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DEBT MANAGEMENT SEMINAR

In Pursuit of Best Practice in Debt Management

Venue: Acacia Premier Hotel, Kisumu

Date: 1st – 3rd August 2018

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. . . Credit Risk Management Roundtable

- Every business is keen to **mitigate** exposure to risk with an aim to:-

  a) Minimize losses

  (address challenges in credit that include **information asymmetry**, **adverse selection** and **moral hazard**)

  b) Grow Business

  (customers have more options and increased access to credit products)

Who would you lend to?

- A supermarket chain with over 30 outlets and KES 500 million turnover a day.
- A college dropout working from home
- An exporter of fish to Europe exporting 100 tons a month with a coastal property worth 700 million.

Who would you lend to?

- A supermarket chain with over 30 outlets and KES 500 million turnover a day. NAKUMATT – Currently under liquidation and owes more than their capital
- A college dropout working from home BILL GATES the second richest man in the world
- An exporter of fish to Europe exporting 100 tons a month with a coastal property worth 700 million. W.E. TILLY – Fraudulent company that collapsed a bank

THE 1990's-COLLAPSING BANKS….and business performance – hurting Economy.

- DOMESTIC ARENA
  - High Interest rate regime- 74% pa
  - High Non performing loans- NPL's of 57%.
  - Collapsing banks.
  - Failing businesses.
  - Highest levels of unemployment

THE SERIAL DEFAULTER …..

A THREAT TO EVERY LENDER AND CREDIT PROVIDER

How do you distinguish good and bad characters.

Spot the "Bad Egg"

If only all good eggs had halos and bad eggs spotted horns!

CIS- Amendments to the Banking Act ..

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CRB REGULATIONS, 2004(FIRST ATTEMPT)

↓

BANKS MAY SHARE INFORMATION WITH EACH OTHER

↓

CRB REGULATIONS ,2008 (PAIN KILLER)

↓

SHARE ONLY NEGATIVE DATA-ONLY BANKS PARTICIPATED

KILL SERIAL DEFAULTEER | ***IMPROVE COLLECTIONS***

↓

CRB REGULATIONS, 2013 (VITAMIN)

↓

SHARE BOTH +VE AND –VE DATA: INCLUDE ALL CREDIT PROVIDERS

CREDIT SCORES-PRICE RISK | ***INCREASE ACCEPTANCE-GROW THE BUSINESS***

↓

CREDIT COMMUNITIES (PROSPERITY)

LOYAL CUSTOMERS | ***STABLE BUSINESS***

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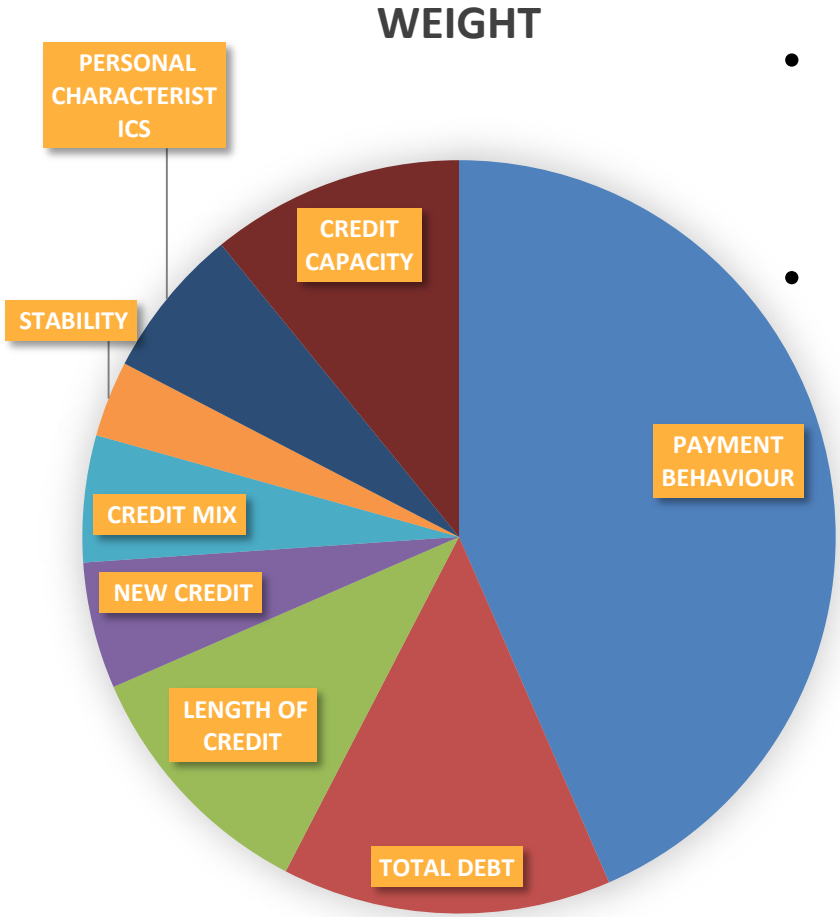
What is Credit Scoring?

