Credit Risk Programme

Module 10

Bringing it Together

Learning Objectives

At the end of this module, you will have an overview of:

- Portfolio overview
- Decision tools
- New to bank acquisition
    - Incorporate Risk appetite and RDF
- Existing to Bank – Portfolio Management
    - Incorporate Risk appetite and RDF
- Portfolio Monitoring and Tracking

Malaysia Credit Cards

CAD Extract

- Malaysia CCPL portfolio has been liquidating rapidly from a high of USO St.eSAn in 2OL2 to USD 0.8998n as of end June 20L5. The portfolio has declined by t3% from the beginning of 2Ol5. Overall performance has been trending worse with lower reduction in delinquent inventory and losses compared to ENR. Overall LAR is projected to decline from 5.1 %in2OL4 lo 4.9% in 2015. 2014 and early reads of 2015 vintage performance are worse than prior vintages with cumulative LAR over 3 years of H72074 vintage is projected to be 5.0% for PL and 1.2% for Cards.
- Overall performance is expected to improve LAR and RORWA. LAR for Personal Loan is going to improve from 2.L% in 15 to 4.L% in 2OL7,lor Cards LAR will improve from 8.3% in 2015 to 9.0% in 20lT.RORWAforLoansisgoingtoimprovefrom 3.2% in 2015 to 3.5% in 2O17 and for Cards from 7.5% in 2015 to 7.6% in 2017. Monthly monitoring of portfolio and TTD statistics will be the basis to assure performance is in line with expectations.

Proposed Approved Peak Exposure (up to Sep 2016)	Product	ENR ($m)	Exposure ($m)	Recession Loss ($m)
	Credit Cards	642	2484	64
	Personal Loans	383	383	76
	Revolving Credit	1	2	-
	Total	**1027**	**2869**	**140**

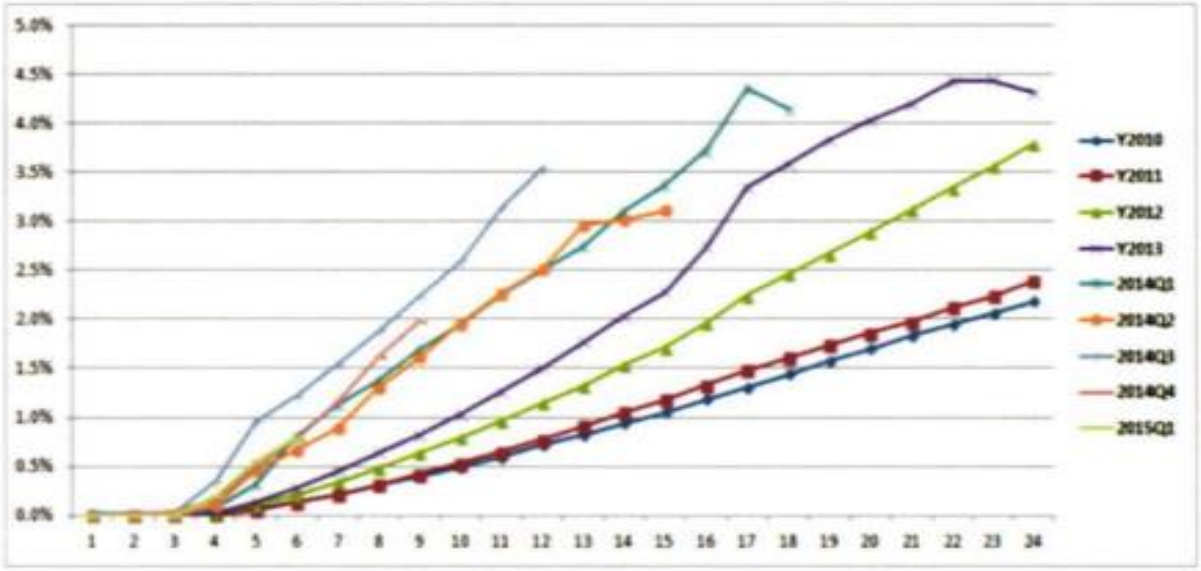
Portfolio Financials

Malaysia Credit Cards

Financial Summary

% ANR	2013	2014	2015(Sep)
Revenue	13.3%	13.7%	13.2%
GCO	5.7%	5.5%	4.6%
LI	5.1%	4.2%	3.2%
LAR	8.2%	9.5%	10.1%
LI% Rev	38%	30%	24%

Vintage Chart



Financial Metrics and Underlying performance are diverging

- Apparent reduction in losses from cards
- Deterioration in vintage performance

Decision Tools

In House and Bureau Scores

- Credit Scorecards are in place for all retail lending products in Malaysia.
- Existing scorecards being replaced with new scorecards where performance has dropped
- Credit Bureau Score being used to augment CC behavior Score for usage in CC ETB RDF strategy

	Existing		New	
	KS	GINI	KS	GINI
PL A-Scorecard	24.3%	26.9%	30.2%	41.8%
PL B-Scorecard (current segment)	34.1%	42.2%	38.0%	49.0%
PL B-Scorecard (X & 30 days segment)	44.7%	48.2%	38.0%	51.0%
Credit Bureau B-Scorecard	65.8%	80.1%		
Credit Card B-score (Current) (current segment)	41.5%	55.0%		
Credit Card B-score (Current) (X & 30 day segment	30.9%	42.2%		
Credit Card B-score (NEW) (current segment)*	56.9%	70.7%		
Credit Card B-score (NEW) (X days segment)*	50.9%	66.0%		
CC A-Scorecard	21.2%	25.6%		
CC A-Scorecard (Matured segment)			59.47%	75.20%
CC A-Scorecard (Young segment)			51.97%	68.20%

Decision systems in place to enable both new to bank and existing bank credit decisions

