

Measuring Loss Given Default for Unsecured Retail Portfolios

Sarah Scarborough

SG Scarborough Ltd

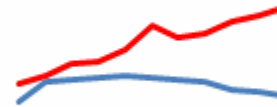
CSCCXII August 2011

Introduction

- Much attention has been given to modelling LGD on mortgage portfolios, particularly given their sensitivity to house price reductions as seen in recent years
- Although less sensitive to economic conditions, the challenges in modelling and measuring LGD for unsecured retail portfolios are greater than for secured lending and losses are considerably higher in £s terms as well as in % terms
- Drivers of loss are also much harder to identify in unsecured lending compared to secured lending in which collateral prices are the key
- This paper discusses some of the main challenges in developing reliable and sustainable models both for Basel II and for everyday management of the business

Before you start modelling

- Look at some basic trends



- Spend a week in collections

Aug	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

- While you are there

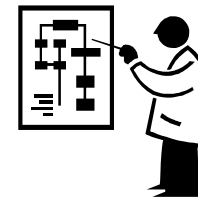


- Develop friends and contacts

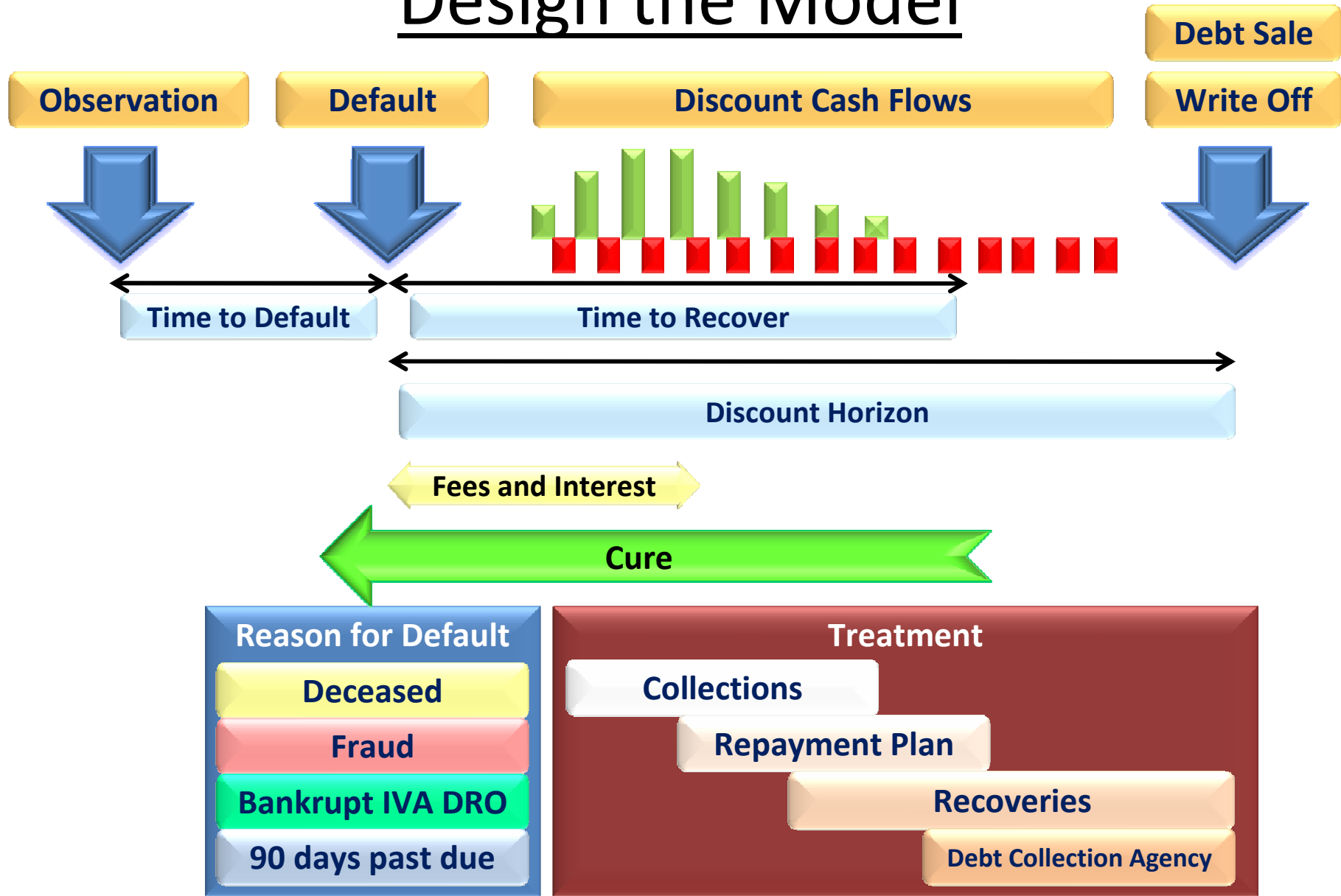


How to Avoid the Pitfalls

- Befriend the Accountants