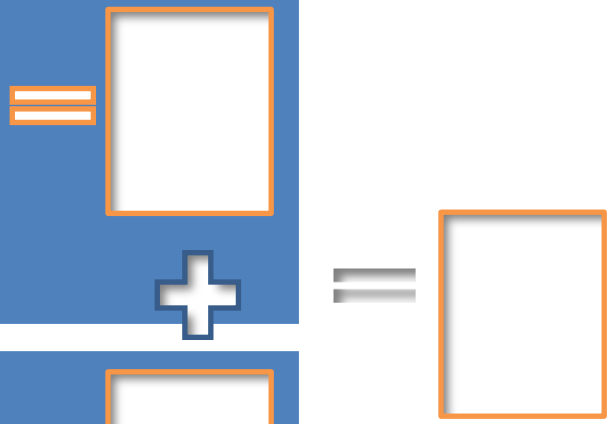


- Scoring models, or scorecards, are tools used to predict the behavior of applicants based on the performance of previous applicants.
- They rank order applicants or customers by risk based upon the information consumers supply in credit applications and credit bureau reports on payment history.

The points for each customer characteristic are added, producing a score which rank orders the applicants along a risk ladder (the score scale)

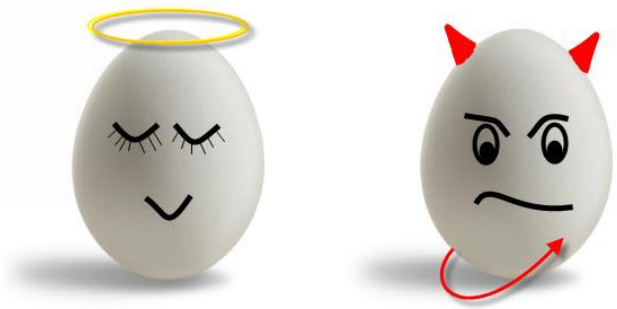
A simplified credit scorecard

		Weights
Age	• <18	0
	• 18 – 35	5
	• 36 – 60	4
	• >60	1
Income	• <KES 1 M	4
	• >=KES 1 M	5



Why Score?

The motivation behind credit scoring approach is decision making



Segmentation – Separating "Goods" from "Bads"

Heterogeneous

Homogeneous

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WHY ELSE YOU MAY NEED A SCORE?

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2007/2008 Financial Meltdown

- One of the key factors that contributed to the financial crisis of 2008 was the approach taken by Lenders to determine losses on bad loans under the extant IAS 39 guidelines.
- Loan losses were not recognized until there was an objective evidence of impairment. The delayed recognition was cited as a major weakness of the impairment model (too little too late).