Scorecard Tools

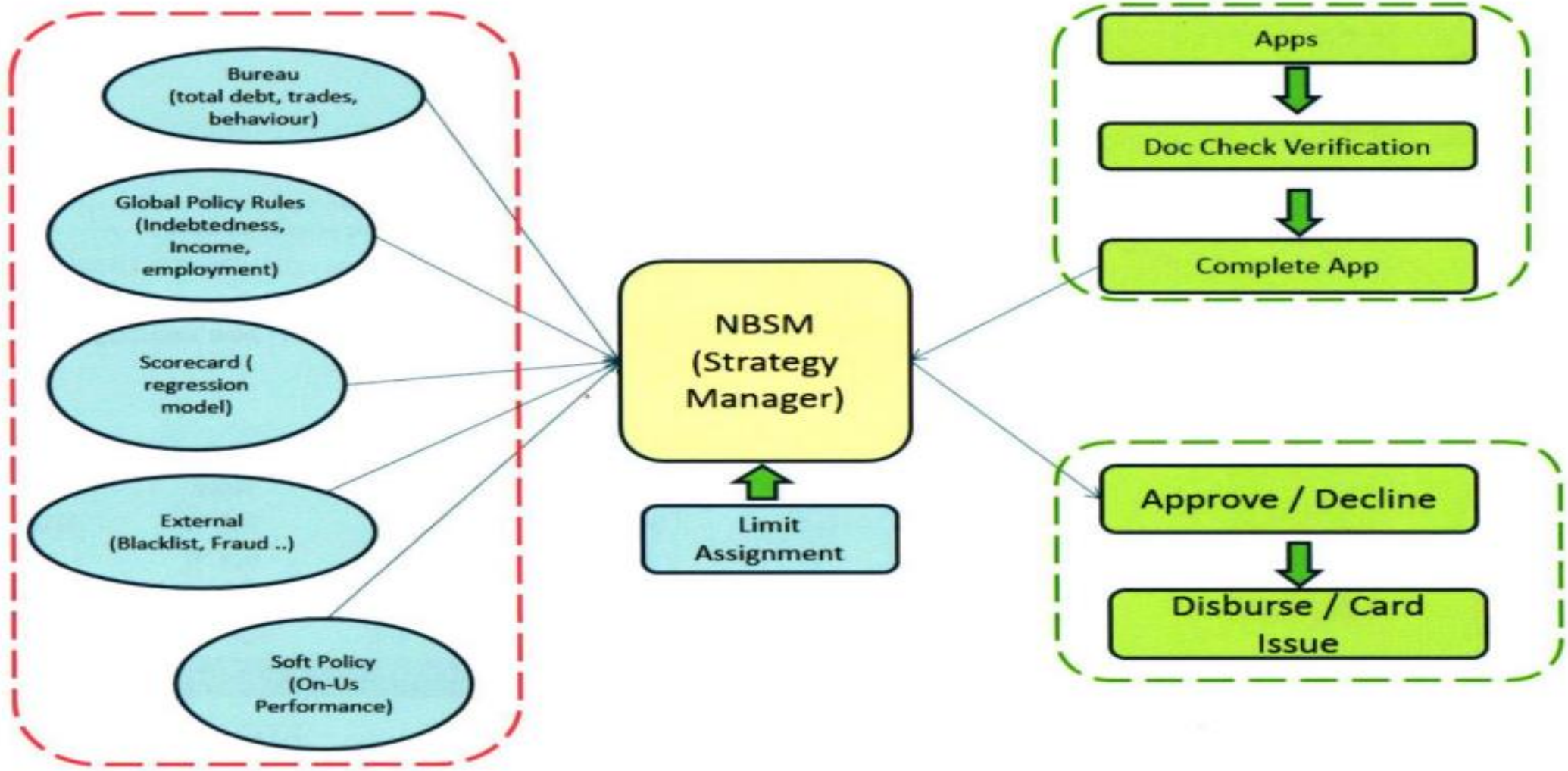
Existing Card Application Scorecard
Max. Delq in last 12 mth (all credit bureau products) (Bureau)
Credit Card Utilization Rate (Bureau)
Count of 30+dpd in last 12 mth (revolving products) (Bureau|
Oldest Card MOB (Bureau)
Regular Monthly Income (Demographic)
Applicant age (Demographic)
Education Level (Demographic)
Accommodation Status (Demo8raphic)

New Scorecard (Mature - Bur >= 24 MOB)
Ratio of number of P[account to total number of loans (Bureau)
% Utilization of Revolving accounts (Bureau)
Percentage accounts delinquent 30+dpd (Bureau)
# of enquiries in the last 12 months (Bureau)
# of credit cards with utilization greater than 75% (Bureau)
Applicant age (Demo6raphic)
Secured account maximum delinquency (Bureau)
# of Unsecured account opened in the last 24 months (Bureau)

New Scorecard (Young - Bur < 24 MOB)
# of enquiries in the last 6 months (Bureau)
% Utilization of Unsecured accounts (Bureau)
# of Pt opened in the last 12 months (Bureau)
# of CC with Balance > RM 5,OO0 (Bureau)
# of Delinquent Secured Accounts with balance > 50% of Credit Amount (Bureau)
Applicant's highest level of education (Demographic)
Age of the oldest Revolving account (Bureau)
Age of the newest l[account (Bureau]
Months in current employment (Demographic)
Marital status (Demographic)
# of Unsecured account 30+ dgd in last 6 months

Integrated Decision Process

Malaysia Credit Cards



Malaysia Credit Cards

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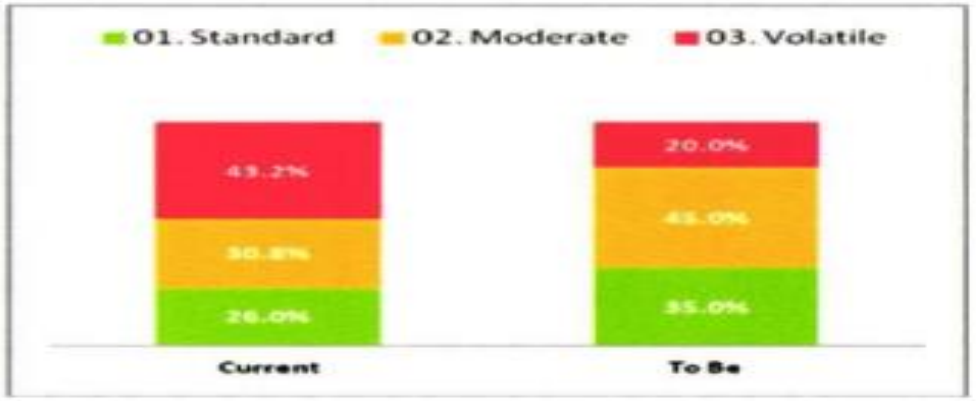
New originations- % Distribution

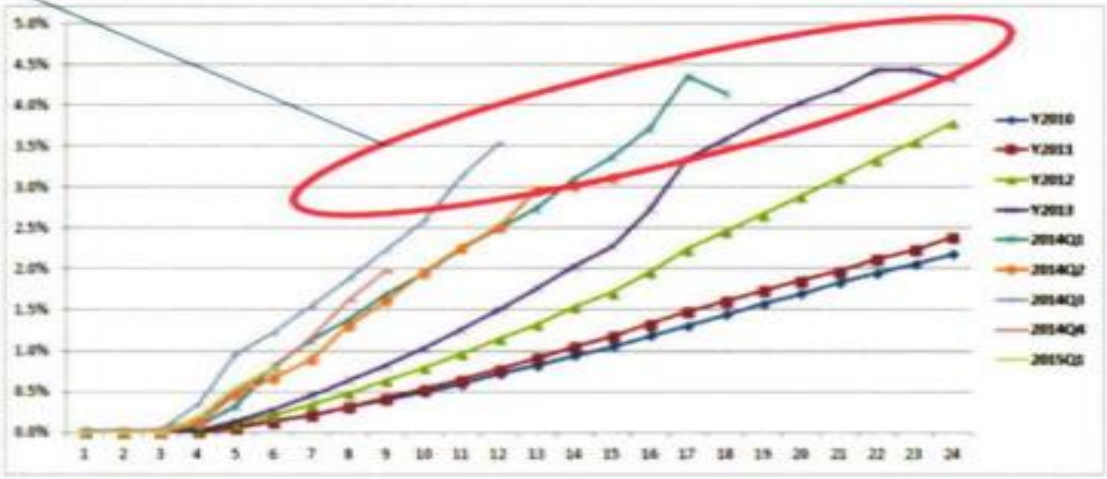


Volatile	Loss rate>8%
Moderate	Loss rate 4-8%
Standard	Loss rate<4%

Financial Metrics and Underlying performance are diverging

- Apparent reduction in losses from cards
  - driven by restructuring accounts booked as personal loans (losses transferred)
- Deterioration in vintage performance
- High percentage of volatile concentration in portfolio

Vintage Chart



"Real" Loss Recognition for Malaysia Unsecured Portfolio

Malaysia - DRP Misallocation

Malaysia Unsecured DRP (restructured accounts) are booked on the same system as loans (RLS).