 - Operational versus financial write off
 - Fraud versus credit losses
 - Debt sales, post write off recoveries, interest accruals
- Know the Processes
 - Account versus customer collections
 - Allocation of payments
 - External debt collection and debt sales
- Understand the Systems and Data
 - Contents of balances (especially loans)
 - Interest and fees
 - Product, collections, recoveries systems



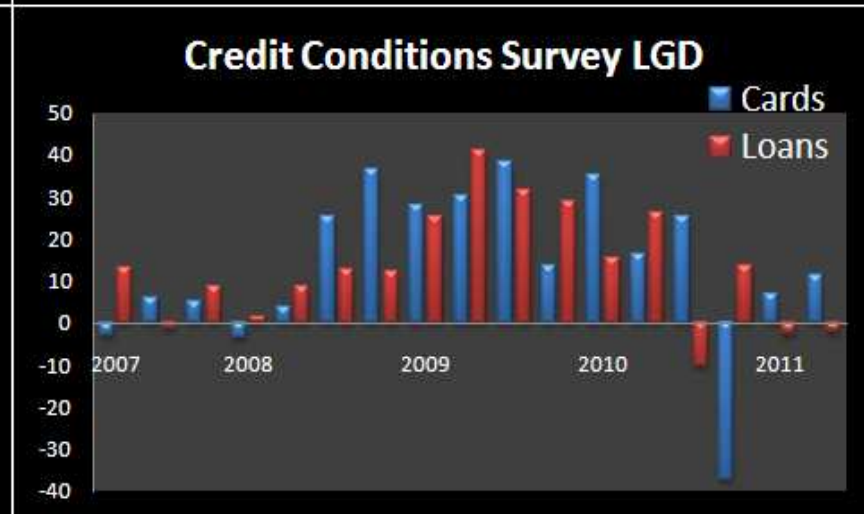
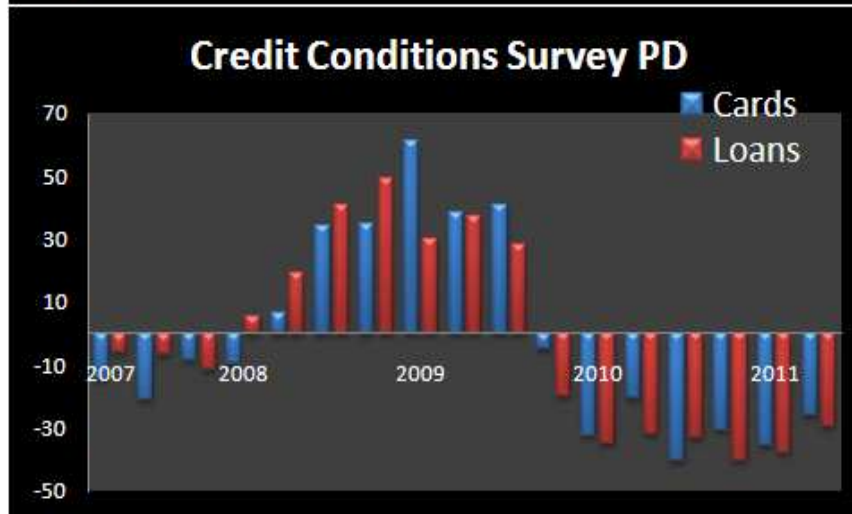
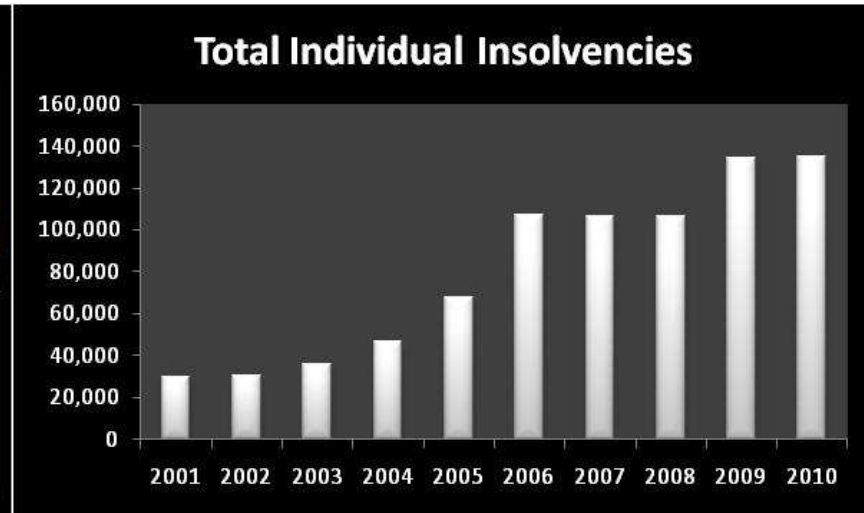
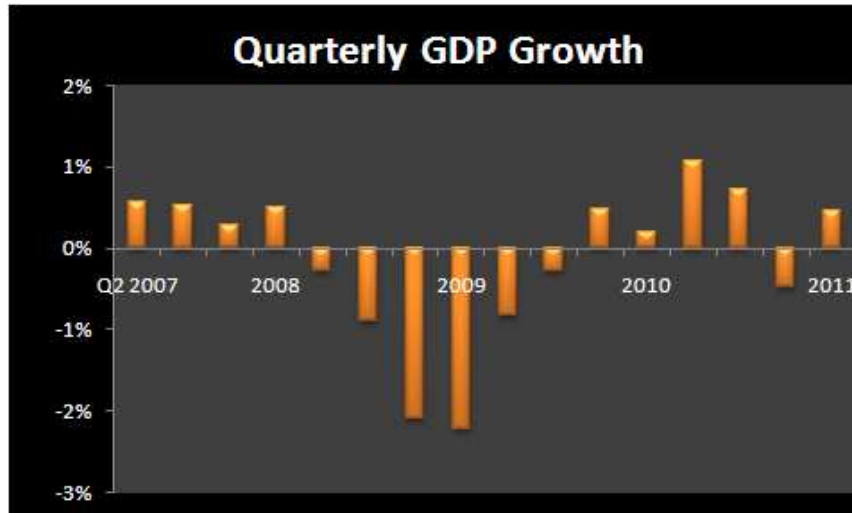
Design the Model