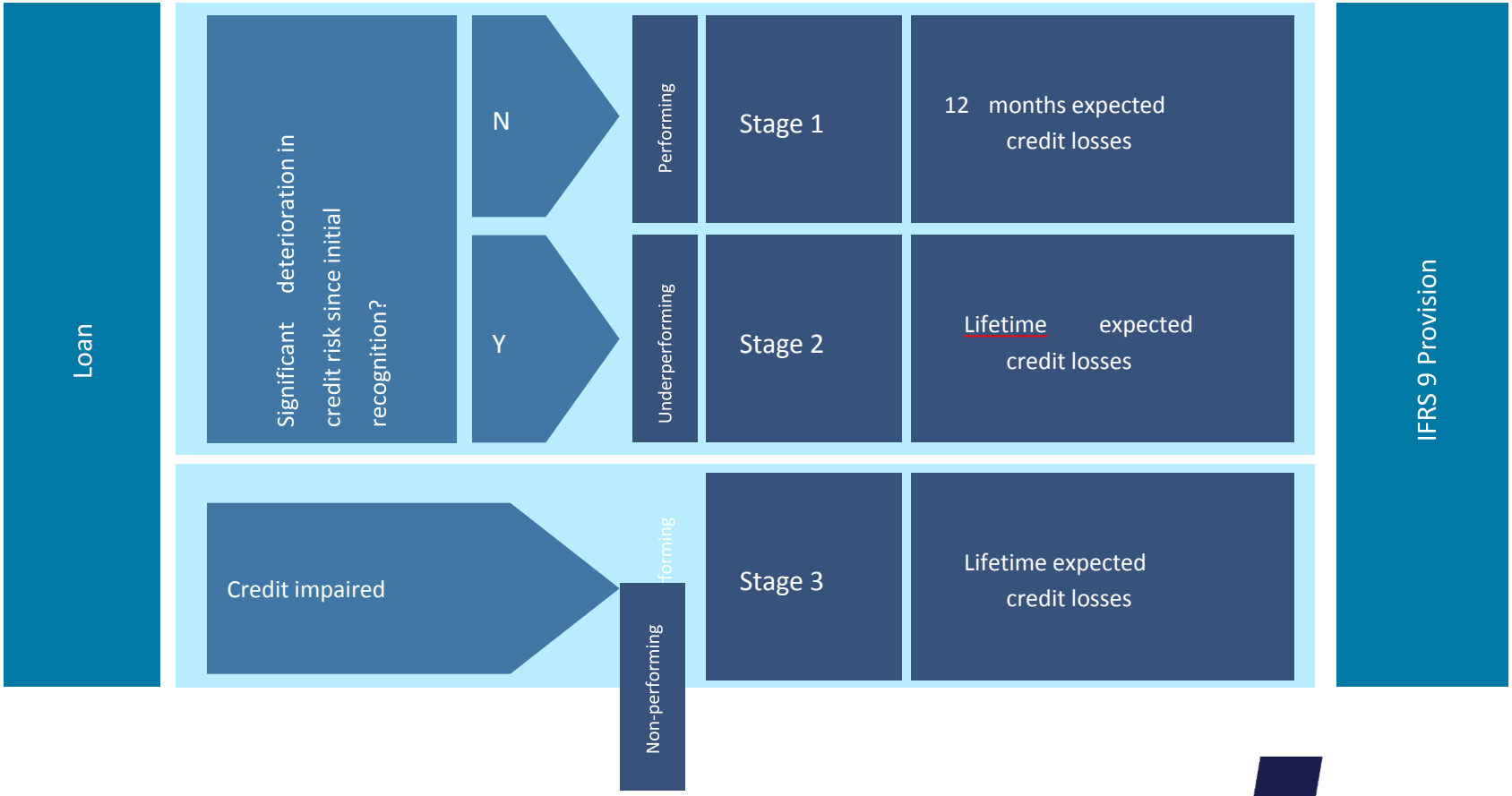
PRE-JAUARY 2018 -RISK CLASSIFICATION OF ASSETS & PROVISIONING

1. **Normal** – Up to date payments
2. **Watch** - Principal or interest is due and unpaid for 30 to 90 days
3. **Substandard** - Principal or interest is due and unpaid for more than 90 days to 180 days.
4. **Doubtful** - Over 6 months but less than 12 months
5. **Loss** - Principal or interest is due and unpaid for over 360 days.

1. **Normal‘** 1%
2. **Watch‘** 3%
3. **Substandard‘** 20%
4. **Doubtful‘** 100%
5. **Loss‘** 100%

The incurred loss approach was backward looking in nature and did not take into account changes in the macroeconomic environment in computing the economic value of loans.

