose and unsatisfactory period when the DTI held regulatory authority for insurance – with predictably dreadful results. Then we had the FSA and now we have the PRA and FCA.

Predictably, the Financial Conduct Authority chucks insurers into a bucket with some of the more predatory banks, and insurance brokers in with some of the dodgier stock brokers (Leftly, 2013). Of some 23,000 firms regulated by the FCA, only 636 are insurance companies (Bell 2012), so perhaps limited resources mean that it is simply easier to treat everyone the same.

The Prudential Regulatory Authority (PRA) presents a different challenge. The PRA is charged with introducing prudential regulation written in Frankfurt by the European Insurance and Occupational Pensions Authority – EIOPA. EIOPA in turn appears to be staffed almost exclusively by pensions and life insurance specialists. And so the new European prudential standard (which the PRA must now enforce if and when it comes into effect) was drawn up by life people with little understanding of what goes on in the daylight world of non-life insurance.

That is worrying, because there is a fundamental difference between life insurers and general (non-life) insurers. A non-life insurer automatically reaches for three tests of insurability: 1) you can't know ex ante *what* will happen; 2) you can't know *when* it will happen; and 3) you can't know what it will *cost* when 'it' happens. Fail any one of those three tests, and it ceases to be insurable. Even ex post, it is often difficult to solve the "what it will cost" test, because the actual value of the indemnity is dependent upon so many factors which are external to the contract of insurance. These factors include changes in law (e.g., the Access to Justice Act 2000, which, by introducing contingent fees, brought expensive ambulance chasing lawyers to our shores), changes in legal interpretation and even small changes in public behaviour, which can massively affect the cost of a claims settlement.

Life insurers by contrast inhabit a world of [comparative] certainty. Punters may die sooner or they may die later, but die they most assuredly will. And when they die, the loss payable is known in advance because it is written on the front of the policy under the heading “sum insured”. In short, life insurance is nothing more than a savings product in drag, and life actuaries exist to ensure that the life insurer makes good profits over many years for doing little more than holding the bag.

To succeed in that mission, life actuaries believe in data. Lots of data. More data. Yet more data. Somehow this lust for ever more data transmutes into a conviction that a market cannot exist until there is sufficient data. In non-life insurance, the opposite is true. The market comes into existence first, and, owing to its existence, the data eventually gets collated. Which brings us back to the problem of Solvency II: the vast data requirements of the legislation are well suited to life insurance. Because it doesn’t matter how many baubles the drag queen wears, it’s still just a savings product. If you know where and how to look, you can find entire mountains of data on how it will behave in any one of a hundred scenarios.

”Real” insurance – non-life insurance – doesn’t depend on tonnes of data collected from deeply liquid financial markets. When a new product is created, early pricing may be based upon the actuarial behaviour of a proxy risk. Early underwriting tends to use small line-sizes (where each participating underwriter may accept £5 million per risk rather than his customary £30 million) and as much reinsurance as can be found. Over the course of 5 to 10 years, losses will occur and be settled, and the body of data relating to the product will grow. At a certain point in time non-life actuaries (very different animals from life actuaries) will judge that there is sufficient data to build a proper pricing model and perhaps deploy a ‘proper’ line-size. Until a product has reached that degree of maturity, non-life insurers limit their exposures very strictly, and watch developments with great care. But – hitherto – the lack of data has not been seen as a blockage to innovation – that honour may well be reserved for Solvency II and its voracious appetite for data, data, data.

Stifled innovation is bad for any industry in the long run. In the medium term, markets with a high degree of standardisation won’t notice the difference, but over time, they too will come to suffer. What counts as ‘innovation’ or ‘maverick’ today gradually gains acceptance until eventually it joins other products on the ‘standard’ bench. Where the ‘standard’ bench is prevented from growing, the industry risks becoming irrelevant to its clients: they move on, but the industry is unable to accompany them.

In a Darwinian adaptation, the marketplace most likely to flourish is that whose regulator enforces regulation in an agile manner, so as not to stifle its unique abilities.

London is a case in point: its unique strength has always been its ability to think its way around a lack of information or data, to find proxies which will enable the unusual or the simply off-the-wall to be underwritten and priced. The passage of time enables the market to back-test the accuracy of its assumptions and proxies against the real performance of a portfolio, and to gain real data, tweaking the product until it becomes genuinely viable. At some stage 'off-the-wall' turns into a must-have insurance product for the medium to small insurance buyer, other insurance players move in, and London needs to move on to the next innovation. The PRA's challenge will be to implement Solvency II with a light touch so as to leave space for that genius to continue operating.

The GFCI taxonomy places the macroeconomic environment under the heading of business environment factors. If the global financial seizure of the last 7 years has taught us anything, then surely it must be that the macroeconomic environment is everywhere. Without politicians even realising what was going on, trade and commerce have swept away national borders. While we all go in fear of Chinese or American economic might, in truth, all economies are shackled to each other, no nation can push another off a cliff without itself falling over. So the macroeconomic environment may in time fall out of the GFCI model.

4.3. Financial sector development

This GFCI factor on the other hand, is very relevant. As we said above, insurance centres seem to flourish in co-location with banking centres, but with their own particular spin on the key sub-headings.

Availability of capital: regulators around the world insist for good and proper reasons that insurance – like banking – cannot be transacted without a solid bedrock of capital to underpin the business. In recent years banking regulators have come to believe that more capital (much, much more) is a good thing. The creators of Solvency II (the new European insurance prudential framework) seem to have gone even more overboard than the banking regulators. It seems likely that Singapore and Qatar will follow European regulators, and the Americans have always erred on the side of caution. Thus the availability of capital becomes a major determinant of market viability.

Since the demise of the paternalistic company owner, who put his own money into a venture, often managed it himself, and took all the profit… things have moved on. Capital these days is provided by shareholders and (depending upon the structure) by bondholders. Neither group simply bops up to a company and offers to open their wallet: mostly they invest via stock exchanges or public offerings. A stock exchange is part of the financial cluster, subject to the same strictures and success factors as discussed above. Unless all those boxes are ticked, the exchange will attract either cowboys or hot money or both, but no serious investors. Without serious investors, the pool of capital shrinks beneath viable levels.

