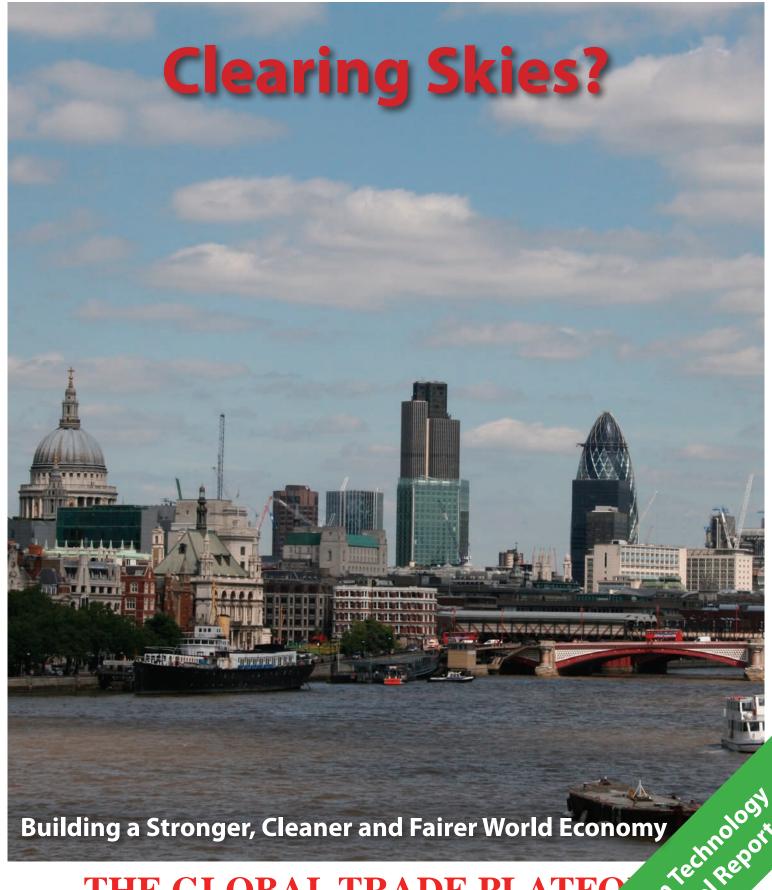
WORLD COMMERCE

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- Lifestyle of business, sports and event pleasure *together*. This is a place to live, work and play. You might have other centres that are dominated by business, but perhaps not as blessed as we are with a sustainable lifestyle, sporting events and sense of pleasure. You might have other places that dominate on lifestyle and pleasure, but don't have a huge business side to them in terms of manufacturing or infrastructure profile. The emphasis for us is on the word 'together', it's the two complementary halves, the business or career half and the social, sporting and lifestyle-family side.
- argest Human Resources base. At the heart of one of SA's most populace Provinces (KwaZulu-Natal), we have large pools of skilled, semi-skilled and unskilled labour, plus some of the best and fastest Skills Development taking place amongst our 3,5 million cosmopolitan population. We have Africa's second largest direct contact University based in Durban, the University of KwaZulu-Natal, with more than 45 000 direct contact tertiary students of Black African, Asian and European descent.
- Highest growth rates. Our economic growth rates are higher than the country's average, and that of the other major centres, historically being in the region of +/-6%. We're targeting in the range of 7,5% 9%. This impacts positively on business confidence levels, fixed capital formation, etc. As most analysts would observe, "the trend is our friend" in Durban.
- Infrastructure Leader. We have the continent's leading infrastructure base. This includes virtual infrastructure like globalised financial services, plus the physical infrastructure base. We have the best electricity distribution on the continent,

a vast roads network, the best and biggest water treatment and supply base, telecommunications via expanding City fibre-optics, and land. We have reasonable amounts of available vacant land at realistic prices across our 2 300 square kilometre city. At our infrastructure heart, Durban leads the continent in terms of port infrastructure, with Africa's busiest harbour, plus the massive new international airport nearing completion for 2010.

- 6 Tourism Crown. Durban is the largest domestic tourism destination in South Africa, plus we have concrete projects in place to become one of the largest international tourism destinations. This is done through an 'event-led' tourism drive across both business and pleasure tourism. Our International Convention Centre has been rated by the global association as Africa's best convention centre for the past seven years running. We have recently spent nearly half a billion Rand in terms of further expanding its footprint. On the leisure front, we have recently hosted high profile events such as the A1 Grand Prix where the global organisers and competitors rated Durban as the best host City. This event-led tourism build-up is clearly focusing on our 2010 FIFA World Cup event, with the associated infrastructure upgrades (R15Bn+), the buildup events such as FIFA Beach Soccer World Cup and life after 2010, with our eyes on the Commonwealth Games and 2020 Olympics.
- in place across the primary, secondary and tertiary sectors. It's a case of functional magnetism companies like to be located synergistically, with more than 65% of the Province's GGP produced in Durban, along with the Durban Chamber of Commerce being the largest Metro Chamber nationally. Business is clustered around the manufacturing, tourism, services, maritime, logistics and agricultural industries. Having the second largest business and industrial base in SA provides many options for suppliers, support services, customers and employees, which are all important factors of production.

These are the 'ALL HITS' Super 7 key reasons that make Durban attractive to both residents and visitors alike.

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Shoots or Roots?

The race to a full recovery is going to be a slow and painful process. The global economy should avoid a depression. Financial markets have stabilised, the real economy is beginning to bottom out, though unemployment will not peak for some time and could stay high for years. Long-term growth prospects are uncertain – what is going to drive growth? Financial services? Public spending? China?

A recovery in consumer demand in economies riddled with debt is going to be difficult. One only needs to look at Japan, which ended up with a zero interest rate policy, quantitative easing, massive increase in the public debt, and a growth rate averaging 1% over the last decade. This is the prospect for the western economies.

When the recovery occurs in the next year it will be slow. The hunt for scapegoats will intensify. Protectionism and economic nationalism threaten to prolong the crisis. Western governments need to commit to open markets for international trade and investment, which are key drivers for sustainable economic growth and employment. Structural reforms remain essential to enhance sustainable growth and job creation. It is important for politicians to implement reforms to enhance the economic recovery.

Paying back of the huge debt incurred by the west will be a dampener on growth. A surplus will have to be run for a number of years, and will not be politically popular in Europe especially. The central banks eventually took the right decisions. However, the political reaction has not been effective. Political strategies have been reactionary, waiting for a recovery to solve the problem.

The political class blame deregulation for this financial crisis and the resulting excesses of the free market. Economists who failed to see the financial crisis coming have been able to produce a story about its origins; it was all the fault of deregulation. The growth of the last decade must also be the result of deregulation. Continental politicians who like to blame "Anglo Saxon" deregulation want to ask themselves why their banking problems are more severe than those in the USA and UK?

It needs to be remembered that the financial innovation and deregulation of finance of the last thirty years has lifted hundreds of millions of people out of poverty. The biggest blunder of all has nothing to do with deregulation. Western governments' were happy for the central banks to ignore the growth in asset prices, and this was the greatest reason for the financial crisis.

The challenge for governments and central bankers is to know when to intervene, and when to regulate. The regulations are already in place; the regulators need to be intelligent enough to use the tools available. The challenge for companies is to adapt, as they have to, to this slower growing world economy.

The world plunged into a slump in 2008. The policy response has been massive. The road to recovery will be long and bumpy. ■

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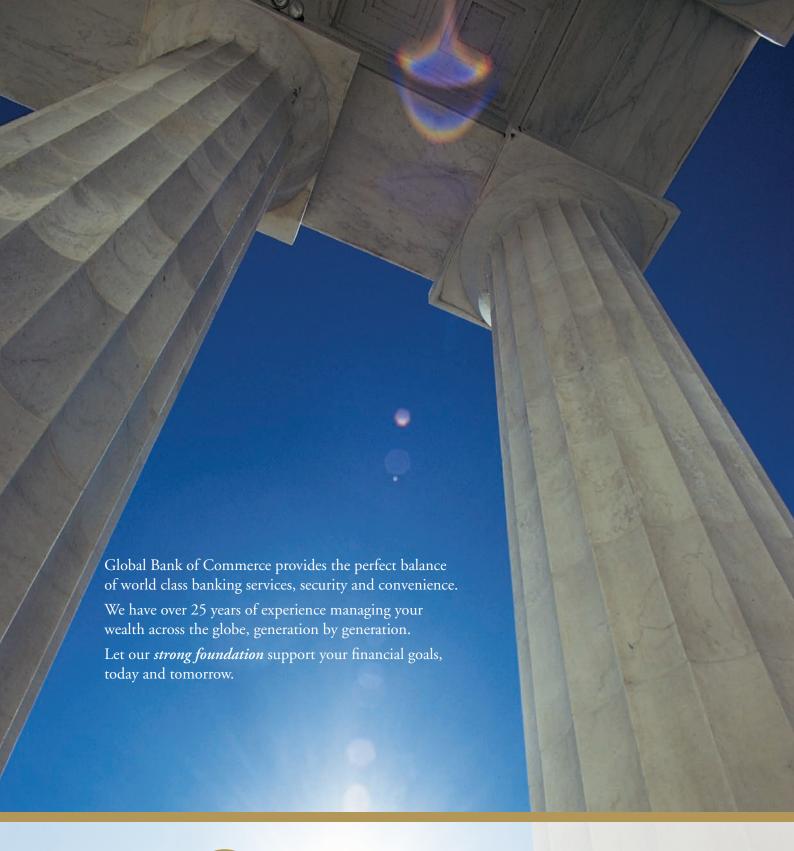
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OECD Washington Conference Looks at Impact of Crisis on Tax Rules

Jonathan Huneke



Front cover image courtesy of the City of London Corporation





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The Global Financial Crisis 2007-2009: The Impact on the Banking Industry

Moorad Choudhry, Stuart Turner, Gino Landuyt and Khurram Butt are in the Treasury team at Europe Arab Bank plc, London

The United States mortgage market default that triggered a global financial crisis around the world in 2007 will change the financial landscape drastically. Since that time policy makers have been trying to formulate solutions to the problems that the financial industry and the global economy are facing. This article suggests that market participants need to be aware of the changing dynamic in the financial industry and adapt their strategy and approach accordingly.

To address fully the issues the banking sector is facing, one needs to have a look at the factors behind the crisis. To that end we briefly sum up eight primary reasons that caused the bubble to burst. We then assess the impact of the crisis thus far, before concluding with our policy recommendations.

Causes of the financial crisis

Simply blaming the lack of responsibility among greedy and/or incompetent bankers does not adequately explain the financial crisis. The bubble that burst during the summer of 2007 is the result of excesses and business models that have been built up over two decades. Although this list is not exhaustive the following reasons can be identified as being prime contributors to the credit and liquidity crunch:

- The "shadow banking" system
- Globalisation, leading to highly integrated markets worldwide
- The role of central banks, and an environment of very low interest rates
- Financial innovation and securitisation
- Political interference, and the US government-inspired social engineering policy of extending home ownership
- The "black-box" model and poor quality loan origination standards
- The credit rating agencies
- Incompetent management practices

We consider these factors in turn.

The shadow banking system

The "shadow banking" system was a major cause of the crisis. This parallel circuit had been building up slowly over many years. By the late 1990s there were already a wide range of special purpose vehicles (SPV) in use by banks to isolate certain structured credit investments away from their balance sheets. These legal entities were not subject to regulatory supervision or oversight.

In order to explain this system one needs first to look at the classic banking model. Under a conservative approach a bank would attract deposits from cash-rich clients and lend this to clients with a borrowing need, at a certain spread over the rate it would pay on its deposit base. The decision to lend the other client money is usually done after an extensive credit analysis of the borrower. It is important to note that the deposits that are lent on to others are guaranteed by the government, which acts as a lender-of-last-resort (LoLR). This is a simplified version of banking, but this is essentially how banks operated till the mid 1980s.

As debt capital markets in the US and Europe became more mature, other sources of finance became available, for example the commercial paper market began to be used by corporates for even short-term funding. Companies became less dependent on their bankers for financing. This resulted in banks losing sources of revenue, such that they looked beyond the income-driven model and at a distribution-driven model. This evolved into the shadow banking system. Using the securitisation technique, banks would remove a portfolio of loans from their balance sheet and place them into an SPV, which would fund the portfolio not via bank deposits but via the wholesale money market, including the CP market. This created a mismatch between the maturity of the assets and the liabilities, with the former being long-dated and the latter short-dated. This resulted in significant "gap" funding risk for the SPV.

Provided investors in the money market have confidence in the ability of the SPV to rollover and refinance its outstanding debt, there is no issue with this short-term funding model. If an SPV experiences funding



difficulties however, distrust enters the market and this triggers a liquidity crunch. This is what happened from the summer of 2007 onwards, when many SPVs began to experience defaults in their underlying structured credit portfolio and simultaneously saw their funding sources (money and interbank market) disappear.

Following the removal of funding sources the SPV managers turned to their parent banks, with whom they had set up back-up liquidity lines. ¹This meant of course that the parent bank was now linked to the long-dated and deteriorating credit-quality assets in the SPVs. As a result these banks were faced to take the multi-trillion outstanding loans they "outsourced" over time back onto their own balance sheets, which jeopardised their solvency ratios.

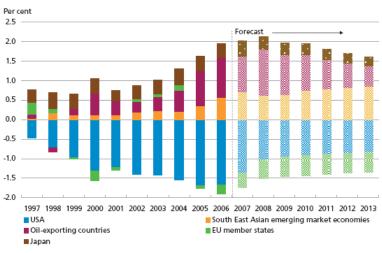
Globalisation

It is difficult to identify exactly the start-point of globalisation. During the 1980s measures were taken that opened up capital markets and liberalised trade. After the fall of communism and the Berlin Wall in 1989, this movement accelerated. In addition, funds that had been locked-up for defence purposes were freed and invested in emerging markets.

Together with a technological revolution in communications and IT infrastructure, this created global investment opportunities in Latin America, Asia, Central and East Europe. Capital was also able to flow freely. Simultaneously however, imbalances were created. The US in particular started to build up a significant current account deficit, which was financed by the rest of the world. Sovereign wealth funds created by oilproducing countries in the Middle East, and by export-led economies in East Asia, invested their large cash balances in US Treasury securities and certain EU sovereign securities, as well as with Western banks. This cashrich environment in the West contributed to narrowing credit spreads.

Figure 1 shows the current account position for selected regions.

Figure 1. Development in current accounts balance as a percentage of GDP



Source: IMF World Economic Outlook, April 2008

From the end of the 1990s onwards the US consumer went on a spending spree, buying goods produced cheaply in Asia, and energy from the oilexporting countries. As the value of goods purchased was higher than their disposable income, they funded the purchase via home equity loans and/or mortgage refinancing. These loans in turn were placed with investors worldwide via the repackaging technique of securitisation. The cash-rich export-growth countries, together with the hedge fund industry, essentially flooded the financial markets with liquidity to such an extent that long-term interest rates were pushed down significantly. According to a McKinsey study, in the US bond market long term interest rates were pushed down by an estimated 130 bp.²

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In essence, the "export-and-save" countries of East Asia, plus the oilexporting country sovereign wealth funds, placed large amounts of US dollars with Western banks. This environment of excess cash had to be placed somewhere by these banks, and in an era of tight credit spreads the demand for yield meant that much new investment was in high-risk/ higher-return assets.

This phenomenon is an interest rate conundrum, which brings us to our next contributory factor: the central banks.

Central banks

It may come as a surprise to observers, but central banks also bear some of the responsibility for the crisis. This is a controversial academic discussion and in some ways mirrors the debate between those who support the Chicago school of economics led by Milton Friedman and those who adhere to a neo-Keynesian approach.

The major argument centres on the concept of inflation targeting. The US Federal Reserve does not have an explicit inflation target, but does consider an inflation level of 2% as a guide. The Bank of England, European Central Bank and Bank of Japan have explicit inflation targets of 2%. A crucial factor in this debate is that the Fed also has a mandate to support economic growth, although under the last term of Alan Greenspan's chairmanship inflation versus deflation became a primary concern. The Fed is alone amongst central banks in having a growth as well as inflation target.

Achieving an inflation target or boosting economic growth is done via control of the money supply. Unfortunately a central bank has little influence on the M1-M2-M3 numbers. For instance, the Fed ceased monitoring the money supply from 2000 onwards. Nevertheless in times of economic slowdown a central bank will lower interest rates to stimulate the demand side. Historically, central banks tend to overshoot their rate policy due to the focus on inflation. The key issue is one of timing: it is important to remove monetary policy stimuli in good time, in order to prevent the economy from overheating. Unfortunately this did not happen after 2003.

As Figure 2 shows, the Fed started to cut rates aggressively after the burst of the dotcom bubble and following 9/11. With Japan's experience in mind, it appears that the Fed was concerned about the risk of deflation in the aftermath of these two events. However the downward pressure on consumer prices was a result of the forces of technological innovation and globalisation.

In hindsight the Federal Reserve was too late removing its stimuli in time to prevent the economy from overheating. Mr Greenspan at that time was puzzled by the fact that long term interest rates remained exceptionally low when the Fed started hiking rates again from 2004. This was partly due to the large amount of capital flooding the USD market from the exportgrowth countries and sovereign wealth funds.

Figure 2. US Fed Funds Target Rates



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Critically however, the Fed did not address, due to their mistiming, the build up of the US housing market bubble. As interest rates stayed exceptionally low between 2001 and 2004, this led to the origination of low-rate mortgages amongst a sector of the population that couldn't otherwise afford to purchase a house. When the Fed started to hike rates from 2004 these buyers saw the monthly payments on their mortgages

triple and even quadruple; this led many to default on their mortgage payments to the lender, which had to foreclose on the property. This sums up briefly the drama of the sub-prime mortgage crisis.

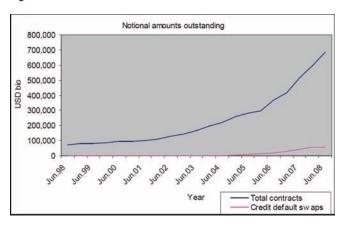
Apart from the bad track record central banks have in their timing of monetary policy, and we must state that it is an art rather than a science, another possible criticism is that central banks have shown themselves to be unable to target the build up of an asset bubble. This has happened because of the lack of asset price developments in the price indices that central banks follow. For instance, the BoJ failed to acknowledge the build up of an asset bubble in its economy during the late 1980s. This triggered the "Lost Decade" in Japan, with deflation hampering a sustained economic recovery. Greenspan gave a misleading sign to the market when he implied that should an asset bubble be detected, the central bank would not do anything about it: the Fed would only deal with the fallout of the asset bubble.³ This was subsequently referred to as the Greenspan Doctrine or "Greenspan put".

The Greenspan doctrine was nothing new. He only reiterated one of the major reasons why central banks were initially founded: to safeguard financial stability. The US central bank was formed in 1907 following a similar financial crisis to the Great Credit Crisis of 2007-2008. In the build up to that crisis excessive credit expansion had been responsible for a run on the banking system. To prevent a repeat crisis of that proportion the US government created the Federal Reserve System, which later became the Federal Reserve Bank as we know it today. Its main objective was to act as a lender-of-last-resort (LoLR). If a private bank faced a run on its deposits, the central bank would intervene to rescue the deposit holders.

The principle of the lender-of-last-resort is dual. First of all it provides comfort to deposit holders to not withdraw their money from a bank, even during times of economic uncertainty, as the central bank has effectively underwritten the deposits of any bank under its supervision. However it also encourages deposit holders to place their money at the bank with the highest deposit interest rate.4

A high deposit rate is feasible for a bank following an aggressive and higher-risk lending policy. Thus the principle of the lender-of-last-resort is also known as moral hazard. What was initially set up to provide financial stability indirectly contributes to boom and bust cycles. In times of crisis it brings stabilisation to the system. However during the boom period of an economic cycle it helps create loose credit practices, and deteriorating loan origination standards. During such a time, banks that follow riskaverse lending policies will suffer at the street level, as they attract fewer deposits. As a result such banks find it harder to compete in the market.

Figure 3. Growth of derivatives 1998-2008



Source: BIS

Financial innovation and securitisation

It is undeniable that the era of Shadow Banking went-hand in-hand with a rise in financial innovation. The exponential rise in use of financial derivatives by market participants grew to such a level that systemic risk began to pose a significant danger to banks. The collapse of the investment bank Lehman Brothers in September 2008 was to prove a severe shock to the market.

As Figure 3 shows, derivatives volumes expanded greatly from 2001 onwards. Due to the build up of the Shadow Banking System securitisation became a widely-used technique and the use of credit default swaps (CDS) grew substantially as well.

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The use of derivatives was not universal however. To put this into perspective, within the US in 2008 97% of all outstanding OTC derivatives were on the books of just five banks, and almost 50% is on the books of only one single counterparty, JP Morgan Chase.⁵ The vast majority of US banks have never dealt in a CDS, for risk management or investment reasons.

H Minsky commented in the 1980s that attempts by central banks to constrain reserves would encourage financial innovation and encourage expansion of "non-bank" sources of finance. This in turn would trigger LoLR interventions.⁶

Securitisation was another area that benefitted from innovation. A proven technique first introduce in the US mortgage market in 1979, it offered clear merits to originators and investors. Its use opened up markets and provided an opportunity for investors to access asset classes that they could not otherwise invest in.

Sadly, as it gained acceptance, securitisation turned out to have two Achilles heels. The first was whenever there was a disconnection between the borrower and the lender. As we explained earlier, under the classical approach to banking a bank would undertake credit analysis before deciding to lend money to a client. After writing the loan, which would put its own capital base at risk, the bank would continue to monitor the risk profile of the borrower. If the borrower's credit standing began to deteriorate during this period, the bank would try to adjust the situation by re-negotiating the deal and reducing the risk characteristics. In the worst case, the bank they would reserve capital in case it had to write down the loan partially or as a whole.

Under securitisation, whenever there is any de-coupling (in other words, the originator sells all the securitised notes to third-party investors and retains no exposure to the original assets) this no longer is the case. Once the loan has been packaged into liquid securities and placed among investors, there is no incentive for the originator to follow up the performance of the loan. This creates issues later on if the original assets start to default. The problem is exacerbated when investors are not familiar with the risk characteristics of the asset they have purchased an exposure to, and so begin to suffer unexpected losses arising from ratings downgrades and loss of secondary market liquidity.

Political interference

The political and financial worlds have always lived on a difficult footing. During times of economic uncertainty politicians and regulators enforce a stricter supervision regime for banks. Paradoxically there is a tendency for more lax supervision and regulatory standards during a boom period in the cycle. We say paradoxically because it is during a boom that lending standards drop and more banks start chasing higher returns as credit spreads tighten – in other words, precisely the moment when supervision and oversight should be tightened and bank capital reserves boosted. This paradox had severe consequences during 2004-2007.

The main problem is that both sides do not fully understand how each operates. Occasionally this results in ill-conceived legislation being imposed on the banks. The attempted social engineering during the 1990s under the Clinton Administration is one such example, and one which contributed to the US subprime mortgage crisis. One of President Clinton's priorities during his first term was to increase home ownership, and widen it amongst certain social classes. In principle this was a noble policy measure; in practice the restrictive way it was imposed on US banks caused considerable damage.

Up until that time banks were in general reasonably conservative in their lending approach, restricting loans to potential obligors that could not provide sufficient guarantees from a collateral or employment perspective. When broken down by ethnic category, Hispanics and African-Americans formed a large proportion of borrowers falling into this restricted category. Via anti-racism and discrimination legislation, the Clinton Administration essentially forced banks to start lending to this group. To avoid damaging litigation claims, banks followed the general direction set in legislation. They also securitised much of these subprime loans, for funding and risk transfer purposes.