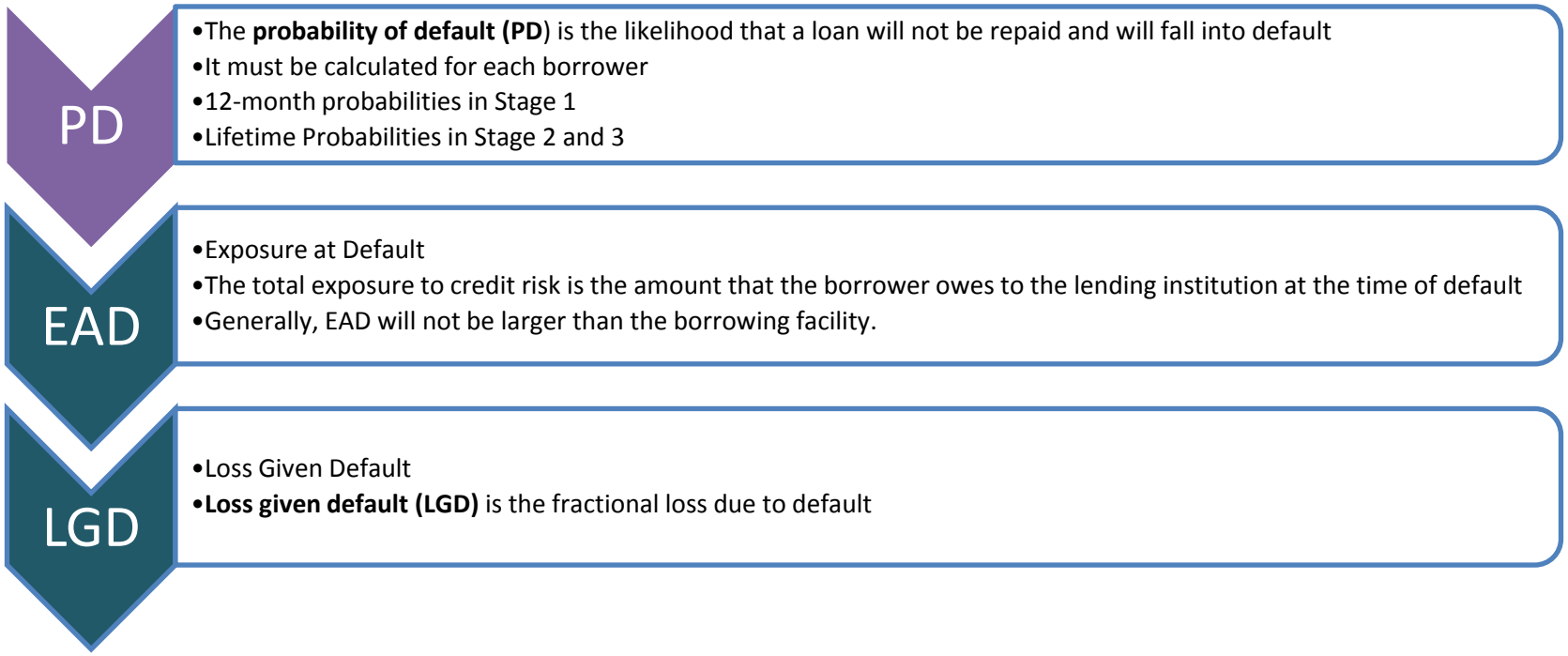
IFRS 9 Impairment Model



Triggers: significant increase in credit risk

- Quantitative Triggers
  - Changes in Credit Ratings
    - External ratings – Bureau scores
    - Internal ratings
  - Changes in internal price indicators of credit risk
    - Significant deterioration of loan to value ratio
    - Breaches in financial covenants
  - Changes in external market indicators
    - Drop in borrower's bond prices
- Qualitative Triggers
  - Changes in business, financial or economic conditions
    - Industry downturn
    - Increase in unemployment rates
  - Changes in operating results
    - Actual or expected decline in revenues/margins
    - Working capital deficiencies
  - Other qualitative inputs
    - Trading suspension of listed shares on exchange
    - Litigations likely to have material impact Profit warnings

ECL Model Components



ECL Model Components

PD

- The **probability of default (PD)** is the likelihood that a loan will not be repaid and will fall into default
- It must be calculated for each borrower
- 12-month probabilities in Stage 1
- Lifetime Probabilities in Stage 2 and 3

EAD

- Exposure at Default
- The total exposure to credit risk is the amount that the borrower owes to the lending institution at the time of default
- Generally, EAD will not be larger than the borrowing facility.

