The Good, The Bad and Basel II
Session: Credit Risk Transfers and their Regulatory Challenges

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Plan of the Presentation

• The Good
• The Bad
• Basel II
The Good (1)

- Credit Risk Derivatives have grown enormously, although still small relative to IR and currency derivatives in terms of volumes or notional values
- Beneficial effects as other derivatives:
  - Risk management
    - It's claimed that commercial banks are net protection buyers; can reduce overall risks and loan concentration risks
    - Potential to reduce spreads and enhance financial stability
  - Price discovery
    - Standardized Credit Default Swaps and indices concentrate liquidity, enhance price signals
    - Should help regulators too...

The Good (2)

- Beneficial effects as other derivatives:
  - Effect on Underlying Industry
    - Ability to separate relationship from risk
    - Does growth of CRT instruments mean banks’ loan-monitoring role less important?
    - Or, as bank has sold credit risk can bank be tougher on company?
    - Effect on bank competition (price discovery role)
    - But if banks have private information, is there an adverse selection problem, what are the conflicts of interest?
**The Bad (1)**

- Do we really know just what is being transferred and to who?
  - Notional values suggest its mostly trading between relatively sophisticated dealers & banks, well over 90% of notional values
  - not necessarily bad as aids price discovery but little risk management: only a small amount of risk transfer out of commercial banking sector
  - Collateralized Debt Obligations (CDO’s), frequently equity tranche is retained
  - Greenspan in a recent speech stated; “Unfortunately available data do not provide this information”
  - “This” referred to what risk was being transferred and to who

**The Bad (2)**

- The liquidity is in the top names, again implying real risk transfer limited
  - Still, maybe useful in reducing concentration exposures
  - And sovereign CRDs an exception, here liquidity (excepting Japan) is in emerging economies.
  - But of the 700 or so liquid names, 30 are sovereigns
The Bad (3)

- As with other OTC derivatives, dealer concentration is very high indeed (OCC states top 5 CRD dealers have 97% of notionals)
- Complexity of instruments sometimes puzzling
  - Joint Forum, “… understanding credit risk profile of CDO tranches poses challenges to even the most sophisticated market participant”
  - Liquidity in CDO tranches reported to be low
  - Complexity is a challenge for issuer to control risks effectively, for investors and for the regulators
- On the regulator, Greenspan is more confident on the market, “private regulation generally has proved better at constraining excessive risk-taking than has Government regulation”
- Quite an admission for the top US bank regulator, and if the market doesn’t have all the info required ……?

The Bad (4)

- Regulatory Arbitrage under Basel I
  - High grade corporate: 100% risk weight
  - Speculative grade corporate 100% risk weight
  - Well known perverse incentives of Basel I
  - Can lend to high grade corporate buy a CDS, and if protection-seller is right type, reduce regulatory capital to 20% risk weight
  - Or could sell high grade risk to non regulated sector (securitize)
  - Or sell CDO’s on high grade portfolio maintaining equity tranche (supervisory treatments differ, must normally must reduce notional from capital)
  - The claim is banks are net protection buyers, perhaps spurred by arbitraging Basel I type rules
  - But, lack of information a serious concern.
Basel II and Emerging Economies
(Thanks to the World Bank for supporting this Work)

- Basel II has many alternatives
- Continued motivation for use of CRDs to arbitrage the rules
- Effect of Basel II Implementation in G10 on Emerging Economies
- Should Emerging Economies implement Basel II, if so how?
- Unresolved (Cross-border) issues
- Is the lead regulator model the right approach?

### Basel II: Pillar 1 Alternatives

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<tr>
<th>Approach</th>
<th>Basic Credit Risk</th>
<th>Credit Risk Mitigation</th>
<th>Securitization Risk</th>
<th>Operational Risk</th>
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<td><strong>Simplified Standardized</strong></td>
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Basel II

• Objective: links regulatory capital to risk such that regulatory capital closer to economic; trying to get closer to actual bank practice
• More rational treatment of credit risk mitigation and securitization risk
• But incentives for regulatory arbitrage will remain

Basel II

• Recent developments in CRD’s include correlation trading
• Basel II’s advanced approaches use a VAR inspired formula for single instruments assuming full diversification and calibrated derived from a single factor model with tolerance 99.9% and correlation 20%.
**Basel II**

- If a portfolio correlation < 20%
  - Economic capital < Regulatory capital
- Can use CRT instruments to increase the effective default correlation of my portfolio
  - Again, banks claim that on net they use CRT’s to reduce correlations and to reduce loan exposures but in theory a bank could choose its preferred correlation figure.