Fannie Mae and Freddie Mac, the two government-sponsored enterprises (GSEs), were the perfect tools to employ in further expanding this policy measure. These two institutions were encouraged to buy mortgages originated with low- and moderate-income borrowers. This encouragement included quota targets. Again, the GSEs also used securitisation techniques to offload outstanding loans of inferior credit

quality; in their case, the implicit government guarantee assisted them as they aggressively expanded their exposure to low-credit-quality mortgages.

The "black-box" model and poor quality loan origination standards

Deterioration in loan-origination standards is a common phenomenon during a bull market. Banks chase yield and this means extending loans to people who may not have met required criteria in an earlier period. While this in itself is a problem, as it extends the risk profile of a bank to assets that will be the first to default as soon as the bull market peters out, it is exacerbated by the black-box model, in which lending officers simply input parameters to a computer, which them makes the decision for them. As this can be done over the internet or telephone there is no need to meet with the customer. The removal of this human interaction increases the risk of originating debts that will turn bad.

The feature of the US sub-prime crisis was products such as "negative-amortising" mortgages, "self-certified" mortgages, the 125% loan-to-value mortgage, and other such products. Done on a large scale, the origination of such assets contributed significantly to the creation of the crisis.

Credit rating agencies

The credit rating agencies (CRAs) are an integral part of finance and hence the banking and shadow banking chain. Without CRAs the whole securitisation wave, and the collateralised debt obligation (CDO) business in particular, could not have risen to the heights they did. Thus they contributed to the build up, although they themselves were not the main cause of the crisis.

The only criticism that one could make of the CRAs was in the assumptions made in their rating models. Chief amongst this, and which was shared by investors and bankers alike, was to assess credit risk on the assumption that house prices could not drop on average on a national level. This had never happened in history and the assumption was made this would not happen in the future either. In effect, the assumption was being made that house prices would always rise. Certainly in hindsight, and even amongst certain commentators at the time, this was an unrealistic and dangerous assumption to make.

Other assumptions in CRA models, concerning default correlation (and the spurious value of "diversity" in a portfolio) and recovery rates on default were also shown to be wide of the mark in practice.

Incompetent management

Greed contributed to some degree to the crisis. The examples are legion. For instance, small Icelandic banks with a very heavily skewed asset-liability gap profile became the major credit providers of retail chains and local authorities in the United Kingdom. Their unsustainable business model brought Iceland to the verge of bankruptcy and rescue by the IMF. A similar example was the consortium of Fortis-Royal Bank of Scotland-Banco Santander that bid for ABN Amro Bank, and a cash offer, in a deal that valued the bank at over €70 billion. For the Belgian bank Fortis and for RBoS this turned out to be an irrational step that resulted in the break-up of Fortis in a Dutch and French government takeover, and virtual nationalisation of RBoS by the UK government. Another example is the aggressive business expansion of UBS AG into the field of structured credit, motivated by a desire to compete with market leaders, that resulted in its balance sheet growing to many multiples of the Swiss national GDP.

Regulation, market response and a new banking paradigm

Following the collapse of Lehman Brothers in September 2008, governments around the world led by the UK administration began taking more interventionist steps to protect the financial system. Initially this took the form of supplying government guarantees for bank liabilities, and in extreme cases outright nationalisation. The G20 summit in London in April 2009 confirmed that governments around the globe would tackle the problem and take measures to prevent a crisis like this happening again.

Markets will need to enter a period of restructuring to take into account the realities of the impact of the crisis. In this section we comment on the likely form of the new order. Bank liquidity is now recognised as being much more important in the banking paradigm than in the past, when banks and shadow banks assumed that they would always be able to roll over short-term funding, and paid little attention to the need to diversify funding sources.

We discuss recent policy responses and also suggest what the new banking business model will be.

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Regulation

A call for stronger regulation is unsurprising as an increase in regulation is the logical consequence of a crisis. At this moment there is only the intention to impose more regulation upon the financial industry but its exact form is not as yet finalised. The most efficient approach would be for the US and EU to coordinate policies, otherwise banks will concentrate operations in the jurisdiction with the least restrictive regime.

Ideally regulation should not be used to punish banks or to impose rules such that they can no longer function efficiently. This will jeopardise the free market principles under which the global economy has benefited. Rather, the focus should be on ensuring that banks do not take excessive risks

In the first instance the market needs to avoid the build up of another Shadow Banking system. Going forward, we can expect that any institution that takes leveraged positions in financial instruments will be placed under the supervision of the national regulator. In essence any firm or legal entity that acts like a bank or acts as a conduit for a bank will be subject to the regulatory regime.

The Basel II rules, which govern bank regulatory capital and more specifically how much capital must be put aside depending on the type of financial instruments used and the risks they represent, in themselves will not prevent the rise of Shadow Banking activities. Therefore it is key to incorporate a regime that regulates effectively commercial and retail banks in their use of complex structured credit products to manage their ALM books. Banks should not have to turn to their government as a LoLR because they misguidedly speculated with deposit money.

In this respect stricter rules on liquidity management should be imposed as well. During the bull market many banks became too dependent on wholesale funding as a substitute for a healthy deposit base. This made them extremely vulnerable to liquidity shocks, and the government had to intervene as a LoLR.8 Regulatory limits must be placed on the following:

- · the ALM gap ratio;
- · the minimum average tenor of funds;
- the percentage of funds in short-tenor maturities;
- the share of funds from one sector or source;
- the loan-to-deposit ratio;
- the liquidity ratio.

Regards bank lending practices, regulators must enforce minimum acceptable origination standards. For instance rules must be set on minimum loan-to-value ratios in retail mortgage lending. This by itself would be an impediment to the potential build up of a real estate bubble. In Germany banks have always been reasonably conservative in their mortgage lending, which explains why their real estate market did not reach the astronomical levels observed in Spain, Ireland or the UK. A 25% deposit ratio would be a healthy indicator.

Government subsidies for the mortgage market – in the form of tax relief on interest payments – must be removed to avoid further market distortions. If a government still wishes to pursue a social housing policy then it needs to cover the remainder of the credit risk so that banks are not pushed in to high-risk lending.

Regulation of hedge funds

In theory if regulation is strict enough such that banks cannot take excessive risks onto their books then there is actually no need to regulate the hedge fund industry. The main justification for this liberal view is that hedge funds do not have recourse to the government as a LoLR in the event of insolvency.

There is a strong argument that Long Term Capital Management ignited a financial crisis in 1998 because of the build up of concentration risk. Ideally however regulators would have discharged their responsibilities properly, and banks such as UBS at the time would never have been allowed to build up such substantial positions with one hedge fund in any case. Apart from not having the safety net of a LoLR, hedge funds will immediately be punished by their clients if they do not show positive performance. Performance is the one and only parameter that they are being assessed on at the end of the day.

Hedge funds are part of the shadow banking system, but they did not create the risk that originated the sub-prime crisis. They actually mitigated losses to investors. According to a study from CSFB in 2008 global stocks lost 42% of their value while hedge funds worldwide lost a comparatively smaller 19% for their investors and did so with lower monthly volatility.

Hedge funds also brought liquidity to markets with thinly traded financial instruments. Ultimately though this liquidity was temporary and only visible in a bull market.

In the current environment it is to be expected that hedge funds should be regulated, as they are part of the financial system. Regulation would also prevent them from imposing draconian withdrawal rules on investors when they are hit with losses. Regulation does not mean that hedge funds have to be subject to the same restrictions as regulated mutual funds on their use of leverage, derivatives, and short-selling. But as large-volume players dealing with commercial banks, and funded by commercial banks, the true implementation of a "know-your-risk" risk management culture requires that they be placed under regulatory supervision.

Preventing boom-and-bust cycles

This will be the most challenging objective if not almost impossible to achieve as boom-and-bust cycles are inherent in a free-market capitalist system. Attempts to at least smooth out the cycles should be focussed on the models central banks are using, as these contribute to a large extent to crises by causing an overshoot in monetary policy. Most importantly central banks should incorporate the development of asset prices in their model to detect the build up of bubbles. Certainly the view of Alan Greenspan, of only dealing with the fallout of a bubble, should be abandoned. On the contrary, central banks should act pro-actively against these developments.

Banks and regulators, recognising that a business cycle is an inherent part of the economic system, need to implement "counter-cyclical" capital and supervision regimes. We discuss this issue below.

Asian and oil-exporting countries

There is no doubt that globalisation and the break-up of trade barriers contributed to a previously unseen period of prosperity over the last twenty years. However, currency manipulation of the exporting countries, and China in particular, contributed to a mounting global imbalance. The excessive savings from China and other exporting countries have funded the US consumer's deficit spending on a large scale via the purchase of US Treasury securities. This pushed down yields in the developed world, which reduced credit spreads, created a desperate hunger for yield and contributed to excessive risk taking.

In 2005, then-Fed Governor Ben Bernanke mentioned the term 'global savings glut' to explain why countries such as the US, France, Australia and UK had seen rising current account deficits. He noted that these countries witnessed significant housing appreciation, while other developed countries - such as Germany and Japan - did not. This issue still has not been addressed and should be on top of the agenda of a G20 summit.

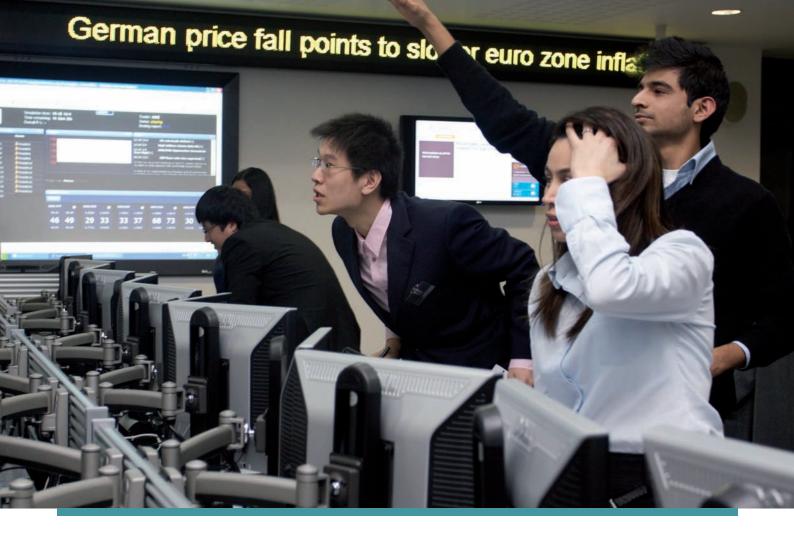
The existing model of "export-and-save" of the exporting countries has hitherto been balanced by the "borrow-and-spend" of the US, UK and other Western countries. As the latter deleverages and reduces its demand, this will need to be balanced on the other side. Emerging markets must be incentivised to stimulate internal demand and make their economies less dependent on export.

Conclusions and recommendations

The financial crash of 2007-2008 was the result of the interaction of several different factors, some of which had been building for many years. While market corrections and crashes are nothing new, indeed they are an inherent part of the capitalist system, it behoves governments, regulators and market participants to take the appropriate steps in response to ensure that the impact of the next correction is minimised.

It is not universally agreed that one result of the financial crisis has been to generate a paradigm shift in the way the banking business model is structured. Only time will tell whether it has. However there is no doubt that banks will need to modify their strategies and structures in response to the events of 2007-2008.

In the first instance, banks and regulators, recognising that a business cycle is an inherent part of the economic system, need to implement "counter-cyclical" capital and supervision regimes. In other words, capital should be built up during a bull market to, when it is easier to raise, to cover for the impact of a bear market. One approach here would be to raise "contingent capital", for example debt that can be converted to equity when required. A trigger could be when the equity value falls to a specified point. Regulators must also stress supervisory oversight even during a bull market, when it tends to be relaxed.



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Banks must look to running a strategy that is sustainable over the business cycle. This will mean lower return on capital targets, which shareholders will need to accept. A long-run average of 10%-12% is more realistic than the recent 18%-22% that was targeted by the large banks.

The liquidity crisis that arose in 2007 and again in 2008 post-Lehmans means that banks will need to manage liquidity risk much more closely. Other measures that need to be implemented include:

- the leverage ratio: a limit may be imposed by regulators in any case, but bank boards should be wary of running up leverage ratios that approach 30 or 40 times the capital base. This is simply unsustainable once the market turns and affects investor confidence;
- liquidity risk management: liquidity is the "water of life" in banking. Again this area may well be subject to regulatory limits but banks must approach liquidity risk with greater rigour. This will involve (i) a more diversified funding base, with no more than 10% of funds from

- one source (ii) a longer average tenor of liabilities, to reduce the assetliability gap and (iii) a liquidity reserve of instantly-realisable assets;
- lending policies: a review of origination standards so that they are no longer cyclical and remain robust throughout the business cycle;
- · know your risk: this also means know one's counterparty risk. However it also implies a return to a bank's core business.

The final issue concerns the "too big to fail" bank. A bank that is relying on the LoLR cannot be allowed to effectively hold a country hostage to its own fortune. To prevent any significant future impact, governments should seek to limit the size of banks whose balance sheet value begins to approach the GDP of its home country. While this is against the culture of free markets, it is important nevertheless because it recognises that banks are part of society: as such they must not be allowed to endanger the well-being of society, which is what happens when they fail. A bank that is bigger than its own country is too much of a risk to society, which is why, if a bank becomes too big to fail, a government should make it smaller.

- 1. Often the back-up liquidity line from the parent bank or a 3rd party bank was a requirement of the credit rating agency, in order to obtain the investment-grade rating.
- 2. McKinsey Global Institute: "The New Power Brokers: How Oil, Asia, Hedge Funds, and Private Equity are Shaping Global Capital Markets", October 2007
 3. Alan Greenspan speech on 19th Dec 2002, Economic Club of New York: "Asset bubbles cannot be detected and monetary policy ought not to be in any case used to offset them. The collapse of bubbles can be detected, however, and monetary policy ought to be used to offset the fallout."
- 4. This occurred in the Northern Rock case where deposit holders made the correct assessment that the Bank of England would bail out the bank in case the credit portfolio created substantial losses. Due to the more aggressive credit portfolio of Northern Rock, the bank was able to pay out a higher rate on their clients' deposit accounts.
- 5. Source: Comptroller of the Currency (OCC), Third Quarter 2008
- 6. HP Mynsky, Stabilizing an unstable economy, McGraw-Hill 2008
- 7. Of course both Fortis and RBoS also had large quantities of other poor-quality assets on their balance sheet, but the ABN Amro takeover is now seen for the macho top-of-the-market hubris transaction that it undoubtedly was.
- 8. This was the experience of Northern Rock and Bradford & Bingley in the United Kingdom.
- 9. Note that the United Kingdom had removed such subsidies some years earlier but this in itself did not prevent the rise of a real-estate bubble.
- 10. Speech by Ben Bernanke at the Homer Jones Lecture, The Global Saving Glut and the US current account deficit, March 2005, St Louis, Missouri, USA

Global Imbalances and the Accumulation of Risk

Daniel Gros is Director of the Centre for European Policy Studies, Brussels

Why should the existence of current account "imbalances" provoke the biggest financial crisis in living history? This column says one has to take into account the way current account deficits are financed and how flow imbalances accumulated into large stock disequilibria. It explains the securitisation leading to the crisis as the product of a maturity mismatch between foreign savers seeking short-term assets and excess supply of long-term US mortgage debt.

It is often argued that a key factor behind the current financial crisis has been the large US current account deficit. However, the raison d'être of a financial system is dealing with imbalances (between savers and investors). Hence the question is why should the existence of current account "imbalances", even if they persist for some time, provoke the biggest financial crisis in living history?

The answer must come from the huge, structural build up of a mismatch between asset supply and demand that arose from what are commonly called "global imbalances". As is well known, the current account deficit of the US arose from an unsustainable increase in consumption (and residential construction). This excess of domestic spending was financed mainly through an increase in the mortgage debt of US households. One key characteristic of mortgages is that they are long-term (often for 30 years). The consumption spree of US households thus led to a large additional supply of long-term (private) assets.

However, this supply of longer-term assets was not matched by a corresponding demand for this type of assets. The excess savings from China (and other emerging economies and oil producers) were mostly intermediated by their central bank, which accumulated huge foreign exchange reserves. These reserves were (and still are) almost exclusively invested in short- to medium-term, safe (ie. government) and liquid securities (mostly in the US). There was thus a need for maturity (and risk) transformation on a very large scale to meet a persistent excess demand for safe and liquid assets.

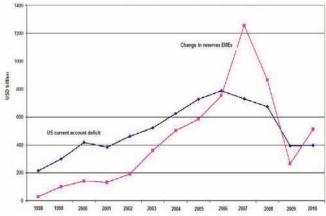
Figure 1 shows the relevant data. There is a close correlation between the US current account deficit and reserve accumulation, but it is not perfect since the US deficit had already been very large some time before the 'search for yield' started. But before 2003 reserve accumulation had been much lower than the US deficit (which had thus been financed largely by private capital transfers). By contrast, after this date reserve accumulation increased relative to the (increasing) US deficit until, by 2006, reserve accumulation actually surpassed by far the US deficit. There is thus

certainly a link between the US current account deficit and the build up of the crisis, but this not as straightforward as sometimes believed.

Part of the build up of reserves went also into euros. IMF data suggest that this part was relatively

minor (20-30 %), but it might still have had an impact on government debt in the euro area, contributing to lower interest rates and a compression of yield differentials in Europe as well. Securitisation started in the euro area around this date, although it never acquired the same scale as in the US.

Figure 1. Reserve accumulation by emerging economies and the US current account deficit (USD billion)



Source: IMF, World Economic Outlook database April 2009,"Change in reserves"

Another way to look at the same phenomenon is to note that the increased demand for US government debt by emerging economy central banks led to lower yields, thus forcing those savers in the OECD countries which would normally have held government assets to frantically "search for returns". But this was a search for yield on safe (and liquid) assets. The AAA tranches on securitised US mortgages (and other debt) seemed to provide the safety plus a "yield pick up" without any risk, at least in the sense that the securities were rated AAA.

As long as US house prices kept on increasing and unemployment

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remained low, actual delinquencies remained low and there seemed to be no reason for market participants to question the high ratings of these securities, even though the incentive for the ratings agencies to provide favourable ratings were well known. AAA-rated residential mortgage-backed securities thus provided an important source of liquidity by their widespread use as collateral.

From flows to stocks

Most analysis of global imbalances has focused on the size of the flows, namely the current account deficit of the US relative to US GDP or world savings. Accordingly, most concerns about global imbalances emphasised the magnitude of the exchange rate adjustment that would be required to rebalance US spending and absorption. However, this aspect turned out not to have been crucial. Instead the severity of the present crisis is due to the unprecedented magnitude of the cumulated imbalances in the stocks of assets and liabilities.

The magnitudes of the imbalances between asset supply and demand that cumulated over time are gigantic. Over the period 2000-07, the cumulated US current account deficit amounted to almost \$5 thousand billion and US household debt increased by almost \$7 thousand billion, of which approximately \$5 thousand billion was in the form of mortgages. Meanwhile the foreign exchange reserves of emerging markets increased by about \$4 thousand billion (of which the Chinese central bank accounted for about a third). The financial system thus had to transform thousands of billions of dollars of US household mortgages into the type of assets in excess demand from those investors who had been crowded out of the government debt market due to the reserve accumulation by emerging market central banks. In doing so, it took an enormous macro risk (Brender and Pisani 2009).

The key technology that permitted the transformation of US mortgages into safe liquid assets was securitisation. Until 2007, it was widely believed that securitisation should lead to a better distribution of risk since the "originate to distribute" model – in its pure form – implies a full risk transfer to the buyers of the various forms of asset-backed securities (ABS) and residential mortgage-backed securities (RMBS). However, in the context of global imbalances this could not have happened on a large scale since the massive buying of US government paper by emerging market central banks had displaced other investors whose preference previously had been for safe, short-term, liquid assets. ABS, especially RMBS do not, a priori, have these qualities. A piece of a pool of mortgages represents a longer-term asset; it is only as safe as the underlying mortgages and is only liquid if there is a demand for this specific asset. Government paper of a given maturity is highly substitutable, whereas every asset-backed security constitutes a special case and thus by its nature much less liquid. Ultimately an RMBS more closely resembles an equity investment in a regional mortgage lender than a government bond.

The excess demand for short-term, safe, liquid assets created by emerging economies' accumulation of reserves could not have been satisfied by the securitisation of US mortgages (and consumer credit) without massive credit and liquidity "enhancements" by the banking system. A clean securitisation with full risk transfer to the investor was thus not possible from a general equilibrium point of view.

How residential mortgage-backed securities were made safe, short-term, and liquid? The exact way in which this was achieved varies enormously from case to case, but the general rules of the game were the following.

Safe

As already mentioned above, the appearance of safety was created by the slicing of tranches coupled with high (AAA) ratings for the most senior tranches (in reality most often about 85% of the total as experience suggested that a total loss of over 15% was extremely unlikely to occur).

This service was provided by the ratings agencies for which it represented a major source of income.²

Short- to medium-term

Banks or shadow banking institutions like special investment vehicles used RMBS (and similar assets) as collateral to borrow more funds, eg. by issuing asset-backed commercial paper, which is short-term and thus the kind of assets that were in excess demand. Issuance of asset-backed commercial paper, which started surging around 2003 (around the same time as reserve accumulation by emerging economies also increased, as shown in Figure 1), constitutes a classic maturity transformation, which was very profitable (given the absence of capital requirements) as long as central banks kept short term interest rates low and promised (as did the Federal Reserve) to increase them only at a "measured pace".

Liquid

Asset-backed commercial paper was already more liquid than the assets with which it was backed. However, such programs were usually possible only if a bank provided a back-up line of credit. Only the banking system could provide the back the stop liquidity that was required by the ultimate investors.

"Looking forward, this analysis implies that the current (smaller but still sizeable) US current account deficit should not lead to similar asset supply and demand mismatches since US households are now starting to save and it is the US government which is running the deficit, thus supplying exactly the kind of assets needed by emerging economy central banks"

All these elements were necessary to recycle excess emerging market savings to dis-saving US households. Banks had to provide the maturity transformation and the credit enhancement that later proved so costly to them. This transformation required, of course, a huge increase in the balance sheet of the banking (and shadow banking) system and thus a huge increase in leverage.³ This increase in leverage, in turn, acted as a powerful amplifier once risk returned.

Conclusions

When one looks at the risk that persistent global current account imbalances may create for finance stability, one has to take into account the way that current account deficits are financed and how flow imbalances accumulate into large stock disequilibria.

Looking forward, this analysis implies that the current (smaller but still sizeable) US current account deficit should not lead to similar asset supply and demand mismatches since US households are now starting to save and it is the US government which is running the deficit, thus supplying exactly the kind of assets needed by emerging economy central banks.

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- 1. Brender and Pisani (2009) reports that about onethird of all foreign exchange reserves are in the form of bank deposits. Little is known about the maturity composition of the remainder, most of which is invested in interest-bearing securities. The scarce available data on the composition of USD foreign exchange reserves that can be gleaned from the US Treasury International Capital data suggests that over half of foreign official holdings of US securities had a maturity of less than three years.
- 2. Benn Steil (2009) shows that the correlation between profits of the major ratings agencies and the number of securitised assets rated by them is almost perfect.
- 3. An increase in capital commensurate with the risk taken by the financial sector would of course have limited the damage, but it would probably have made this transformation too expensive.