Ergo, a strong financial centre, powered by serious and preferably institutional investors, is a sine qua non for a strong insurance cluster.

What to a banker is <u>volume and velocity of trading</u>, translates to an insurer as <u>speed and efficiency of risk placement</u>. Just as bankers tend to syndicate placements so that no one bank is over-exposed, so insurance brokers syndicate risk placements to suit the risk appetite and risk control (capacity) of insurance carriers. If a risk is to be insured for a billion dollars, it is likely that no single carrier will want to commit more than $50 million to that risk. How swiftly can the broker negotiate terms and pricing? And having negotiated terms and pricing, how swiftly can he fill the balance of the capacity to create his billion dollar limit?

<u>Depth and breadth of industry clusters</u>: Perhaps it's stating the obvious, but a marketplace needs to offer both specialism and alternatives in order to prosper. It's no coincidence that German automobile manufacturing is geographically (loosely) clustered around the towns and agglomerations of the Ruhr. Specialist manufacturers of machinery want to be near to their customers, who in turn are specialist manufacturers of seats or engine-trains or gear-boxes. And they in turn need to be close to their clients, who are Mercedes or Audi or Porsche etc. The cluster is like a vast tree with numerous branches and multitudinous twigs. If one supplier anywhere along a branch or twig fails to deliver, there are possibly dozens of other twigs who will deliver in his stead.

The same is broadly true of insurance. If capital is the tree-trunk, then expertise, specialism and alternatives are the branches. There are so many specialist areas of insurance (construction, marine, aviation, political risk, crime, professional indemnity and so on) that a market takes a long time to accrete the other two necessary perquisites – alternatives and specialism.

Insurance clients want choice, not just one carrier offering satellite launch insurance. They also want specialism – someone who actually understands what happens when a satellite gets launched, where things go wrong, why a particular type of rocket may be better than another etc. Then there are all the 'enabler' services: the lawyers who draft contracts, the actuaries who review pricing, the loss adjustors who review losses when they happen, the advisors, and so on and so on.

It takes a long time – certainly decades – for all of that expertise and all of those alternatives to accrete to an insurance cluster. So perhaps "depth and breadth" could more succinctly be described as "age". The question then becomes: how is an insurance cluster nurtured

Or alternatively – like a tree – can it be killed off, either by poisoning the ground in which it is rooted, or by injudicious pruning?

4.4. Reputational factors

At first glance, it's hard to see why such factors should be of such importance to an insurance cluster. After all, a location is merely the convenient point of accretion for a cluster.

Or is it? You wouldn't want to be associated with banking in Colombia because even now it still carries the whiff of laundering drug money. You wouldn't think of establishing an insurance brokerage in Naples, because that's the Camorra's city and they're bound to come after you sooner or later. You wouldn't grow kitchen herbs on a Beijing balcony because the pollution is so awful that it would be tantamount to scattering poison on your food. None of these examples may be entirely accurate, but they illustrate the old adage about "give a dog a bad name and hang him". So reputation really does matter. If one thinks through Z/yen's reputational sub-headings, they are the location-based perspective on areas highlighted elsewhere, so they fit in with seamless logic:

To anyone living in London or New York, city brand and appeal are so obvious they needn't even be mentioned. How can anyone *not* want to live in the two coolest cities on earth? The appeal of other locations may be less obvious, but insurance practitioners choose to live and work in Bermuda, Zurich, Qatar, Singapore and Hong Kong, so the definition of "cool" is evidently very subjective. Perhaps it's easier to pick a few names off the long list of "uncool" cities – Darwin, Chongqing, Calcutta (with its storied Black Hole), Riyadh, Dusseldorf, Bradford, Kansas City… all places where insurers may operate, but never cluster.

Successful clusters offer attractiveness and cultural diversity to draw in ever more new talent and ever brighter minds. Again, the case for New York and London is overwhelmingly obvious, with Hong Kong and Singapore not far behind. Zurich has become more colourful over the past several decades. Bermuda is a rather coy mixture of London-in-the-Sun and New York-by-the-Beach, watched with a brooding eye by the local Bermudians.

Bermudian tolerance for the Anglo-Saxon influx may be limited, but they have given the island a reputation for innovation. From captive insurers to catastrophe bonds, from life securitisation to sidecars, most new concepts for insurance capital get test-driven in Bermuda first. London and New York seem to lead the charge when it comes to figuring out how to insure the dangerous, difficult and plain daft. Hong Kong and Singapore have a leading edge in the vast Asian market. Zurich – very Swiss – seems to have a talent for back-end processes which work.

Each of the locations offers something unique. But which of those success factors will carry the day in the global battle for supremacy – as measured by premium dollars flowing in, the companies moving in, the jobs created?

5. Will They Survive, Will They Thrive, Will They Dwindle, Will They Die?

Non-life insurance brings a huge amount of money into the home economy of its host cluster – both premium inflows and institutional investment. It creates huge numbers of jobs, and thus further boosts the host economy. But it is not sexy. Think of insurance and what comes resentfully to mind is the few hundred pounds you spend on your vehicle or home insurance (and the niggardly little bit you get back when something does result in your needing to claim). Think of banking by contrast and it's automatically billions of dollars won or lost by clever people doing obscure things on impossibly thin computers.

Insurance practitioners tend to be stolid Marks and Spencer rather than splendid, willowy figures in Armani suits. If an insurer wears wrap-around sunglasses, all they do is attract pitying attention to his nascent bald spot.

And so it is that few governments – or even cities – even try to attract insurers. Financial centres everywhere slaver over their bankers, but leave the 'other' financial service to itself. Thus, if an insurance cluster arises, it does so because the conditions just *happen* to be right – not because of any conscious attempt to *make* them right.

