

Silos and silences

Why so few people spotted the problems in complex credit and what that implies for the future

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Why did so few people inside or outside the banking world spot the risks that were developing in the world of complex credit and credit derivatives before 2007? What does that failure imply for regulators and policy makers in the future? These questions have provoked a welter of debate since the banking crisis erupted – and a host of different answers.

Some observers have blamed the issue on flawed regulatory and economic thinking among policy makers and central bankers, or a “cover-up”, in the sense that bankers were deliberately hiding their riskiest behaviour from regulators. The issue of “regulatory capture” has also been blamed. However, this paper argues that two other problems need to be recognised too. Firstly, the financial world was a pattern of «social silence», to coin a phrase used by Pierre Bourdieu, the French sociologist, which ensured that the operations of complex credit were deemed too dull, irrelevant or technical to attract interest from outsiders, such as journalists or politicians. Secondly, there was a problem of silos, or fragmentation, both in a structural and cognitive sense, which made it hard for both insiders and outsiders alike to take a holistic vision of how credit was developing. Taken together, that made it hard to “join up the dots” about the dangers in the credit world, until it was too late. And, as such, this raises policy questions and challenges for the future.

Why did so few people inside or outside the banking world spot the risks that were developing in the world of complex credit and credit derivatives before 2007? What does that failure imply for regulators and policy makers in the future? These questions have provoked a welter of debate since the banking crisis erupted – and a host of different answers.

Some observers have blamed the issue on flawed regulatory and economic thinking among policy makers and central bankers, particularly those who displayed excessive faith in the self-healing, and self-regulating power of free markets. Others have argued that there was a "cover-up", in the sense that bankers were deliberately hiding their riskiest behaviour from regulators. The issue of "regulatory capture" has also been blamed, since the banking industry was so powerful and wealthy in recent years that its practitioners have been able to use their lobbying machine and political muscle in overt and covert ways to prevent policy makers (and others) from exercising too much oversight into, say, credit derivatives. That enabled the banks to reap fat profits for years – but prevented regulators from stopping the credit bubble, or so the argument goes.

All of these explanations have a grain of truth. However, from the perspective of someone who has both trained as a social anthropologist but now works as a financial journalist,¹ I would highlight two other issues, which are not usually featured in the financial debate. One of these is the problem of "silos", or the fact that many part of the financial world have been dangerously fragmented in recent years, both in a structural sense (i.e. how banks and regulators have been organised) and in a cognitive sense (i.e. how financiers and policy makers conceive of finance). That has made it very hard for anyone inside or outside the banking world to "join up the dots", and see how systemic risks were building across the system.

However, a second, related, problem is a pattern of social "silence". As Pierre Bourdieu, the French anthropologist and intellectual, observed in his seminal work *Outline of a theory of practice*,² the way that an

elite typically stays in power in almost any society is not simply by controlling the means of production (i.e. wealth), but by shaping the discourse (or the cognitive map that a society uses to describe the world around it.) And what matters most in relation to that map is not just what is discussed in public, but what is *not* discussed because those topics are considered boring, irrelevant, taboo or just unthinkable. Or as Bourdieu wrote: "The most successful ideological effects are those which have no need of words, but ask no more than a complicitous silence."

Most economists and policy makers who have looked at the world of high finance in recent years, have not paid much attention to these social issues such as the silo problem, or question of the cognitive map. That is no surprise: bankers, regulators and economists tend to be trained in academic disciplines such as science, mathematics or economics, and usually use those skills to analyse markets. However, Bourdieu's observations can help to shed some light on why the financial system spun out of control – and perhaps how to prevent that in the future. For not only was the whole arena of complex credit an area of social silence during the past decade – in the sense that it was rarely discussed in the wider public – but the dominant theories behind this activity was marked by "complicitous silence" too. And that, coupled with the silo issue, meant that very few observers *outside* the financial industry – and precious few inside it too – saw the risks in financial products such as credit derivatives; or not, that is, until it was far too late.