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Causes and Effects of the Financial Crisis

Carol Alexander is Professor of Financial Risk Management at the ICMA Centre, and author of the new 4-volume textbooks series *Market Risk Analysis*, published by Wileys. See www.marketriskanalysis.com

The banking industry has been in turmoil, following the collapse of credit markets. The value of stocks around the entire globe has fallen drastically and rapidly, reminiscent of the world stock market crash of 1929. Several exchanges have suspended trading on more than one occasion, and even then several markets have crashed by more than 10% in a single day. The currencies of some emerging markets, such as the Korean won, have plummeted in value against the US dollar. Why is this happening? And what is the likely effect on the financial system? These questions are not easy to answer, as the crisis is still ongoing at the time of writing. All the reasons for, and effects of, a catastrophe are usually revealed only after the event.

Summary of events

There is a trigger for all financial crises, and in this case the first crack appeared with the sub-prime mortgage crisis in the US. During the years 2004 – 2006 stock markets across the globe surged as the cost of credit reached all-time lows. New ways of securitizing loans meant that counterparty credit quality mattered little to the salesman on commission. European banks, and investors in countries where yields had been extremely low for years, flocked to buy collateralized debt obligations (CDO) and similar new products. The main sellers were the five largest investment banks: Goldman Sachs, Morgan Stanley, Merrill Lynch, Lehman Brothers and Bear Stearns. Even retail banks began to rely on securitizing their loans and short-term funding via the interbank market rather than on a deposit base.

Whenever there is uncertainty in a free market economy, this promotes a cycle in which optimism can lead to exuberance, followed by doubt and finally panic. The basic principle underlying the CDO is sound - after all, if the senior tranche of a mortgage-backed security corresponds to two-thirds of the whole and the recovery rate on defaulting mortgages is 50%, it would only be affected if more than two-thirds of the creditors defaulted! So we had reason to be optimistic in the mid 2000's and there was a strong market for these new yield-enhancement vehicles. A fundamental problem was that their pricing lacked transparency. Because of the very considerable pricing model risk - the mark-to-model prices being crucially dependent on the assumptions made - doubts began to infiltrate the exuberance. And, as doubt turned to panic, the market dried up, so market prices became even more unreliable than the model prices. Given the mark-to-market accounting framework used by banks, a huge liquidity risk appeared in the trading book, and this was not covered by the bank's regulatory capital.

As liquidity fell out of the CDO market, banks turned to the interbank market to fund their liquidity gap. Because cash-rich banks demanded such high levels of collateral guarantees, other banks – and hedge funds, some of which were very highly leveraged – had great difficulty rolling over credit lines. Hedge funds were hit particularly hard. As the bull market turned, the values of their investments began to fall, and they had less collateral than usual to meet these larger guarantees. They have been forced to liquidate investments to meet collateral calls, increasing the downward pressure on stocks. The result was a crash in market prices across the globe during October 2008, with emerging stock markets and currencies being the worst hit, as US and European hedge funds liquidated their holdings in emerging markets.

The full extent of the current financial crisis first began to unfold in September 2008, with the failure of three of the five largest investment banks and of the US insurance giant AIG which, like the huge financial conglomerates Fannie Mae and Freddie Mac a few months before, was bailed out by the US government. Speculative short selling on the last two major investment banks, Goldman Sachs and Morgan Stanley, spread to the many retail banks in various countries that had been actively operating in capital markets since the repeal of the Glass-Steagall agreement in 1999, either buying CDOs or using proprietary trading in derivatives to boost profits. All three Icelandic banks defaulted, and with this some savers in other countries lost their capital. Volatility in banking sector stocks spilled over into energy, commodities and related stocks, on fears of a falling demand for oil and raw materials with the onset of a global recession.

Eventually governments responded by increasing deposit protection, lowering interest rates and providing additional liquidity. As a last resort, schemes for partial nationalisation of banks have been proposed

– schemes that include caps on the remuneration of executives and traders – along with bans on short selling to attempt to stem the slide in stock prices. Regulators disregarded anti-monopoly laws as distressed banks were taken over by large cash-rich retail banks. The banking sector has now moved towards oligopolistic competition, with a few huge conglomerates such as JP Morgan dominating the markets. Given the unthinkable threat of a collapse of the global banking system in which the general public lose their savings, most governments have now raised deposit insurance ceilings.

Causes and effects

A catalyst for this particular crisis was Alan Greenspan's policy of promoting US growth by keeping US interest rates low. After the Russian crisis in 1998 US treasury rates were also brought down, but as the market recovered interest rates were raised to prevent inflation increasing. During the technology crash in 2001 and 2002 US interest rates were brought down to about 1%, which encouraged increased consumption and promoted US exports, and thus revived the US economy. After the recovery started Greenspan did not raise interest rates quickly enough. There were no long, it creates a bubble. This time the bubble was caused by an 'easy credit' environment, culminating in the 'credit crunch' which marked the beginning of the 2008 financial crisis.

In relation to the underlying securities markets and in relation to world gross domestic product (GDP) the volume of financial derivatives traded is huge. At the end of 2007 the total notional outstanding on bond issues was about \$80 trillion and the value of company stocks was about \$40 trillion. Relatively few stock and bond holders hedge their positions because securities are often held by investors that hope to make a profit over the long term. Thus the notional size of the derivatives market required for investors to hedge is a small fraction of \$120 trillion. Many companies involved with importing and exporting goods hedge their exposures to exchange rate fluctuations, and to rising interest rates. The size of these exposures is related to the value of all goods produced in the world economy. World GDP was about \$75 trillion in 2007, so corporate hedging activities should amount to some small fraction of this. Thus the two hedging activities should result in a derivatives market with notional size being just a small fraction of \$200 trillion. However, the total notional size of derivatives markets in 2007 was about \$600 trillion.

Speculative traders include proprietary traders, hedge funds, companies making bets and day traders. They trade in capital markets for the purposes of making profits over a short-term horizon, which distinguishes them from investors, who buy-and-hold. Approximately half of the speculators in the derivatives markets are proprietary traders in banks. When interest rates are cut banks turn to the capital markets to make profits by increasing the volume of their speculative trading. As a result, huge bonuses are often paid to successful proprietary traders and their managers. But why should banks bet with the money of their savers and their clients? Apart from the possibility that they may be better at speculation than ordinary investors, because of better information or cheaper access to markets, banks need to create a liquid market in order to price derivatives. We need speculative trading in options, because the volume of trading creates a market where there is no reliable theoretical price. But we do not necessarily need speculative trading on futures, because we know how to calculate the fair price of a futures contract. One reason why there was approximately \$25 trillion of speculative trades on futures last year is that senior managers and proprietary traders are being driven by greed to acquire huge bonuses. This is why the recent nationalisation deals for UK banks has included a clause for limiting remuneration.

This huge casino, in which many times world GDP is bet every year, has proved impossible to regulate. Regulators always respond to crises by tightening rules and increasing the minimum level of risk capital to be held by banks. But this exacerbates the problem, since the only way out of the current crisis is to create liquidity. Injecting taxpayers' money into the capital markets is only a temporary solution; what is needed now is a complete reform of financial regulations. This does not necessarily mean tighter control on market operations, or increases in the minimum level of risk capital held by banks. Indeed, there may be government pressure to loosen regulation in order to establish a leading financial centre.



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Financial engineers and risk analysts use mathematical models to measure risk, and to price illiquid products using arbitrage pricing theory. The assumptions made by these models need constant testing and refining, so that superior models can be developed. With greater confidence in market to model prices, and in portfolio risk assessment, it may be easier to stem the panic when the next crisis comes. Clearly, better education in

quantitative risk analysis is the key to developing effective risk models and accurate pricing models for financial institutions. ■

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Building a Stronger, Cleaner and Fairer World Economy

In its formal statement submitted to Ministers in advance of the 24-25 June OECD Council Meeting at Ministerial Level, BIAC provides business priorities for OECD work that will contribute to a stronger, cleaner and fairer world economy

Introduction

The current financial and economic crisis has its origin in OECD countries. Because of this and the substantial expertise of the Organisation in relevant policy areas, the OECD has an important role in contributing to policies that help to attenuate the impact of the crisis, provide for sustainable economic recovery and help to reduce the potential scale of any future crisis.

In the following paragraphs, BIAC provides the business priorities for OECD work that will contribute to a stronger, cleaner and fairer world economy. We focus on the following key areas for the attention by governments:

- Macroeconomic policies and structural reforms to restore economic growth and job creation;
- · Open markets for trade and investment;
- · Corporate governance;
- · Innovation-led sustainable growth; and
- · Clean growth.

BIAC calls on OECD ministers to provide the organisation with a strong mandate for future work which adequately reflects the business priorities.

BIAC finds it particularly important that the ministers commit themselves on behalf of their countries to policies that will foster swift and sustainable

economic recovery. Business is concerned that protectionism and economic nationalism threaten to prolong the crisis. We urge ministers to commit unambiguously to open markets for international trade and investment, which are key drivers for sustainable economic growth and employment.

"The economic slowdown must not weaken governments' commitment to structural reforms which in the mid- and long-term remain essential to enhance sustainable growth and job creation"

Macroeconomic policies and structural reforms to restore economic growth and job creation

The negative impact of the financial and economic crisis on the welfare of our societies has been significant. While financial markets in many countries have shown some signs of recovery in recent months, the collapse of these markets last fall has severely hit the real economy. More and more companies are facing a liquidity crunch. Global production is contracting and world trade has collapsed. As a result, unemployment is projected to rise substantially across all OECD economies and to even double in the G7 countries within the next 18 months.

BIAC policy priorities

Restore confidence in the financial sector: Restoration of confidence in the financial sector continues to be a top priority. Financial market stabilisation is a prerequisite for the recovery of the real economy. A sustainable financial system requires financial market reform, which ensures that financial institutions make a lasting positive contribution to economic development and growth. A healthy balance needs to be found in the financial sector between innovation, competitiveness and the prevention of excessive risk taking. Government involvement in financial sector institutions has been a necessary step to restoring confidence. However, this can only be a temporary emergency solution. Once confidence in the financial sector is sufficiently restored, the private sector has to be put in the driving seat again. Governments need to develop appropriate exit strategies.

Ensure sufficient credit and liquidity: Major central banks have substantially reduced nominal interest rates. Nevertheless, the real financing costs for companies have increased and are in many countries too high to stimulate economic activity. Furthermore, companies who are seen to be prone to risk are facing particularly difficult access to finance. It has become more difficult and costly to finance exports because of the reduced coverage and increasing price of credit insurance.

To enhance the impact that central bank rates can have on the expansion of credit supply and liquidity, other measures to alleviate the corporate financing situation should also be considered. They may include the outright purchase of corporate bonds by central banks, temporary government backed guarantees for the issuance of corporate bonds, as well as expansion of government schemes for co-insurance and reinsurance for business-to-business credit. Accelerated tax refunds and the reduction of government payment delays would help to reduce financing pressure for companies.

Fiscal policy: Those countries that still have room for budgetary manoeuvre should consider additional discretionary spending which is targeted and time-limited. However, the mid- and long-term sustainability of public finance must not be put at risk and governments should adopt credible plans to reduce spending once economic growth resumes.

Support for specific sectors:

The sustainability of public budget policies must also be a guiding principle for discussions about government support for sectors that are affected by the crisis. In addition, policy makers need to avoid a subsidy race between countries. The WTO rules on subsidies need to be

fully respected. Subsidies and any other support measures should not distort international trade and investment.

Structural reforms: The economic slowdown must not weaken governments' commitment to structural reforms which in the mid- and long-term remain essential to enhance sustainable growth and job creation. It is important to design now and implement high quality structural reforms which enhance the momentum of the next economic recovery. In addition to financial regulation, reform areas that are critical for fully reaping the potential of our economies include tax, innovation, education and skills development, infrastructure, energy security, as well as regulation in product, service and labour markets. The OECD is ideally placed to advise governments on the above-mentioned structural reform issues.

Labour market and social security reforms: Structural reform areas of particular importance are also labour markets and social security systems. In order to support economic recovery, sustainable job creation and also the financial sustainability of social protection systems, governments should reduce labour market rigidities, implement the flexicurity approach, reduce non-wage labour costs, ensure adequate social safety nets, promote employability and incentives to work, invest in skills, education and training, ensure labour mobility, invest in developing and improving public services, and reduce administrative as well as compliance costs for SMEs.

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The role of the OECD

With its multi-disciplinary approach as well as its capacity to provide evidence and compare developments across countries, the OECD is uniquely placed to support policy considerations and actions by governments in the areas of financial markets, macroeconomic policy and structural reforms.

Major OECD reference points include the *Economic Outlook, Going for Growth Report, Jobs Strategy* and the country specific economic surveys. BIAC calls on the OECD to continue to proactively provide policy guidance that is credible and helps governments to build stronger and more sustainable economies.

The OECD also has a particularly important role to play in ensuring sufficient trade finance. Business congratulates the organisation for its roles as the forum for discussing and monitoring the implementation of the G20 pledge to support trade finance through export credit and investment agencies. We hope this will contribute to the effective use of the US\$250 billion pledged by the G20 countries and through this help to stabilise trade flows.

Open markets for trade and investment

Why open markets matter

International trade and investment are key drivers of global growth as well as integration and through this contribute substantially to alleviate poverty. Shipments abroad and cross-border investment have been falling considerably as a result of weakening global demand. Business is

concerned that re-emerging protectionism and economic nationalism will deal an additional blow to cross-border activity.

Beggar-thy-neighbour policies aggravated the Great Depression. In the current crisis, we have not yet seen the blunt forms of protectionism applied eight decades ago. However, governments, including those from OECD countries, have applied discriminatory policies which give their domestic companies a competitive edge to the disadvantage of foreign investors and exporters. Actions taken include higher applied import tariffs, "buy national" requirements, state aid for specific industry sectors and increased government scrutiny applied to incoming foreign investment.

"The trend towards economic nationalism and protectionism must be stopped and reversed, because it implies high costs for our economies, companies, consumers and employees, and will only prolong or amplify the negative impacts of the crisis"

The trend towards economic nationalism and protectionism must be stopped and reversed, because it implies high costs for our economies, companies, consumers and employees, and will only prolong or amplify the negative impacts of the crisis. Markets must be kept open for trade and investment, which are vital for sustainable economic recovery. Governments must therefore avoid any discrimination between domestic and foreign companies. They should also further eliminate barriers to support a swifter return to economic growth and a growth potential in the medium and longer term.

The role of the OECD

The OECD has been the leading international organisation in the promotion of open markets for investment. Last year, OECD ministers pledged to avoid protectionism against foreign sovereign wealth funds (SWFs)². The organisation finalised its Guidelines for Recipient Country Investment Policies Relating to National Security and it began to monitor through peer reviews the implementation of good investment policies. Importantly, the OECD will also contribute to the monitoring of the implementation of the G20 pledge not to introduce any barriers to international investment until the end of 2010. The OECD has also a key role to play in building confidence in and support for rules-based international trade. OECD analysis provides valuable support for the defence of open market policies against increasing pressures from protectionists. Furthermore, the OECD is an important forum that helps to build policy consensus about priorities for further trade liberalisation. BIAC proposes the following priorities for OECD action in the areas of trade and investment:

Ministerial declaration on trade and investment: International business expects that the OECD ministers will extend their pledge from June 2008 to refrain from protectionist barriers against foreign investment from SWFs to cover also foreign investment by private companies. Furthermore, this new commitment in the area of investment policy should involve future OECD peer review monitoring to ensure full

implementation. In addition, the ministers should make a commitment to refrain from any new or increased trade barriers. This pledge should explicitly include the commitment to design and implement any measures to support production and employment in sectors hit by the financial and economic crisis in ways that avoid unfair discrimination between companies on the basis of their nationality. Discriminatory measures that have already been implemented should be taken back or designed differently in order to avoid that they impact negatively on cross-border trade and investment. Such clear unambiguous commitments by the OECD ministers in the area of investment and trade would complement and support the relevant G20 pledges and also help to rebuild confidence by markets in countries' policy approaches towards international business activity.

Credible monitoring of OECD members' practices in the area of investment: The OECD needs to continue its peer review monitoring among its member countries and the other adhering countries to the OECD Declaration on International Investment. The objective should be to rigorously monitor the full implementation of countries' commitments under the instruments and the implementation of the OECD investment policy guidance.

Monitoring of the investment related commitments of G20 members:

BIAC expects the OECD to play a leading role and to coordinate effectively with the other relevant international organisations on the monitoring of G20 countries' policies and practices applied to foreign

investment. We also believe that the OECD Investment Committee should use the results of this monitoring exercise to form and communicate an opinion on whether G20 countries that are not adherents to the OECD investment instruments are keeping their markets open for investment. The respective countries should be invited to participate actively in this discussion.

Economic assessments of barriers: BIAC would find it useful if the OECD would assess the economic relevance of discriminatory investment and trade measures that countries have introduced (or plan to introduce) in reaction to the economic crisis. The WTO has already

listed a large number of measures which potentially affect trade. However, countries that have taken measures usually downplay their economic significance, and without credible analysis it is difficult for business as well as policy makers to gauge how harmful these measures really are.

Opening markets further: OECD governments must provide the political will and take leadership to achieve consensus among themselves and other leading WTO members on the details for trade in agricultural and industrial products to pave the way for a rapid conclusion of the WTO Doha Development Round with meaningful results across all the major areas, ie. services, industrial goods and agricultural products.

Corporate governance

Need for better corporate governance

Corporate governance failures have not been the root cause of the financial crisis. However, better governance in the financial sector would have helped to avoid excessive risk taking and through this limit the magnitude of the crisis. Corporate governance improvements are needed to contribute to the sustainable functioning of financial markets. Key issues to be addressed are the governance of risk management systems, role and responsibilities of boards of directors, the question of how executive remuneration can be better aligned with the long-term objectives of the companies as well as the question of how shareholders can contribute to better corporate governance.

The role of the OECD

The OECD has a key role in drawing the corporate governance lessons from this crisis. Its Principles of Corporate Governance represent a widely recognised framework for good practice and a valuable reference point. The well established dialogue with its advisory bodies, BIAC and TUAC, further enhances the credibility and potential impact of the OECD's activities. BIAC appreciates the good quality of OECD analysis provided so far on the corporate governance lessons from the financial crisis. BIAC outlines the following guiding principles with respect to OECD work on



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corporate governance:

Avoid over-regulation: Excessive faith in corporate governance regulation would be inappropriate and harmful if regulation increases compliance costs without really improving corporate governance. The OECD should put increased emphasis on promoting regulatory impact assessments in the area of corporate governance to enhance the understanding of the potential impact of policy measures and to reduce the risk of ill-conceived regulation. Ways to improve the effectiveness of self-regulation and voluntary approaches must be seriously explored as well

No revision of the OECD Principles: BIAC does not see any need for revising the OECD Principles. We fully share the OECD view that the Principles continue to provide adequate general guidance including on the issues that have emerged in the context of the financial crisis.

Foster implementation: Corporate governance shortcomings reflect a lack of implementation of the Principles. This implementation gap must be addressed. BIAC supports the OECD approach to develop commentaries on key issues. The objective must be to provide further analysis which is fully consistent with the existing Principles and which can help to promote better understanding about how these challenges can be addressed. BIAC is pleased that the OECD accepted our suggestion to make better use of the organisation's unique capacity to conduct peer reviews and encourage peer learning. We hope this will facilitate the sharing of experiences and "best practices" among countries. It will be important that the peer reviews take into account the fact that internationally shared corporate governance objectives can be achieved by different approaches, which reflect the specificities of corporate governance cultures in the OECD area.

"We encourage policy makers to recognise the important role of market-based approaches in conjunction with other policy instruments. Approaches that maximise the dynamism of the private sector will be essential for making lasting progress"

Government ownership must be temporary and not distort fair competition: Government involvement in financial institutions raises potential issues. We welcome that the OECD has started to request detailed information from governments about their strategies. It is critical that government involvement in the financial sector does not create unfair competition between institutions that are supported by the government and those that are not. Equally important is that government involvement be only temporary. Governments need to develop exit strategies to prepare for the re-privatisation of financial institutions as soon as government involvement is no longer necessary to ensure the stability of the financial system.

Innovation-led growth

Need for a broad-based innovation strategy

As mentioned above, a comprehensive strategy is needed to put the global economy back on a growth path. At the same time, it must be ensured that the recovery is durable and integrates long-term concerns about global challenges. Sustaining growth in the longer term, while at the same time addressing environmental and other sustainability challenges, requires strong political leadership to have a comprehensive policy framework in place that fosters innovation as a key objective. While it cannot be expected that such a strategy would have immediate effects, it will be indispensible to make the recovery more sustainable and durable.

More than ever, governments need to ensure that investing in innovation

remains a top priority in both public and private sectors, despite the crisis. BIAC has therefore been supportive of the OECD's Innovation Strategy, underlining the importance of establishing effective framework conditions that reflect the understanding of the broad-based requirements of innovation. Issues that need to be addressed include: supporting entrepreneurship and risk-taking, good governance, making reforms in the education system and achieving productive links between academia and business, fostering open markets, designing a sound regulatory framework for innovation, ensuring that major public sector investments foster innovation, and encouraging international cooperation. Furthermore, it is important to identify the incentives which will encourage companies to continue investing in research and development despite the difficult economic situation. At the same time, it needs to be ensured that society remains open and receptive to new technologies.

The role of the OECD

In times of an economic crisis, international dialogue on keeping innovation high on the agenda, sharing best practice and proposing a whole-of-government approach towards fostering innovation are of key priority. We encourage the OECD to use the Innovation Strategy to contribute to responses to the crisis, propose possible remedies and set priorities with a view to building on the momentum of action taken so far. Now more than ever, the OECD as a multi-disciplinary organisation has an important role to play in facilitating the exchange of best practice, in proposing coherent and integrated policy packages to support innovation for growth and in documenting that innovation is a tool that will ultimately make a contribution to helping countries climb out of the crisis.

Ensuring clean growth

Support for a successful outcome of the Copenhagen conference

The financial and economic crisis has already had severe impacts in OECD and non-OECD countries, which need to be urgently addressed. However, despite the crisis, business remains committed to addressing climate change as a top priority and supports a successful outcome of the UN climate change conference in Copenhagen at the end of this year. An effective global climate change framework including all countries and taking into account business realities should help avoid distorting impacts from uncoordinated efforts to reduce carbon emissions and provide business with clarity and predictability for future business investments. Among others, we encourage policy makers to give due attention to the following issues:

There is a need for breakthrough technologies, which require global cooperation and support for research and development. The future framework should offer strong support for long-term innovation and investment in clean technologies. The potential of all energy options to achieve emissions savings should be considered. At the same time, and as illustrated by a number of IEA studies, energy efficiency holds a major potential and should remain a top priority for policy makers.

Both mitigation and adaptation will need to be considered. Particular attention must also be paid to the interactions between climate change, energy and water, which are linked in many ways.

Market-based approaches: We encourage policy makers to recognise the important role of market-based approaches in conjunction with other policy instruments. Approaches that maximise the dynamism of the private sector will be essential for making lasting progress.

Trade and climate objectives should not be seen as opposing each other. Open trade enables the dissemination of environmentally friendly technologies not only within OECD countries, but also to emerging and developing economies. If trade and climate policies are set against each other, this would fuel protectionism and complicate the task of reaching a global agreement.