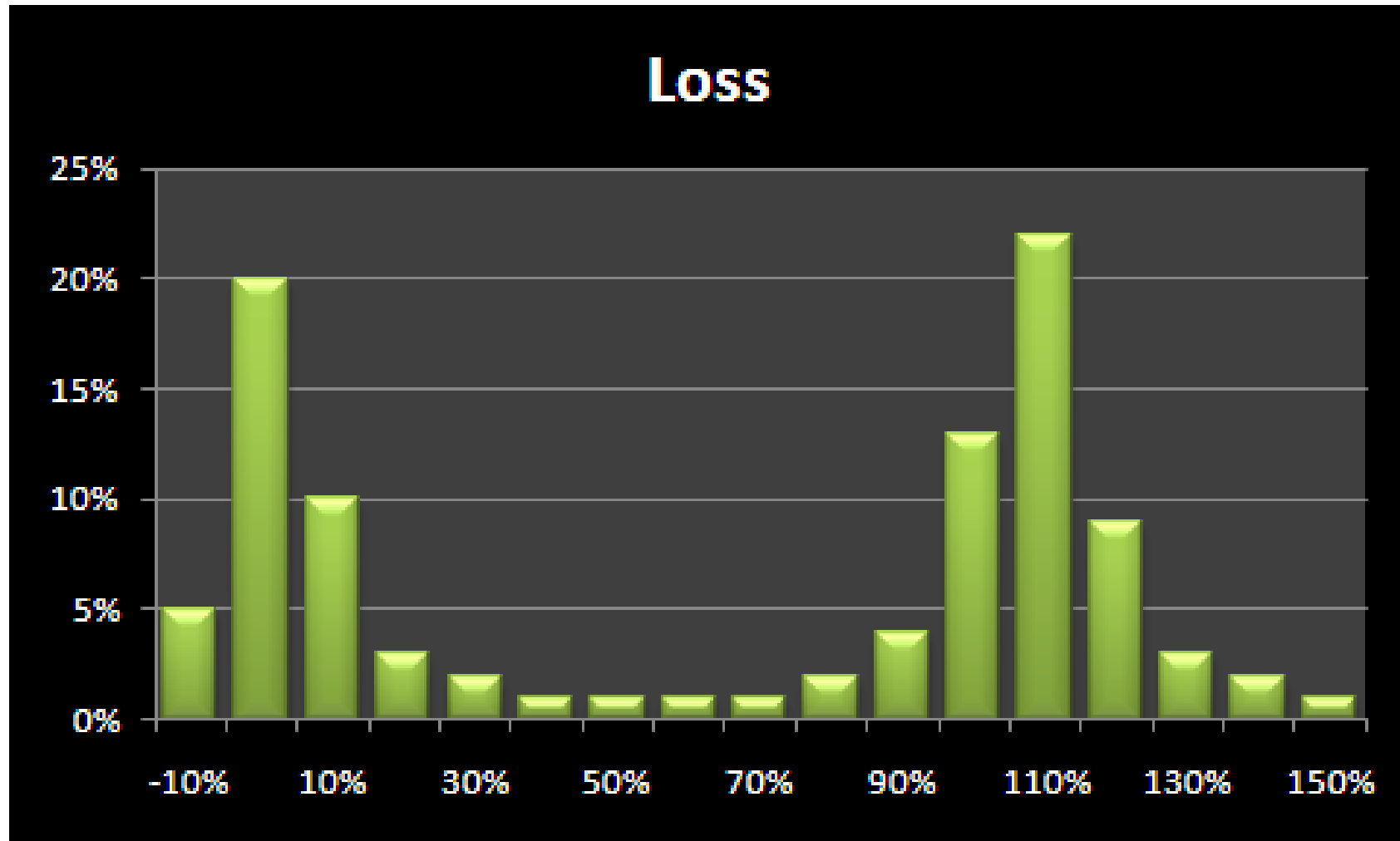
Model Structure

- Drawing up a tree ensures all routes and outcomes are accounted for
- Outcome windows can be shortened and loss rates factored up
- Not in Default, decide :
 - What to predict and what to average
 - £ Recoveries, £ Recoveries / not cure, £Loss/write off, £Net or £Gross
 - P(cure), P(write off), P(write off / not cure)
 - What is deterministic and lends itself to being formulaic rather than modelled
 - Fees, interest, costs
 - Level of granularity
 - Monthly, annual, average cash flows
 - Decision tree by reason and / or treatment
 - Easier to monitor and update parameters, but...
 - Beware of operational influences and changes
- In Default
 - Recoveries and time horizon vary by reason for default
 - Discount to today, not default date
 - Treatment is often known, or at least easier to predict
 - Time since default can rule options in or out
 - Apply a decision tree based on collections / recovery process
 - Add predictive models for high volume nodes
 - Use formulaic rather than predicted outcomes where appropriate

Downturn LGD



Downturn LGD – Loss Patterns



Monitoring Unsecured LGD

- Trends of all components and assumptions, including reasons for default, treatments and time horizons
- Use cohort analysis and expected profiles of performance to reduce outcome windows
- Avoid monitoring just resolved cases as this can seriously bias results
- Cure rates and roll rates should be tracked for downturn LGD even if they are not modelled explicitly
- Use trends of economically sensitive components to flex models for downturn LGD
 - Much easier to do if model is structured suitably
- Monitor non defaulters as well as defaulters
 - Accuracy by PD band
 - RWA and EL impacts

Conclusions

- Upfront design is critical to ensure that unsecured LGD models are fully and accurately specified
 - Data is complex and models are not always cognisant of the whole recoveries process
 - Model risk is a major factor
- Monitoring unsecured LGD is difficult, but components and emergence can be tracked effectively
 - Ease of monitoring should be a factor in model choices
- Further analysis is required to show the extent to which components of LGD are sensitive to economic conditions
 - Market and structural changes have had a significant impact on downturn LGD

Data Sources

- Gross Domestic Product
 - Office for National Statistics (ONS)
 - ABMI chained volume measures
 - Seasonally adjusted constant 2006 prices, updated on 25/ 5/2011
- Individual Insolvencies
 - The insolvency service
 - <http://www.insolvency.gov.uk/otherinformation/statistics/201105/table2.pdf>
- Credit Conditions Survey
 - Bank of England
 - <http://www.bankofengland.co.uk/publications/other/monetary/creditconditions.htm>