So which of our present and future clusters will prevail?

5.1. New York

The US insurance market is the largest and – so we are told – most lucrative in the world. Mr and Mrs North America (and their corporations) spend a staggering US$825 billion per year on insurance (Swiss Re Sigma 4/2015). Some of the largest insurance companies in the world are headquartered in the US (Berkshire Hathaway, AIG, USAA, State Farm, Factory Mutual, Allstate, Farmers – just to name some of the non-life players). Those wishing to write large lines on large risks cluster most tightly in New York.

Over time, other centres have dwindled as the need for ever greater efficiency concentrates expertise in the one main centre.

However, most of the premium spend channelling through New York originates from US-based risks. In decades gone by, US underwriters had a thriving book of Latin American business. Some of those Latin American states erected barriers of their own, decreeing that a risk within their territory required to be insured by a corporation headquartered in their territory.

Many more have been put off by the US legal system. As we all know to our cost, insurance companies don't simply roll over when a policyholder presents a claim. Commercial policyholders may find themselves forced to pursue their claim through the court system. And that is quite unbelievably expensive. The American Insurance Association (AIA) estimated in 2010 that the US tort system swallowed up US$1,000 a year for every American man, woman and child – a whopping 2.0% of US GDP. A foreign company pursuing even a well-founded claim against an American insurer quickly runs up against an unspoken rule: the foreigner pays. Long before Argentina discovered that American courts believe in enforcing American law in favour of American companies, Latin American insurance buyers had simply melted away to less troublesome markets.

The same holds true for Canada: although large Canadian buyers would be natural consumers of American insurance products, many (if not most) have consigned the US to the "simply too difficult" box and taken their premium dollars elsewhere.

Parts of corporate America have also turned away from US underwriters, and here again the prime suspect is the US legal system. It's not that US insurers can't produce clever, innovative insurance products – but when they do, the US plaintiffs' bar rams a class action into their new product and prises out hundreds of millions of dollars in 'compensation' – rightly or wrongly. Thus American insurers write careful narrow products, and American insurance-buyers go off to London in search of innovation.

This is not necessarily a problem if the world's largest and most mature insurance market is yours. There are plenty of medium-sized corporate insurance buyers in Iowa and the Dakotas and suchlike who are happy to buy standard products. If you lose the big ornery corporates, that may be no bad thing, because they add volatility to a portfolio and they're demanding to service, so good riddance.

The 2014 GFCI comments that survey respondents from the Americas were generally positive towards New York, while non-American respondents were markedly less favourable. This implies that New York is perhaps losing its attraction for non-Americans. That in turn means that no matter how much the Big Apple sparkles, it is no longer quite such a magnet for international insurance talent.

Between business moving elsewhere and talent settling elsewhere, it seems that New York is gradually losing its status as a global cluster for insurance. It remains a huge player for other financial services, but in terms of insurance, it is meandering down to the level of a regional hub. Admittedly, it's a *big* regional hub, but it's not a global hub.

5.2. Bermuda

Bermuda started life as just another small island somewhere in the Atlantic. Sometime in the 1970s it became a wealth management centre with two home-grown banks and a handful of UK banks' offshore branches. Most Bermudians lived off fishing, farming and the odd cruise-ship visiting to admire the picturesque white houses.

Sleeping Beauty was kissed awake by an unlikely prince: the US Plaintiffs' Bar. Beginning in the 70s, US class action awards went beyond anyone's wildest nightmares. Starting with asbestos and thalidomide and on to silicone breast implants and beyond, US insurance companies were forced to the brink of bankruptcy by ever larger settlements on policies which had never been conceived to pay out for multiple claims. They withdrew en masse from third party liability insurance in the mid 80s. Manufacturers of every stripe were left alone in a nasty world without liability insurance to cover astronomical legal expenses and alarming settlement costs.

Then someone pointed out that since companies couldn't get insurance, they had to self-insure. If they were self-insuring, why not set up an insurance company? Better yet, if it were set up right, the insurance subsidiary could provide its parent with a number of tax advantages. The captive insurance company came into being: an insurer which relied upon its parent for all or most of its premium flows. A common rule of thumb said that if a company spent a million dollars on insurance, it was worth setting up a captive.

While all of this was going on, a man named Fred Reiss sat the Bermudian government down and talked them through some important concepts: 'Advantageous Taxation', 'Regulatory Arbitrage' and 'Light and Agile Regulation'. Most importantly: 'Jobs and Prosperity for Bermuda'.

The enterprising Mr Reiss then undertook a tour of the US boardrooms, explaining the beauty of Bermuda: the Bermudian tax and regulatory regime had been designed specifically to take advantage of accounting and tax rules in the UK and the US; setting up a company in Bermuda was efficient and user-friendly; there were ways to ensure that the captive insurer could post reserves for those ever-expanding liabilities without the Plaintiffs' Bar attacking their parent.

Thus was born the Bermudian insurance cluster – the only insurance cluster to arise without a trailblazing strong financial centre. In a very short space of time, hundreds – possibly thousands – of captive insurers came into being on Bermuda. And some of those captives went on to bigger and better things…

Early respondents to Mr Reiss' siren song were companies we have come to know as as ACE (Chubb) and XL (XL Catlin) – both now behemoths in international insurance. When they were set up, statistics suggest that premium flows to Bermudian companies were almost non-existent. Then Hurricane Andrew blew away swathes of Florida in 1992, and the Northridge Earthquake flattened an expensive part of California in 1994. Property premiums shot up by several hundred percent. Wall Street investment bankers were quick to identify an arbitrage opportunity: the statistical risk was much lower than implied by the sky-rocketing premiums, so it was time to invest in insurance – preferably beyond the reach of both the irrational US court system and the Internal Revenue Service.

Suddenly Bermuda wasn't so far away after all. You could set up an insurance company within three weeks and get it rated AA or better within a fortnight after that. Partner Re, Transatlantic Re and many other such creations succeeded beyond even the avaricious dreams of their financial fathers. By 2004, Bermuda had attracted more than enough capital to underpin its $40 billion of annual premium income.