A key role for the OECD

In BIAC's view, the OECD and its sister organisations, including the International Energy Agency (IEA), have a key role to play in the climate change debate. Rigorous economic analysis will be necessary to provide the foundation for formulating and implementing future climate policies for the wider goal of sustainable development. We encourage Ministers to support further work, including on the economics of climate change, innovation and energy efficiency.

^{1.} Founded in 1962 as an independent organisation, the Business and Industry Advisory Committee to the OECD (BIAC) is the officially recognised representative of the OECD business community. BIAC's members are the major business organisations in the OECD member countries and a number of OECD observer countries, www.biac.org.



Life After the London Summit: An Offshore Perspective

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A midst the global economic crisis the world's twenty largest economies, the G20, met in London on 2 April 2009 for the "Summit on Financial Markets and the World Economy," more commonly called simply the London Summit. The stated purpose of the much-publicised meeting was for the G20 nations to crack down on so-called "tax havens" and "harmful tax practices". Offshore Finance Centres (OFCs), like the British Virgin Islands (BVI) and the Cayman Islands, have become the scapegoats for the problems US President Barack Obama has admitted started with a massive meltdown in the US sub-prime mortgage sector in late 2006 that ultimately became a global phenomenon requiring a global response. The global response to the current economic crisis has taken the form of labelling banking business in OFCs as a "shadow banking system" and attacking their financial institutions as operating outside the current global regulatory net. This results in the presumed need to close down OFCs that do not freely exchange information on tax matters.

Pre-London summit regulatory regime: money laundering

Since World War II it became evident that competitive tax jurisdictions, like Switzerland, could serve as the base for a complex network of shell

companies and trusts. Preventing these jurisdictions from being used as conduits for the transfer of illicit funds from capital market economies produced early antimoney laundering legislation, especially to deal with the drug trade.

Focus on the OFCs resurfaced with fierce intensity in the aftermath of the September 11, 2001 terrorist attacks in the US, in an effort to uncover the underground

economy linked to terrorist groups like Al Qaida and persons associated with Osama bin Laden. This prompted a rededication of efforts to upgrade anti-money laundering legislation in many OFCs in the years that followed. While confidentiality is an important characteristic of any OFC, anti-money laundering legislation has allowed avenues to lift the veil in certain circumstances, including restricting attorney-client privilege, to prevent abuse of the system. Recently, these developments have extended to counter-terrorism measures to ensure that terrorist cells and organizations cannot use OFCs to support their regimes.

This collection of anti-drug trafficking and all-crimes legislation which seek to prevent the use of the proceeds of crime as well as other anti-money laundering and counter-terrorist legislation has set regulatory standards higher than those in several capital markets, like the US State of Delaware (where, not insignificantly, the trendsetting predecessor statute to the current BVI Business Companies Act, 2004 owes its origin). It is a truism repeated in all reputable OFCs that due to their rigorous regulatory systems OFCs have largely become unattractive for the purpose of laundering illicit funds; money-launderers prefer to operate on shore.

Pre-London summit regulatory regime: taxation

Where tax avoidance is seen as reducing the revenue of any government, most countries have taken measures to prevent the avoidance of paying taxes. According to the Organization for Economic Co-Operation and Development (OECD) in its 1998 report "Harmful Tax Competition: An Emerging Global Issue", a tax haven is a jurisdiction with low to zero taxes while having no system for the exchange of tax information between governments. Additionally, certain harmful tax practices may be isolated from the taxpayer within a so-called "ring-fence" and not contribute to the overall tax burden of the society.

In an effort to create a "level playing field" within the fabric of the global economy, ring-fencing practices, such as providing a preferential regime for non-residents who were not subject to the same tax burdens as residents, were severely criticized by the OECD. In response to this criticism, many OFCs including the BVI removed the ring-fence around

non-residents by abolishing all corporate taxes, zero-rating its income tax system and ultimately replacing the separate corporate regimes that existed for international business companies and local companies with one modern corporate statute. Meanwhile the OECD created a Model Agreement on the Exchange of Information on Tax Matters to be entered into between OECD member states and those jurisdictions it considered had harmful tax practices, like the BVI and the Cayman Islands.

Where jurisdictions failed to curtail ring-fencing and other harmful tax practices and did not commit to entering into tax information exchange agreements (TIEAs) with OECD member states, they were "blacklisted" by the OECD. The publication of a new OECD list (this time the colours were black, white and grey) in conjunction with the London Summit spurred many OFCs including the BVI and Cayman, which were "grey-listed", to conclude additional TIEAs in order to reach the magic number of 12 and, presumably, white list status.

Similarly, the EU sought to have non-EU countries agreeing to disclose information about interest on earnings by EU nationals, and introduced

the EU Savings Directive (EUSD) which came into effect on 1 July 2005. Many jurisdictions entered into transitional agreements with the EU to allow for the disclosure of information on tax matters and in this respect the BVI and the Cayman Islands diverged in their responses to the EUSD. The BVI agreed to maintain its confidentiality laws but deducts a withholding tax from interest earned by EU nationals, while the Cayman Islands agreed to exchange information with

the EU. Both jurisdictions now possess the relevant legislation to enable compliance with their transitional agreements and continue to have similar arrangements with the US authorities for the provision of mutual legal assistance in tax matters, all in an effort to comply with the growing international demands.

"The global regulatory net will be cast much wider as a result of the London Summit and OFCs will now have to rise to even greater challenges to face the new regulatory frontier"

The future after the London Summit

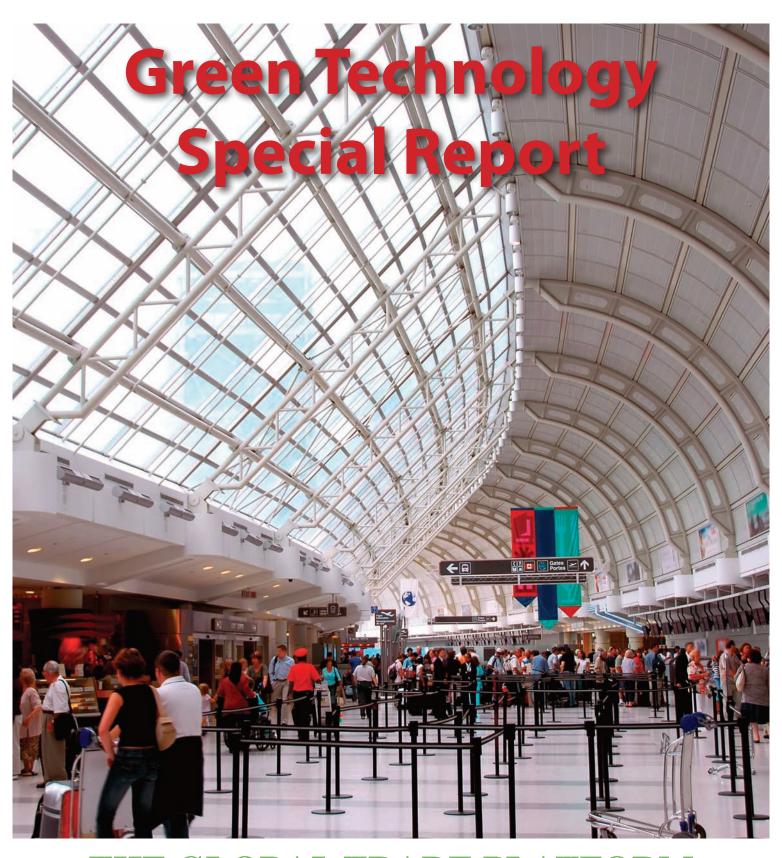
The new regulatory environment coming out of the London Summit will see a greater emphasis on banking reforms and accounting standards. Starting with the International Monetary Fund (IMF) as a supranational regulator as its Financial Stability Forum should have greater oversight of global financial institutions once it is replaced by the new Financial Stability Board. The IMF will continue to make prudential visits to OFCs, but in the climate of retaliatory action against uncooperative jurisdictions, an unfavourable report by the IMF may come with serious threats of sanctions for OFCs and damaging their reputation to ultimately close them down with the stroke of a pen.

As banking secrecy laws start to collapse with the commitment of Switzerland, which has the oldest banking secrecy laws in the world, to relax its secrecy laws, OFCs built around similar banking systems, like the Cayman Islands, will become subject to greater international pressure to conform to higher standards of banking regulation. This will come despite the fact that OFCs generally meet the requirements of the Basel II Accord and have capital adequacy requirements and leveraging standards on par or higher than many capital market economies; the US, for example, has yet to meet those standards.

Therefore, the new challenges faced by the OFCs since the London Summit require a commitment to enhanced regulatory supervision and vigilance by OFCs. The global regulatory net will be cast much wider as a result of the London Summit and OFCs will now have to rise to even greater challenges to face the new regulatory frontier. However, facing challenges has been what every successful OFC has done to survive and will continue to do if they intend on surviving in the future.

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Don't Just Survive in Today's Difficult Times – Thrive!

Paul Crombie, Solutions Development Leader, Critical Infrastructure Protection, Honeywell Automation and Control Systems discusses what airports can do to thrive in the current economic environment

Many industries are struggling in the current economic climate and air travel is no exception. In addition to the economic factors, airports have to work harder than ever to meet the demands of the modern traveller. This article will discuss how the world's airports must implement change in the areas of passenger experience, environmental impact and safety and security, if they're to survive, and ideally thrive, in the current climate.

Putting the passenger first

Passenger numbers are what drive the economic health of airports. In Europe and many other regions, they relate directly to revenues for retail, car parking, real estate and air operations. In 2009, cross-border European traffic was down 0.4% in Week 16, while Asia Pacific traffic was down 8.9% after a 14% fall the previous week. The Association of European Airlines (AEA) traffic in the North Atlantic region was down 0.1% in Week 16 (Source: Centre for Asia Pacific Aviation & AEA).

With declining passenger numbers, airports need to maximize the value they generate from their existing passenger throughput, whilst creating an environment which encourages the traveller to use that airport facility as their "air gateway" of choice and as frequently as possible.

From a traveller's perspective, the factors that drive their decision to use a specific airport are:

- Appropriate flights to their required destinations
- Ease and comfort of use
- Consistent on-time arrivals/departures
- Safety and security
- Value for money
- And increasingly, a low carbon footprint

In response to these customer demands, airports' priorities are:

- Attracting and retaining carriers that operate to travellers' desired destinations from within its catchment area
- Delivering safety and security in an unobtrusive and unthreatening way and at an acceptable cost (most airports pass the security costs on

to carriers on a per passenger basis)

- Minimizing disruption or delay
- Ensuring good value for money by minimising costs that are passed to the traveller via their ticket cost
- And minimizing CO, impact on the environment

These actions are not mutually exclusive, but are mutually supporting, mutually interacting, and benefit the wider community of stakeholders in any given airport, whilst keeping the focus upon their most important stakeholder, the traveller. When working to achieve these objectives, airport operators must keep costs front of mind at all times.

Reducing carbon footprint

While there isn't currently any legislation in place forcing airports to reduce their CO₂ emissions, individual airports are setting their own targets and this is driven primarily by cost savings but also by customer demand. The modern traveller is becoming increasingly environmentally conscious and in turn, airports are increasingly demonstrating their environmental credentials to travellers. Airlines must reduce their CO₂ emissions under the EU emissions trading scheme for aviation and it could not be long before airports have to follow suit.

With more than 90% of an airport's greenhouse gas emissions generated by aircraft operations (take off and landings) this is a top priority for airport operators and there are a number of tactics airports can deploy to reduce emissions in this area.

Direct enroute management of aircraft location in the sky is the responsibility of air traffic management and aircraft operators. If this process, namely Required Navigation Performance (RNP), is used to place the inbound aircraft onto its profile descent at the precise time required for landing, the requirement for aircraft 'stacking' and circling would be significantly reduced. The profile descent requires less fuel burn as there would be no need to increase engine power on descent to level off the aircraft at a number of different heights. This technique can also be used at appropriate airports to allow longer continuous descents, particularly 'over-water' approaches to airports.

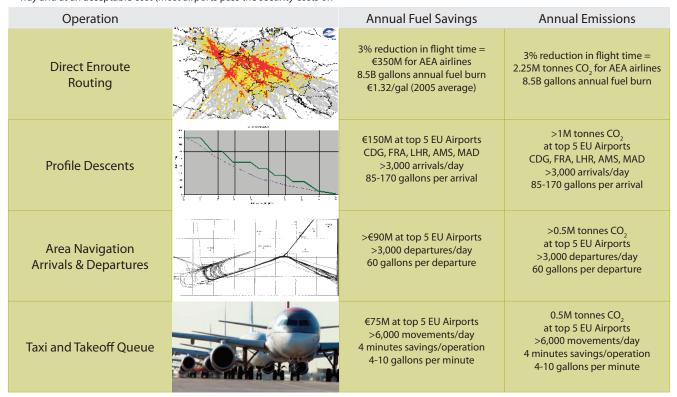


Fig. 1. As an example, the table above indicates the the approximate and estimated €value and CO₂ emission savings that can be achieved based on the top 5 EU airports if they were to move to profile descents, precision area navigation for arrivals and departures, and taxi and takeoff queue management.



Area navigation, arrivals and departures use precision landing and takeoff techniques with Ground Based Augmentation System (GBAS) and RNP to keep aircraft on close tolerance routes into and out of airports. This dramatically improves the aircraft operation in terrain (Washington DC) or weather-challenged airports (Alaskan), reducing the number of missed landings and 'go-rounds'.

From a traveller's perspective, a seamless transit from departure airport to destination airport with no obvious delays due to 'stacking' and more efficient and cost-effective use of fuel by airlines makes air travel less stressful and frustrating. The benefits for an airport's neighbours include less noise and environmental pollution as the aircraft can be routed over the most appropriate areas (unpopulated or lower density populations) to mitigate these factors.

Once on the runway, if an aircraft can take the shortest and safest route to the stand, without delays due to stops or other aircraft occupying the allocated stand, this further enhances passenger satisfaction and improves use of airline and airport assets. There is also a significant reduction in the CO₂ contribution from that aircraft movement. Systems are available to integrate this process to get the aircraft automatically from runway onto gate quickly and safely.

While keeping costs and environmental factors front of mind, airport operation must be optimized by the seamless transfer of data between systems to ensure that the passenger experience is not marred by inconvenience or disruption. Only systems directly contributing to the safe and secure transit of the passenger through the airport need to be in operation. Systems are 'called-on' in response to an actual demand.

For instance:

- During night operations, the gates on a pier closest to the terminal would be used
- Unused gates and pier facilities (heating, ventilation, air conditioning, lighting etc.) would be turned off
- The CCTV and recording system would be turned to a low record rate (going back to higher record rates on alarm) to save IT network bandwidth and expensive data storage
- Fixed electrical ground power (FEGP) to unused gates would also be turned off

Staying safe and secure

Providing the best experience possible for passengers by reducing their walk to the terminal and allowing time for a final retail experience

before boarding the aircraft, all in a relaxed environment, is most conducive to buying behaviour, but is also no easy feat. Doing this while minimizing the environmental impact of these operations is even more difficult and this must all be done in a safe and secure environment, 24 hours a day, 365 days a year, with no room for error.

interaction Human must be minimized and guided to obtain the highest levels of safety and security. The airport perimeter is the single largest security aspect of any airport, for instance Barajas in Madrid has a 44Km perimeter. To deter, detect, detain and protect this vast distance requires the deployment of both integrated technologies and human response forces. When human interaction must be minimized, it's a challenge to achieve this desired high

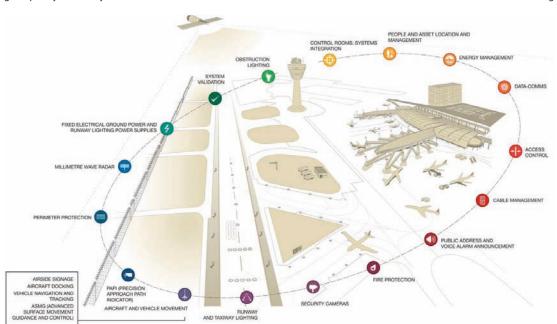


Fig. 2. Intelligent Airport Solutions must work together to deliver a safer and more secure customer experience that delivers benefits to airport stakeholders, and focuses on travellers and their experience. Anything that detracts from this consigns the passenger travelling experience to the realms of chore and stress.

level of security.

One way is to deploy Radar Video Surveillance (RVS) technologies, using current generations of radar detectors to 'look out over the fence' where appropriate, to detect the source of an inbound threat, human or vehicular, and then:

- Pan, tilt, and zoom associated CCTV cameras (day/night, infra red, night vision, as appropriate) to the source of the threat or projected breach point in the security fence
- Raise alarms with the security force and have this team deploy to the potential breach point
- Have the breach point security zone illuminate in order to deter the intruder(s) and assist the security force in seeing where the breach may be in the perimeter that may be 40+ kilometres long

These detection technologies can be supplemented with other technologies and integrated into the overall solution to suit the airport, in order to provide the complete and seamless security that is necessary at all airports. The radar solution gives additional and essential functionality that is missing if only a conventional Perimeter Intrusion Detection System (PIDS) is used. With a conventional PIDS system, a breach is detected as it occurs and the security force has to mobilize and reach the breach as fast as possible. If the delay time to get to the breach is as much as three minutes, the intruder(s) could be half a mile or more away from their entry point, in any direction, removing, placing or tampering with assets that the airport must keep secure.

These assets include aircraft, baggage and cargo ready for loading in the highest security areas of the airport. This could also mean people are in areas of danger like aircraft manoeuvring, take-off or landing areas. Such an event would be highly disruptive and dangerous and would result

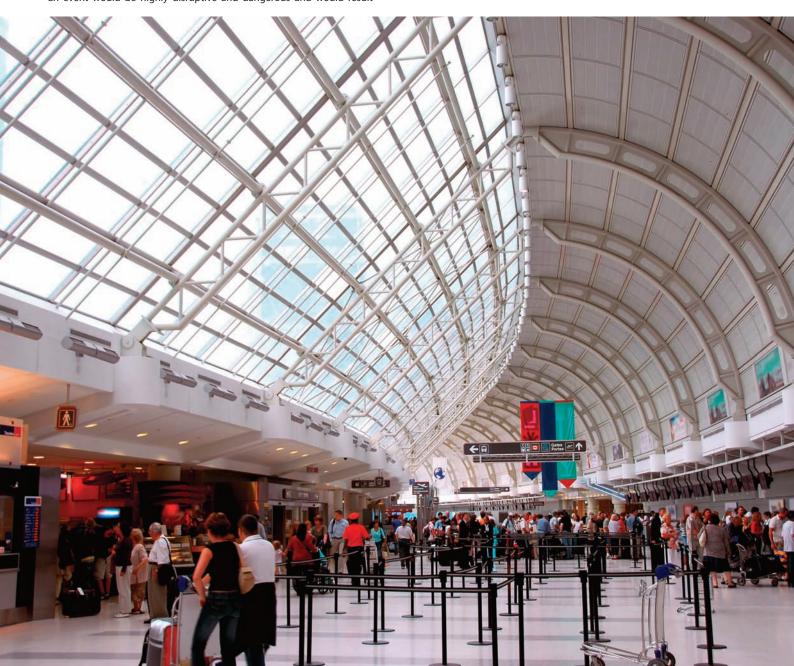
in airport closure to operations, passenger delays, stress and significant manpower deployment to locate and catch the intruder(s). Searching for the intruder may endanger aircraft or life, and this would need to be carried out before normal or reduced operations could recommence.

The RVS solution provides a means of tracking the intruder(s), identifying their movements if they manage to avoid the security force (significantly less likely than if a conventional PIDS is used), in any weather, day or night.

The industry is moving towards technology solutions that enhance the traveller experience at airports, and is offering whole life operational support in parallel with reducing environmental impact of airport operations. Airports can use Low Global Warming Refrigerants, such as Genetron, that is a non-ozone depleting refrigerant, which replaces CFCs and HCFCs and decreases greenhouse gases. In addition, LUMILUX Phosphorescent Pigments are used in markings used in exit egress applications. No energy or electrical support is required and it's non-toxic. An airport's efforts to become greener and subsequently a more attractive option for travellers, doesn't have to end inside the airport. Athens Airport has recently introduced an employee car sharing scheme and deployed low emission vehicles on and around the airport, resulting in many tonnes of CO₂ reduction.

Conclusion

Dwindling passenger numbers due to tough economic times means airports need to protect their existing footfall more than ever before. To ensure a loyal customer-base, airports must deliver a seamless passenger experience in a safe and secure environment and provide evidence to the increasingly environmentally-friendly consumer that their airport is a 'green' one. Airports should opt to thrive, not just survive, in order to meet the standards expected by today's traveller.



Urgent Call for Energy Efficiency in Buildings

Christian Kornevall is the Director of the WBCSD's Energy Efficiency in Buildings (EEB) project

Everyone knows by now that vehicles need to burn less fuel if we're to do anything about climate change. That's why President Obama has pushed through tough new fuel efficiency standards. But what about burning fuel to heat homes and offices or using electricity we use in them?

When we get out of the car and go indoors we end up spewing even more carbon dioxide into the atmosphere than when we're heading home on the freeway. The fact is that more energy is used in shops, offices, homes and other buildings than any other sector – typically around 40% of the total in most countries.

Unless we transform the building sector we won't make the essential transition to a low-energy or low carbon world that President Obama and other world leaders are looking for, especially considering the huge number of additional inefficient buildings that will be going up over the coming decades in response to growing populations and (hopefully) growing prosperity.

According to a major new global study¹ the building sector won't transform itself. Just like the auto industry, it needs a combination of new attitudes, new finance and new regulations to create the market push and pull that will make buildings consume less - thanks to efficiency measures – becoming the norm.

The study covered six markets spanning the globe: Brazil, China, Europe, India, Japan and the USA. It was produced by a group of multinational companies working with the World Business Council for Sustainable Development, a Geneva-based business NGO. WBCSD president Björn Stigson stresses that time is short – thousands of new buildings that waste energy are going up every day. And unlike cars, buildings stay around for decades or even centuries. Millions of inefficient buildings that are around now will still be standing in 2050, a key target date for slashing the amount of greenhouse gases the world pushes into the atmosphere.

Stigson says the urgency is reinforced by the economic slump, because acting on building's energy use would also stimulate the economy: "We are calling for a major, coordinated and global effort. If we can create that, we will cut greenhouse gas emissions and stimulate economic growth at the same time."

We have the technology

From the Empire State building in New York to family homes in Japan, Germany and Switzerland, there are examples of what can be done to cut energy consumption in old and new buildings. Improved design that reduces energy demand efficient equipment, daylight and space occupancy sensors, renewable energy sources all contribute 60% or more greenhouse gas emissions savings.

The Passivhaus concept creates ultra-low energy buildings needing little or no traditional space heating or cooling. The name emphasizes that it's not just about technology. Passive measures are critical – orientation and shape of the building, shading and other design features that minimize the need for active heating, cooling and lighting. These buildings have excellent insulation and air tightness and make the best use of sunlight, typically cutting energy use by as much as 90%. And despite the name, the concept applies to commercial buildings as well as homes.

There are more than 7,000 Passivhaus buildings around Europe, but that's not very impressive when you think there are 14.5 million family houses in France alone. This is the problem – there are examples of low-energy buildings all over the world, but they are nowhere near becoming the norm. And even if they were the norm for new construction, what about all the existing buildings which are going to be around for years, guzzling energy because they are badly designed, poorly insulated, and use inefficient equipment?