1 | THE FINANCIAL "ICEBERG"

To explain these two key points, it is worth recounting some of my own experience working as a journalist in the world of complex credit. This particular journey first started back in 2004, when I was working on the Lex column of the *Financial Times* – FT (the comment section) and asked to produce a memo outlining some of the areas that I thought that this Lex column should cover. The request prompted me to try a short, mental experiment: what would happen, I wondered, if a Martian (or anthropologist)

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² Bourdieu (P) (1972): « Esquisse d'une théorie de la pratique », Droz.

crashed into the banking world in London, New York or Paris, and drew a map of where the most intense areas of financial activity were occurring? Which parts of that map would look most "important"? And how would that pattern compare to how politicians and journalists discussed the financial world – or the "discourse" to use Bourdieu's term?

That mental exercise revealed a stark discrepancy. Back in 2004, there was extensive coverage in the mainstream financial and business media of how the equity markets behaved. There was also some discussion of the currency and commodity markets, and sporadic coverage of government bonds. However, there were almost no debate or coverage in the mainstream media about debt and derivatives, let alone issues such as credit derivatives, even though these areas were expanding very rapidly, and generating fat profits for the banks. Indeed, the discrepancy between the activity and coverage – or reality and discourse – was so stark, that my colleagues and I later observed in some internal FT memos that the financial system looked like an "iceberg". Part of this system (such as the equity world) was visible to all; but beneath that small, visible part lay a vast, shadowy, subterranean world of debt, derivatives, securitisation and credit that was barely discussed by journalists and politicians, let alone ordinary voters.

This pattern intrigued me. So, in early 2005 I moved to the so-called "capital markets team" at the FT, determined to peer into that subterranean part of the financial iceberg, where the debt and derivatives activity was underway. However, it was not an easy task. One practical problem that confronted my team was that the banking world as a whole was wary of letting mainstream journalists peer too deeply into the credit sphere. Most investment banks and hedge funds operated tight press policies, which curbed journalists' access to the bankers, and it was painfully hard to get even basic data about activity in many parts of the debt and derivatives world (most of this activity was over-the-counter in nature, and thus not reported to any third-party). By 2005 some bankers and credit rating agencies were starting to fill this "information gap". However, that data was patchy – and most banks had a vested interest in maintaining this opacity, to preserve their margins.

However, the "iceberg" pattern emphatically cannot be blamed just on the behaviour of the banks.

A second, equally important, issue was that most media outlets had little interest in exploring the subterranean financial shadows. That was primarily because the debt, derivatives and securitisation sectors did not make an obviously good "story", as it is usually defined according to the cultural traditions of the Western media. More specifically, when Western newspaper or television editors look for good stories, they typically assume that these need certain key ingredients, such as verifiable facts, tangible events, named, on-the-record quotes, and, above all, colourful individuals. The last point is particularly crucial: since time immemorial, humans have tended to communicate to each other by telling tales that are centred on people, be that classical myths, biblical parables, or (most recently) Hollywood epics. Consequently, Western journalists still typically assume that a "good story" is one with plenty of human element.

Back in 2005, many of these key ingredients were found in equity markets. Stories about share prices, after all, usually involved tangible events (i.e. companies did things), quotable facts (share prices moved) and colourful people (company executives or analysts gave quotes or had interesting personal stories.) But the debt and derivatives sectors lacked that: data was patchy, at best; there were few dramatic events, since the really important developments tended to occur in an elliptical, evolutionary manner. Moreover, these sectors appeared bizarrely devoid of humans; the individuals who worked in this world were usually determined to stay out of the spotlight and would rarely give on-the-record quotes. Stories about derivatives and debt thus tended to be hard to "sell" to an editor; or, more accurately, most editors did not think those stories would sell many newspapers, and were not that interested.

There was an additional problem too: extreme complexity. By 2004, the world of complex credit was swathed in jargon, and permeated with advanced mathematical techniques. That made it very difficult for journalists to penetrate this area, since few journalists have much training in advanced mathematics. In theory, of course, the media could have dealt with that by hiring some specialists, or using their resources to conduct extensive research. But by 2005 there was such disparity in the salaries of journalists and bankers that it was hard for newspapers to hire the "experts". In any case, since these topics did not fit the usual definition of

a "good story", most newspapers had little incentive to invest in this tale – particularly at a time when the media resources were dwindling. The net result, then, was that most journalists simply ignored the field. An analysis of the Factiva data base of global media, for example, which covers most English language publications in specialist and mainstream press shows that out of the 116m articles published between January 2000 and July 2007 (when the crisis in structured investment vehicles started), less than 200 articles of these mentioned the word "SIV" (structured investment vehicle). Moreover, those 200 odd articles were exclusively in specialist publications such as *Euroweek* and *Asset Securitisation Report*; the mainstream broadsheet publication in Europe and the United States did not cover the topic at all. There were more references to collateralised debt obligations (CDOs) in this period, running at 1710. However, once again, almost all of these references were in the specialist press; this was little coverage in the mainstream press, aside from the FT. Complex credit, in other words, was concealed from view from politicians and ordinary voters during this period. However, this was not simply due to a specific, banker "plot"; the more subtle problem was that the topic had been defined as utterly geeky and dull.