Bermuda benefits from having a very effective regulator (the Bermudan Monetary Authority – BMA), and a legal system which slots into the British system. It is thus widely seen as equitable and even-handed.

However, despite 40 years of existence, the Bermuda insurance cluster does not appear deeply rooted. The cluster is largely manned (or 'womanned') by expats, but there is little interaction between them and the 65,000 Bermudians. Among the expats themselves there is little sense of community and many of them spend as much time as possible off-island.

There have been some pretty icy winds blowing from the US to Bermuda in recent years. US courts don't like to be told they have no jurisdiction. More importantly, the IRS has zero tolerance for company profits sitting in Bermuda beyond its reach. They can't stop Americans going to Bermuda, but they have systematically set out to make it a rough ride.

In recent years successive Bermudian governments have seemed determined to starve the cluster of necessary resource. Work permits are strictly time-limited and often quite difficult to obtain. Expats are barred from buying all but the most expensive real estate. The lack of social and professional interaction is exacerbated by the proximity of New York.

Faced with these obstacles, many large companies find it simpler to decamp to friendlier locations. XL pre-merger had moved its HQ to Dublin. Ace (pre-merger) had transferred to Zurich. A host of other companies have quietly followed.

5.3. Qatar

Qatar has consciously set out to build a financial centre, enticing companies and people with the appeal of a tax-free (or low tax) haven in the sun with great connectivity. Unusually in the Gulf, it is possible for a Qatari company to be 100% foreign owned, and to repatriate its profits without a withholding tax. The QFC Regulatory Authority seems to be based upon Britain's FSA, and shows a welcoming professional face to potential investors.

All of this contrasts (massively to Qatar's benefit) with the unwelcoming opaque regimes operated by other Gulf nations. Thus we find Qatar on the GFCI list at No. 26, well ahead of Dubai at 29 and Riyadh at 31.

There is a large expat population, but here again, expats are discouraged from establishing long-term bases in the country. A work permit is for 3 years, and real estate investments are limited to certain designated areas.

Locals seem to avoid social interaction with expats. At a recent insurance event in Qatar, it was observed that all the foreign delegates sat down to breakfast at a single large table – eating their food of choice but cheerfully interacting with each other. The Qataris arrived slightly later, nodded at the expats, and sat themselves carefully down together at the table furthest from the foreigners – making it clear that little interaction was desired. Even absent such examples, the authorities seem to be at pains to limit personal contact between locals and expats. Alcohol – that universal oiler of social interaction – is available, but only to expats, either subject to pretty restrictive terms or at nosebleed prices. Any Westerner caught serving alcohol to a Qatari is in very deep trouble indeed.

So the expats come and go like a regular tide, interacting mostly with each other. Qataris may have some limited professional contact, but they do not socialise. When expats want some fun, they jump on one of the many planes and head away from Qatar, to places they can party and play without the disapproving frowns of the locals. There is little exchange of knowledge, and not much professional development for locals.

As a conservative society, Qatar's seeming determination to shield its nationals from the evil influence of the corrupt Westerners is perfectly fair. Unfortunately, it defeats the object of establishing a financial centre. The financial centre can only thrive with western expertise, and that expertise can only be transmitted to locals via frequent contacts. Only when locals are bought into the cluster can it be truly successful for all stakeholders. So shielding Qataris from outsiders, or both from each other, simply means that the effort to graft a financial cluster onto the Qatari root stock is doomed to failure. Whenever the money or the tax advantage dries up, the Westerners will take their toys and go elsewhere. It is unlikely that the Qataris themselves will have acquired the expertise to pick up the ball and run with it.

5.4. Singapore

According to a recent IMF study (Le Leslé et al., 2014), Singapore hosts some 250 insurance companies – 90% of them non-Singaporean. In 2012, those 250 companies registered some US$3.2 billion of [re]insurance premiums. Singapore also hosts a large and growing asset management industry, as well as active foreign exchange, fixed interest and equity markets.

The IMF study notes approvingly: "Singapore developed as an international financial centre with the support of active government policies. The government fostered and maintained Singapore's position in global financial markets through internationally competitive tax structures, and by promoting a well regulated financial system. A robust financial centre is considered central to the city's economic future."

Although civil libertarians tend to be critical of Singapore, its population seems to like stability, and has even embarrassingly voted the token opposition out of parliament. The legal system follows the British system; the courts give every impression of being impartial. The banking system works, regulation in the shape of the Singapore Monetary Authority is highly regarded. In other words, the rule of law seems to be paramount.

Increasingly, corporations regard Singapore as the ideal hub for doing business in South East Asia. It has good connectivity to the entire region – Korea, Malaysia, Indonesia, the Philippines and Vietnam are all within an acceptable flying distance. All are more or less in the same time zone. Singapore sits astride the main trade routes to and from China and Australia, and is the largest bunkering port in South East Asia. Speaking of bunkering, even with China rising, Singapore's is still the second-largest port in the world (Yeandle, 2014). Where ports are, there too is trade and commerce, so Singapore naturally has a thriving commodities market, and is steadily developing as a hedge-fund and wealth management centre catering to the new generation of wealthy Asians.

There is a good pool of talented, educated, hard-working people – both domestic and foreign – to draw upon, a vibrant social life, and inviting public spaces.

The Z/Yen GFCI 19 index published in 2016 awards Singapore the third highest position in terms of reputational assessment, as well as scoring the city-state very highly in terms of quality of life. An unscientific straw poll of friends from 5 different nations who have recently visited or worked there elicited reactions such as "I'd go back like a shot"; "great place to live"; "like Switzerland but warm".

In short: Singapore has created a successful cluster and shows every sign of building it out even further. They have first mover advantage, and have either achieved critical mass (the point at which other hubs simply stall and start to lose vitality as companies and people migrate to the successful hub) or are close to it.