Barriers to better buildings

Part of the problem is ignorance – among building professionals as well as all of us who live and work in buildings. The WBCSD project carried out international research which found that building professionals even in the most advanced economies typically underestimate how important buildings' contribution is on climate change, and overestimate how much it costs to make them more sustainable.

Cost is certainly important if extra spending is needed, especially as

energy efficiency and other environmental measures tend to be seen as luxuries that are first to be cut when a project needs to meet a cost ceiling. It's not simply cost, but also the investment timeframe typically used to judge such investment decisions.

Many energy-efficiency measures, such as insulation, pay for themselves over their lifetime. This has led to them being described as negative cost investments – no-brainers. But those making the decisions – individual householders or corporate buyers – don't tend to look at it like that. They want to know how quickly they will get their money back in energy savings. And if the answer is more than five years, forget it. Lifetime savings just don't enter into it.

In practice, building decision-making tends to work against energy efficiency. First, energy consumption and energy efficiency are not high on the priorities of decision-makers in either commercial or residential sectors. While the added cost of energy investments is hard to get past financial decision-makers, energy operating costs tend to have a low profile in most organizations. That's because they are relatively insignificant in comparison to total occupancy costs and because people focus on what energy provides rather than energy itself. People know how hot or cold they want to be but their focus is on the temperature and not the energy used to provide it.

The structure of the building value chain also acts as a deterrent to energyefficient design and construction. There are too many links in the chain and too little opportunity for rounded decision-making that would place energy efficiency in the broad context of building performance.

Building occupancy and ownership practices present a further practical obstacle – split incentives between the beneficiary of energy saving and the investor, which mean that the returns on energy efficiency investments do not necessarily go to those making the investment and there may be no opportunity or incentive for occupiers to save energy. This applies to all buildings that are not directly owned – residential apartments, multi-occupied office blocks and shopping malls.

Landlord/tenant relationships are also complicated by billing practices that can mean tenants do not pay specifically for the energy used. Research in China found that when tenants are billed for actual consumption, energy use for heating typically drops by 10 to 20%².

Understanding the economics

One superficially attractive solution to the building energy dilemma is to make energy and/or greenhouse gas emissions more expensive, increasing the energy cost savings from efficiency investments to speed up the payback period. But it seems that energy or carbon tax, or higher carbon price as a result of a cap-and-trade system, would have relatively little effect unless the price went through the roof.

That conclusion is based on a computer simulation model created by the WBCSD project to test the effect on energy consumption of economic and regulatory changes. The model simulates the actions of decision-makers faced with a choice of investments in design and construction options, projecting the market response to a variety of financial, technical, behavioural and policy packages. See figure 1 for a simplified illustration.

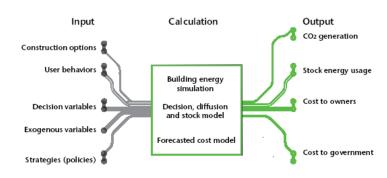


Figure 1. the WBCSD simulation model

Decisions are simulated by comparing the net present value of available options (over a 5-year time horizon for the base case). The simulation is based on real building energy and technical data assembled by the project, specific to a particular geographic submarket and building type. Several "reference cases" were created to represent the range of building and energy combinations in each submarket. The results are calculated at 5-year intervals to 2050, taking account the existing building stock, the expected net building growth during the period as well as natural replacement rates for the buildings and each item of equipment. Outputs cover energy consumption and carbon dioxide emissions, investments and operating costs, government subsidies and taxes. See the box for the example of single-family homes in France.

The modelling work suggests that current trends and policy approaches are nowhere near ambitious enough to achieve the level of emissions reductions the world is now looking for (typically 80% reduction by 2050).

Many measures which would achieve that level of impact are unlikely to meet normal financial investment requirements and are therefore unlikely to be chosen.

Our simulations for the six regions studied in the project suggest that in most countries studied, at today's energy prices, building energy efficiency investments of US\$150 billion a year could meet a five year payback criteria, reducing energy use and corresponding carbon emissions up to 40% below the "business as usual" level in 2050. A further US\$150 billion annual investment with paybacks between five and ten years would bring the total reduction up to slightly more than half. Additional investments to approach 80% reduction would not be justifiable on economic grounds at today's energy prices and would require additional measures outlined below.

Higher carbon costs would increase the amount of financially justified efficiency investments, but only marginally – from 52% to 55% with a carbon cost of US\$40/tonne.

Pulling down barriers to change

The WBCSD modelling and analysis emphasize the need to transform the building sector. Without fast and effective action, the energy used in buildings will be as much as transport and industry combined by 2050. Our research demonstrates that we can cut that dramatically, saving as much energy as the entire transport sector currently uses.

But transformation will not occur solely through market forces because the financial, organizational and behavioural barriers are too significant. The necessary transformation needs stronger market signals and regulatory change. Most building owners and users don't know enough and don't care enough about energy consumption, and inertia is reinforced because first costs are too high and savings too low.

Transformation requires six broad actions, illustrated in figure 3.

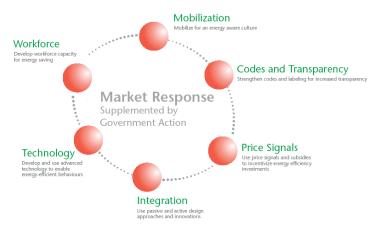


Fig 3. mutually supportive actions to achieve transformation

Strengthen codes and labelling for increased transparency

Policy-makers and governments must extend current building codes to include strict energy-efficiency requirements (adapted to regional climate conditions) and commit to enforcing and tightening these over time. The building industry and governments must also develop energy measurement and labelling mechanisms requiring non-residential building owners to display energy performance levels.

Price signals to incentivize energy-efficient investments

Governments need to provide tax incentives and subsidies to enable energy efficiency investments with longer payback periods that do not meet financial criteria. Charging structures should be introduced to encourage lower energy consumption and on-site renewable generation.

Encourage integrated design approaches and innovations

Property developers need to be encouraged to restructure business and contractual terms to involve designers, contractors and end users early and as part of an integrated team. Government authorities should introduce incentives for developers to submit applications for energy-efficient buildings. Subsidies and other incentives for domestic energy-efficient improvements should be related to an integrated approach aiming to improve the overall energy performance of the building rather than individual measures.

Develop and use advanced technology

There is a great business opportunity to improve energy-efficiency technologies in building. But government authorities need to provide support and investment for research and development to accelerate progress.

New and refurbished buildings should be designed to use information and communication technology that minimizes energy use and is easily updated with technological advances for buildings to operate at an optimal energy level.

Develop workforce capacity for energy saving

The building industry must create and prioritize energy-efficiency training for all those involved in the sector and create vocational programs specifically for those who build, renovate and maintain buildings. We need a "system integrator" profession to support retrofitting in residential properties.

Mobilize for an energy aware culture

Businesses and government authorities must establish sustained campaigns to promote behaviour change and to increase awareness of the impact of energy use in buildings. And they should show the way, demonstrating their commitment to addressing this urgent challenge by cutting the energy consumption of their own buildings.

A price worth paying

The cost of transforming the building sector will be substantial. But the costs of inaction are far greater and represent enormous risks for business and for market stability. And building energy efficiency is one of the most cost-effective ways to achieve energy and emission reductions.

Our simulations suggest that the net costs to energy users in the six regions studied could be approximately US\$250 billion a year. The scale demonstrates the need for both public subsidies and for businesses to develop designs and products that achieve energy efficiency at lower cost to meet decision-makers' return criteria.

The costs of transformation will fall on society as a whole: business, individuals and governments. Sharing the burden is appropriate and aligns with the benefits that the spending will deliver. Businesses will develop attractive markets and improved buildings. Households will get better homes with lower energy costs and higher re-sell value. Governments will improve energy security, protect the environment, meet their carbon emissions targets faster and stimulate their economies.

Transformative action to cut energy use is essential for economic, social and environmental reasons and the building sector provides an important component of such action. We must begin immediately to create the transformation that will deliver sustainable business success as well as cut energy consumption to curb climate change.

^{1.} Transforming the Market – Energy Efficiency in Buildings, World Business Council for Sustainable Development 2009. www.wbcsd.org

^{2.} Meyer, AS and B Kalkum (2008), China: Development of National Heat Pricing and Billing Policy, The World Bank, Formal Report 330/08

The French case

There are more than 14.5 million single-family homes in France, responsible for three quarters of carbon dioxide emissions from the residential sector. Typically for northern climates, space heating is the dominant energy use - more than two-thirds of total final energy consumption. And as with much of Europe, over 60% of the housing stock was built before 1975.

Many such buildings offer great potential for energy efficiency, first by reducing space heating needs through insulation, air-tightness and more efficient equipment; then by improvements in domestic hot water and lighting. But it's not cheap: comprehensive improvements are likely to cost between US\$20,000 to US\$40,000 per home.

The WBCSD simulations tested different combinations of regulation, financial and fiscal measures and technology choices. Table 1 and Figure 2 show the results for two cases: continuing current policies, and transformative policies to achieve deep reductions in energy and CO₃ emissions.

Table 1. simulated outcomes for single-family homes in France

	Net sector energy consumption* (TWh)	Carbon dioxide emissions (m tonnes)
2005	346	67
2050 – current policies	428	75
2050 – transformation	100	14
- Below 2005 level	71%	79%
- Below current policy outcome	77%	81%

^{*} after deducting on-site energy fed into the grid

(billions) 400 350 Site energy consumption (kWhr/yr) Small plug loads Net carbon emissions (tCO2/yr) 300 Large plug loads 50 250 Water heating 200 Cooking - 20 100 Lighting equipmer 10 50 Ventilation equipment & distribution 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050 (billions) Space cooling equipmen 400 & distribution 350 energy consumption (kWhr/yr) 300 (tCO2/yr) 50 Space heating equipment 250 & distribution 200 150 Consumption equivalent segment emissions (tCO2/yr) 100 Segment emissions (tCO₂/yr) 50 Segment emissions with carbon credit (tCO2/yr) 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050

Fig 2. energy and CO₂ emissions under two scenarios

Current policies clearly are not enough to achieve any reduction in total sector energy and emissions. The transformative approach, on the other hand, could achieve up to 80% reduction. The transformative package consisted of aggressive policies including a requirement in 2020 for all new construction to be "net zero energy", plus a combination of incentives for the most efficient buildings and bans on the least efficient solutions (not on buildings themselves!).

The incremental investment to achieve the Transformation case in this submarket is US\$13 billion a year on average, with annual incentives of US\$10 billion and annual energy savings of US\$10 billion a year on average.

The investment is high relative to the savings, largely due to the significant adoption of solar photovoltaic systems, which receive a strong subsidy and benefit from a high feed-in tariff. However, approximately 15% of the total Transformation cost is for efficiency measures with simple paybacks of 5 years or less, which achieve 65% of the total energy savings.



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World Chambers Congress - Examining Global Challenges

The 6th World Chambers Congress was held in Kuala Lumpur on 3-5 June under the theme "Leading sustainable growth and change." The Congress focused on global trends in demographics, migration and industrialization and analyzed the stress they are placing on vital resources including food, water, and energy.

The Congress brought together business and chamber of commerce leaders from around the world to exchange ideas and experiences on how they are working with business and governments to meet the challenges of the global recession, climate change, and other pressing issues.

Organized by the International Chamber of Commerce's World Chambers Federation and hosted by the Federation of Malaysian Manufacturers, the biennial Congress is the only international forum for chamber leaders to share experiences and best practices, develop networks and address the latest business issues affecting their community.

"This Congress serves as a valuable reminder of the vital role chambers of commerce play in their communities, supporting local economic development and facilitating trade," said Rona Yircali, Chairman of the World Chambers Federation.

The Congress was inaugurated by Malaysian Deputy Prime Minister Tan Sri Muhyiddin Yassin. Former US President Bill Clinton taped a special video message to delegates from over 90 countries.

Other participants included:

Victor Fung, Chairman of Li & Fung and Chairman of the International Chamber of Commerce

Mike Mack, CEO, Syngenta, Switzerland

Andrea Tomat, President and CEO, Lotto Sport Italia

Marcus Wallenberg, Chairman of Skandinaviska Enskilda Banken, Sweden

Panellists participating in the plenary sessions addressed issues including how governments, business, and civil society can best support a global climate regime and whether a connection exists between economic growth, trade liberalization, environmental protection and sustainable development.

Leaders of the global chambers of commerce community issued a statement at the Congress identifying the current global economic crisis and the impacts of climate change as two major challenges that transcend national borders and require concerted international cooperation.

In a main plenary session on the economic implications of climate change Carlos Busquets, Policy Manger, Environment & Energy, at the International Chamber of Commerce and the moderator of the plenary, stressed that climate change presented opportunities for companies and chambers

and that the political decisions that would be reached by the UNFCCC in Copenhagen in December would not be an end, but rather a beginning to new ways of doing business.

In addition to the plenary sessions there were over 20 workshops divided into three tracks – business, development, and chamber issues. They addressed the key challenges faced by businesses today, from the effects of globalization on small to medium-sized enterprises to corporate governance, counterfeiting, and empowering women in business.

The workshop on women in business saw women corporate figures and activists including Selima Ahmad, President of the Bangladesh Women Chamber of Commerce and Industry and vice-chairman of the Nitol-Niloy Group. Irene Natividad, President of the Global Summit of Women, also participated.

In the area of business one workshop examined how cities around the world are building strategic alliances to find sustainable solutions to the effects of sprawling urbanism. Another looked into the different types of partnerships that are being created between port authorities, chambers and local municipalities to support economic development and sustainability for their communities.

In the area of development, workshops focused on helping young people become entrepreneurs, maximizing the use of modern technology to improve the communication between members and partners; how business leaders should use the current crisis to transform their organizations and shape their futures; and the benefits of corporate social responsibility.

The Congress workshops discussed how chambers are helping businesses adapt to the challenges of climate change and the techniques to help chambers improve customer services.

One workshop showed the film *Illicit: The Dark Trade*, highlighting the links between intellectual property theft, counterfeiting and other illicit activities. There were four workshops dealing with various trade documentation issues including ATA Carnets and Certificates of Origin.

More than 30 organizations from the United States, Australia, the United Arab Emirates, Mexico, Luxembourg and Malaysia booked space to showcase their products and services. The exhibition space was sold out far in advance of the Congress.

Michael Chai, a council member of the Associated Chinese Chambers of Commerce and Industry and the chairman of the Congress' sub-committee on exhibitions, noted that local companies need not go overseas to promote their offerings. "Foreigners are coming here to see for themselves what we have to offer. This is the best way to make ourselves known," he said. In addition to keynote addresses and sessions, participants also had time



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to network and relax at the welcome reception, a dinner hosted by the Mayor of Kuala Lumpur, and a royal gala dinner.

A special event at the Congress was the announcement of the winners of the 2009 World Chambers Competition. Organized by the International Chamber of Commerce World Chambers Federation, the Competition is the only global awards programme to recognize the most innovative projects undertaken by chambers of commerce and industry from around the world.

This year the contest attracted 48 entries from 31 countries, with 19 finalists in the four categories - Best Unconventional Project, Best Small Business Project, Best International Project and Best Networking Project - announced in April.

All the finalists were invited to present their projects to the international judging panel, and the winners were announced at a special ceremony on the last day of the Congress.

For the first time in the history of the Competition, the winners received US\$1,000 in prize money, and this was donated by Avijit Mazumdar, Honorary Chairman of the World Chambers Federation and Chairman of this year's World Chambers Competition Jury.

Other prizes for this year's Competition included a week's accommodation from the Anguilla Chamber of Commerce and Industry in one of their members' resort hotels and a vacation package at the Phinda Private Game Reserve secured with KZN Tourism by The Durban Chamber of Commerce and Industry.

About the World Chambers Congress

Organized by the World Chambers Federation, which is part of the International Chamber of Commerce, and hosted by the Federation of Malaysian Manufacturers, the Congress brings together the global community of over 14,000 chambers of commerce.

World Chambers Congresses are held every two years and are organized by the World Chambers Federation, a specialized division of the International Chamber of Commerce.

Since the inaugural World Chambers Congress in Marseilles in 1999, the event has established an enviable reputation as the place where chamber of commerce and business leaders get to know international peers and share experience and best practice on issues that have a direct impact on the chamber of commerce community.

More workshop than talk shop, the World Chambers Congress offers practical, hands-on solutions to support the development of small- and medium-sized enterprises and provides chambers of commerce an opportunity to learn best how to deal with the myriad challenges facing modern business.

The World Chambers Congress is the only international forum devoted to the global community of over 14,000 chambers of commerce.

Delegates come together from as far as Afghanistan, Algeria, Australia, Costa Rica, Cuba, the Democratic Republic of Congo, Ecuador, Fiji, Ivory Coast, Madagascar, Mongolia, Nepal, Philippines, Saudi Arabia, and Uganda.

The next World Chambers Congress will be held in Mexico City in 2011. For more information visit: www.kl2009.org

About ICC

Celebrating its 90th anniversary in 2009, the International Chamber of Commerce is the world business organization, representing enterprises from all sectors in every part of the world. The fundamental mission of ICC is to promote trade and investment across frontiers and help business corporations meet the challenges and opportunities of globalization.

A world network of national committees keeps the ICC International Secretariat in Paris informed about national and regional business priorities. Experts drawn from ICC's member companies feed their knowledge and experience into crafting the ICC stance on specific business issues.

The United Nations, the World Trade Organization, and many other intergovernmental bodies, both international and regional, are kept in touch with the views of international business through ICC.

For more information please visit: www.iccwbo.org



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'Visionary Leadership Acting As One': Think It Do It

In this article, Dr Sally Watson, Director of Executive Education at Lancaster University Management School (LUMS) UK, will explore the dilemmas facing global providers of management education and argue that there is an opportunity to rethink how leaders in organisations are encouraged to learn their craft and acquire the skills needed to shape our world into a more collaborative and interdependent place to live.



Global context

It is important to recognise that the challenges that face our global economy and which impact global security and politics are not isolated events to be managed with a swift return to business as usual. The global downturn is symptomatic of economic models that encourage unnecessary competition and individual self interest.

There is an emerging view that the global financial crisis is an opportunity for the world economies to lay the foundations for sustainable recovery and to develop global standards. This is a noble sentiment and undoubtedly inclusive strategies and collective regulation form an urgent international agenda. But reform of structures and systems will not solve global issues if our thinking about leadership remains an intellectual pursuit with little understanding of how to lead collaboration initiatives and strategies at both macro and micro levels.

History brings many examples of the dramatic outcomes of human capacity for competition and conflict. A collaborative approach to doing business, leading a nation or brokering peace calls for a 'rewiring' of thinking which brings both individual and collective will to change. We may have been taught to share our toys in childhood but the process of collaboration is not a natural human response to change. We are hardwired with a desire to control others and preserve the resources we believe belong to us. We proclaim that our identity or culture is in imminent danger and collude with politics that protect the status quo.

The purpose of this first article from LUMS is to stimulate thinking about future trends in management education and leadership development. Later articles will focus on cases studies which address a range of leadership issues that organisations face in the current economic climate. There are growing challenges to conventional management education programmes as leaders face unprecedented changes to their businesses. There is a need for leaders who can foster collaborative relationships between society and business and develop the vision and courage to steer their people through tough times.

Educating leaders 'think it, do it'

How is it possible to create a new global agenda for future collaboration and interdependency politically and economically if our leaders continue to operate from models of leadership that are out of synch with the political and commercial realities of this rapidly changing world?

At Lancaster we are committed to the work of educating and developing leaders. In practice, this means we have developed both an MBA and Executive Education portfolio, which brings an integrated approach to intellectual and emotional development. To ensure a balanced approach to education and development we design into of all our programmes, including our MBA's, some form of practical application of learning to a 'real world' setting.

The feedback from our MBA alumnae is consistently focussed on the powerful experiences of applying the MBA knowledge to real time issues in organisations http://www.lums.lancs.ac.uk/news/emba/16777/emba-consultancy-challenge/

Historically, the MBA qualification has been an attractive option for aspiring leaders. There is now a very crowded, highly competitive market of MBA providers this trend needs to be examined more closely.

For some delegates the acquisition of this qualification begins to subsume the need to learn about the wider issues facing us nationally and internationally. The acquisition of MBA knowledge, status and networks has been driven by ambitious individuals rather than collaborative practice.

This focus on individualism is seen when we examine the growth of distance learning MBA's. The rationale is that we find that the use of technology allows a more efficient learning process. The marketing pitch tells us that it is possible to gain an MBA qualification without 'interrupting your life'.

At Lancaster, we want people to interrupt their thinking in order to review their approach back in their world. Learning is not just about the acquisition of knowledge and passing an academic qualification. The development of emotional competence is equally challenging and yet there is a trend to regard the behavioural aspects of business learning as an 'add on' or 'soft skill'.

The dominance of finance and accountancy in the top MBA schools has created a one dimensional approach to leadership in business and one of the outcomes of this trend has been the creation of a vibrant international market in executive education and leadership development².

Conduct an experiment and "Google" the terms 'leadership' or leadership development and the scale of entries will convince you that the domain of leadership development programmes is as densely populated as the MBA market. The education of leaders across the world is on a massive scale.

There are scores of good business schools running quality MBA programmes, leadership programmes and executive education and they all access world class research and teaching. So what is the missing link?

If our customers want an individualised experience with a qualification or corporate accolade at the end of it and we as providers are colluding with this then it is unlikely that we are making any significant contribution to the development of leadership for a collaborative world order.

A closer examination of our assumptions about leadership and how leaders learn brings some insights into the paradox facing business school providers and their customers.

Are there really lessons from history?

The problem is that many of the models and theories of leadership take a historical perspective which offer solutions for future challenges based on past events or documented acts of leadership.

How often do we question whether a style of leadership successful in a completely different social and historical setting is likely to succeed in the future? We draw romantically to great tales of leadership and are confused when our everyday experience of organisational life does not fit a model we aspire to.

It is interesting to note that rhetoric 'visionary leadership acting as one' used at the G20 summit did not actually explain how visionary leadership could be acquired or sustained. If the challenge is to create a new world order of economic and political collaboration then it is time to have radical rethink of how leaders are developed and question the alignment of leadership development programmes to values which will sustain a new world order of partnership and collaboration.

Providers of management education have a huge responsibility in shaping trends and thinking that permeate the ways leaders think and act. The rush to develop products has saturated the market with ideas about leadership without fully addressing the practical problem of how to be a leader in a rapidly changing world.

At Lancaster, we work with scores of senior leaders on both MBA programmes and executive education from across the world and many consistently report that the challenge of their leadership is to model the behaviours they expect of their followers. With laudable honesty, they admit the tough aspect of the job is 'walking the talk'.

A sustainable approach to learning about leadership is to acknowledge the role history has played in our thinking and be aware of the assumptions that prevent us from learning about the impact that change has on our values.

The problem is that even the best education runs the risk of migrating old thinking into another generation. How do we teach leaders to re-calibrate their thinking when faced with a changing world?



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The pressures on the bottom line are frequently at odds with the notion of visionary leadership or collaborative practices. In the context of the economic situation, the shift to a competitive organisational culture is predictable. The human response in shrinking situations is to control the situation not to share with our neighbour. The notion that the world economy can be recovered through collaboration and partnership will remain political rhetoric if we are unable to acknowledge the role that leaders have to play in the creation of a new order.