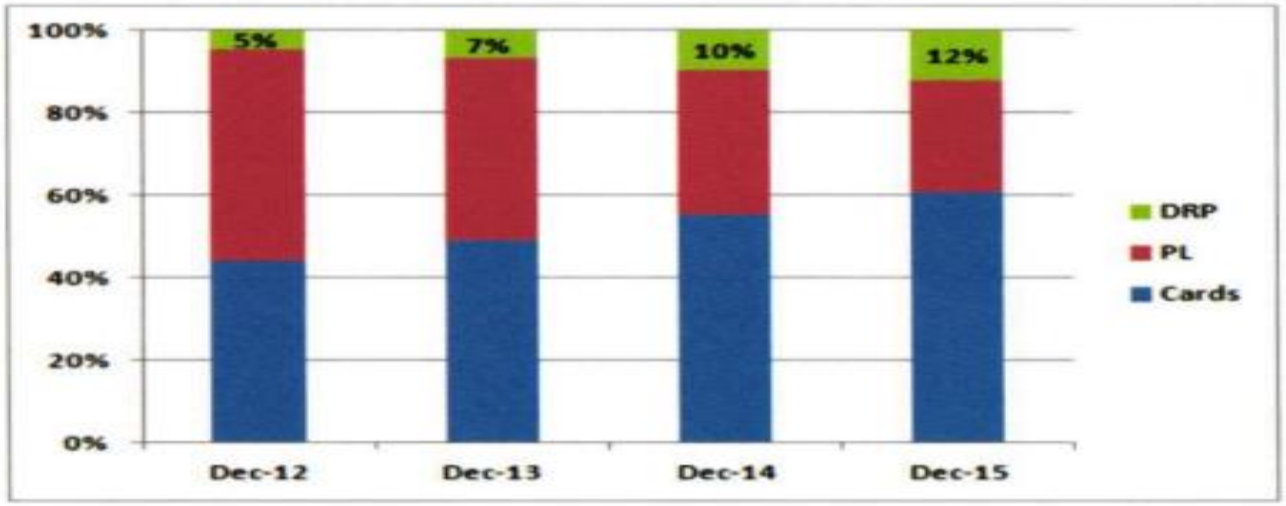
- Due to system limitation, the P&L-of the DRP book is reported under "Personal Loans"
- Impact of this misalignment is that CC standalone financials look "artificially" healthy, and PL performance deterioration is compounded
- With DRP (majority being AKPX or regulatory conversions) book growing, the loss rate of Pt is deteriorating

As per GL	LI % (Loss Rate)
Personal Loans	7.5%
Credit Cards	3.2%
Total	5.1%

After re-allocating DRP to originating product

Real Loss	LI % (Loss Rate)
Personal Loans	5.0%
Credit Cards	5.2%
Total	5.1%

Increasing % of DRP in the Unsecured Portfolio



RDF Segmentation Approach - New Originations

Malaysia Credit Cards NTB

Low to high Risk

Application Score	%Dist	PD%	EL%
Band 1	11.7%	5.2%	18.0%
Band 2	13.5%	3.6%	12.5%
Band 3	11.5%	2.5%	8.6%
Band 4	9.5%	1.7%	5.9%
Band 5	10.1%	1.2%	4.1%
Band 6	8.8%	0.8%	2.8%
Band 7	8.8%	0.6%	1.9%
Band 8	10.1%	0.4%	1.3%
Band 9	7.9%	0.3%	0.9%
Band 10	8.0%	0.2%	0.6%
Total	100%	1.9%	6.4%

Indebtedness
Max DTI 23X
MUE 12 X
DSR 70%

Bureau
other bank performance
Total Bureau debt

External
Blacklist
Fraud Risk
Bankruptcy probability

Current policy structure

As-Is				
Income/Risk Level – MUE	High	Medium	Low	Very Low
RM24K – ≤ RM36K	2x*	2x*	2x*	2x*
> RM36K	2x	3x	4x	6x

NBSM (Strategy Manager)

Approve / Decline

RDF Segmentation Approach - New Originations

Malaysia Credit Cards NTB

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Band 1	11.7%	5.2%	18.0%	14.1%
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Band 4	9.5%	1.7%	5.9%	8.3%
Band 5	10.1%	1.2%	4.1%	6.7%
Band 6	8.8%	0.8%	2.8%	8.2%
Band 7	8.8%	0.6%	1.9%	6.1%
Band 8	10.1%	0.4%	1.3%	3.9%
Band 9	7.9%	0.3%	0.9%	3.3%
Band 10	8.0%	0.2%	0.6%	3.2%
Total	**100%**	**1.9%**	**6.4%**	**8.8%**

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> RM36K	2x	3x	4x	6x

NBSM (Strategy Manager)

Approve / Decline

CC NTB - Utilization Rates

- Drop in utilization rates seen in more recent vintages, as the CVP was diluted
- This impacted good utilization, while bad utilization stayed high

Average Utilization	1:V36	2:V24	3:V12
Band 1	52.9%	48.4%	46.1%
Band 2	42.9%	34.5%	32.8%
Band 3	32.2%	25.2%	23.2%
Band 4	22.9%	17.2%	17.1%
Band 5	16.2%	11.6%	11.5%
Band 6	11.6%	8.6%	8.4%
Band 7	9.0%	6.2%	6.6%
Band 8	7.7%	4.6%	4.9%
Band 9	5.4%	4.1%	3.9%
Average Utilization	4.5%	3.0%	2.7%
Sum of utirate12	1:V36	2:V24	3:V12
Band 1	49.0%	47.2%	41.9%
Band 2	40.8%	35.7%	32.0%
Band 3	32.7%	27.4%	23.3%
Band 4	24.3%	20.0%	18.0%
Band 5	17.7%	13.5%	12.6%
Band 6	12.8%	9.7%	8.8%
Band 7	10.4%	7.7%	7.4%
Band 8	8.8%	5.2%	5.0%
Band 9	5.4%	4.5%	4.4%
Band 10	4.8%	3.5%	3.0%

Average Utilization	1:V36	2:V24	3:V12
Band 1	35.9%	31.3%	
Band 2	30.5%	26.0%	
Band 3	25.0%	19.8%	
Band 4	20.5%	15.7%	
Band 5	17.2%	10.9%	
Band 6	13.4%	8.3%	
Band 7	9.9%	6.5%	
Band 8	9.3%	4.3%	
Band 9	6.5%	3.8%	
Average Utilization	5.3%	2.8%	
Sum of utirate36	1:V36	2:V24	3:V12
Band 1	22.1%		
Band 2	21.5%		
Band 3	17.7%		
Band 4	15.0%		
Band 5	12.0%		
Band 6	8.6%		
Band 7	8.2%		
Band 8	7.9%		
Band 9	5.7%		
Band 10	4.3%		

RDF Segmentation Approach – New Originations

Malaysia Credit Cards NTB

Low to high Risk

Application Score	%Dist	PD%
Band 1	11.7%	5.2%
Band 2	13.5%	3.6%
Band 3	11.5%	2.5%
Band 4	9.5%	1.7%
Band 5	10.1%	1.2%
Band 6	8.8%	0.8%
Band 7	8.8%	0.6%
Band 8	10.1%	0.4%
Band 9	7.9%	0.3%
Band 10	8.0%	0.2%
Total	100%	1.9%

RDF Segmentation

- **HVS / Target market**
  - ✓PC / PC like
  - ✓Salary with Mortgage
- **Mass Market**
  - ✓Bureau MOB<24m
  - ✓Salaried with no mortgage
  - ✓Self Employed

RDF Segmentation Approach – New Originations

Malaysia Credit Cards NTB

Old Cut Off

Application Score	%Dist	PD%	EL%	GCO%
Band 1	11.7%	5.2%	18.0%	14.1%
Band 2	13.5%	3.6%	12.5%	10.5%
Band 3	11.5%	2.5%	8.6%	9.8%
Band 4	9.5%	1.7%	5.9%	8.3%
Band 5	10.1%	1.2%	4.1%	6.7%
Band 6	8.8%	0.8%	2.8%	8.2%
Band 7	8.8%	0.6%	1.9%	6.1%
Band 8	10.1%	0.4%	1.3%	3.9%
Band 9	7.9%	0.3%	0.9%	3.3%
Band 10	8.0%	0.2%	0.6%	3.2%
Total	100%	1.9%	6.4%	8.8%