2 | SILOS

This lack of external oversight had important implications for how the world of credit in general – and credit derivatives in particular – developed. During the course of 2005 and 2006, my team at the FT scurried about the financial world, trying to paint a picture of how this unfamiliar territory operated. And as I conducted this research – often using skills that were similar to those I had used in a former career as an anthropologist – I was repeatedly struck by three specific points about this world. Firstly, it was clear to me that the bankers who were involved in developing credit derivatives and other complex products had a distinctive sense of their own identity, and separation from other areas of finance. That was partly because they spoke a jargon that was impenetrable to others (often including myself). It was also because they shared many educational

and career ties; since the field was small and young, most of those in this area had worked together, reinforcing the common bond.³

However, this group was also bound by two other key factors. Most of the bankers who were working in this field tended to treat money and credit as an a-cultural thing, ripped out of any social context. The roots of the word credit come from the latin *credere*, meaning "to believe", which is fundamentally a social construct. Yet, when bankers discussed CDOs in 2005 or 2006, they rarely mentioned that there were tangible human beings involved in this financial chain, or that human incentives might be shaping the way that finance worked. Instead, the credit derivatives bankers had developed their innovations assuming that finance was built on rational, a-human lines, like a silo that was semi-detached from the rest of society.

The other defining common point – in addition to the tendency to view credit as an a-cultural phenomenon – was the sense of a distinctive *mission*. By 2005, the credit sector was not simply booming, but this activity was wrapped up and presented within a distinctive and well-developed theory. There was, in a sense, a distinctive "credit derivatives creed"; or, more accurately, the bankers were driven by a well-defined sense of ideologies that they mostly (but not always) claimed to believe.

The centre piece of this ideology was something which might be dubbed the "risk dispersion creed." The starting point of this was the idea that a dramatic revolution had taken place in finance. Before the 1970's – or so this story went – Western banks had generally retained most of their credit risk on their own books. That left them exposed to dangerous concentrations of credit risks (as shown during the Savings and Loans (S&L) debacle in the 1980's); it also made it hard for banks to manage their regulatory capital in an efficient manner. However, in the aftermath of the S&L crisis, banks started to shed credit risk through loan sales and securitisation techniques. Then, when banks such as JPMorgan, Bankers Trust and Credit Suisse pioneered the use of credit derivatives in the mid to late 1990's, the process of risk dispersion intensified dramatically. And that essentially ushered in a Brave

³ See Karen Ho's book *Liquidated: An ethnography of Wall Street*, 2009, for an excellent discussion from an anthropologists perspective of how educational histories can create important quasi kinship ties among bankers on Wall Street. The work of Caitlin Zaloom, another American anthropologist, also sheds important light on the issue of identity among traders working in the Chicago electronic exchanges.

New Banking World, or so the bankers claimed, in which banks could shed credit exposures, or hedge against these, on a customised basis, and investors could acquire whatever risk profile they chose. Or as a JPMorgan banker noted in the late 1990's, in a comment that echoed the mood of the group: "Credit derivatives [will] fundamentally change the way that banks price, manage, transact, originate, distribute and account for risk."⁴

Unsurprisingly, most bankers took it for granted that this shift had been a very positive thing; as revolutionary as, say, the internet boom (and indeed, when bankers talked about the credit derivatives "revolution" they often echoed language from that internet sphere). However, their enthusiasm was not driven merely by the fact that innovation was producing fat banking profits; proponents of credit derivatives also insisted, sometimes with evangelical zeal, that innovation had also benefited the wider world, by creating a safer financial system. The credit derivatives group was unified an unquestioning assumption that the triumvirate of financial innovation, globalisation and free-market forces was a very positive thing; since credit derivatives appeared to represent "progress", they were assumed to be good.