Watch Singapore grow!

5.5. Hong Kong

Hong Kong benefits from being [sort of] the gateway to China. Its port is the third-largest in the world, and its roots as a trading centre go further back even than the 19th century establishment of the British Hongs (Cantonese for Factory or Business Venture). This has evolved into an unchallenged Asian dominance in terms of equities and initial public offerings. According to Dealogic, the territory ranks third after New York and London in 2015, with 67 new listings, valued at $17.6bn.

The territory figures 4th in the GFCI 19 Ranks and Ratings, just behind Singapore (at 3rd). While its public spaces don't attract the same enthusiasm as those in Singapore, there is nevertheless a thriving expat community, with most of the major equities and derivatives traders having a hub in Hong Kong. The rents may be astronomical, but apparently the party scene is almost as active as the trading scene.

The Shanghai-Hong Kong Stock Connect was launched in 2015, giving Hong Kong and foreign investors with offshore renminbi access to the Shanghai market. Indeed, Shanghai may be the great prize: if Hong Kong can hitch its wagon to the Shanghai star, surely nothing can stop its rise.

With all this enthusiasm, Wikipedia tells us that 94 insurance companies have incorporated in Hong Kong, which should surely compete successfully with many other global insurance centres. Of those 94, some 45 companies are either mainland Chinese or Hong Kong Chinese. Five are listed as being in liquidation, and a further 10 appear to be captive insurers. Thus the pool shrinks to 49, mostly branch offices or subsidiaries of foreign insurers – many of which will have several names on the letterbox, but share staff and premises between those names. Applying this criterion, a further 23 companies fall off the list. Some of the remaining 26 are household brands, but others may be regional or local players. Thus the insurance cluster shrinks under the critical eye. It seems neither as large nor as thrusting as other insurance centres.

Anecdotal evidence suggests that insurers may be reacting to the gradual erosion of the independent judiciary, and to the uncertainty of "One Country, Two Systems". While Beijing has not overtly done anything 'wrong', insurers are hearing a conflicted message regarding the ongoing rule of law. Official proclamations about the application of the law only cause insurers to wonder which law will be applied (Hornby, 2014), (Anderlini, 2014). Similarly, Chinese position papers calling for judges to be 'patriotic' rather than impartial pour oil on the fire (Mao and Khan, 2015).

If the rule of law – a single law, impartially enforced – is a core trait of a financial centre, then Hong Kong may already be running into headwinds.

No matter what glittering golden opportunities await in the vast hinterland, insurers are very sensitive to any suggestion that the legal ground may shift under their feet. They will certainly still want the business, but they may well look around for other – cheaper –

locations where they can transact the business, while at the same time keeping themselves beyond the purview of China's possibly dodgy legal environment.

5.6. Zurich

Zurich is a surprising place for an insurance cluster, even if it does score 6th in GFCI 19. The core of the cluster can probably be traced back to the founding of Swiss Re in 1863, and what is now Zurich Insurance Group in 1872. Back then, Switzerland was experiencing something of an economic boom, with farsighted entrepreneurs investing in banks, railways and industry in general. Much of that investment was centred on Zurich, so the financial centre grew naturally in fertile soil.

As a nation, the Swiss tend to be conscientious, thorough and pragmatic. There is no high-flying rhetoric, and their politics are unbelievably boring. In their direct democratic system, they are possibly the only people on earth who would vote *down* a proposal for a shorter working week, and vote *in* a higher level of VAT to ensure a balanced budget. All of which adds up to a solid legal system, solid national finances, political stability and a deep pool of hardworking, qualified, multilingual professionals. In business terms, boring is good. Solid is good. Stolid is even better.

More than 20% of the population are foreigners, mostly highly educated professionals attracted by a high standard of living, good housing and quality schools. With its Zwinglian tradition, Zurich will never be a party city, but there is good professional and social interaction between locals and foreigners.

Financial regulation is pragmatic and effective, and taxation operates on a no-surprises even keel. It's an easy place to run a business. Public transport is great, the railways are cheap and fast, the air connectivity is excellent. It's part of the Schengen Agreement, right in the centre of the Continent, with France, Germany, Austria and Italy all swiftly reachable. Small wonder then that many Bermudian and even British companies have moved their headquarters to Zurich.

The fly in the ointment of course is that Switzerland is not part of the EU. Its financial services companies engage in multiple corporate contortions to ensure that they have access to Fortress Europe and its millions of affluent desirable customers. Its authorities work hard to secure bilateral treaties, but they are at the mercy of intransigent EU negotiators and an equally intransigent voting public which doesn't hesitate to vote down unpopular legislation or treaties. Brussels makes it menacingly clear that a portcullis can be dropped in front of corporate contortions at any time, in which case all of Switzerland's appeal goes away.

6. London – Plus Ça Change, Plus C'est La Même Conclusion

To write so late of London is simply to save the best for last. The City of London is the oldest continuous democracy in the world, predating the monarchy and Parliament. Reliable evidence shows the Corporation of London functioning in 1032, but it is presumed to have been established by the Vikings soon after their arrival in London around 871, though Viking control was only fully established in 1016. In 1066 William the Conqueror laid waste to the country, but "came friendly" to London, recognised the liberties of its citizens, pledged to defend their freedoms and fortified the City against barbarian attack. In fact, within the City he is still referred to as William the First, not William the Conqueror. His Charter of 1067 recognised the rights, privileges and laws that the City had enjoyed since the time of Edward the Confessor (1042-62). The City of London is legally "incorporated by prescription from time immemorial", i.e. perpetually granted the rights it is presumed to have exercised from before the time of Richard I (1189).

With its unique history, London is probably the oldest and most successful cluster in the world. If one includes the legal and archaeological remnants of Roman Londinium, it reaches back even further (Glasman, 2014). Roman law and practice formed the basis of London's institutions and political language, and the status of 'citizen' has been retained ever since. The City also adopted through its democratic ward system and court hustings many aspects of Saxon civic practice. As well as 'free men' there were 'free sisters'. The 'folk-moot' was a regular meeting of all citizens at St Paul's Cross, called by the ringing of the bells, where matters of concern would be discussed and voted upon. The City of London still holds 25 Ward Motes every year, over a millennium later.