- Old Cut off did not differentiate by bureau characteristics
- New cut off based on three return and stressed loss & segmented by bureau characteristics

GCO%ANR(annualized)

Application Score	PC & PC-Like	Salaried & Mtg 300k-1M & Bur > 24	Others
Band 1	0.0%	6.9%	14.1%
Band 2	0.0%	2.2%	10.5%
Band 3	0.0%	6.2%	10.4%
Band 4	0.0%	8.6%	8.1%
Band 5	0.0%	2.3%	7.0%
Band 6	0.0%	4.5%	8.5%
Band 7	0.0%	0.9%	4.1%
Band 8	0.0%	2.2%	3.0%
Band 9	0.0%	0.9%	3.1%
Band 10	0.0%	5.8%	3.1%
Total	0.0%	3.9%	9.0%
%Distribution	0.6%	8.2%	91.1%

Volatile	>8%
Moderate	4-8%
Standard	<4%

- Segmented Approach with aligned financial metrics enables further risk splitting
- Big concentration visible in current TTDin "Others." Accounts volume expected to drop by 35% volume with revised segmentation and differentiated cut-off
- LAR to improve from 2.6% to 6.3%.

RDF Credit Strategy

Malaysia Credit Cards – New Originations

Current policy structure

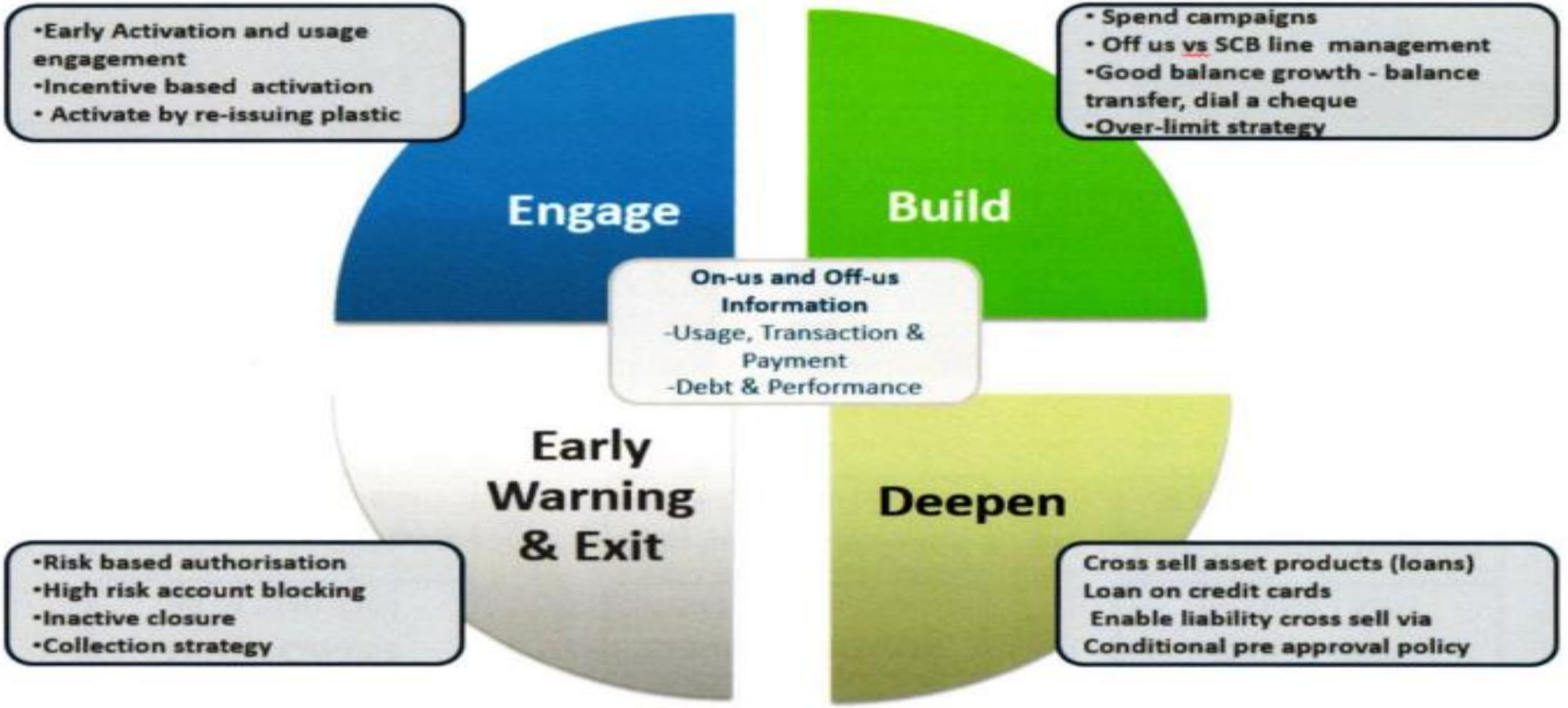
As-Is				
Income/Risk Level – MUE	High	Medium	Low	Very Low
RM24K – ≤ RM36K	2x*	2x*	2x*	2x*
> RM36K	2x	3x	4x	6x

New RDF strategy

To-Be				
Risk Grade	Score Band	1: Priority Client & Priority Client Like	2:Salaried and Mortgage 300k - 1M	4:Others
Income RM 24-36k p.a.(*)		2x		
1 - 3	339 - 438	6x	4x	N/A
4 - 7	439 - 473		6x	4x
8+	>474			6x

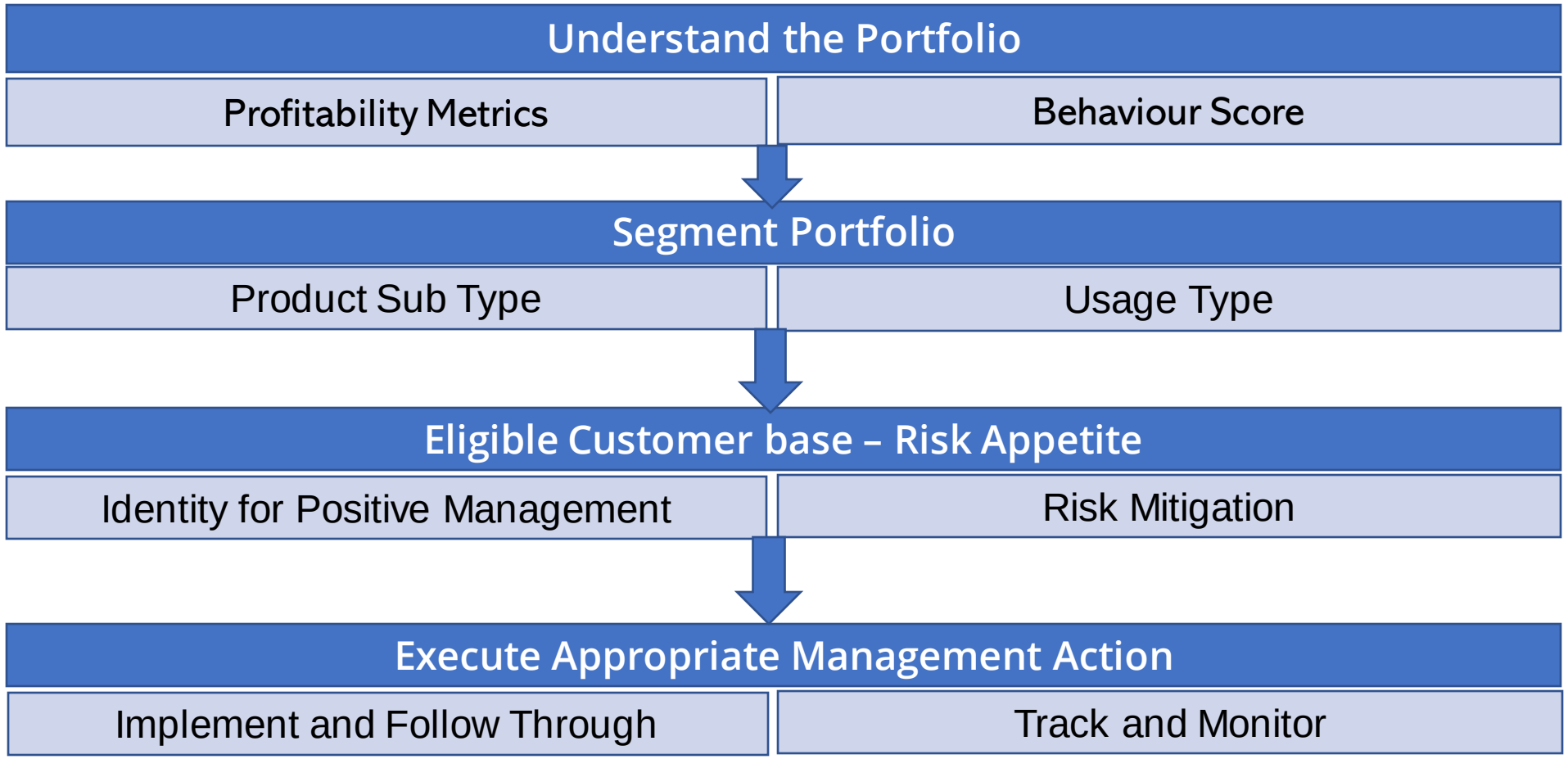
(*)Income RM 24-36k p.a.- MUE **2x** for all segments due to regulatory guidelines