LGD

- Loss Given Default
- **Loss given default (LGD)** is the fractional loss due to default

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Why else you may need a score

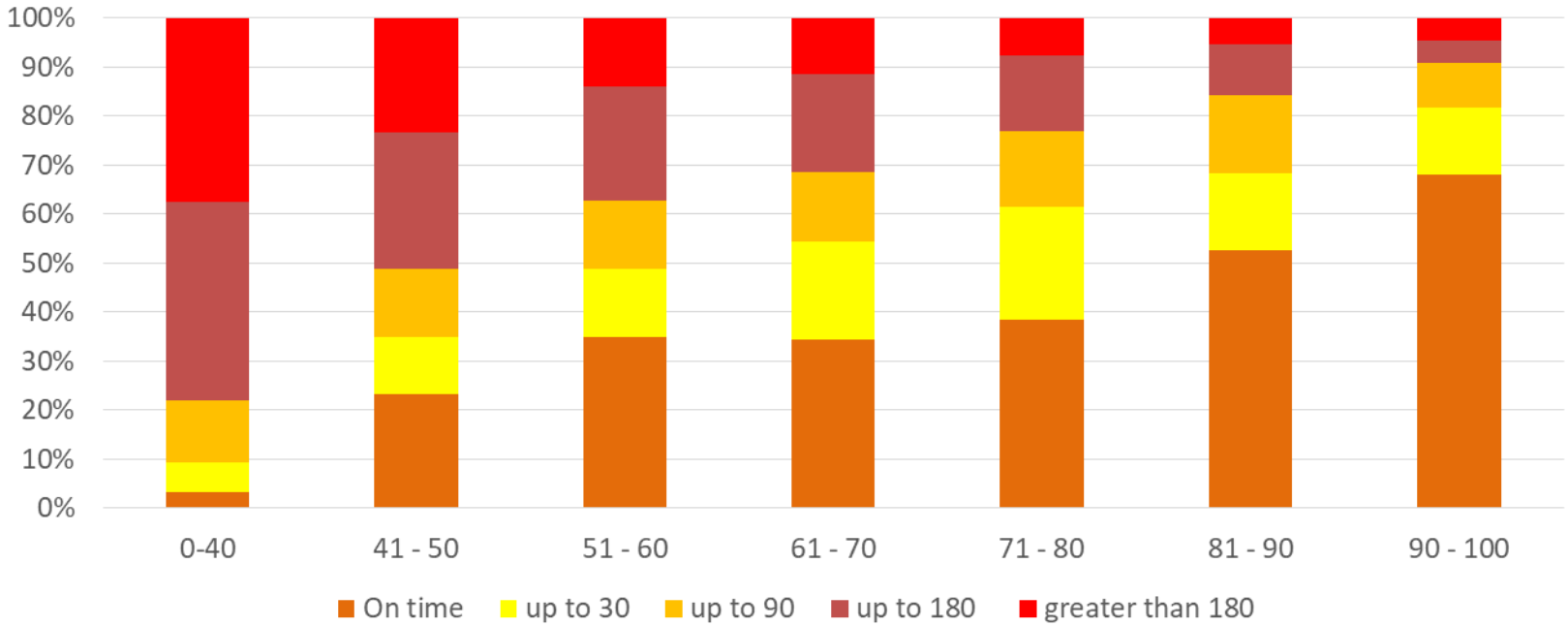
- Determining appropriate product pricing – Risk Based Pricing
- Objective assessment of customers to improve feedback especially for declines (fair lending policies)
- Credit Process Automation: Improving TAT while lowering costs

Score Performance

Credit Scores are judged on how they perform

- Prediction:
  - How often does the system make the correct prediction
- Odds Ratios
  - The risk should reduce as the score increases

Prediction


100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0-40
41 - 50
51 - 60
61 - 70
71 - 80
81 - 90
90 - 100
On time
up to 30
up to 90
up to 180
greater than 180