In retrospect, of course, some of this creed looks laughably misguided. In theory, the idea of using credit derivatives to hedge credit risk, or to reduce concentrated loan exposures, certainly does have merits; moreover, many individual investors and institutions have used these tools in a beneficial way. However, by the early years of the 21st century, the practical operations of the credit derivatives markets were diverging starkly from the "creed." The idea of "free" markets is a case in point. When credit derivatives enthusiasts talked about their innovations in 2005 or 2006 to journalists like myself, they often claimed that one benefit of this innovation was that it would enable financial markets to become more "free". The more that assets (or risks) were traded between willing participants, the argument went, the more "liquid" those markets would be, and thus the easier it would be to determine the true price of assets or risk. A favourite buzzword for the bankers at JPMorgan (and elsewhere) who helped to develop

credit derivatives in the late 1990's, for example, was "market completion" – or the idea that the introduction of the derivatives technology into the financial system should enable markets to become more "complete", and presumably more perfect.

However, by 2005, "free market" ideals were often lacking in how the credit markets actually worked. Because so much of the market was relatively opaque, the free flow of information that would be needed to create a true market did not occur. Instead, powerful banks dominated information flows. More important still, as innovation became more intense particularly from 2004 onwards, products became so complex that they were increasingly difficult to trade. As a result, proper "market" prices did not really exist for items such as CDOs; instead, banks and hedge funds tended to use models to work out the value of these assets for accounting purposes. In some senses, that use of mark-to-model accounting made a mockery of the entire market completion ideal; however, few bankers spotted that contradiction – far less appeared to worry about it.

Similar terrible ironies revolved around the creed of risk dispersion. A central assumption driving innovation was that if investors and banks were given tools to hedge their risks, then free markets would disperse these risks in a rational, beneficial manner, thus enabling the overall financial system to better absorb shocks. And by 2006, bankers often pointed to the apparent resilience of the financial system between 2000 and 2006 as evidence that this theory worked. However, what bankers did not appear to recognise is that the very same techniques that were being used to promote risk dispersion were in *themselves* introducing new risks into the system. Most notably, as the process of risk dispersion became increasingly complex and opaque, it became exceedingly difficult for investors, regulators (and even bankers) to monitor credit quality or track where risk was moving in the system. It was also hard to see how investors were using credit derivatives. After all, when the sector had first evolved, it had been presented as a tool for hedging against risks; but by 2005 it seemed that this "hedging" function had been pushed aside, since many investors (and even banks) seemed to be using these tools to assume

⁴ Quote from *Blythe Masters*, a senior JPMorgan Bank (now at JPMorgan Chase) who was involved in the development of the credit derivatives market, in Tett (G.) (2010): *Fool's gold: the inside story of JPMorgan and how Wall Street greed corrupted its bold dream and created a financial catastrophe*, p. 56. This book essentially relates how a small team of JPMorgan bankers developed credit derivatives from the mid 1990's onwards.

more risk. (By 2006, for example, banks were creating growing quantities of synthetic mortgage-backed CDOs, primarily for the purpose of letting investors place bets on the outlook for the US housing market – rather than enabling banks to hedge existing cash loans.) That changed the nature of the market in a fairly fundamental way, since a tool that was theoretically supposed to reduce risks in the system as a whole was fuelling more risk-taking. However, this was not well understood – or debated.

This begs the crucial question: why? After all, it was not just the bankers who were enmeshed in this credit dispersion creed; many Western policy makers, particularly in the Anglo-Saxon world, were too. In its 2006 report, for example, the International Monetary Fund declared – echoing the views of many policy makers – that “the dispersion of credit risk by banks to a diverse and broad set of investors... has helped make the banking and financial system more resilient.”⁵ To be sure, there were a few maverick voices which dared to express public scepticism. At the Bank for International Settlements, for example, Claudio Borio and William White of the economics department questioned the innovation creed. Other independent consultants, such as Janet Tavakoli, Satyajit Das or Arturo Cifuentes, did so too.⁶ However, such public mavericks were rare; mostly, group-think predominated.