Moral responsibility

The role of leaders in facing economic challenges at both national and international levels has become an important topic of discussion at LUMS. We believe that leading business schools have a moral responsibility to stimulate debate amongst a wide section of any society and challenge both internal and external stakeholders to ensure research and teaching is aligned with the future development of organisations, communities and nations.

At Lancaster, many of our participants work collaboratively on organisational projects and management exchanges to develop an understanding of the skills required to manage complex stakeholders and situations. We bring together leaders from different organisations and sectors to explore issues, research options and develop fresh thinking. The learning methods and tangible outcomes will form a number of evidenced based case studies in later articles in the Lancaster series.

As providers of management education and leadership development, business schools can help shape views and trends by ensuring that high quality education and development is available to support leaders in their complex roles of visionaries, strategists and architects of economic futures.

From our contact with practising managers we have noticed a disturbing trend where despite innovative programmes, prolific research, expert knowledge and major spend, leadership in many organisations is still poor. An increase in a traditional command and control style of leadership within the top echelons of business presents a gloomy picture. A natural regression to a more traditional model of leadership is inevitable and potentially detrimental to both individual and organisational well being.

Are business schools part of the problem?

If the leaders of the global economy are taking a hard look at the future of international economic partnership then it is important that the global providers of management education and leadership development take stock. There is a place for business schools to take a stronger lead in defining how leaders are educated and developed. But this statement implies a moral stance that rises above the corporate self interest in retaining MBA or executive education market.

Business schools need a period of introspection to examine their values and

develop appropriate long term responses to ensure that the leaders who pass through their doors (literal of virtual) are equipped with the skills and vision to secure a better future for their organisations, communities and nations

When a business school is focussed on a product portfolio of education and development it is likely that programmes will become content rich rather than fully addressing the issues that face leaders. If a successful learning experience is measured by the content material of the programme rather than the ability of the leaders to apply it then theory becomes a proliferation of ideas in splendid isolation from the world.

This is exacerbated by the competitive nature of academic endeavour which permeates MBA and executive education programmes. With competition in the classroom, competition amongst the academics and experts and competition between the business schools, we have a scenario that is potentially working against the notion of visionary leadership, collaborative practices and global economic partnership.

We need business schools to generate the research evidence and intellectual will to challenge outdated knowledge and views. In particular, the field of leadership development is full of theories and models competing to explain this complex human activity. As we seek an explanation there is a danger that our newly acquired knowledge deludes us into believing that we have found the answer to the original problem.

The danger is that we lose sight of the process that allowed us to create the new knowledge and when the situation changes dramatically, we have few resources to manage the shock.

The way forward

The global economic situation presents an opportunity for reform across a range of organisations and this article has argued that providers of management education and leadership development also need to take stock to ensure that the content and approach of their provision is aligned to collaborative values.

Business schools can make a difference to the way organisations are managed, the way institutions are led and the way the global leaders define and represent our human values. The contribution of education and development in establishing a new world order is critical and the impact of collaborative leadership cannot be underestimated.

The Lancaster approach to learning promotes collaboration across groups of managers and between organisations. Our participants engage in collaborative learning with leaders from different cultures and organisational settings. This brings the opportunity to reflect and challenge traditional models of leadership. The application of this learning is tangible, practical and sustainable and the series of articles to follow will provide case study evidence to support our assertion.

- 1. G20 Summit, April 2009
- 2. Managers not MBA's (2004), Professor Henry Mintzberg, Financial Times, Prentice Hall

Around the World With XBRL!

Liv Watson is XBRL International Vice Chair & Board Member IRIS Business Services, and Shilpa Dhobale is an XBRL Analyst at IRIS Business Services

Extensible Business Reporting Language (XBRL) is fast moving from the vision phase to a practiced global standard for financial and business reporting information. There is no wonder that the XBRL data standard is setting its foothold around the world since XBRL address the problem of data integrity, timeliness and reusability.

Management and other key stakeholders need access to timely, relevant, and accurate financial and business information. In the current state of information access, there are multiple problems in making this level of clarity, accuracy and public trust a reality.

One of the biggest roadblocks is that this information is provided in many different proprietary data formats, making it difficult to access, integrate and analyze this information in a timely, complete and accurate manner. The internet and electronic communication has ensured that information is more freely available than ever before and that the time it takes to deliver that information has sharply decreased. The key question now is: how reusable is that information? Even when you know exactly what

you are looking for and roughly where to find it, extracting information from financial and business reports today generally involves a frustrating experience and a time-consuming and largely manual effort.

The biggest problem is that the format and media on which financial and business reporting data are authored varies widely between paper, html, pdf, and other human readable forms or proprietary electronic formats tied to a specific software application. Each publishing format has its limitations and they can all only be interpreted by manual human processing so there is no wonder why XBRL is rapidly becoming the standard of choice globally.

Considering the benefits that XBRL provides, many countries worldwide are adopting XBRL in their reporting frameworks. While several of countries have already mandated XBRL reports, few others have started voluntary XBRL programs. Apart from the regular business reporting, many pilot projects are also being undertaken to assess the potential benefits that XBRL could offer. Here is a brief account of all selective XBRL



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projects happening around the world.

XBRL Goes Global!

Belgium

Since January 2008, XBRL has been mandatory for all filings of annual accounts to the National Bank of Belgium. The Directorate-general of statistics and Economic information is studying how companies could save time completing survey reports about their structure, using data already submitted in their annual accounts. The non-profit-making organization XBRL Belgium has been set up to encourage its use in Belgium.

Since April 2008, project has been extended to the annual accounts of the not-for profit sector. The CBSO (Central Balance Sheet Office - CBSO) receives currently more than 90% of all the annual accounts filed in XBRL format.

Canada

The Canadian Securities Administrators Voluntary XBRL filing program is now in effect, XBRL Canada is working on a taxonomy that conforms to IFRS. Canada is moving to IFRS by 2011 and preparations are underway to accommodate this change from an XBRL viewpoint.

Chile

The Superintendencia de Valores y Seguros (SVS) – the Chilean capital market supervisor - has been taking steps together with other authorities and representatives from the academic, regulatory, business and trade union sectors for adoption of the International Financial Reporting Standards (IFRS) since last three years. Starting 2009 those companies which are the most actively traded on the Securities Market will be required to file their annual financial statement according to the international standards. The SVS XBRL Team has extended the IFRS taxonomy according its requirements and the companies would be filing their returns based on this taxonomy. The SVS XBRL project is one of the first XBRL projects in South America.



China

The China Securities Regulatory Commission has been looking forward towards adoption of XBRL for information disclosure of listed companies since 2002 and has been joined by the Shanghai Stock Exchange for the implementation of XBRL as a reporting standard.

XBRL International has granted "acknowledged" status to taxonomies being used for company reporting in China – confirming the taxonomies meet XBRL standards and Chinese companies are now using the taxonomies for quarterly, half-year and annual reports since 2005. The SSE has extended the taxonomies to cover all the elements used in all types of reports eg. regular, intra-year reporting etc.

As of April 30, 2009, all the 864 companies listed on the Shanghai Stock Exchange (SSE) have submitted their XBRL instances simultaneously during the disclosure of the periodical reports of 2008 for the first time, and included the aforesaid XBRL instances as part of the mandatory disclosure. The XBRL instance documents of these 864 companies are available on SSE website as scheduled.

Denmark

The Danish Commerce and Companies Agency (DCCD) is home of the Central Business Register (CVR). The CVR-register and the former Companies Register (Publi-com) provide a range of updated data available in various forms. Since 2005 entities are submitting annual accounts in XBRL. A complete XBRL solution for the Danish class B annual reports has been running since the beginning of 2008. The XBRL Taxonomy in Denmark has been developed by the DCCA in co-operation with both industry and experts.

Germany

Of the one million German corporations which have to file their annual statements with the German Bundesanzeiger, around 425,000 are filing in XBRL format since 2007 using the latest German GAAP taxonomy ie. HGB Taxonomy. The third version of C&I taxonomy is updated and GAAP Taxonomy for financial institutions was finalized and included into the package. German GAAP is generally applied by any German business entity as it is the basis for taxation and, regularly (except for listed companies), external reporting.

India

The Securities Exchange Board of India (SEBI) has mandated the top 100 companies listed on the two major exchanges viz. the Bombay Stock Exchange and the National Stock Exchange, to file their disclosures through XBRL-based Corpfiling. In addition to the mandated 100 companies, over 500 companies are filing voluntarily their financial in XBRL.

The Reserve Bank of India, India's central bank, is implementing XBRL in a phased manner to bring all the returns which the banks have to file. RBI launched in October 2008, IRIS's XBRL-based reporting framework designed for the capital adequacy returns. All the scheduled commercial banks which fall under the purview of Basel II use this platform. Returns for fortnightly liquidity position and the annual financial statements are in pipeline.

The premier accounting body in India, The Institute of Chartered Accounts of India, awarded IRIS the project to develop taxonomy for India based on Indian GAAP. The taxonomy for Commercial and Industrial sector is completed and ready for acknowledgement from XII. The taxonomies for Banking industry is under development.

Ireland

The Central Statistics Office (CSO) Ireland has started a pilot to assess use of XBRL in one of its quarterly industry surveys. This is the first live implementation of XBRL in Ireland. The CSO pilot involved the creation of XBRL documents of one of the CSO forms - the Quarterly Accounts Inquiry to Industry. The survey covers enterprises with 20 or more persons engaged in the Mining, Manufacturing and Energy sectors and reports on changes in stocks, acquisitions and sales of capital assets during a quarter. Seven respondent companies participated in the pilot and successfully submitted data electronically using the XBRL solution.

Japan

Japan also is one the early adopters of XBRL and had started voluntary XBRL reporting program for financial services institutions gradually expending the range of reports since 2005. The Financial Services Agency (FSA) has implemented a new system which requires around 5,000 listed companies and 3,000 mutual funds to submit their financial information in the XBRL format.

Korea

As of 2007, all publicly held companies file financial statements using XBRL on the electronic filing system of the Korea Financial supervisory Commission. The system allows viewers to see and analyze a company's financial statements in English.

Netherlands

Since 2005, one of the largest XBRL projects was started by Netherland government with the aim of decreasing the regulatory reporting burden on the entities by 25%. The taxonomy project covers three major reporting areas – taxation, annual accounts and economic statistics. Since Jan 2007, all the Dutch corporations were able to submit their data in XBRL format.

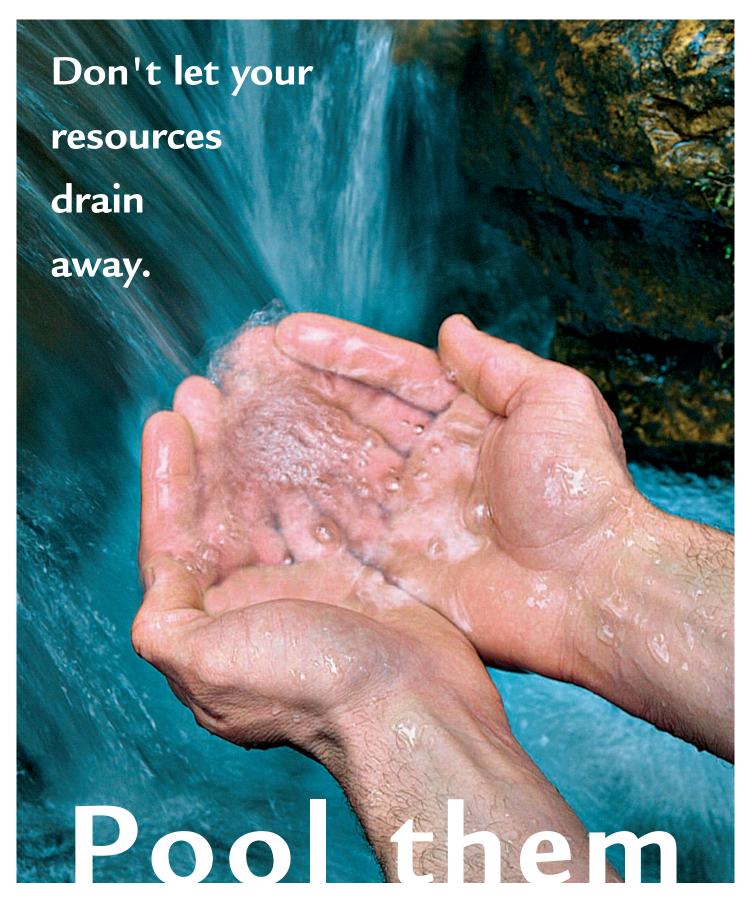
Singapore

The Accounting and Corporate Regulatory Authority of Singapore is mandating the filing of statutory reports in XBRL. Since November 2007, Singapore-incorporated companies are required to file their annual returns including financial information XBRL format. Baring certain types of exempted companies, all listed and non-listed companies will be filing in XBRL

South Africa

The Johannesburg Stock Exchange developed as a pilot, an XBRL based filing platform. JSE commissioned Deloitte SA & IRIS Business Services (IRIS) for building the platform. Seven companies, and the JSE, along with XBRL SA came together to sponsor this project. This pilot is also the earliest adaptation of IFRS 2008 taxonomy.

The taxonomy for South Africa has been developed and is extension of



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IFRS taxonomy. The South African taxonomies are currently being revised.

The Spanish Stock Exchange has begun to use XBRL for receiving and distributing public financial reports from more than 3,000 listed companies.

The Bank of Spain, the central bank, is receiving regulatory data in XBRL from more than 400 banks covering more than 90% of the Spanish financial sector. The Bank of Spain has also developed a Financial Information Exchange System to support XBRL reporting by credit institutions. The implementation of XBRL system had lead to significant improvement in data quality. The bank of Spain is now working to extend XBRL reporting to cover reporting of solvency and financial information required under new European Union regulations on banking supervision.

United Kingdom

Companies House has already received more than 200,000 accounts from small companies in XBRL using an extension to the UK GAAP taxonomy. United Kingdom HRMC Draft Regulations to require online XBRL Corporation Tax filings have now been issued and are open for comment until 31 July 2009. Companies will be required to file online the Corporation Tax returns and payments from 2011 in XBRL format. The rules apply to period ending on April 1, 2010 and later.

United States

XBRL has gained momentum globally due to regulatory adoption. Regulatory bodies across the world are pushing for XBRL filings. The Securities Exchange Commission has played a vital role in accelerating adoption of XBRL in the US. SEC Ex-chairman Christopher Cox refers XBRL data as "interactive data".

XBRLised filings have the potential to enhance the speed, accuracy and usability "...trying to stay ahead of the curve for of financial disclosure and cut down costs for investors. Voluntary filing program for XBRLised returns has been initiated by the exchange in early years and is moving towards mandatory filing in a phased manner. In December 2008, SEC has made it mandatory for companies above US \$5 billion as global

comparative advantage you have a fiduciary responsibility to learn more about XBRL and the impact on your own organization"

float, to file their returns from June 2009 quarter onwards in XBRL format and around 500 companies are expected to file XBRLised returns and over the next couple of years all companies will be phased in for a 100 percent compliance. The SEC is also mandating that all mutual funds start reporting in XBRL in 2010.

The Federal Financial Institutions Examination Council in US has achieved major success with the use XBRL for regulatory bank reporting. The FFIEC implemented XBRL-based solution in 2005 for the filing of call reports which was used by more than 8000 financial institutions. The results were phenomenal and showed an increase from 66% to 95% in data cleanliness, from 70% to 100% in accuracy, from weeks to hours in timeliness, and a 15% rise in the productivity of analysts.

State agencies across the globe receive a large amount of data, which is then internally processed, transferred amongst agencies, and stored in their databases. Collecting, processing and exchanging such voluminous data is a big challenge. To optimize the benefits as provided by XBRL, Nevada State entered into a pilot with IRIS Business Services to use XBRL for debt collection. The agencies would be using spreadsheets to send their data to the state and XBRL would be running beneath. Nevada State Controller Kim Wallin says "The agencies won't notice, it's a smart spreadsheet, web-enabled. They will enter their data, because we are using XBRL, information will be validated, and they can't send us data that doesn't add up. Then it goes into the debt collection repository and taxonomy, and it will have our instance documents there. Once in the database, staff will be able to go and pull whatever reports we need, no more spreadsheets. Data goes back into the debt collection repository."

IRIS Business Services together with Nevada State Controller Kim Wallin have published a white paper State Business Portal which talks about the need to streamline the transactions and inter-agency interactions and the role of XBRL in building such integrated information exchange platforms.

Major projects

IFRS Taxonomies

The IFRS taxonomy is core taxonomy, which is for designed for profitoriented enterprises which prepare their reports in accordance with IFRS's. It is being used and extended by many countries.

The International Accounting Standards Board is an established jurisdiction of XBRL International. The IASC foundation has a team entirely dedicated for development of IFRS taxonomy.

The IASB has issued the IFRS 2009 Taxonomy, which is a complete translation of International Financial Reporting Standards (IFRSs) as of 1 January 2009 into XBRL. With almost the entire world, converging into IFRS, the IFRS taxonomy would be more or less adopted by all the countries and be extended to cater to the requirements of the countries. The IFRS 2009 taxonomy was published as exposure draft in January 2009. The comments have been incorporated in the taxonomy wherever required.

Along with taxonomy, a draft Due Process Handbook for XBRL Activities has been published for public comment. It describes the methodology and process followed in developing the IFRS Taxonomy and in all other XBRL activities. The comment period closes on 26 June 2009.

COREP-FINREP Framework

Corep-Finrep Project – It is one the major XBRL projects in the banking and financial sector.

The Committee of European Banking Supervisors (CEBS) has implemented XBRL for its common reporting framework COREP (COmmon REPorting) and financial reporting framework (FINREP) for credit institutions and

investment firms operating in the European Union.

The COREP framework is designed for obtaining the information on capital adequacy based on the Basel II Guidelines covering the capital requirements for credit risk, operational risk and market risk. The FINREP framework is established for financial reporting. There are in all 18 COREP and 40 FINREP templates.

The COREP and FINREP taxonomies are an XBRL depiction of the standard data models and are based on the COREP and FINREP templates. These taxonomies import the elements IFRS 2006 and also advanced XBRL specifications viz. Dimensions and Formula Link base.

The COREP - FINREP taxonomies can be easily customized to the requirements of national supervisors. This implies the national supervisors can add elements or restrict the taxonomies within the specified limits.

Standard Business Reporting

Standard Business Reporting is an initiative to simplify the business reporting. The current reporting framework imposes a heavy burden on business in terms of reporting. A business entity has to submit its information to multiple agencies and quite often same data to the different agencies. So with the aim of reducing the burden entities from this burden, SBR was thought of. The most obvious choice to achieve standardization and seamless exchange of information is XBRL.

The use of XBRL in SBR has been majorly influenced by Netherlands Taxonomy Project and also by the XBRL project for tax filing in the UK, and company financial reporting to the US SEC. Many other countries are planning to adopt such simplified and one-point reporting process using XBRL, to name a few New Zealand, the United States, the United Kingdom, Japan, Spain, China, Belgium and Canada.

XBRL is today managed and promoted by XBRL International, a notfor-profit consortium, with companies, government bodies and other organizations as its members. XBRL International is comprised of jurisdictions, which represent countries, regions or international bodies and which focus on the progress of XBRL in their area. There are about 28 jurisdictions representing different countries and regions. Anyhow, trying to stay ahead of the curve for comparative advantage you have a fiduciary responsibility to learn more about XBRL and the impact on your own organization.

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OECD Washington Conference Looks at Impact of Crisis on Tax Rules

Jonathan Huneke is vice president for communications and public affairs with the United States Council for International Business



Committee Means addressing the conference

Participants at a major conference on global tax policy organized by the United States Council for International Business and the Organization for Economic Cooperation and Development addressed new challenges arising out of the ongoing economic crisis. Over 200 attendees, including senior corporate executives and government officials, met June 1 and 2 in Washington, DC to review the 30-nation OECD's evolving role in shaping international tax policy.

"OECD initiatives can help rebuild the post-crisis global economy," said OECD Secretary General Angel Gurría. "They are aimed at guaranteeing the level playing integrity, transparency, Charles Rangel, House Ways and fairness and predictability that **Chairman**, are the cornerstones of a healthy international economy in which businesses can compete fairly." He

said the financial crisis would focus policy makers' attention on tax rules that may encourage "excessive risk-taking."

"I don't need to persuade this audience of international tax experts about the value of the OECD's role as standard setter in the tax area. The Model Tax Convention and Transfer Pricing Guidelines facilitate cross-border trade and investment by reducing the potential for double taxation, and we will share developments related to these topics in the next day and a half. They are longstanding pillars of international tax policy, with global reach.

We are also developing international guidelines in the consumption tax area to reduce the potential for double taxation. The current international environment for consumption taxes, especially with respect to trade in services and intangibles, is creating obstacles to business activity, hindering economic growth and distorting competition. These are just a few examples of our efforts in the international tax policy area.

The new global economy towards which we must strive must be not only stronger but also cleaner and fairer.

A stronger global economy will require many countries to adopt a program of fiscal consolidation as the recovery develops. High and rising ratios of public sector debt to GDP risk being a potential source of future instability. Moreover, especially as and when interest rates return to more normal levels in the medium term, debt servicing costs could grow rapidly. All else equal this would reduce the resources available for other public expenditure to support wider social and economic objectives.

In developing plans for fiscal consolidation over the medium term, it will be important to maintain a growth-oriented focus that helps to strengthen the supply side of the economy. The OECD study, Tax and Growth, published last year, provides some valuable analysis

here. It will also be important to identify whether any features of our tax regimes may have contributed to the excessive risktaking that preceded the financial crisis and whether there are practicable reforms that might address them."

OECD Secretary General Angel Gurría



House Ways and Means Committee Chairman Charles Rangel (D - NY) addressed the gathering, observing that he expects tax reform to be a priority for the current presidential term. He said reduction of corporate tax rates could be part of reform, but only as part of a balanced package that increases overall fairness. He invited business to enter into a dialogue with Congress to develop useful proposals. Congressman Rangel also called for greater international cooperation to target tax evasion.

IRS Commissioner Douglas Shulman, providing the conference's keynote remarks, said the financial crisis showed global interconnectedness in "stark terms." He said President Obama's tax proposals aimed to promote

"I believe we have a good foundation for the future of international tax administration. But more is required to get us on top of our international game. Let me sketch out some of the key points - what I call the "must haves."

First, for too many years, the IRS was in the position of not having the resources to go toe-to-toe with taxpayers operating in the international markets. They had deep pockets and could hire a cadre of legal and tax experts. Some observers said, "We were outmanned and outgunned."

To meet this challenge, we must keep existing personnel current on emerging techniques and hire top examiners, lawyers, economists, special agents and financial specialists who can unravel the sophisticated and complex world of international tax issues.

These enforcement resources can produce real victories, such as the recent Xilinx decision by the 9th Circuit Court of Appeals surrounding a transfer pricing issue. The IRS claimed that Xilinx was liable for taxes and penalties relating to transactions between the company and its Irish subsidiary.

Second, the IRS is an information intensive organization. Data is our lifeblood. It informs all of our activities - from service to enforcement. But it's not just about getting the data, but rather analyzing and making the best use of it.

For example, we know that those taxpayers who have their taxes withheld and reported to the IRS through third parties are the most compliant. On the other end of the scale, those operating without withholding and reporting are the least compliant.

What's the lesson here? Simple - better information reporting can boost compliance and we need more of it from foreign countries and foreign financial institutions.

Third, regulatory and legislative changes and enhancements are needed. For example, the Qualified Intermediary program gives the IRS an important line of sight into the activities of US taxpayers at foreign banks and financial institutions. But it's not problem-free."