Odds Ratios

Score Range	Credit Quality	p(D)
[200,270)	Defaulter/ Undetermined	0.58000000
[270,340)	Lowest Credit Quality	0.47333940
[340,410)		0.30194001
[410,480)	Low Credit Quality	0.19502214
[480,550)	Moderate Credit Quality	0.10934119
[550,620)		0.04965407
[620,690)	High Credit Quality	0.03628751
[690,760)		0.01200000
[760,830)	Highest Credit Quality	0.00840000
[830,900)		0.00200000

- *Probability of default decreases as the score increases indicating reducing credit risk as the score increases.*
- *This cannot be achieved with manual credit assessment or subjective scoring*

Final Score Card

Score Range	Risk Rating	Bad Rate
[200,270)	D	0.88000000
[270,340)	C	0.67333940
[340,410)	CC	0.38194001
[410,480)	CCC	0.19502214
[480,550)	B	0.08934119
[550,620)	BB	0.04965407
[620,690)	BBB	0.03628751
[690,760)	A	0.00200000
[760,830)	AA	0.00040000
[830,900)	AAA	0.00000000

Cut-off

- *The cut-off is a representation of the Institution's risk appetite.*
- *It is an empirical way of communicating the bank's changing risk appetite and is normally set by the Bank's Risk Committee*

TYPES OF SCORING MODELS

Application Scoring

- Used to process high volume, relatively low ticket transactions such as consumer or SME loans
- The objective is to determine the probability that the customer will default on this particular facility being applied for
- Application data are assigned point values and a total of these points determines the risk level

Behavioral or Performance Scoring

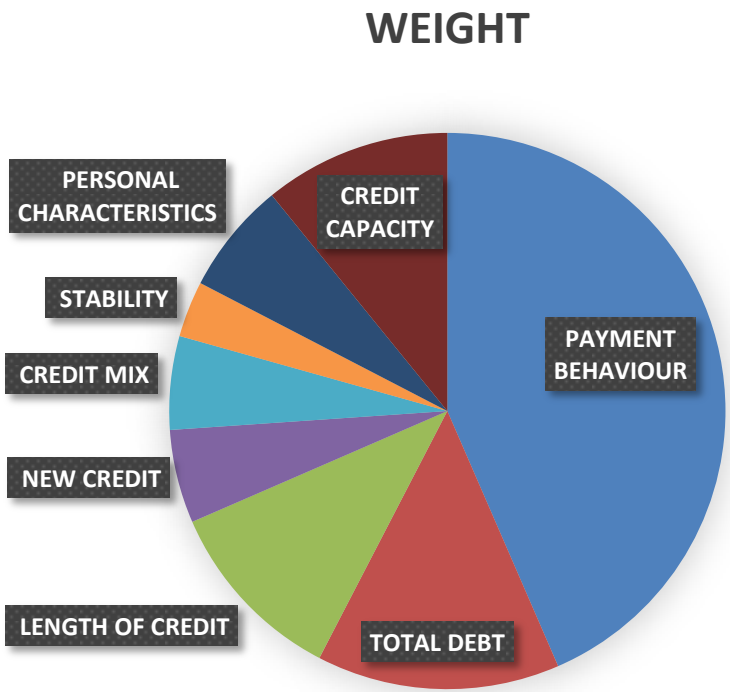
- It is a technique used to segment a portfolio of existing accounts based on the past behavior of the borrowers
- Predicts which accounts will become delinquent within the next six to 12 months
- Used for collection strategies, authorization requirements, credit line assignments, and renewal decisions

Collections Scoring

Centered around collection activities namely:

- **Collection scoring**:
- **Payment projection scoring**
- **Recovery scoring**

Consumer Credit Score



Consumer Credit Score is a measure of the consumer credit-worthiness, the likelihood that they will meet their financial obligations on time.

Consumer Credit Score

Rating Scale

At Metropol, Score ranges from 200 to 900 with a cut off at 400.