In Magna Carta, the 1215 charter of rights between King John and the barons, not only were the rights of the "whole body" of citizens respected, but the mayor of London was designated as one of two guarantors charged with ensuring that the Crown kept its side of the bargain. The 13th Clause states: "*The city of London shall enjoy all its ancient liberties and free customs, both by land and by water*."

The Stuarts made two serious attempts at London reform. One led to the execution of the king, the other – an attempt by Charles II to establish that the monarchy was the source of the Corporation's authority – led to the Stuarts' replacement by William and Mary, whose Second Charter in 1690 leaves no doubt as to who were the greatest beneficiaries of the Glorious Revolution. It declared: "That the mayor, commonalty and citizens of London shall for ever hereafter remain, continue and be, and prescribe to be, a body politic, in re, facto, et nomine… and shall have and enjoy all their rights, gifts, charters, grants, liberties, privileges, franchises, customs, usages, constitutions, prescriptions, immunities, markets, duties, tolls, lands, tenements, estates and hereditaments whatsoever."

During the 18th Century Parliament displaced the Crown as the fundamental unit of sovereignty and democracy displaced the Divine Right of Kings as the principle of legitimacy, yet still the the Corporation of London has not been subordinated to national laws and practices.

Even today, the UK government understands unquestioningly that the rights and privileges of the City of London must be upheld at all costs, against all comers – barbarians, Russian oligarchs and even the dreaded European Union.

That makes the City of London a very good place for an insurer to transact business. Historically, London policed itself, taxed itself… but above all it judged itself. London always treated solicitors with the same suspicion you would devote to a box of unexploded ordinance (and indeed barred them from setting up Chambers within the City until the 17th century). Nevertheless, the City encouraged those unloved practitioners to build up a vast body of common law precedents and tort law around financial services – its heart-blood. The courts before the gates of the City heard cases from many corners of the world, interpreted contracts and generally made themselves the model of choice for less fortunate jurisdictions. Today, countries as far apart as Argentina and Greece often find themselves obliged to accept English law and English (London) jurisdiction as a condition when issuing debt or arranging a contract.

The same is true of insurance: the contract of insurance may be issued in Dubai or Shanghai, but the parties consciously choose to take disputes to the London courts. It won't be cheap, but they know they'll get independent impartial justice meted out by some of the most respected legal minds. And that keeps the punters coming back.

Then there's the lifestyle. "When a man is tired of London, he is tired of life" asserted Samuel Johnson in 1777. Although we all moan about crowded Tubes and gridlocked roads, secretly we're proud to be part of the buzz. How can one not love the museums, the universities, the theatres, the restaurants… all the pages and pages of things to do and see and experience – [Author declaration of interest: I have a love affair with London].

The locals rub shoulders with new arrivals and expats and it all turns into an exuberant celebration of the joy of doing business together and living in the greatest city on earth. Bright minds from France and Germany and Spain and everywhere else pile into the London party (rather than traipsing off to Frankfurt or Paris). Everyone sparks off everyone else… and that ancient cluster just keeps on growing.

Take a look at public distributed ledgers for example – Bitcoin to most laymen. It's not efficient as an alternative currency – at least not yet. But the concept of shared ledgers is hugely applicable for insurance and reinsurance transactions, where vast amounts of data and documentation need to be handled and stored efficiently and preferably with an audit trail. This is the technology of the future, being pioneered right here in the UK. Success could mean a whole quantum leap for our cluster.

There is a storm gathering over London though.

David Cameron's attempt to get the European monkey off the Tory back by way of a referendum on EU membership has backfired rather spectacularly. One day the history books will tell us Cameron took the only step available to him with a rebellious party in Westminster and nationalist uproar in the shires. But when first the referendum was legislated, Britain was an island of relative economic well-being in a gloomy recessional world. Comfortable voters don't vote to change the status quo, no matter how much they may deplore the undemocratic and unaccountable shenanigans in Brussels and Strasbourg. So it looked like a good bet at the time.

We are still comfortable, but outside events played into the hands of the Leavers: firstly, the tragic masses of humanity washing up on the southern shores of the EU, prompting nation after nation to roll out the barbed wire and deploy the teargas. The Schengen Agreement was all but dead even before Mrs Merkel suggested that 75 million Turks might gain visa-free access, if only Mr Erdogan would stem the tide. If the EU had any role in the tragedy, its sin was one of omission not of commission. Nevertheless, the EU was blamed by the far right, the medium right, and even the hard left. And so we find ourselves leaving the EU and preparing to raise the drawbridge before yet more desperate souls fetch up in Calais.

And as for the City, the EU must take the blame for making the Brexiteers' case. Both the European Central Bank (ECB) and the European Commission stand accused (justifiably or not) of seeking to decapitate the London financial centre. The ECB fought hard to move the clearing of Euro-denominated transactions from London to say, Frankfurt (or at least somewhere in the Euro-zone). While the currency logic was certainly present, from the London perspective it looked like a mean-spirited attempt by Frankfurt to take by legislation what it could not gain by exuberance. And then the European Commission came up with some pretty abstruse legislation which seemed almost designed to harm London. The Markets in Financial Instruments Directive (MiFid) has been "delayed" for a further year for "technical reasons" (presumably the fact that the rules are unworkable counts as a technical reason), but it won't go away. And without a sensible free market UK voice in Brussels, MiFid and other EU legislation can only become more byzantine and less workable. Closer to home, the UK has been determined to implement Solvency II before anyone else. British companies have been made to spend hundreds of millions of pounds to be ready for the kick-off in 2016. Along the way, they have discovered – and fruitlessly complained of – all those shortcomings lamented elsewhere in this paper. Our European counterparts, meanwhile, are only just waking up to their part in the Brave New World. Their advantage is that they are still firmly *within* the EU, whereas companies based in the UK will now have to engage in Swiss-style contortions to secure their access to the market. London is bracing for a wave of job dislocations and hiring freezes as financial services firms make the necessary preparations for corporate life after Brexit.