Douglas H Shulman, US Commissioner of Internal Revenue





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fairness and reduce tax avoidance. "Good laws make it easier to do right and harder to do wrong," he said.

Panels at the conference addressed a range of international tax topics, including bilateral tax treaties, transfer pricing and permanent establishment, attribution of profits and business restructuring. Jeffrey Owens, director of the OECD's Centre for Tax Policy Administration, said the loss of tax revenue brought about by the ongoing global recession would put pressure on governments to review rules governing transfer pricing, potentially affecting how companies allocate losses among jurisdictions where they operate.

The conference was co-organized by the Business and Industry

Advisory Committee (BIAC) to the OECD, which officially represents the view of industry in the Paris-based body. It was the fourth such event organized by USCIB, the OECD and BIAC. "This conference has grown into a bit of a springtime tradition for us," said USCIB President and CEO Peter M Robinson. "It's clear that the critical nature of the OECD's tax policy work merits regular high-level gatherings with business."

Supporting organizations included the International Fiscal Association – USA Branch, International Tax Policy Forum, National Foreign Trade Council, Organization for International Investment, Tax Council Policy Institute, Tax Executives Institute, Inc, and the Tax Foundation.

Luxembourg – A Centre for Sharia'a-Compliant Private Equity Investment Structuring

Jean-Florent Richard is a senior associate and Valérie Mantot is an associate at Loyens & Loeff Luxembourg, Dubai desk

The current global turmoil undoubtedly offers new opportunities in the field of financial and investment structures, including the development of innovative products, such as private equity investment vehicles structured in accordance with the principles of Islamic law (the Sharia'a) and using Sharia'a-compliant techniques. The structuring of an investment vehicle combining private equity features and Sharia'a requirements may be an alternative to satisfy the financing needs of asset managers and initiators of private equity funds, as well as the growing interest of both Muslim and non-Muslim investors for alternative investments. Such vehicles may, on the one hand, offer asset managers and initiators access to an alternative source of funding to the traditional banking and public equity markets and, on the other hand, with the application of Sharia'a principles, such as loss-and-profit sharing, interest-free and asset-based investments, help to re-establish investor confidence.

In this context, as a result of the combination between light regulation, operational flexibility and tax efficiency, Luxembourg, as the second largest investment fund centre in the world, presents a unique set of advantages for the setting-up of such Sharia'a-compliant private equity investment vehicles.

This article aims at providing an overview of the characteristics of the Luxembourg regulated private equity investment vehicles which may be structured in a Sharia'a-compliant way and invest in Sharia'a-compliant assets.

Luxembourg private equity vehicles

Under Luxembourg law, two regulated vehicles may be used to structure private equity investments.

The first one is the specialised investment fund (the SIF), introduced by a law of 13 February 2007 and providing for a lightly regulated, operationally flexible and fiscally efficient multipurpose (including, but not limited to private equity) fund regime. The second one is the investment company in risk capital (the SICAR), which was introduced by the law dated 15 June 2004. The SICAR is an investment vehicle specifically dedicated to private equity and venture capital investments.

The SIF and the SICAR are both regulated investment vehicles subject to the approval by and ongoing supervision of the Luxembourg Commission for the Supervision of the Financial Sector (the Commission de Surveillance du Secteur Financier or CSSF). The SIF allows for an increased speed to market since the setting up a SIF does not require the prior authorisation of the CSSF, as long as its constitutional documents are filed with the CSSF within the month following the establishment of the SIF. The SIF may start its activities as soon as it is established. This flexibility is not allowed for the SICAR, which is subject to the prior approval by the CSSF. The CSSF will verify the compliance by the SIF or the SICAR and their management bodies with applicable Luxembourg laws and regulations. In addition, the CSSF will check the repute and professional expertise of the management bodies and the depository bank entrusted with the custody of the assets of the SIF or SICAR. It should be pointed out that the initiator and the investment manager of the SIF or SICAR are, in principle, out of the scope of the CSSF supervision.

SIFs and SICARs are designed for an international base of qualified

investors who accept or require a low level of protection as a result of their status, experience or special acknowledgement of the risks they incur by investing into a lightly regulated investment vehicle. Investors eligible to invest in a SIF or a SICAR must be "well-informed" investors, meaning institutional investors, professional investors or any other investors who either invest at least €125,000 or, if the investment amount is lower, present an appraisal from a qualified institution certifying the said investor's expertise, experience and knowledge to adequately appraise an investment in the SIF or the SICAR.

Sharia'a-compliant investments

A key characteristic of a SIF and a SICAR, which is deemed to be compliant with Sharia'a, is that it invests in Sharia'a-compliant investments and thus is subject to specific investments principles.

Although the principle of risk spreading applies to the SIF, there are no preset quantitative, qualitative or other investment restrictions applying. A SIF may invest in any asset, including any Sharia'a-compliant type assets, provided that the SIF does not invest more than 30% of its assets in securities of the same type issued by the same issuer and that an equivalent risk spreading policy with appropriate diversification applies to its underlying assets (as the case may be). These guidelines apply in principle to each SIF, although the CSSF may, however, provide for derogations on the basis of appropriate justifications.

The SICAR is not subject to the principle of risk spreading and may thus concentrate its resources onto a single target. However, a SICAR must exclusively invest in risk-bearing values. This potentially qualifies any type of investment in an unquoted enterprise. Listed companies may also qualify as risk-bearing investments to the extent the investment aims at the financing, for example, of a new business development. Apart from such qualitative requirements, there is no further investment restriction applying to the SICAR, which may thus invest in any Sharia'a-compliant type of assets qualifying as risk-bearing value.

In addition to the investments principles set forth above, a SIF or a SICAR used for Sharia'a investments will be subject to the Sharia'a principle according to which it must ensure that the underlying assets in which it holds securities are authorised (Halal). For example, it may not invest directly or indirectly in equities issued by entities which engage in noncompliant activities such as conventional banking or insurance, gambling, sales of alcohol or pork bellies, to name a few. In addition, it may not invest in interest-bearing instruments, may not sell short and may not engage in speculative transactions. It should be pointed that the CSSF does neither impose any condition or requirements on the Sharia'a investments of the SIF and the SICAR, nor does it assess such type of investments. From a Luxembourg regulatory perspective, the CSSF will seek to ensure that all applicable Luxembourg legal requirements are complied with, that the persons involved in the management of the SIF and the SICAR have the adequate expertise and that the sales documentation of the SIF and the SICAR are adequately clear to allow the investors to understand the consequences of their investments.

Sharia'a-compliant structuring

Another key characteristic of the Sharia'a-compliant SIF and the SICAR is that they must be structured in a Sharia'a-compliant way.



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From a pure legal structuring point of view, Sharia'a-compliant SIFs and SICARs are not that different from any other SIF and SICAR. A Sharia'a-compliant SIF or SICAR may, amongst others, be structured as a corporate investment vehicle in the form of a private limited liability company (société à responsabilité limitée (S.à r.l)), public limited liability company (société anonyme (SA)), partnership limited by shares (société en commandite par actions (SCA)) or limited partnership (société en commandite simple (SCS)). A Sharia'a-compliant SIF may also be set up as a common fund governed by a contractual arrangement (fonds commun de placement (FCP)) and managed by a Luxembourg based regulated management company.

The legal forms which appear to be the most flexible to structure private equity Sharia'a-compliant SIFs and SICARs, and allowing a strong control over the management of the structure, are the FCP (only for the SIF) and the SCA (for both the SIF and the SICAR). The fact that the FCP is a contractual arrangement is a key advantage since it offers investors the flexibility to organise their relationships amongst each others on the basis of Sharia'a principles such as the equal treatment of investors. The choice of the SCA will be preferred to implement certain Sharia'a-compliant finance techniques such as the *Mudarabah* technique, which can be compared to a limited partnership. The *Mudarabah* is a contract whereby the investors, having no control over the management, provide capital and an asset manager manages the assets in exchange for a (capped) share in the profits (management and performance fees can also be agreed to). In the *Mudarabah*, losses are borne by the investors only, except if caused by negligence or breach of contract by the asset manager.

Finally, Luxembourg law allows the initiators of Sharia'a-compliant SIFs and SICARs to profit from all the flexibility they require for (including but not limited to) the capitalisation, the subscriptions, redemptions or distributions of shares/units, the valuation of assets or the segregation of assets within separate compartments or sub-funds, risks or investors in a way which is compliant with the requirements of Sharia'a (eg, the adaptation of the equalization mechanism or the defaulting investor mechanisms). The segregation will consist in creating a SIF or a SICAR with multiple compartments, each compartment corresponding to a distinct part of its assets and liabilities. Compartments not only allow the combination of different investment policies within the same legal entity, but also permit a "vintage" approach whereby investors may participate in different investment tranches over time. The segregation also allows to better address the introduction of certain "excused investor" provisions, allowing for the creation of segregated compartments in respect of assets in which certain investors may not participate. The possibility to create sub-funds thus allows catering for the needs of both Islamic investors and of non Islamic investors.

Sharia'a-compliant leverage

Although there is in principle no leverage restriction applicable to the SIF and the SICAR under Luxembourg law, both, in order to qualify as Sharia'a-compliant, must comply with leverage restrictions imposed by

the Sharia'a principles, such as the prohibition of usury (*Riba*), which may be defined as the exploitation by the owner of a product which another requires. On that basis, the payment or receipt of interest as well as the debt financing are considered as usury. In practice, it is generally accepted that a Sharia'a-compliant SIF or SICAR may engage in leverage through the use of Sharia'a-compliant financing instruments. However, it may not be granted or provide traditional loans or otherwise invest in traditional interest bearing instruments.

Sharia'a-compliant management and supervisory bodies

Similar to non Sharia'a-compliant SIFs and SICARs, Sharia'a-compliant SIFs and SICARs and their assets are managed by a board of directors (or a management company, when the SIF is structured as an FCP), assisted and advised by an investment manager or advisor. While Luxembourg law provides initiators of Sharia'a-compliant SIF and SICAR with all the flexibility they require for the selection, organisation and operation of the management bodies, the specific features of a Sharia'a-compliant SIF and SICAR require that a Sharia'a advisor or a Sharia'a board be appointed by the board of managers/directors (or a management company, when the SIF is structured as an FCP) of the SIF or SICAR.

The Sharia'a advisor or Sharia'a board has a key role during the entire life of the SIF or SICAR. It will initially advise on the structuring of the SIF and SICAR and will review the constitutive and marketing documentation of the investment vehicle in order to ensure that the SIF or SICAR is Sharia'a-compliant. It will then be responsible for ensuring that the SIF's or SICAR's investments are in compliance with Sharia'a law. In the performance of its duties, it may establish guidelines for the management bodies monitor the SIF's and SICAR's investments and issue reports.

Conclusion

Within the framework of the current expansion of the Sharia'a-compliant fund industry, Luxembourg is positioning itself as the first mover in the European Islamic finance sector in general, and Sharia'a-compliant investment funds in particular, and is fast developing into a domicile of choice for Sharia'a-compliant regulated private equity investment vehicles.

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Business Technology: An Enabler in Your Economy

The 2009 Global Public Policy Summit (GPPS) of the World Information Technology and Services Alliance (WITSA) will be held in Bermuda this November 1-3. The three-day summit is the flagship event of WITSA, a consortium of almost 70 information and communications technology (ICT) industry associations from economies around the world. WITSA represents over 90% of the world IT market, and has a stated goal of advancing the growth and development of the IT industry.

WITSA was founded in 1978 as the World Computing Services Industry Association and has since increasingly advocated for a global information infrastructure in the international public policy arena. Such advocacy includes:

- increasing competition through open markets and regulatory reform;
- · protecting intellectual property;
- encouraging cross-industry and government co-operation to enhance information security;
- bridging the education and skills gap;
- reducing tariff and non-tariff trade barriers to ICT goods and services; and
- safeguarding the viability and continued growth of the internet and electronic commerce.

As the global voice of the ICT industry, WITSA is dedicated, inter alia, to:

 advocating policies that advance the industry's growth and development;

- facilitating international trade and investment in ICT products and services:
- strengthening WITSA's national industry associations through the sharing of knowledge, experience, and critical information; and
- providing members with a vast network of contacts in nearly every geographic region of the world.

WITSA strengthens the industry at large by promoting a level playing field and by voicing the concerns of the international IT community in multilateral organisations, such as the World Trade Organisation, the Organisation for Economic Cooperation and Development, the G-8 and other international fora where policies affecting industry interests are developed.

WITSA achieves these aims and objectives by a variety of means

As licenser of the World Congress on Information Technology (WCIT) brand, WITSA serves as the oversight organization for the WCIT, the industry forum of ICT executives worldwide. The WCIT is unique in its global perspective on ICT issues and its ability to draw users and vendors

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from around the world.

Every two years, world business and government leaders discuss emerging issues, debate hot topics, and address how legal, political, and economic trends affect business opportunities. In addition to prominent ICT industry CEOs, featured speakers include internationally recognized leaders from government and industries such as retail, manufacturing, financial services, communications, health care, transportation, entertainment, and education.

As a signature event of the WCIT, WITSA holds the Global ICT Excellence Awards to honour exceptional achievements in the application of information technology around the globe. Winners of these awards have exhibited excellence within one of three categories:

- Public Sector Excellence:
- · Private Sector Excellence;
- · Digital Opportunity.

In addition, a special Chairman's Award is presented to a nominee selected from the entire pool of candidates from all three awards categories.

WITSA produces the biennial Digital Planet report. This report provides current, comprehensive data documenting the size and shape of the ICT marketplace around the globe. The report highlights major trends in global ICT spending while telling the story of global expansion in internet usage, ecommerce penetration, and use of ICT equipment and services. WITSA publishes this guide to help policymakers, technology developers, and the general public to understand the ICT trends shaping society today.

The WITSA Public Policy Report, published annually and available on the WITSA website, is a summary of the positions taken by WITSA on global ICT issues. These papers have been used by the industry in its dialogue with governments and multilateral institutions in their decision-making process with regard to important issues of concern to the ICT industry, including e-commerce, information security and privacy, taxation, e-government, and workforce issues.

"Much of Bermuda's success in the electronic field has derived from its early realisation that its IT infrastructure would be critical to the island's development as its burgeoning financial services sector kept growing. Bermuda was the first to elevate e-commerce to a cabinet post, a clear sign to industry participants of its serious intent"

In addition WITSA produces a quarterly newsletter providing timely information on industry activities and policy developments at the global and national levels, including an overview of WITSA member activities, WITSA programs and events. This newsletter is available on the WITSA

The GPPS is a key part of WITSA's mandate and has been held every two years since 1999. The theme of this year's gathering will be "Business Technology: An Enabler in Your Economy", with a focus on global policies affecting the ICT industry. GPPS 2009 will host valuable discussions of the "state of the world" in relation to public policies affecting the industry. The Summit aims to promote and educate industry and governments regarding the growth potential of the digital economy and, at the same time, examine key ICT public policy issues and explore the key policy concerns of ICT businesses.

Among topics to be discussed at the summit are:

- · whether business technology is indeed an enabler in your economy;
- · if enlightened IT policy can enable your economy and assist in its
- · whether policies that promote technology infrastructures that are resilient and secure, and those that protect the privacy of personal data, conflict with policies that encourage economic expansion;
- · how proposed internet governance policies on the stability, security and private sector leadership of the Internet might dampen economic recovery and expansion;
- if environmental policies hamper growth and whether enlightened IT policies and involvement can bridge the gap;
- · whether there is evidence that institutions can play a positive role in

promoting IT and expanding economies, or if they are simply relics of the past; and

· what potential business technology developments are on the horizon that will enhance business growth.

A pre-summit workshop will be held on October 31, entitled "Incubators as a catalyst to developing a strong IT sector". WITSA will also hold its regular board and committee meetings in Bermuda on the weekend preceding the start of the Summit.

More than 300 senior executives, government officials and policymakers will attend the event, which is being organised by the Bermuda Chamber of Commerce's Business Technology Division, in partnership with the Ministry of Energy, Telecommunications and E-Commerce.

There is no doubt that holding the conference in Bermuda is recognition of the Island's importance on the global information technology stage.

Information on the conference, together with registration and hotel details, can be found at www.gpps2009.bm.

Bermuda: a leader in ICT

Since being among the first countries in the world to pass legislation specific to e-commerce a decade ago, Bermuda has kept a steady focus on electronic possibilities in the public and private sectors, both internally and externally.

Bermuda was placed 17th in the world in the 2008 E-readiness rankings prepared by the Economist Intelligence Unit in co-operation with the IBM Institute for Business Value, ahead of Japan, France and a host of other countries.

The drive to bring government fully online continues apace, with several ministries now offering a complete range of services online. Steps have been taken to automate the vehicle registration process and to electronically identify offenders. The island's Tech Innovation Awards have gone from strength to strength identifying innovative and successful

technology products and services delivered by Bermuda-based organizations.

Government initiatives

The Ministry of Energy, Telecommunications and E-Commerce (METEC) has been highly active of late. The Minister, the Hon Terry E Lister, JP MP, is a senior member of cabinet, whose portfolio recognises that the greater the country's achievement in the electronic field, the greater the impact on the country's energy usage.

In comments that amount to a mission statement, the minister said: "It is my vision that through the coordinated effort of the four departments that make up the Ministry, we can deliver to Bermuda, and to the global village, services that are second to none. I believe that in this ever-evolving digital world, Bermuda must be positioned and equipped to maintain our place on the global business stage. This means that we must and will continually adjust to and embrace emergent technology as well as becoming early adopters of modern technology, embracing innovation, and becoming partners in the creation of new ideas that will benefit every citizen of Bermuda. The Government is committed to the creation of a Bermuda where everyone in this community benefits from increasing access to information and support from communications technologies."

Bermuda's corporate legislation was recently updated with the addition of e-friendly elements such as the ability to hold board meetings electronically and a review is nearing completion that will identify amendments to the Electronic Transactions Act 1999 so that it is easier for Bermuda-based companies to operate solely in an electronic environment.

Early adoption

Much of Bermuda's success in the electronic field has derived from its early realisation that its IT infrastructure would be critical to the island's development as its burgeoning financial services sector kept growing.



Bermuda is highly regarded as one of the most sophisticated e-Business jurisdictions in the World. According to Economist Magazine's 2008 eReadiness survey; out of hundreds of countries, Bermuda has consistently placed in the Top 20 and in the top 5 overall for legal environment. Not coincidentally, Bermuda's business continuity and data recovery services compete head-on with others in larger business centres, with great efficiency. The BC/DR sector in Bermuda is vibrant with specialized hosting facilities, hot spots, and security professionals who make it their business to ensure companies stay resilient. We are here and eReady to help your business maximise its potential, whatever the challenge.





bermuda

Bermuda was the first to elevate e-commerce to a cabinet post, a clear sign to industry participants of its serious intent.

The Electronic Transactions Act, one of the first in the world, was enacted into law in 1999. The heart of the legislation was a mechanism for building a suitable national platform on which business-to-business electronic commerce could thrive.

The subsequent Standard for Electronic Transactions (Code of Conduct), introduced in 2000, was designed to ensure that those engaging in e-commerce in Bermuda operate in a manner that would maintain the island's reputation as a premier international business jurisdiction.

Bermuda first had to define its role in the electronic world. The global

insurance, banking and trust sectors, and the other international industries that operate on the Island, are critical to the economy, and a solid foundation was needed on which customised solutions could be developed to meet specific needs.

In the Bermuda context, e-commerce does not mean giant server farms or warehouses stocked with goods to be bought online. Like all its business activities, Bermuda e-business is all about brains. Organisations seek to use technology to provide market advantage in the most efficient and effective manner.

Bermuda has for more than a decade imposed strict limitations on the material that may be hosted from the island. Gaming and pornography have always been banned. Now antichild pornography and Internet luring legislation has been enacted, with all-party support.

METEC has established www.cybertips. bm, a solid source of information on internet safety. The site provides practical tips, resources and contact information to help parents, children and educators to use the internet safely and be on guard against online predators and other inappropriate online content.

An exhaustive review

As part of its ongoing commitment to keeping Bermuda's service offerings current, the ministry is conducting a total telecommunications regulatory review that is addressing all such aspects of the island's telecommunications infrastructure. A new model has been proposed that is undergoing public and industry consultation.

The Ministry is also continuing to implement its ambitious e-government plans, which will lead to all the functions of the Bermuda Government being fully online.

The Bermuda Government has built its own Certificate Authority and expanded its pilot programme out of internal digital certificates. A Bermudian company, QuoVadis, has moved into the European market, playing an important role in the establishment of the new Extended Validation Guidelines for SSL (website) certificates.

The energetic METEC has ongoing support initiatives in computer security, protecting the Island's satellite slots, and in privacy legislation.

Current initiatives

The Electronic Transactions Act and Standards are being reviewed. Public safety electronic emergency messaging and top-level domain initiatives are under way. An island-wide e-mentoring project has begun that will

enable young people to interact with those employed in the electronic services sector.

The island's annual Tech Week — motto: Everyday; Everywhere; Everyone — once again proved to be a great success this year. A range of activities enhances public awareness of the electronic world and its possibilities, with a special emphasis on educating the Island's students.

A solid field of entries in various categories of competition for the 2008 Tech Innovation Awards was judged by a panel of representatives from local business organisations and, amid strong competition, awards were made in eight categories.

On the roads, the Government has placed RFID chips on all vehicles in a

move widely applauded and now being studied elsewhere. The chips enable various Government departments to provide more accurate service and are beginning to cut down on the operations of unlicenced vehicles.

Because of the island's remote location, telecommunications has been the lifeline for more than a century. The Government's consistent focus on e-commerce and its possibilities keeps the world's leading financial services jurisdiction at the forefront of the march of electronic commerce.

Thanks to this forward-looking approach, Bermuda is a full player in the global economy and a hive of activity. The island is among the world's most highly wired communities. Just about every business is online, wi-fi usage has been on the increase throughout the island, with Bermuda International Airport the latest to come on board, and latest surveys put broadband internet access among the local population above 80 percent.

Given that the island is 800 miles from its nearest neighbour, the embrace of the electronic future has broad support throughout the community.

E-readiness

Bermuda's long-term embrace of e-commerce has been acknowledged by the Economist Intelligence Unit (EIU), which ranked Bermuda 17th in a survey of the top 70 countries worldwide in 2008, in terms of e-readiness.

E-readiness is the "state of play" of a country's information and communications technology (ICT) infrastructure and the ability of its consumers, businesses and

governments to use such technology to their benefit. When a country does more online — or, as is increasingly the case, wirelessly — the premise is that its economy can become more transparent and efficient.

The e-readiness rankings also allow governments to gauge the success of their ICT strategies against those of other countries, and provide companies wishing to invest in online operations with an overview of the world's most promising investment locations from the e-readiness perspective.

Bermuda's place in the Top 20, which it has consistently maintained in each of the years that it has been included in the survey, is remarkable, given that so many other major global economies lag behind Bermuda's efforts. Once again, the survey placed Bermuda in the top five in the world in the category of legal environment, as it affects the needs of e-commerce. Were Bermuda larger, it might have fared better in the one category, the social and cultural environment, that kept it out of the top 10 in the overall rankings.

Strength in depth

Among the reasons why Bermuda is an ideal location for conducting e-business:

Regulation: The regulation of international business in Bermuda is fair and reasonable. Bermuda has a flexible regulatory framework that conforms to international standards.