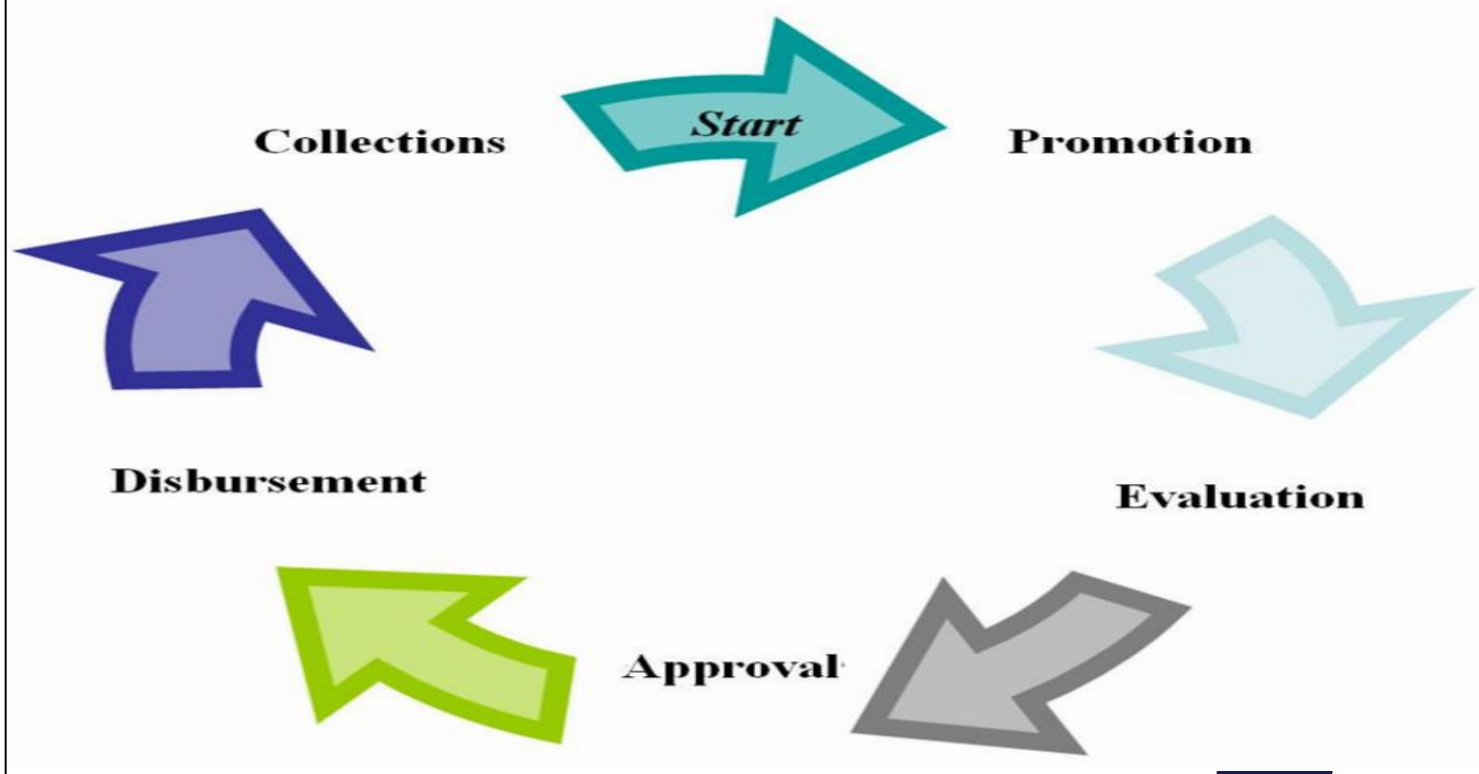
Score Range	Risk Level	Credit-worthiness	Risk Bucket
850-900	Lowest Risk	Highest Credit Quality	1
800-849			2
750-799	Low Risk	High credit Quality	3
700-749			4
650-699	Moderate Risk	Moderate Credit Quality	5
600-650			6
500-599	High Risk	Low Credit Quality	7
400-499	Highest Risk	Lowest Credit Quality	8
200-399	Sub-standard	Defaulter/ Undetermined	9

Credit Bureau Risk Scoring

Banks and enterprises purchase these scores for use in applicant screening, account acquisition, and account management strategies:

- **Applicant screening**
- **Account acquisition**
- **Account management**

Impact of Risk Scoring



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In Conclusion

- Faster TAT
- Objective Credit Assessment
- Centralized management of Risk
- Quick communication of changes in Risk appetite
- Cost reduction
- Profit maximization
- Better RoCE
- Happy Shareholder – Happy Customer

Interactive Session