Why? Part of the problem can be blamed on the issue of greed; or, more accurately, incentives. By 2005 and 2006, the bankers, lawyers and rating agency officials who were active in the credit derivatives world were often reaping fat bonuses, making big profits from the business of complex credit. Few of those had any incentive to rock the boat. And for the most part, those “insiders” were the only people who really knew how the new game of complex credit operated – precisely because the outsiders did not seem particularly interested in finding out how the submerged part of the financial iceberg actually worked.

But another, more subtle problem was the presence of numerous silos *within* the financial world too. As I moved around the banking system as a journalist in 2005 and 2006, I was often struck that most investment banks appeared to be run in an oddly segregated, quasi-tribal manner. On paper,

the banks were supposed to work as coordinated units; in practice, though, different departments often seemed to operate more like warring tribes, since each department or desk was competing for resources against other departments, and power and information generally only flowed vertically upwards, in a hierarchical way. Unsurprisingly, the department was earning most money for the bank typically wielded the most power, enabling it to grab more resources, and – most crucially – rebuff attempts by other departments to exercise restraint or oversight. Thus, while the risk departments at the large banks were supposed to exercise control, their efforts to rein in risk-taking often failed, because the risk-management department was very weak relative to the powerful CDO desk. The classic example of this was UBS: there very few people outside the UBS CDO desks actually knew what those desks were doing, let alone how this activity changed the total risk exposure of the bank. And while the top management were theoretically supposed to watch risk-taking, the fragmented nature of the UBS bureaucracy meant that even the top management were often in the dark. Or as Peter Kurer, a member of the UBS board told the Financial Times, shortly after so-called “super-senior” CDOs had caused massive losses for the bank: “Frankly most of us had not even heard the word “super-senior” before the summer of 2007... we were just told by our risk people that these instruments were triple A, like Treasury bonds. People did not ask too many questions.”⁷ However, UBS was not at all unique; these patterns were found at most banks, particularly those (such as Merrill Lynch or Citi) which subsequently suffered big losses.

Information flows were also fragmented across the market as a whole. By 2005 complex credit was evolving so rapidly, and the banks were in such fierce competition with each other, that they kept much of their activity in the CDO or Credit default swap (CDS) world relatively secret from each other. That made it hard for outsiders to track how the market was developing; if my FT team, for example, wanted to get an estimate for the size of total trading activity in, say, index CDS trades in 2006 or the price of single name CDS contracts, we had to ring around the brokers to get their individual “guesses”. However, this opacity also made it hard for the bankers *themselves* to assess overall market risk. For while individual CDO or

5 IMF: *Global Financial Stability report of April 2006*.

6 For a more extensive debate about which groups did – or did not – question the innovation creed, see *Fool's gold*, pp. 151-160.

7 The UBS shareholder report on its writedowns, published in April 18 2008, provides extensive data on this saga, illustrating the fragmented nature of information flows inside UBS and correspondingly poor risk controls.

CDS desks could see their *own* trades; they could not see how these fitted with other deals being conducted by other banks. Nor could they tell whether these trades were creating new market-wide correlations or concentrations of risk (as, say, happened with all the super-senior CDO deals that were struck between the banks and AIG insurance Group.)

Of course, in theory, there were people in the system who were supposed to be taking that broader, system-wide view: namely the supervisors and central banking community. However, these bodies were also hampered by a lack of good market data. The public sector also suffered from a "silo" problem of its own. Over in the United States, for example, the regulatory structure was divided into numerous institutions, which sometimes appeared to compete with each other, rather than cooperate. In Europe regulatory responsibilities were split across borders, between different national regulators. And even in regions that tried to create more unified regulatory structures, there was often a problem of mental fragmentation. By the early years of the 21st century, for example, the United Kingdom had consolidated its supervisory functions into one body, the Financial Services Authority (FSA), which was charged with creating a more unified system of regulation. However, because the FSA was run separately from the Bank of England, officials tended to assume that monetary policy could be discussed and implemented separately from financial oversight. Thus, when the economists at the Bank of England discussed monetary conditions from a macro-economic perspective in 2005 or 2006, they rarely made any attempt to link this to topics such as the booming issuance of CDOs; similarly, when supervisors at the FSA examined individual banks, they did not usually attempt to draw wider systemic conclusions. Mental bifurcation dominated, in a very unhelpful way.⁸

The net result of these silo problems, on numerous levels, was that very few people or institutions were in any position to "join up the dots", to see how the financial world was spinning out of control, let alone stop this. To be sure, by 2006 some individual bankers were feeling very uneasy about what was going on (and often wrote anonymous emails about this to my team). Some senior central bankers and regulators were getting nervous too, primarily because they

could sense that a credit bubble was forming – albeit in ways that they did not fully understand. However, the *scale* of this credit bubble, and the dangerously high level of risk-taking and risk concentration was not clear to most insiders – let alone those journalists, politicians or voters, who barely knew that CDOs, CDSs and so on existed at all.