Customer Lifecycle Management – Credit Cards



Lifecycle customer management critical to match strategy to customer behaviour and needs

Customer Lifecycle Management – Credit Cards



Robust and detailed portfolio understanding and analysis critical for effective portfolio management

Customer Lifecycle Management – Credit Cards

Snapshot Point: Aug-2013				@Snapshot					Subsequent 12-months			
MOB	Segment	MPS Segment	Transactor/Revolver	#Cust	$ Limit	$ ENR	$ ANR	$ GCO	$ Revenue	GCO%	Rev%	LAR%
MOB<6				45,416	722,104	131,188	146,675	7,886	7,582	5.4%	5.2%	-0.2%
MOB>=6	X+ DPD			23,301	645,832	369,565	255,419	111,773	40,039	43.8%	15.7%	-28.1%
	Current & Blocked			5,665	93,264	33,055	24,113	3,352	3,879	13.9%	16.1%	2.2%
	Unscored			18,913	306,594	42,056	42,496	1,504	4,706	3.5%	11.1%	7.5%
	With Valid B-score	MPS Bal >0	With Cash One / COC – Transactor	24,751	1,432,579	912,867	811,959	18,011	99,240	2.2%	12.2%	10.0%
			With Cash One / COC – Occ Revolver	9,676	493,072	316,708	293,752	10,073	38,956	3.4%	13.3%	9.8%
			With Cash One / COC – Mid Revolver	8,912	404,144	289,663	274,107	12,293	39,441	4.5%	14.4%	9.9%
			With Cash One / COC – Hard-Revolver	10,156	407,213	314,805	297,312	19,572	45,558	6.6%	15.3%	8.7%
			BT / MPS – Transactor	9,131	294,350	70,665	69,398	644	4,323	0.9%	6.2%	5.3%
			BT / MPS – Occ Revolver	4,066	117,414	37,568	40,422	572	4,248	1.4%	10.5%	9.1%
			BT / MPS – Mid Revolver	3,206	82,260	38,297	39,171	1,170	5,330	3.0%	13.6%	10.6%
			BT / MPS – Hard-Revolver	5,712	141,440	94,580	91,209	5,481	14,336	6.0%	15.7%	9.7%
		MPS Bal <=0 (Core Card Customers)	Transactor	146,415	3,917,011	185,533	245,993	1,630	16,440	0.7%	6.7%	6.0%
			Occ Revolver	31,035	783,920	65,395	89,059	1,416	12,434	1.6%	14.0%	12.4%
			Mid Revolver	12,998	257,385	65,968	73,813	1,151	12,297	1.6%	16.7%	15.1%
			Hard-Revolver	29,408	561,076	231,461	230,123	10,375	38,582	4.5%	16.8%	12.3%
Total				390,238	10,697,893	3,205,908	3,032,189	207,318	388,399	6.8%	12.8%	6.0%

Observation point: Aug2013
Roll-up: Customer level, including Cash One

- Cash Product holding risk ranks the customer base
- Payment behaviour risk ranks within each segment

Product Level Segmentation

Current & Scored	
Cust #	296,943
Limit	8,930,100
ENR	2,630,045
ANR	2,563,486
Loss Rate - 3Y	5.6%
Rev %	12.0%
LAR %	6.5%

	1:C1	2:COC	3:MPS	4:BT	5:CC
Cust #	23,004	30,653	12,107	10,207	220,972
Limit	1,497,908	1,245,741	327,234	312,426	5,546,791
ENR	1,108,595	729,026	143,004	98,445	550,975
ANR	1,019,900	660,435	143,991	96,578	642,583
Loss Rate - 3Y	6.5%	5.9%	5.5%	4.5%	3.9%
Rev %	11.7%	12.3%	13.1%	9.6%	12.4%
LAR %	5.2%	6.4%	7.6%	5.1%	8.5%

CashOne (C1) /Cash On Card (COC) /Major Purchase Scheme (MPS) /Balance Transfer (BT) /Credit Card (CC)only - based on product holding

RDF Segmentation leverages existing Behavior score and new Credit Bureau Score

All	Cust #	Cust %	ENR $	ENR %	3 yr Loss
Standard	222,733	75.0%	1,287,803	49.0%	1.7%
Moderate	27,048	9.1%	477,599	18.2%	5.6%
Volatile 1	13,513	4.6%	352,990	13.4%	8.9%
Volatile 2	33,649	11.3%	511,653	19.5%	13.4%
Total	296,943	100.0%	2,630,045	100.0%	5.6%

Cash One – Segmenting the eligible base

1:C1	AB	CC	DD	EF	GHIJ	OTHERS	Total
Loss Rate (GCO + 50% DRP)							
0:Above 584	0.0%	0.1%	4.3%	2.5%	#DIV/0!	0.0%	0.7%
1:561 - 584	0.2%	0.2%	3.6%	0.0%	0.0%	0.0%	0.6%
2:526 - 560	0.7%	0.8%	1.5%	2.0%	0.0%	3.5%	1.2%
3:473 - 525	0.7%	1.8%	3.3%	4.2%	2.4%	3.0%	2.8%
4:434 - 472	1.2%	2.4%	3.3%	4.9%	3.3%	6.2%	3.9%
5:Low - 433	5.0%	4.7%	8.8%	8.7%	9.5%	11.3%	8.2%
3 Year Loss Rate							
0:Above 584	0.0%	0.2%	8.4%	4.9%	#DIV/0!	0.0%	1.3%
1:561 - 584	0.3%	0.4%	7.2%	0.0%	0.0%	0.0%	1.2%
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3:473 - 525	1.3%	3.5%	6.5%	8.3%	4.7%	6.0%	5.5%
4:434 - 472	2.4%	4.7%	6.4%	9.7%	6.5%	12.2%	7.7%
5:Low - 433	9.9%	9.3%	17.3%	17.2%	18.7%	22.3%	16.3%
Rev - 3 Yr Loss							
0:Above 584	10.2%	9.6%	1.7%	4.8%	0.0%	7.1%	8.7%
1:561 - 584	9.8%	9.4%	3.4%	10.5%	10.8%	10.3%	8.9%
2:526 - 560	8.9%	9.0%	7.2%	7.3%	13.2%	4.4%	8.2%
3:473 - 525	10.1%	7.9%	4.9%	3.6%	8.3%	6.1%	6.1%
4:434 - 472	9.8%	7.8%	6.0%	2.8%	6.8%	0.8%	4.9%
5:Low - 433	2.6%	3.9%	-4.3%	-3.7%	-4.3%	-8.5%	-2.9%
.oss Rate (GCO + 50% DRP)	0.8%	1.6%	3.6%	5.2%	4.6%	5.8%	3.3%
3 Year Loss Rate	1.6%	3.2%	7.1%	10.2%	9.1%	11.4%	6.5%
Rev - 3 Yr Loss	9.3%	8.1%	4.5%	2.1%	4.4%	1.1%	5.2%
# Cust	3,628	5,556	4,568	8,404	97	751	23,004
ENR	210,302	250,831	208,903	403,212	2,080	33,266	1,108,595