In a similar vein, London can no longer take for granted its position as the first, the greatest, the largest recipient of Foreign Direct Investment (FDI) in Europe. All of that luvverly FDI came our way because it bought not just a place in London, but a place in Europe. Now, foreign companies will look at Britain with a more jaundiced eye, evaluating the costs more coldly.

One of the first acts of the previous coalition government was to split up the Financial Services Authority into the Prudential Regulatory Authority (PRA) and the Financial Conduct Authority (FCA). On the face of it, this new system should be no worse than the previous single regulator, but in practice the conflicting goals of the two authorities have increased the regulatory burden. Greater regulatory burden means greater regulatory cost. If the cost no longer secures automatic access to the EU single market, then suddenly Dublin doesn't look so bad even if the weather is awful and it isn't nearly as much fun as London.

Dublin also offers tax advantages to incoming companies. Here in the UK by contrast, while the Chancellor has reduced business taxation over the past few budgets, he hasn't actually addressed the problem. Other countries (like Ireland) fix taxation systems and leave them largely unchanged for long periods of time. Countries like Switzerland or Singapore fix a tax rate, tell companies what they can and can't deduct, and leave it like that for a decade or more. In the UK, corporations must scan the new budget every year in trepidation. We all remember the budget when Gordon Brown slightly reduced the headline corporate taxation rate, but extended the tax net to include contributions towards company pension schemes – thereby killing the final salary pension scheme which had kept Britons happy and healthy for decades before. The current Chancellor doesn't seem minded to commit any such egregious raid, but nor is there any move to create stable long-term corporate taxation – which would make running company finances so very much easier.

Finally there is the Insurance Act 2015. This supercedes the Marine Insurance Act 1906 (and probably high time too). It includes a number of clean-ups and re-definitions, and passes into law a number of matters (e.g., non-disclosure), which courts have effectively worked around for much of the 20th Century. But it introduces an element of uncertainty and it may interfere with the smooth functioning of our formidable legal machine. Or again, it may not. The problem with laws is that – no matter how well intentioned – they may have unintended consequences (e.g., the Access to Justice Act 2000 which brought ambulance-chasing lawyers to the UK). So watch this space.

Listen hard: the distant thunder of Singapore and Zurich catching up is still very distant indeed, offset by the creak of New York and the creek of Dubai failing to reach escape velocity.

In this particular race, London's wheel has been spiked. We're in for a bumpy ride over the next few years, and we may have to fight harder to keep our lead. But keep it we will.

Contrary to their self-image, Brits are muddlers-through, not organisers. For proof of this assertion, one need look no further than London's transport system, which muddles through on insufficient investment, carrying many thousands more passengers than its builders ever imagined. In any other country, a capital city which generates more than 20% of GDP (http://www.cityam.com/article/london-has-never-been-important-uk-economy) would have zillions of pounds invested in its infrastructure: London just muddles through with no joined up plan. The same is true of the city's water, much of which is still carried (sort of) in Victorian pipes. Or train services throughout the country that stumble along, powered by the perseverance of the Great British Muddle Through and Make Do.

There are only three things the British organise really, really well: state funerals; royal weddings; and wars. And by voting to leave, we have effectively placed ourselves on a war footing – be it against the EU, against the newly secessionist Scots, or against ourselves. However we define the opposition, Brits will do as they always do in adversity: band together and circle the wagons. There will be a surge in naturalisation applications from EU citizens. Our economy will re-balance a little – more fintech, less financials; more manufacturing, less banking; more farming, less services. Salaries will drop, and the weak pound will keep us all holidaying in Britain rather than in Brittany.

London will lose some jobs, but not nearly as many as we may fear. Various computer servers will be relocated from London to Frankfurt: computers don't form clusters and cannot dig their heels in when told to relocate. The London cluster is not going to unravel just because the shires have given the capital a kick in the teeth. The deep ocean of talent will still be here, the wealth of expertise is going nowhere. The sheer exuberance of London will roll over this seizure, and the clever bankers will continue to live and work and party right here.

Between siege mentality and the Great British Muddle Through, London will be just fine, thank you.

Bibliography

Ageas (2012) "UK - A market driven by choice, convenience, value, and above all… customer service". *Annual Review 2012*, [online]. Available at: http://annualreview2012.ageas.com/home/uk/ [Accessed December 2015]

Anderlini, Jamil (23 October 2014) "China vows to strengthen socialist rule of law". *Financial Times*, [online]. Available at: http://www.ft.com/cms/s/0/008d3bc4-5ac3-11e4-8625-00144feab7de.html#axzz3GzJeuYny [Accessed December 2015]

Bell, Gillian (February 2012) "The Financial Services Bill and insurance". *Out-Law.com*, [online]. Available at: http://www.out-law.com/page-11329 [Accessed December 2015]

Cooper, Malcolm (2011) "The Great Game, Clustering in Wholesale Financial Services". Available at: http://www.longfinance.net/images/PDF/The%20Great%20Game_Clustering%20In%20Wholesale%20Financial%20Services.pdf [Accessed December 2015]

Glasman, Maurice (29 September 2014) "The City of London's strange history". *Financial Times,* [online]. Available from: http://www.ft.com/cms/s/2/7c8f24fa-3aa5-11e4-bd08-00144feabdc0.html#axzz3EiTQi5pt [Accessed: December 2015]

Grant, Jeremy (16 October 2014) "Singapore jostles with Hong Kong for financial crown". *Financial Times*, [online]. Available from: http://www.ft.com/cms/s/0/b18372a6-5297-11e4-a236-00144feab7de.html#axzz3GE6Ta7qL [Accessed: December 2015]