3 | LESSONS FOR THE FUTURE

These days, the costs of this pattern are crystal clear. As the credit bubble has collapsed, banks have been hit with a tsunami of bad loans, creating massive losses for banks and investors alike. It would be quite wrong to blame those disaster entirely on financial innovation. Excessive liquidity, poor regulatory structures, loose monetary policy and an old-fashioned credit cycle played a role too. However, the fact that leverage got so out of control, for so long, was partly a function of complexity and opacity, if nothing else because this allowed bankers to take risks that few others understood.

Thankfully, those dramatic events now appear to be sparking some change in behaviour. On both sides of the Atlantic, a drive is now underway to overhaul the rules and regulations that shape the banking world. Bank capital adequacy standards are being tightened; derivative activity is being pushed towards central clearing houses and electronic exchanges; the sale of derivatives to unsophisticated investors is being controlled; rating agencies face more surveillance; meanwhile there is also a drive to force far greater transparency on the derivatives sector. There are also signs that many institutions are trying to combat the "silo" problem – although it is rarely described in quite those terms. Most large investment banks, for example, currently face considerable pressure to show their shareholders and regulators that they are improving their risk management techniques. As they divert more resources to this task – belatedly – most are also now trying to use holistic forms of risk management than before. Tunnel vision is discouraged; instead, the senior managers are being urged to delve more deeply into the individual silos – or departments – of their bank, to see how risks are building across the

⁸ Paul Tucker, then head of markets at the Bank of England, was one of the few who tried to bridge this gap; in 2006, for example, he discussed the potential link between CDO issuance and SIV activity, and M4 money supply data in a speech. However, this was notable primarily because this type of debate was so rare at the time.

bank as a whole, in relation to the wider market place. The public sector is also embracing more holistic modes of thought. In the Western central banking community there is now shift towards the use of so-called macro-prudential regulatory techniques, which emphasise a more "joined-up" approach to financial and monetary policy. The type of mental bifurcation that used to occur in the United Kingdom, between monetary and financial policy, is diminishing. Western governments also claim to be promoting more regulatory coordination too. In Europe there is now a drive to create pan-European banking oversight, and bodies such as the Financial Stability Board are trying to promote better coordination across the industrialised world too.

Last but not least, the sense of separation between finance and the rest of society is also crumbling – to a degree. Since the crisis exploded, journalists and politicians have started to peer more actively into parts of the financial iceberg. In countries such as the United States and United Kingdom, parliamentary committees have quizzed bankers. There has been a flurry of media article about topics such as credit derivatives, CDOs or structured investment vehicles. No longer is it blithely assumed that specialist areas of finance can be merely left to the specialists; belatedly, the "outsiders" looking in.

Meanwhile, on both sides of the Atlantic, politicians and regulators have demanded more transparency in finance, to enable "outsiders" to monitor what is going on. If a journalist now wishes to get basic data about price levels in the CDS world or overall trading flows, say, these are generally available from bodies such as Markit (a private data company) or Bloomberg. In America, the Depository Trust and Clearing Corporation (DTCC) is now collecting data on trading flows via a warehouse, and the macro figures are posted on the web. This does not provide a perfect market snapshot: the data is posted with a timelag and it is not very "user friendly" for non-experts (such as journalists). However, it does provide some guide to what is occurring, and is a contrast to the situation a few years ago, when journalists had absolutely no way of tracking market flows.