Cash One – Segmentation enables eligible base

1:C1	AB	CC	DD	EF	GHIJ	OTHERS	Total
Loss Rate (GCO + 50% DRP)							
0:Above 584	0.0%	0.1%	4.3%	2.5%	#DIV/0!	0.0%	0.7%
1:561 - 584	0.2%	0.2%	3.6%	0.0%	0.0%	0.0%	0.6%
2:526 - 560	0.7%	0.8%	1.5%	2.0%	0.0%	3.5%	1.2%
3:473 - 525	0.7%	1.8%	3.3%	4.2%	2.4%	3.0%	2.8%
4:434 - 472	1.2%	2.4%	3.3%	4.9%	3.3%	6.2%	3.9%
5:Low - 433	5.0%	4.7%	8.8%	8.7%	9.5%	11.3%	8.2%
3 Year Loss Rate							
0:Above 584	0.0%	0.2%	8.4%	4.9%	#DIV/0!	0.0%	1.3%
1:561 - 584	0.3%	0.4%	7.2%	0.0%	0.0%	0.0%	1.2%
2:526 - 560	1.4%	1.6%	3.0%	3.9%	0.0%	6.9%	2.4%
3:473 - 525	1.3%	3.5%	6.5%	8.3%	4.7%	6.0%	5.5%
4:434 - 472	2.4%	4.7%	6.4%	9.7%	6.5%	12.2%	7.7%
5:Low - 433	9.9%	9.3%	17.3%	17.2%	18.7%	22.3%	16.3%
Rev - 3 Yr Loss							
0:Above 584	10.2%	9.6%	1.7%	4.8%	0.0%	7.1%	8.7%
1:561 - 584	9.8%	9.4%	3.4%	10.5%	10.8%	10.3%	8.9%
2:526 - 560	8.9%	9.0%	7.2%	7.3%	13.2%	4.4%	8.2%
3:473 - 525	10.1%	7.9%	4.9%	3.6%	8.3%	6.1%	6.1%
4:434 - 472	9.8%	7.8%	6.0%	2.8%	6.8%	0.8%	4.9%
5:Low - 433	2.6%	3.9%	-4.3%	-3.7%	-4.3%	-8.5%	-2.9%

1:C1	Cust #	Cust %	ENR $	ENR %
Standard	10,430	45.3%	517,007	46.6%
Moderate	3,495	15.2%	165,040	14.9%
Volatile 1	5,277	22.9%	260,823	23.5%
Volatile 2	3,802	16.5%	165,726	14.9%
Total	23,004	100.0%	1,108,595	100.0%

40% in High risk segment

Cash on Card – Segment eligible base

	1:C1	2:COC	3:MPS	4:BT	5:CC
Cust #	23,004	30,653	12,107	10,207	220,972
Limit	1,497,908	1,245,741	327,234	312,426	5,546,791
ENR	1,108,595	729,026	143,004	98,445	550,975
ANR	1,019,900	660,435	143,991	96,578	642,583
Loss Rate - Y1	3.3%	4.0%	3.6%	2.8%	2.3%
Loss Rate - 3Y	6.5%	5.9%	5.5%	4.5%	3.9%
Rev %	11.7%	12.3%	13.1%	9.6%	12.4%
LAR %	5.2%	6.4%	7.6%	5.1%	8.5%

2:COC	Cust #	Cust %	ENR $	ENR %
Standard	14,384	46.9%	319,450	43.8%
Moderate	8,183	26.7%	201,681	27.7%
Volatile 1	902	2.9%	24,986	3.4%
Volatile 2	7,184	23.4%	182,909	25.1%
Total	30,653	100.0%	729,026	100.0%

29% ENR in Volatile Segment

BT – Segment eligible base

	1:C1	2:COC	3:MPS	4:BT	5:CC
Cust #	23,004	30,653	12,107	10,207	220,972
Limit	1,497,908	1,245,741	327,234	312,426	5,546,791
ENR	1,108,595	729,026	143,004	98,445	550,975
ANR	1,019,900	660,435	143,991	96,578	642,583
Loss Rate - Y1	3.3%	4.0%	3.6%	2.8%	2.3%
Loss Rate - 3Y	6.5%	5.9%	5.5%	4.5%	3.9%
Rev %	11.7%	12.3%	13.1%	9.6%	12.4%
LAR %	5.2%	6.4%	7.6%	5.1%	8.5%

4:BT	Cust #	Cust %	ENR $	ENR %
Standard	7,915	77.5%	66,309	67.4%
Moderate	149	1.5%	2,295	2.3%
Volatile 1	564	5.5%	8,165	8.3%
Volatile 2	1,579	15.5%	21,675	22.0%
Total	10,207	100.0%	98,445	100.0%

31% ENR in Volatile Segment

CC – Segment eligible base

	1:C1	2:COC	3:MPS	4:BT	5:CC
Cust #	23,004	30,653	12,107	10,207	220,972
Limit	1,497,908	1,245,741	327,234	312,426	5,546,791
ENR	1,108,595	729,026	143,004	98,445	550,975
ANR	1,019,900	660,435	143,991	96,578	642,583
Loss Rate - Y1	3.3%	4.0%	3.6%	2.8%	2.3%
Loss Rate - 3Y	6.5%	5.9%	5.5%	4.5%	3.9%
Rev %	11.7%	12.3%	13.1%	9.6%	12.4%
LAR %	5.2%	6.4%	7.6%	5.1%	8.5%

5:CC	Cust #	Cust %	ENR $	ENR %
Standard	182,919	82.8%	327,058	59.4%
Moderate	12,596	5.7%	67,554	12.3%
Volatile 1	6,443	2.9%	52,506	9.5%
Volatile 2	19,014	8.6%	103,856	18.8%
Total	220,972	100.0%	550,975	100.0%

29% ENR in Volatile Segment

Reassessing Policy Overlays - CC ETB

High Utilization Maintain for Moderate

	High Utilization		
3 Yr GCO Rates	No	Yes	Total
Standard	1.6%	4.1%	1.7%
Moderate	4.7%	8.8%	5.6%

Bureau MOB: 12M for Standard, 24M for Moderate

	Bureau MOB			
3 Yr GCO Rates	L<12	12-24	24+	Total
Standard	12.8%	5.9%	1.6%	1.7%
Moderate	4.0%	17.4%	4.7%	5.6%

