

# Insurance: Collateral damage

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The Lehman bankruptcy and AIG bailout have brought counterparty risk to the top of the agenda. As the Karson Management deal for ING highlights – collateral is a business issue and an outright business for 2010.

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## Buy a swap – get an LOC for free

As banks competed for higher margin business, credit became a commoditised loss leader product. Manufacturers could benefit from large and cheap loans. Private equity could profit from buying businesses and leveraging their equity cheaply. Loans are less attractive to insurers because of regulatory restrictions. However insurers leverage through operational leverage – that is they take a lot more risk limit than is covered by their capital base on the assumption that not everything will go wrong at the same time.

However, the operational leverage game cannot be played forever. At some point counterparties, regulators and rating agencies get concerned about the credit risk of a reinsurer. Here cheap and readily available letters of credit (LOCs) provided the answer.

## The LOC bonanza

As banks sought to woo insurance companies for the next hybrid capital mandate etc..., LOCs were issued cheap. Insurance companies could collateralise almost anything for tens of basis points. Even Lloyds syndicates could be capitalized for about 100bps with an LOC.

## The death of a star

The implosion of AIG has an interesting comparison to the death of an astronomical star. The following explanation of the process of a star dying is from physicsforum.com:

But what happens first is that if it has enough mass, it gets hot and dense enough that a nuclear reaction starts at its core. How big this nuclear reaction is, how long it lasts, and how many elements it is able to fuse depend upon how massive the star is. Generally, more massive stars can make heavier elements. In any case, the infusion of heat from the nuclear process halts the star's collapse.

Now, eventually the star will expend all of its nuclear fuel, and won't be able to make the next

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more massive element on the list. So the process of collapse continues again: with no infusion of heat, it just gets smaller and smaller and hotter and hotter. Eventually quantum mechanics steps in.

What halts the collapse is the Pauli exclusion principle: no two electrons can be in the same state at the same time. This means that once the star has collapsed far enough, the electrons are so close together that if they were any closer, some would have to occupy the same state, which can't happen. Thus the collapse halts, and the star just cools off. This is a white dwarf.

Now, the amount of pressure that these electrons can exert (this is called electron degeneracy pressure) is finite. Eventually the pressure will be so great that the electrons start joining with protons to produce neutrons and neutrinos. The neutrinos escape, but the neutrons stick around, making a neutron star. Just like with the electrons, no two neutrons can be in the same state at the same time, but they can support a larger pressure, and thus more mass. So more massive stars than white dwarfs become neutron stars.

But again, the amount of pressure they can support remains finite. If the star is too massive, it makes a black hole instead.

### The LOC black hole

As Federal Government ownership coalesced out of the black hole that an AIG collapse would create, the banks that (by market estimates), had collectively, \$15bn of LOCs outstanding for business between AIG operating companies (with reimbursement from of the holding company) began to breath a heavy sign of relief. The banks had figured that the AIG operating subsidiaries could have drawn on the LOCs and the holding company could have filed for Chapter 11 before the banks demanded reimbursement. It didn't happen, but it could have. The market woke up to see that LOCs, even to the recently AAA rated AIG, were not riskless as some appeared to have believed, perhaps naively.

In the weeks post the Lehman bankruptcy and AIG bailout, bank balance sheets were under pressure and being reduced and the banks realised the risks in LOC business. LOCs went from practically being free with a packet of cornflakes to becoming a prized possession of rareness and unique value.

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In the hey day of cheap LOCs, insurers could deal with their triple-X issue by reinsuring their liabilities to a reinsurer in a jurisdiction that was not subject to the NAIC rules. This reinsurer would not need the economic reserve against the liability. The primary insurer, however, would need to have collateral to cover the full reserve, including the redundant reserves, up to the full statutory reserve. US regulations require this to get statutory reserve relief. Banks would provide long dated LOCs very cheaply to create the collateral. No more!: the LOCs avoided the black hole from the AIG implosion; LOC availability did not.

### Collateral damage

Banks stepping back from the LOC business have had some significant knock on effects for the insurance business. The impact is perhaps most acutely felt in the US life insurance business.

### Regulation triple-X

Triple-X has certain connotations almost globally. However in US life insurance it is a somewhat turgid and dull NAIC guideline on reserving for life insurance business. It is called triple-X because it is model regulation 30 – or XXX in Roman numerals.

### Lack of triple-X LOC capacity

Regulation triple-X stipulates that certain US life insurance liabilities be valued, for regulatory purposes, on a highly conservative basis. The regulatory reserve created is considerably higher than - what all insurers consider to be - the economic reserves, that is the reserve created from the company best estimate of the liability. The excess regulatory reserve is considered redundant, but needs to be covered by excess capital. This can create significant capital needs and capital strains for US life insurers.

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### Collateral: A business for 2010

Triple-X is not the only area in which collateral is important. In fact, it was posting collateral on its default swaps that ultimately brought AIG down. As institutions that were once invincible have gone to the wall, all market participants are keeping a close eye on counterparties and demanding collateral. The need to collateralise has driven the credit derivative product company model into the ground.

### Creative collateral

Our friends at Karson Management recently closed a triple-X deal for ING. Karson has created an innovative collateral program that allows the owners of assets to post their assets as collateral for a fee. This collateral is then machined into an acceptable form and posted for counterparties. The business is a natural extension of the repo market, but creative and fresh in its own right. BRAVE Partners congratulates them.

## BRAVE Partners services

BRAVE Partners can advise insurers on the LOC markets and other forms of collateral and collateral management.

## Interaction

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- The LOC market has tightened substantially following the collapse of AIG.
- BRAVE Partners can advise insurers and reinsurers on counterparty risk issues.
- BRAVE Partners can advise insurers on LOC capacity and alternative sources and forms of collateral.

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