Hornby, Lucy (16 October 2014) "China eyes rules-based system but flexes extrajudicial muscles". *Financial* Times, [online]. Available from: http://www.ft.com/cms/s/0/2cc4981c-5448-11e4-84c6-00144feab7de.html#axzz3GE6Ta7qL [Accessed December 2015]

Kugler, Maurice and Ofoghi Reza (July 2005*)* "Does Insurance Promote Economic Growth Evidence from the UK". Available at: http://core.ac.uk/download/pdf/6301385.pdf [Accessed December 2015]

Le Leslé, V.; Ohnsorge, F.; Kim, M.; Seshadri, S. (July 2014*)* "Why Complementarity Matters for Stability—Hong Kong SAR and Singapore as Asian Financial Centres", *IMF Working Paper.* Available at: https://www.imf.org/external/pubs/ft/wp/2014/wp14119.pdf [Accessed December 2015]

Leftly, Mark (30 December 2013) "Insurance brokers make claim for unfair treatment by FCA". *The Independent*, [online]. Available at: http://www.independent.co.uk/news/business/news/insurance-brokers-make-claim-for-unfair-treatment-by-fca-9029657.html [Accessed December 2015]

Mao, Jill and Khan, Natasha (15 August 2015) "Ex-Judge rejects China patriotism Call for Hong Kong Courts". *Bloomberg Business*, [online]. Available at:

http://www.bloomberg.com/news/articles/2014-08-15/hong-kong-should-uphold-judicial-independence-former-judge-says [Accessed December 2015]

Swiss Re (2012*)* "Sigma, World Insurance in 2011: Non-life ready for take-off". *Swiss Re, No 3/2012.* Available at: http://media.swissre.com/documents/sigma_3_12_en.pdf [Accessed December 2015]

Swiss Re (2015*)* "Sigma, World Insurance in 2014: back to life". *Swiss Re, No 4/2015.* Available at: http://media.swissre.com/documents/sigma4_2015_en.pdf [Accessed December 2015]

The Guardian Press association (24 February 2014) "UK pension funds will be forced to come clean on hidden charge". *The Guardian*, [online]. Available at: http://www.theguardian.com/uk-news/2014/feb/24/uk-pension-funds-will-be-forced-to-come-clean-on-hidden-charges [Accessed December 2015]

Yeandle, Mark and Danev, Nick (September 2013) "The Global Financial Centres Index 14". Available at: http://www.longfinance.net/images/GFCI14_30Sept2013.pdf [Accessed December 2015]

Yeandle, Mark and Danev, Nick (March 2016) "The Global Financial Centres Index 19". Available at: http://www.longfinance.net/global-financial-centre-index-19/992-gfci-19.html [Accessed July 2016]

Yeandle, Mark (2014) "Maritime Financial Centres". Available at: http://www.longfinance.net/images/Maritime_Financial_Centres.pdf [Accessed December 2015]

--- (2011) *"*Update on the U.S. Tort Cost Trends". *Towers Watson.* Available at: http://www.casact.org/library/studynotes/Towers-Watson-Tort-Cost-Trends.pdf [Accessed December 2015]

--- (25 February 2014) "It's the institutions, stupid". *Capital Economics*, [online]. Available at: https://www.capitaleconomics.com/emerging-markets-economics/emerging-markets-economics-update/it-s-the-institutions-stupid.html [Accessed December 2015]

--- (17 June 2015) "UKTI Inward Investment report2014 to 2015". *GOV.UK.* Available at: https://www.gov.uk/government/publications/ukti-inward-investment-report-2014-to-2015/ukti-inward-investment-report-2014-to-2015-online-viewing [Accessed December 2015]

--- (2016) "English Translation of Magna Carta". *The British Library*. Available from: http://www.bl.uk/magna-carta/articles/magna-carta-english-translation#sthash.LRYXeWM7.dpuf [Accessed March 2016]

About The Author

Shirley Beglinger has served as the first Generali Fellow in Insurance at the CSFI. She is currently a principal in Insurance with the Shires Partnership, which she co-founded with Andreas Bachofner. During her career in insurance, she has worked with both Swiss Re and Aon. On the banking side, she spent time with Credit Suisse before moving into private banking. She testifies regularly as an expert witness in financial institutions' insurance litigation.

Thanks

Long Finance would like to thank Hattie Lucas-Clements and Douglas Rose for kindly editing this report.

The Long Finance initiative grew out of the London Accord, a 2005 agreement among investment researchers to share environmental, social, and governance research with policy-makers and the public. Long Finance was established more formally by Z/Yen Group and Gresham College from 2007 with the aim of exploring long-term thinking across a global network of people.

We work on researching innovative ways of building a more sustainable financial system. In so doing, we try to operate openly and emulate scientific ideals. At the same time, we are looking to create a supportive and caring community where people can truly question the accepted paradigms of risk and reward.

"When would we know our financial system is working?" is the question underlying Long Finance's goal to improve society's understanding and use of finance over the long term. In contrast to the short-termism that defines today's economic views the Long Finance time-frame is roughly 100 years. Long Finance aims to:

- expand frontiers - developing methodologies to solve financial system problems;
- change systems - provide evidence-based examples of how financing methods work and don't work;
- deliver services - including conferences and training using collaborative tools;
- build communities - through meeting, networking and events.

Long Finance runs four programmes exploring four major themes:

- **London Accord** – looking at environmental, social, and governance investment research issues;
- **Financial Centre Futures –** seeking to explore how finance might work in the future;
- **Meta-Commerce** – aiming to identify and structure the critical questions underlying the long-term viability of the financial system;
- **Eternal Coin –** encouraging a global discussion on the nature of money and the concept of value.

www.longfinance.net

www.longfinance.net

www.financialcentrefutures.net

SPONSORED BY

Z/Yen Group Limited
41 Lothbury
London EC2R 7HG
United Kingdom

+44 (20) 7562-9562 (telephone)
hub@zyen.com (email)
www.zyen.com