High Credit Bureau Enq Remove

3 Yr GCO Rates	High Enq 1	High Enq 2	Total
Standard	4.1%	1.3%	1.7%
Moderate	4.8%	2.9%	4.7%

Bureau Delinquent

3 Yr GCO Rates	Bur Del 1	Bur Del 2	Total
Standard	2.9%	1.4%	1.7%
Moderate	4.7%	4.7%	4.7%

Important to ensure policy overlays are rationalised to make sure they are relevant and not reduce the power of scores

Portfolio Management Actions

No	Portfolio Strategy	Standard	Moderate	Volatile 1	Volatile 2
1	Cross Sell Strategy	✓	✓	✓*	
2	CLI	✓	✓		
3	Overlimit	✓	✓		
4	Cash Advance	✓	✓		
5	Authorisation	✓	✓	✓	
6	Card Renewal	✓	✓	✓	✓
7	CLD				✓
8	Activation and Deepening	✓	✓		

* Target customers with further separation in Volatile 1

Cross Sell Strategy

P&L Dynamics	Standard	Moderate	Volatile 1
GCO%ANR	1.7%	5.6%	8.9%
COF	3.7%	3.7%	3.7%
Breakeven (LAR) Pricing	5.4%	9.3%	12.6%
Breakeven (Stress LAR) Pricing	5.4%	11.0%	17.9%

		Strategy Based on Stress LAR Positive			
Distribution by EIR		Standard	Moderate	Volatile 1	Volatile 2
BT	3%-5.5%	BAU	Price Up	Decline (enable segments where further separation is possible and pricing can justify)	Decline
	5.5%-7.5%	BAU	Price Up		
	9.5%-11%	BAU	Price Up		
	11%-12.5%	BAU	BAU		
COC	7.5%-9.5%	BAU	Price Up		
	9.5%-11%	BAU	Price Up		
	12.5%-17%	BAU	BAU		
	17%-18%	BAU	BAU		
Cash One	12.5%-17%	BAU	BAU		
	17%-18%	BAU	BAU		
	18%-25%	BAU	BAU		
MPS/EPS	3%-5.5%	BAU	Price Up		
	7.5%-9.5%	BAU	Price Up		
	12.5%-17%	BAU	BAU		
	17%-18%	BAU	BAU		

Credit Limit Increase - CLI

Current Policy

MOB	MUE Matrix (Annual Income)					
	RM24K – < RM40K*		RM40K – < RM90K		≥ RM90K	
CC B-Score	386 - 508	≥ 509	386 - 508	≥ 509	386 - 508	≥ 509
6-11 MOB	5x – 6 x	5x	5x	6x	5x	6x
12-23 MOB	6x	6x	6x	7x	6x	7x
24-35 MOB	7x	8x	7x	9x	7x	9x
36-47 MOB	7x	9x	7x	10x	7x	10x
48-59 MOB	7x	9x	7x	12x	7x	12x
≥ 60 MOB	8x	9x	8x	12x	8x	12x

Proposed Policy

Risk Level	MUE	MOB	Line Increase (%)
Standard	12x	≥ 6 and < 12	50%
		≥ 12	100%
Moderate	12x	All	50%
Volatile 1	Decline		
Volatile 2	Decline		

Overlimit

Current Policy

Current Status Accounts Only

MOB	B – Score	Overlimit
<6	N/A	0
>6	<385	0
	386 – 405	5%
	406 – 425	10%
	426 – 446	15%
	447 – 465	15%
	466 – 486	20%
	≥487	30%

Proposed Policy

Current Status Accounts Only

MOB	Risk Level	Overlimit
<6	All	0%
>6	Standard	30%
	Moderate	15%
	Volatile 1	0%
	Volatile 2	0%

Cash Advance

Current Policy

MOB	B – Score	Overlimit
<6	N/A	20%
6 to 12	≤ 418	0
>12	> 418	20%
	≤ 418	0
	419 – 446	20%
	447 – 484	50%
	≥485	80%

Proposed Policy

Risk Level	MOB	Overlimit
Standard	<6	20%
Moderate		20%
Volatile		0%
Standard	>6	50%
Moderate		30%
Volatile 1		0%
Volatile 2		0%

Portfolio Performance of cash users

Segment (MOB > 6)	Cash Usage	Yr 1 Loss	3 Yr Loss
Standard	No Cash Usage	0.9%	1.5%
	With Cash Usage	3.0%	5.3%
Moderate	No Cash Usage	3.2%	5.3%
	With Cash Usage	6.0%	10.1%

Differentiated performance for cash users

S / M / V Segmentation: MOB < 6: Based on Application Score MOB > =Behavior Score * Bureau Score

Authorisation

Current Policy

MOB	MOB Segment	Card Type	Score Cut-Off
< 6	2 – 5	PB / VI Plat / Staff	Approve all score
		Plat	≥ 386 (RG 9B)
		Gold / JustOne Titanium	≥ 386 (RG 9B)
		Classic	≥ 426 (RG 8B)
≥ 6	6 – 12	PB / VI Plat / Staff	Approve all score
		Plat	≥ 365 (RG 10A)
		Gold / JustOne Titanium	≥ 386 (RG 9B)
		Classic	≥ 386 (RG 9B)
	13 – 24	PB / VI Plat / Staff	Approve all score
		Plat	≥ 344 (RG 10B)
		Gold / JustOne Titanium	≥ 344 (RG 10B)
		Classic	≥ 365 (RG 10A)
	> 24	PB / VI Plat / Staff	Approve all score
		Plat	≥ 344 (RG 10B)
		Gold / JustOne Titanium	≥ 344 (RG 10B)
		Classic	≥ 344 (RG 10B)

Proposed Policy

Delinquency Status	Risk Level	Decision
Current	Standard	Approve
	Moderate	Approve
	Volatile 1	Approve
	Volatile 2	Approve
X days	Standard	Approve
	Moderate	Approve
	Volatile 1	Approve
	Volatile 2	Decline

X dpd loss rate

	3 Yr Loss	Rev
Standard	3.0%	12.4%
Moderate	5.8%	12.3%
Volatile 1	9.2%	14.3%
Volatile 2	19.6%	15.4%

S / M / V segmentation: *MOB<6: Based on Application Score. MOB>=6: Based on Behavior Score + Bureau Score*

CLD Strategy – Current Segment (MOB 6+)

Targeting negative LAR and stress LAR customers

Volatile 2 (GCO>10%)	# Cust	3 Yr Loss	Rev	LAR	Stress LAR (1.6)	
Total	**33,649**	**13.4%**	**14.6%**	**1.2%**	**-6.9%**	
1: Upto 10%	9,225	2.6%	14.9%	12.3%	10.8%	Exclude
7: 90%+	8,291	20.0%	14.7%	-5.4%	-17.4%	Exclude
Exlcuding High Utili	16,133	8.6%	14.5%	5.9%	0.8%	Segment Further
Mortgage Segmentation	# Cust	3 Yr Loss	Rev	LAR	Stress LAR	
1: 1m+ Mort	404	3.9%	13.9%	10.0%	7.6%	Exclude
2: 1m - 300k	1,961	5.4%	14.1%	8.6%	5.4%	Exclude
3: 300k - 60k	5,776	8.3%	14.4%	6.1%	1.1%	Segment Further
4: Others	7,992	11.3%	14.9%	3.6%	-3.2%	Segment Further
Total	16,133	8.6%	14.5%	5.9%	0.8%	
No Mort / Mort < 300k	13,768	9.8%	14.7%	4.8%	-1.1%	
Off Us 30+ on 2 or more	482	19.5%	16.7%	-2.8%	-14.4%	Target CLD
Off Us 30+ on 1 or less	13,286	9.6%	14.6%	5.0%	-0.7%	Segment Further
Off Us Enq						
3+	312	13.2%	13.7%	0.5%	-7.4%	Target CLD
Enq < =2	12,974	9.4%	14.6%	5.2%	-0.5%	Segment Further
Last 6M Cash Usage						
No	12,241	8.7%	14.5%	5.8%	0.5%	Exclude
Yes	733	17.4%	16.3%	-1.0%	-11.5%	Target CLD
Total CLD Eligible	1,527	16.9%	15.8%	-1.1%	-11.2%	