Professional support: Bermuda is a sophisticated financial and legal centre. The legal and fiscal system is based on English law with a final right of appeal to the Privy Council in London. Company formation is fast and streamlined. The banking, trust, accounting, custodial and legal services are of a high international standard. A strong technology support network is in place with online publishers, web designers, software and hardware vendors and ISPs.

Infrastructure: An excellent telecommunications network comprising four diverse bandwidth routes, top quality hosting facilities with maximum security and full redundancy, as well as the spectrum of telecommunications options.

Location: An hour ahead of the Eastern Seaboard, four hours behind the UK, and seven to 12 hours behind the Middle East and Far East countries makes Bermuda an excellent location for operating international businesses. Easy access by air to most international centres, and the appeal of a sub-tropical paradise with literate, helpful people. Bermuda is one of the most convenient places in the world to hold business meetings.

Political stability: Bermuda is politically, economically and socially stable, and strenuously safeguards its reputation.

Taxes: No income taxes, withholding tax, capital gains tax, capital transfer tax, estate duty or inheritance taxes. Bermuda exempted companies are usually granted exemption by the Bermuda government for an exemption from paying any taxes until 2016.

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Developing Weather-Based Financial Risk Management Solutions for the Agricultural Markets

Sandeep Ramachandran is a Director at Swiss Re

The energy sector has traditionally been the primary focus of the weather risk management industry. Energy companies have quantified their exposure to weather in terms of Heating Degree Days (HDDs) and/or Cooling Degree Days (CDDs), two temperature-based indices designed to reflect heating and cooling demand in winter and summer, respectively.

In recent years, however, the participation in the weather market of hedge funds that trade weather-dependent energy commodities such as natural gas, heating oil and electricity has fuelled growth, particularly in the US market. These new market entrants, in combination with the standardisation of contracts, the ability to trade electronically, and the clearing capabilities of the Chicago Mercantile Exchange triggered a period of rapid expansion for the weather market between 2003 to 2006, when the notional volume traded increased from US\$4 to 45 billion.

To realize the full potential of the market, a wider application of weatherbased financial products tailored to the agricultural sector is required. Even though agricultural businesses have a direct exposure to weather, their risks are not concentrated on one specific weather peril or location. This dilemma makes it difficult to create standardised weather contracts that can be used to hedge their exposure.

A sector under pressure

In recent years, drought and increased consumption rates from fast-growing middle classes in India and China have significantly fuelled volatility in agricultural markets worldwide. The production of ethanol and other types of agri-energy have driven increased demand for crops such as corn and sugar. Money management firms have increased their asset allocation to the commodity sector, including the agricultural markets.

All these developments have significantly changed the market dynamics in the agricultural sector. Decisions such as crop switching are now more difficult for the farmer, and analysts find it more difficult to predict market direction than in the past. Additionally, many farmers depend upon pre-financing against their future revenue stream. In the instance of dramatically reduced yield due to weather, financial institutions and companies that offer financing and other related services to farmers are exposed to significantly higher default rates on their loans. Food processing companies need to purchase commodities in the spot market in case of a bad harvest, when prices are likely to spike. Input costs such as fertilizers and natural gas (in the case of irrigated farms) have also been very volatile, increasing the need for comprehensive risk management solutions. All of these factors have increased the need for agribusinesses to hedge their weather and commodity price-related risks.

Figure 1. Wheat (red) and Corn (blue) Futures Prices History



Source: Swiss Re

Fig. 1 shows the run up in agricultural prices in 2007, due in part to the overall run up in commodity prices and droughts in Australia and Canada. Global economic weakening in the latter half of 2008 triggered a steep drop in prices. This price history mimics that of the crude oil market and shows the greater global interdependence of the agricultural markets. As a result of the initial price spike, various national governments instituted

protectionist measures such as banning crop exports or levying new taxes to appease public outrage caused by steep increases in food prices.

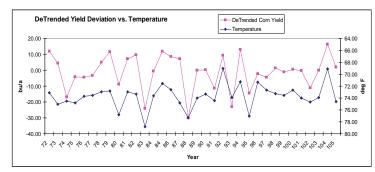
Weather products for agricultural markets: hedging positions

Several factors have suppressed the growth of weather risk management products in the agricultural sector. In recent years, however, structural changes and innovations have helped to ease these obstacles, including:

Basis risk: A major obstacle to the more active use of weather products to hedge agricultural risk is basis risk. Basis risk is the difference between the actual crop output at a farm unit level and the output that would be projected by a weather index (ie, precipitation, temperature, etc) at the reference weather station that is used to create and settle the payout on the hedge. Although crop output is ultimately the result of the interaction of a myriad of variables (weather being the most influential), there are several factors - such as disease and fire - which are not directly related to weather production.

Crop yield, at a farm unit level or averaged across a county or state level, is highly correlated with weather variables, particularly during extreme weather phenomena such as droughts, floods and heat waves. As an example, the deviation in corn yield has been plotted against the average temperature during the summer at a basket of locations in the US Midwest (Fig. 2). Combining temperature with additional weather variables such as precipitation can further improve this relationship. Similar relationships exist for other crops.

Figure 2. Relationship between corn yield and average summer temperature at a basket of weather stations in the US Midwest region.



Source: Swiss Re

Using actual crop yield at an individual farm unit level as the index instead of weather-based variables can eliminate basis risk for a producer. Risk takers need to establish additional measures to minimize moral hazard-related risk and ensure that farmers follow best accepted farming practices. Alternatively, if the farm unit performs similarly to other units in the same county, coverage could be based on the yield for the entire county, instead of the individual farm unit.

Risk management firms, such as Swiss Re, now offer an add-on yield product in derivative form to supplement the government insurance programme that covers wheat, soybeans and corn crops. The yield is measured at the farm unit level or county level and the product covers shortfall levels from 90 to 75% of the planted yield. To qualify for protection at the farm unit level, a verifiable performance record of at least five years is required.

Historical data quality and moral hazard: In several developing countries, reliable historical figures for pricing weather transactions do not exist due to large gaps in data, poor recordkeeping, or changes in instrumentation. Additionally, the data may not be digitised or easily obtainable. These data issues are also true of second and third order stations in developed countries, such as the Cooperative Observer Program (COOP) in the United States. Often monitored by volunteers, data from COOP stations is not always reported on a daily basis. However, these stations are often closer to the farm units, thereby minimising basis risk. While it is certainly possible to fill or even create synthetic historical data sets for pricing transactions using nearby neighbouring station data, the issue of moral hazard remains. A good network of fallback stations, proper security measures such as the installation of barricades and motion sensor cameras can minimize this

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risk. However, unless there is large concentrated exposure at a specific weather station, these measures are cumbersome and not practical.

The use of satellite imagery to calculate weather indices is a recent development and, in many instances, can help overcome these issues. Since they are available globally, updated in real-time and have a reliable historical database, satellite imagery-based indices eliminate the moral hazard risk involved in manual data measurement and observation. A common satellite-based index related to agricultural risk is the Normalized Difference Vegetative Index (NDVI). The NDVI values are calculated from visible and near infrared light reflected by vegetation. This is a useful indicator for lack of vegetation and drought.

Several recent transactions in the market have used these indices, including the 2007 deal between Swiss Re and the Millennium Promise Alliance covering shortfall in rainfall in Kenya, Mali and Ethiopia. A pilot programme targeting the apiculture industry as well as pasture, rangeland and forage currently being conducted by the Risk Management Agency, a division of the USDA, also uses indices based on satellite-derived rainfall estimates.

Perception of high risk premiums: The risk premium that the weather market requires is often perceived as high. While this may have been the case in the early days of the market, risk margins have reduced considerably over the years. Attracted by the lack of correlation between weather risk and the broader capital markets, as well as the ability to offset positions through commodity trading, hedge funds, insurers and other risk takers have made additional risk capital available to the weather sector in recent years. This additional capital has stimulated competition, improved pricing and increased transparency.

Distribution channels: To target the agribusiness sector, the weather market needs to develop alternative distribution channels. In the last few years, involvement from participants such as the World Bank and the International Monetary Fund has helped educate and spread awareness regarding these products, particularly in developing nations. Microfinance institutions can also play an important role in providing a sustainable distribution channel by including weather insurance products in addition to the other credit, savings and insurance products they currently offer.

Traditional suite of weather-index solutions

The traditional suite of available weather products range from relatively simple temperature and precipitation solutions to more complicated structured alternatives focusing on various developmental phases in the crop cycle or based on agricultural yield on a farm unit, county, state or regional level. These products can incorporate agricultural price risk, while also reducing the amount of basis risk.

1. Precipitation-based products: These include lack of rainfall or excess rainfall-based structures, as well as event-based precipitation structures.

For example, to protect against excess precipitation at harvest, a Canadian wheat producer could purchase a hedge against excess precipitation based on a weather station in close proximity to their farm for the harvest period starting August 20 through September 10. This coverage can be structured as a call option on rainfall, based on a graduated scale of, for instance, CAD 20,000 per millimetre in excess of a strike set at 10% above the long term average or a digital payment once the strike has been exceeded.

2. Temperature-based products: Extreme cold weather can cause winter kill during the crop emergence phase. Additionally, early frost can also cause damage and/or premature death of the crop. Inversely, extreme heat during the critical phase of pollination can halt the reproductive process, significantly reducing the crop yield. Extreme heat can also effect the grain-filling phase and further reduce the yield.

As an example, a corn producer in the US Midwest could purchase a Variable Degree Day (VDD) call option for the June through August time period based on a weighted basket of locations in Iowa. A VDD is similar to a CDD and is calculated as the maximum of zero and the difference of daily maximum temperature over a reference threshold, generally around 85°F (30°C).

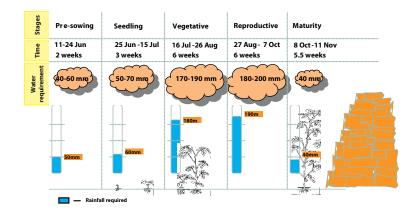
3. Structured products: Based on a combination of temperature and precipitation, structured weather products take into account the entire crop cycle.

Most crops follow a typical developmental cycle, with key weather-related risks during the various phases. For instance, the pre-sowing phase is

when the farmer typically prepares to plant the seeds. If there has been a dry period or prolonged drought, the farmer will need to choose between waiting until conditions improve or going ahead and sowing the seeds. In either situation, this generally leads to reduced yields. During the germination/seedling phase, the plant emerges from its protective seed coat and develops from an embryo to a young plant.

The vegetative phase begins at germination and continues through tillering. This phase is characterised by the production of leaves. During tiller production, wet conditions following a drought can cause increased late stem development, whereas cold and drought conditions can cause slow stem elongation.

Figure 3. Crop calendar and rainfall pattern

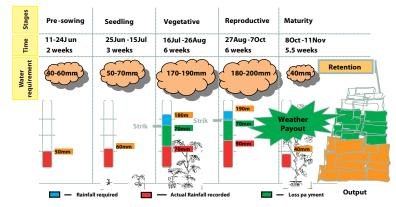


Source: Swiss Re

A sample developmental cycle is shown below in Fig. 3 with the normal expected crop output shown towards the right and normal rainfall required for this shown in blue.

Weather conditions can have a major impact on the decision of choosing when to begin the harvest, which is the process of gathering a mature crop. Frost, hail, excessive rain or wetness of the soil or extreme heat waves can cause lower yields and lower crop quality. Harvesting earlier can help the farmer avoid these damaging weather conditions, but will also likely result in lower yield and crop quality. Harvesting later will extend the exposure to weather, but offers the potential for increased yield and higher crop quality.

Figure 4. Hedging reduced yield through combination of weather structures

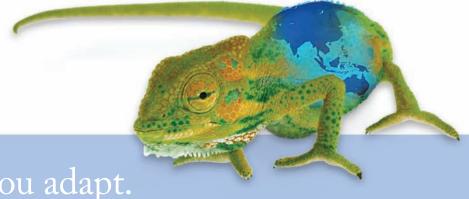


Source: Swiss Re

In Fig. 4, for the lower than normal, actual rainfall recorded outcome as shown in red, the corresponding output is reduced as well. A weather hedge can be structured to compensate for this so that the payout will depend on the precipitation values for each of the major developmental phases of the crop. In such a situation, clients retain an amount of initial loss in output with which they are comfortable. If losses exceed this predefined threshold or strike, the weather hedging programme would kick in. In the above example, the weather hedge will cover - in financial terms - the amount of precipitation and output depicted in green. The perils covered under the hedging programme can also be expanded to include temperature-related risks, since excessively hot or cold weather can also reduce yield.

It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.

- CHARLES DARWIN



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Untapped potential

Risk taking firms in the weather market now offer several innovative solutions for the agricultural sector, which address most of the issues that have hindered growth in the past. These include satellite-based weather index protection, as well as yield-based protection - which can be structured on a farm unit or county level. Additionally, given the recent volatility in agricultural prices, the need for more comprehensive hedging programs has increased dramatically. Structured solutions, such as the grain revenue floors that companies such as Swiss Re offer, combine agricultural price risk in addition to yield/volume exposure to provide an integrated solution to agribusinesses.

The weather market is likely to experience significant expansion potential in the agricultural markets in the short term. It has also the potential to stabilize the current distribution of risk more uniformly over the calendar year, as agricultural risks tend to be concentrated over summer months whereas the energy risks are more concentrated over winter months.

The rewards for the insurance and financial services industry in general and the weather market in particular will be equally attractive and can be accomplished through innovation, new product development, as well as coordinating and leveraging unconventional marketing and distribution channels.

NBAA2009: Helping Business Aviation Overcome Global Challenges

Dan Hubbard is Vice President of Communications at the National Business Aviation Association

Business aviation is facing marketplace challenges around the world and in the United States, home to the world's largest general aviation industry producers. These economic challenges are compounded by negative perceptions of business aviation among policymakers and the media.

"As our industry embarks on the 62nd year of the National Business Aviation Association's Annual Meeting & Convention, it is important to note that we share an appreciation for the essential contribution of business aviation to the economic prosperity of thousands of companies of all sizes, and business mobility the world over, and we must continue telling this value story wherever we go," said NBAA President and CEO Ed Bolen.

The industry's premier annual gathering, NBAA2009, takes place October 20-22, in Orlando, Florida. This year's theme, "Helping Business Aviation Ascend," reflects an emphasis on helping companies large and small plan for and manage the most effective and efficient use of general aviation aircraft to help their businesses succeed in the face of what Bolen recently called "one of the worst economic storms anyone can remember."

That's why more than ever, NBAA's Annual Meeting & Convention (AM&C) will focus on helping Attendees and Exhibitors survive and thrive in these uncertain times.

For attendees, the products and services on display will help flight departments do more with less, so they can be more efficient, productive and valuable to their companies. Education sessions will provide the information attendees need to stay on top of the pressing challenges facing their businesses. And, as always, the event will provide an unrivalled networking opportunity for industry peers to share information and keep in touch.

NBAA2009 to feature Light Business Airplane Program

For the first time, NBAA2009 will be incorporating a full schedule of programs for light business airplane (LBA) operators. Entrepreneurs and pilots who rely on small business airplanes, as well as those considering how to fit these aircraft into their business models, will have opportunities to participate in two full days of education sessions – including the Cessna Single-pilot Safety Standdown – and still have an additional day to see all of the general aviation products and services on display at the AM&C.

For the exhibitors, the Convention will provide a premier venue for putting their products and services in front of thousands of customers in one place, at one time to maximize the most efficient use of their time and resources. It's also an occasion to show the strength and resilience of the many diverse companies that make up the business aviation industry.

NBAA2009 will also include the NBAA2009 Static Display at Orlando Executive Airport (ORL), one

of the preeminent general aviation airports in the country, where over 100 state-of-the-art aircraft will be on view.

Clearly, even in these tough times, NBAA's Annual Meeting & Convention is the one event that remains a must-have on the calendar and in the marketing plan.

As *Tradeshow Week* announced earlier this year, the NBAA Annual Meeting & Convention now ranks as the magazine's fifth-largest trade show in the United States, which serves as a testament to the 1.2 million jobs and the \$150 billion that the business aviation industry contributes to the nation's economy; the thousands of attendees and exhibitors who participate at the annual event; and the NBAA Members themselves who help the Convention thrive.

As in previous years, the AM&C Education Sessions will cover a variety of important topics, from policy issues to Emergency Response Planning Workshops, to guidance on effectively managing flight departments and even companies, to name but a few.

Business aviation meetings focus on value

In these challenging economic times, NBAA recognizes that it is more important than ever for the community to come together and learn from one another at AM&C. The success of the European Business Aviation Conference & Exhibition (EBACE) earlier this year demonstrates the importance of such gatherings.

"In this environment, EBACE had its third-largest turnout ever, demonstrating the value of such shows to this industry," the NBAA's Ed Bolen continued. "We're looking forward to yet another great show in Orlando, and we encourage all members of the general aviation community to come help make the AM&C another success, and help ensure that business





aviation's positive story is told."

As Bolen explained at EBACE, "We know that business aviation helps companies be more efficient, productive, nimble and competitive, especially in an economy like the one we're facing today. We know that the companies in business aviation routinely provide life-saving transport for people in crisis – and the flights are often made without any regard to publicity, but because someone wants to lend a helping hand."

More than ever, these facts were the focus for EBACE, the flagship event for the business aviation community in Europe, which is jointly presented by the European Business Aviation Association and NBAA. More than ever, this year's event also emphasized the value of the industry in driving economic development, promoting safety best practices, continuing to build on a record of progress on aircraft emissions, serving as good neighbours at community airports, and other priorities.

For example, included in the three-day event program was the well-attended 3rd Annual European Safety Standdown, brought by Bombardier, EBAA and NBAA, and information sessions on the new avionics, performance-based oversight for aviation managers, and the EU emissions trading scheme, among other topics.

EBACE also highlighted a recent study showing that business aviation in the European region was responsible for 164,000 jobs and €19.7 billion (US\$27.3 billion) in economic activity in 2007 alone.

A special session entitled, "Business Aviation: Perception Versus Reality," focused on the efforts by EBAA, NBAA, the General Aviation Manufacturers Association and the European General Aviation Manufacturers Group to inform policymakers and opinion leaders about the true value of business aviation to citizens and communities in all parts of the world.

Of course, the event also showcased the diversity of the industry, as demonstrated by the many types and sizes of businesses on the Exhibit floor. EBACE Exhibitors took advantage of opportunities to meet with new customers, strengthen ties with current customers, network with industry colleagues, and explore new business opportunities.

Perception issue adds to downturn's impacts

As was the case with EBACE, this year's Annual Meeting & Convention will highlight the fact that on a global basis, business aviation supports high-skill employment, contributes substantially to economic activity and business growth. It also provides America with technological innovation, cross-border trade and mobility for citizens, companies and communities.

NBAA knows that those realities are often overtaken by misperceptions and misstatements about business aviation.

"Unfortunately, current perceptions about business aviation often completely overlook the industry's important benefits," NBAA's Bolen said recently. "The turbulence our industry faces from a weakened economy has been intensified by ill-informed criticisms from some in Washington, whose comments suggest a stereotype that is unrepresentative of the business aviation community and the benefits it provides.

"We know the damage that can be done when misperceptions and harmful rhetoric about business aviation lead people to call for policies discouraging or disfavoring the use of business airplanes."

"As we did for EBACE, we will look to the Annual Meeting & Convention help to correct the misperceptions. Tough times call for tough responses and good teamwork. A comprehensive industry approach to our most pressing challenges is paramount, because so many of our concerns are the same, all around the world.

A unified business aviation responds: No Plane No Gain

Of course, EBACE and the AM&C are only one aspect of NBAA's work to highlight the benefits of business aviation. A comprehensive advocacy effort continually informs policymakers and opinion leaders about the essential role business aviation plays for citizens, companies and communities across the United States.

Called No Plane No Gain, the campaign was launched in February by NBAA and the General Aviation Manufacturers Association (GAMA) with the goal of demonstrating how business aviation plays a vital role in our nation's economy. The campaign's multimedia approach educates decision-makers on the importance of business aviation to the nation's economy and transportation system.

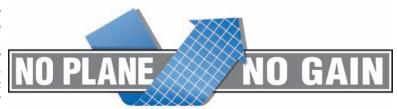
Through No Plane No Gain, the true face of business aviation has appeared in media from major networks and cable news programs including Fox and CBS News, to National Public Radio and The Wall Street Journal, as well as major newspapers across the US from Palm Springs to Wichita, and Savannah to Des Moines. The campaign has also leveraged new media, building upon a comprehensive website, with a presence on Facebook, Twitter, and YouTube, to help deliver the messages of business aviation's essential contributions using social networking.

All of the media exposure has broken through to begin to educate policymakers in Washington. Legislators in Washington have come together to form a General Aviation Caucus. And at a Congressional hearing in May on reauthorization of the Federal Aviation Administration (FAA), Senators responded favourably to NBAA's Bolen with comments of their own. "The senators said they've heard from people back home, which shows that people in our community have reached out to their elected officials and made their voices heard on general aviation issues," said Bolen.



It's a Fact: Business Aviation Makes Economic Sense

hen a public uproar erupted over how and when airplanes are used by companies seeking government loans, the story told in the news media was often a one-sided account lacking voices of support for business aviation. Now the time has come to speak up for the tens of thousands of costconscious businesspeople who consider business aviation an essential tool.



"At a time when we are facing almost unprecedented economic challenges, US businesses need tools that will help them enhance productivity, maximize flexibility, and maintain strong communications," said NBAA President and CEO Ed Bolen. "No Plane No Gain will underscore why business aviation is critical to tens of thousands of costconscious companies fighting to succeed in a difficult market."

Two General Aviation (GA) associations launched a campaign dedicated to defending the value of business aviation in response to the increasingly negative stereotype of business aviation.

The National Business Aviation Association (NBAA) and General Aviation Manufacturers Association (GAMA) recently a comprehensive new joint advocacy campaign with a familiar name: No Plane No Gain.

No Plane No Gain will reinforce the value of business aviation to American workers, policymakers, companies and communities across the United States through a multi-faceted, multimedia approach. Backed by dedicated financial resources from NBAA and GAMA, this campaign will include: A dedicated No Plane No Gain web site at www.noplanenogain.org, studies and surveys from respected sources, placement of paid advertising, and new media like webinars, podcasts, and online videos at YouTube.

Tens of thousands of well-managed US companies use business airplanes because they have proven their value in multiplying the productivity and efficiency of their business operations. In this tough economy, businesses need to reach as many customers in as little time as possible.

Business aviation is part of a productive engine for the wider economy as well. General aviation contributes more than 1 million jobs and \$150 billion annually to the US economy, including thousands of good-paying manufacturing jobs and positive contributions to the balance of trade.

The new initiative will take full advantage of the changing ways people receive and process information today while building on proven advocacy techniques.

Learn more at www.noplanenogain.org









IF You've ever Thought about using an airplane to Help Your Business succeed, You should attend NBAA2009.

In these competitive and difficult times, companies must seek every advantage to help maximize the use of their most important assets: people and time. NBAA2009 will offer a series of Education Sessions tailored to light business airplane owners and entrepreneurs who may be considering the value an airplane can provide to their business.

- What are the top five things that businesspeople using or wanting to use an airplane should know?
- What are the most important considerations for entrepreneurs wishing to move up to more capable airplanes?
- What technologies are available to help owners make the least expensive, most effective use of light business airplanes?

These issues and much more will be covered in Sessions at NBAA2009 and Attendees will hear practical advice to help their businesses save money and get ahead.

For more information or to register, visit

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