Furthermore, in Europe another very valuable source of information has emerged from the central bank

community. In August 2009 the European Central Bank (ECB) published a very comprehensive review of the credit derivatives markets, which offered the most detailed snapshot of activity seen before. That was followed in October 2009 with a review from the Banque de France, which also analysed in detail some of the net exposures, risks and concentrations.⁹ These two studies revealed some fascinating patterns, such as: the high level of concentration in trading flows among small group of dealers and the fact that dealers were not only trading heavily with each other, but also insuring each others' risk. As such, it raised significant questions about whether the credit derivatives market was living up to its stated goal of providing risk transfer: instead of moving risk *outside* the banking system, the data from these two studies suggested that a "pass the parcel" pattern had developed to some degree, where risk was being shuffled around the banking world, and possibly reconcentrated in unexpected places. That raises worrying questions about the potential knock-on impact of a bank failure. Meanwhile, another fascinating finding from the ECB study was that European banks are, on balance, net sellers of credit protection against European governments; this also raises questions about the structure of the market, since by 2009 many of these European banks were being supported by implicit and explicit government guarantees.

Whether the publication of this type of market analysis prompts politicians and regulators to reshape the market in a radical sense remains to be seen; if nothing else, publication of this data has helped to support calls to move this activity onto robust clearing houses. But perhaps the crucial point is this: if this type of broader market analysis had been available to regulators, journalists, politicians – and even bankers – five years ago, it is possible that some of the worst excesses in the system might have been spotted at an earlier stage. The type of correlated exposures that developed around AIG insurance Group, to name but one example, might have been visible at an earlier stage.

That does not mean, of course, that the battle against silo thought is over; on the contrary, there is a big risk that the same type of patterns that created the last crisis will resurface again soon. It is still unclear, for example, whether banks will

⁹ See "Credit default swaps and financial stability: risks and regulatory issues", in the Financial Stability Review, Banque de France, September 2009; also "Credit default swaps and counterparty risk", European Central Bank, August 2009.

continue to devote more resources to their risk management departments, or to promote forms of holistic oversight, if – or when – the current sense of crisis and regulatory scrutiny recedes. Another is whether regulators and central bankers can truly promote a more joined-up vision of supervision. In public, financial officials (and bankers) insist that they wish to promote global coordination; however, in practice national politicians are increasingly acting in unilateral ways. In the early months of 2010, for example, American politicians threatened to force banks to spin off their derivatives operations, while European politicians did not; conversely, German politicians imposed a unilateral ban on the use of sovereign credit derivatives for speculative trading, as opposed to hedging (or "naked shorting"). At best, such ad hoc unilateral moves create uneven financial regulation; at worst, they threaten to shatter investor confidence and undermine coordinated oversight.

It is also unclear how long non-bankers will continue to watch the financial world. In 2008 and 2009, amid the sub-prime market meltdown, there was extensive public debate about issues such as mortgage-backed bonds. In 2010, as sovereign debt problems intensified, there was also more discussion about once-ignored topics such as sovereign CDSs. But while awareness of credit derivative issues, say, might have risen there are still numerous important areas of finance, such as algorithmic trading in the equity markets, the operations of the repo market, or even the pension industry, which are largely ignored. The problem of the financial iceberg thus has not disappeared. On the contrary, as the mainstream media faces growing commercial pressures – and thus fewer resources –

there is likely to be a growing temptation for many journalists to keep ignoring "difficult" or geeky topics; just as credit derivatives used to seem.

This problem is not unique to finance. On the contrary, similar patterns can be found in numerous other areas of the modern world, ranging from science to medicine to energy and manufacturing. For as innovation speeds up in the 21st century, specialists are engaged in highly complex activities in numerous silos, that almost nobody outside that particular silo understands, or even knows about – even though the activity in that silo often has the ability to affect society as a whole. There is thus a bizarre paradox in the 21st century world: namely while the global system is becoming more interconnected in some senses, the level of mental and structural fragmentation remains very intense.

There are no easy answers to this. However, if nothing else, the story of complex credit over the past decade shows that to "fix" finance it is not enough to simply devise better rules; policy makers, bureaucrats, bankers and journalists alike must redouble their efforts to "join up the dots", to develop a holistic vision of how systems work – and, above all, combat the silo curse. After all, if there had been more "outsiders" peering into the credit derivatives world at an earlier stage, amid greater transparency, the worst abuses of these seemingly-sensible innovations would probably never have occurred. Sunlight, as the old adage goes, can be a good disinfectant, or guard against corruption; however, transparency and public oversight can *also* be a powerful way to introduce some basic common sense. In that sense, then, the story of credit derivatives is a powerful parable for our times; it is to be hoped that the key lessons are not forgotten too soon.