**Basel II and Emerging Countries**


- Emerging countries’ sovereign cost of capital largely unaffected by Basel II implementation in G10
- Pro-cyclicality concerns may be overdone, circularity may be more of an issue
- There are a set of unresolved issues regarding cross-border implementation of Basel II
- With current calibration, emerging countries’ private sector may be affected and the globalization trend of banking may retreat back to internationalization
- Is the lead regulator model really the correct one?
  - Game between bank/home regulator and host regulators
Base II Implementation in G10 is Important for the Developing World

- Foreign Banks have lent US$ 1.92 trillion to developing countries (BIS QIV, 2004)
- Foreign banks account for about 26% of domestic credit in developing countries but 69% in Latin America and 78% in developing Europe
- There has been a marked trend to globalization of banking from previous internationalization (or cross border lending)

Bank Globalization: Growth of Local Claims in Local Currency
But is the Basel II, IRB Curve Calibrated Correctly?

- Majnoni and Powell (Economia, forthcoming) find that for estimated Expected Losses, the Basel II IRB curve underestimates Unexpected Losses for the 99.9% Confidence Limit
- Emerging country SME’s will have very high capital requirements (> 20% in many cases)
The Basel II Curve Adjusting
Tolerance and Correlations

The Cross Border Issue

- The risk of a subsidiary (or branch) is that of the international bank, only if there is a comprehensive parental guarantee.
- If there is an incomplete guarantee then the host supervisor should implement a regime that
  - It can monitor effectively
  - That ensures that the appropriate amount of capital is available to the subsidiary or branch
- In practice there is something of a game going on between foreign banks/home regulators and their host regulators
But the Ratings of Subsidiaries are well below those of Parents

A Simple Regression indicates that the Rating of the Parent and the Host Country as Significant

\[ \text{Subsid} = 7.19 + 0.0449 \text{Host} + 0.277 \text{Parent} + \varepsilon_i \]

(11.14) (2.48) (3.75)

A conclusion compatible with these findings is that there is a partial guarantee
**Nature of the Game**

- Foreign bank must make significant investment
- Emerging country can “hold-up”
- Depending how things turn out bank may leave and even default on local liabilities
- Bank may face international court action
- International bank faces a trade-off, may not offer explicit guarantees
- Home regulator may wish to limit extent of guarantees, host regulator would wish to make guarantees explicit
- Interesting question: how would foreign bank’s use of CRD’s affect this game?

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**Emerging Countries May Fall Between Two Stools**

- Given the shallow market in credit ratings the Standardized Approach (SA) that uses external ratings will deliver little in terms of linking capital to risk
- Given the complexity of the Internal Rating Based (IRB) approach, many countries may feel that they lack the necessary supervisory expertise
- Majoni and Powell (*Economia, forthcoming*) develop a Central Rating Based approach
On the Lead Regulator Model

• Until now the focus has been the lead regulator model:
  – This implies a standard within institutions
  – Hence there will be “arbitrage” within countries
  – Foreign banks may withdraw from SME and retail,
    Globalization will retreat back to Internationalization (cross
    border lending to sovereigns and high rated corporates)
• On the other hand a country standard might provoke
  arbitrage within institutions
  – Foreign banks may book assets locally or abroad depending
    on where capital requirement is lower

Pillar 1: Proposal

• Basel II should be a springboard for real supervisory
  cooperation
• The focus of this cooperation should be on how to
  implement Basel II’s more advanced approaches in a way
  consistent with host country resources and practices but to
  minimize arbitrage within institutions
• A globally consistent IRB approach: lending to higher rated
  corporates (avoiding arbitrage within institutions)
• A locally calibrated IRB/CRB approach for assets that
  should be booked locally: SME lending and retail (avoiding
  potential retreat from these areas by foreign banks)
Pillar 2 Proposal: College of Supervisor Approach

- Pillar 2 contains no text about international supervisory cooperation - a missed opportunity
- If Basel II is to be applied in 100 countries (and G10), a college of supervisors should attempt to coordinate a locally calibrated version of the IRB (or CRB) approach
- If this is to apply at the country level, host countries should coordinate this College
- Lead regulator model unlikely to resolve the relevant conflicts of interest

Pillar 2 Cross Border Concerns

- If home and host regulators can agree on a regulatory scheme for foreign banks
- Should also agree to joint inspection regime
- This is not only efficient in terms of supervision but also in terms of knowledge transfer from one supervisor to another
**Cross Border Pillar 3 Concerns**

- Often foreign bank entry has been through acquisition and hence delisting in local capital markets
- Market information on the local bank has been swapped by a partial and non-transparent guarantee
- Pillar 3 should apply to all foreign bank subsidiaries and branches failing a comprehensive and transparent guarantee
- A subordinated debt rule should be contemplated to obtain market information on the strength of the guarantee

**Conclusions**

- CRT instruments are here, already US$8tr+ notional of CDS’s (not US$183tr of IR and Currency OTC derivatives but rate of growth is fast
- Potential benefits and interesting repercussions for banking theory: we hope banks are using these instruments sensibly but do we really know?
- Basel II will affect regulatory arbitrage certainly, will not eliminate it, focus may be on correlations
- CRT might change game between lender and borrower and between foreign bank/home regulator and host regulator
- Basel II amplifies set of unresolved cross border issues
- Urgent need to rethink home-host supervisory functions