Renewal Strategy – Current Segment (MOB 6+)

Targeting negative LAR and stress LAR customers

Volatile 2 (GCO>10%)	# Cust	3 Yr Loss	Rev	LAR	Stress LAR (1.6)	
Total	33,649	13.4%	14.6%	1.2%	-6.9%	
1: Upto 10%	9,225	2.6%	14.9%	12.3%	10.8%	Exclude
7: 90%+	8,291	20.0%	14.7%	-5.4%	-17.4%	Exclude
Exlcuding High Utili	16,133	8.6%	14.5%	5.9%	0.8%	Segment Further
Mortgage Segmentation	# Cust	3 Yr Loss	Rev	LAR	Stress LAR	
1: 1m+ Mort	404	3.9%	13.9%	10.0%	7.6%	Exclude
2: 1m - 300k	1,961	5.4%	14.1%	8.6%	5.4%	Exclude
3: 300k - 60k	5,776	8.3%	14.4%	6.1%	1.1%	Segment Further
4: Others	7,992	11.3%	14.9%	3.6%	-3.2%	Segment Further
Total	16,133	8.6%	14.5%	5.9%	0.8%	
No Mort / Mort < 300k	13,768	9.8%	14.7%	4.8%	-1.1%	
Off Us 30+ on 2 or more	482	19.5%	16.7%	-2.8%	-14.4%	Non-Renewal
Off Us 30+ on 1 or less	13,286	9.6%	14.6%	5.0%	-0.7%	Segment Further
Off Us Enq						
3+	312	13.2%	13.7%	0.5%	-7.4%	Non-Renewal
Enq < =2	12,974	9.4%	14.6%	5.2%	-0.5%	Segment Further
Last 6M Cash Usage						
No	12,241	8.7%	14.5%	5.8%	0.5%	Exclude
Yes	733	17.4%	16.3%	-1.0%	-11.5%	Non-Renewal
High Uti	# Cust	3 Yr Loss	Rev	LAR	Stress LAR	
7: 90%+	8,291	20.0%	14.7%	-5.4%	-17.4%	Exclude
Mortgage Segmentation	# Cust	3 Yr Loss	Rev	LAR	Stress LAR	
1: 1m+ Mort	181	13.1%	14.0%	1.0%	-6.9%	Exclude
2: 1m - 300k	887	15.0%	14.0%	-1.0%	-10.0%	Exclude
~~3: 300k - 60k~~	~~3,173~~	~~17.7%~~	~~14.5%~~	~~-3.2%~~	~~-13.0%~~	~~Exclude~~
4: Others	4,050	26.2%	15.3%	-10.9%	-26.6%	Non-Renewal
~~Total~~	~~8,291~~	~~20.0%~~	~~14.7%~~	~~-5.4%~~	~~-17.4%~~	
Total Non-Renewal Base	5,577	23.9%	15.4%	-8.5%	-22.8%	

CC X Dpd - CLD

Targeting negative LAR and stress LAR customers

Volatile 2 (GCO>10%)	# Cust	3 Yr Loss	Rev	LAR	Stress LAR (1.6)	
Total	**7,217**	**19.6%**	**15.4%**	**-4.1%**	**-15.9%**	
1: Upto 10%	194	5.7%	16.5%	10.8%	7.4%	**Exclude**
7: 90%+	3,204	26.2%	15.6%	-10.6%	-26.4%	**Exclude**
Remaining	**3,818**	**11.9%**	**15.2%**	**3.3%**	**-3.9%**	Segment Further
1: 1m+ Mort	98	9.7%	13.9%	4.2%	-1.6%	**Second Segment**
2: 1m - 300k	464	10.9%	14.8%	3.9%	-2.7%	**Second Segment**
3: 300k - 60k	1,557	10.0%	15.1%	5.1%	-0.9%	**Second Segment**
4: Others	1,699	15.4%	15.9%	0.6%	-8.6%	**First Segment**
Grand Total	**3,818**	**11.9%**	**15.2%**	**3.3%**	**-3.9%**	
4: Others	1,699	15.4%	15.9%	0.6%	-8.6%	**First Segment**
Bureau X+	**930**	**19.5%**	**16.3%**	**-3.2%**	**-14.8%**	**CLD**
Bureau Non X	**769**	**10.4%**	**15.5%**	**5.2%**	**-1.0%**	Segment Further
Bureau Non X	**769**	**10.4%**	**15.5%**	**5.2%**	**-1.0%**	**First Segment, Not X**
Used Cash L6M	31	22.0%	15.1%	-6.9%	-20.2%	**CLD**
No Cash Used	738	9.7%	15.6%	5.9%	0.1%	Exclude
Not "4: Others"	**2,119**	**10.2%**	**14.9%**	**4.7%**	**-1.5%**	**Second Segment**
Bureau 30+	574	16.9%	15.9%	-1.0%	-11.1%	**CLD**
Bureau Non 30+	1,545	8.0%	14.5%	6.5%	1.7%	Exclude
Total CLD Base	**1,535**	**18.3%**	**16.1%**	**-2.2%**	**-13.2%**	**CLD**

CC X Dpd - Renewal

Targeting negative LAR and stress LAR customers

Volatile 2 (GCO>10%)	# Cust	3 Yr Loss	Rev	LAR	Stress LAR (1.6)	
Total	**7,217**	**19.6%**	**15.4%**	**-4.1%**	**-15.9%**	
1: Upto 10%	194	5.7%	16.5%	10.8%	7.4%	**Exclude**
7: 90%+	3,204	26.2%	15.6%	-10.6%	-26.4%	**Non-Renewal**
Remaining	**3,818**	**11.9%**	**15.2%**	**3.3%**	**-3.9%**	Segment Further
1: 1m+ Mort	98	9.7%	13.9%	4.2%	-1.6%	**Second Segment**
2: 1m - 300k	464	10.9%	14.8%	3.9%	-2.7%	**Second Segment**
3: 300k - 60k	1,557	10.0%	15.1%	5.1%	-0.9%	**Second Segment**
4: Others	1,699	15.4%	15.9%	0.6%	-8.6%	**First Segment**
Grand Total	**3,818**	**11.9%**	**15.2%**	**3.3%**	**-3.9%**	
4: Others	1,699	15.4%	15.9%	0.6%	-8.6%	**First Segment**
Bureau X+	**930**	**19.5%**	**16.3%**	**-3.2%**	**-14.8%**	**Non-Renewal**
Bureau Non X	**769**	**10.4%**	**15.5%**	**5.2%**	**-1.0%**	Segment Further
Bureau Non X	**769**	**10.4%**	**15.5%**	**5.2%**	**-1.0%**	**First Segment, Not X**
Used Cash L6M	31	22.0%	15.1%	-6.9%	-20.2%	**Non-Renewal**
No Cash Used	738	9.7%	15.6%	5.9%	0.1%	Exclude
Not "4: Others"	**2,119**	**10.2%**	**14.9%**	**4.7%**	**-1.5%**	**Second Segment**
Bureau 30+	574	16.9%	15.9%	-1.0%	-11.1%	**Non-Renewal**
Bureau Non 30+	1,545	8.0%	14.5%	6.5%	1.7%	Exclude
Total Non-Renewal Base	**4,739**	**24.4%**	**15.7%**	**-8.6%**	**-23.3%**	**Non-Renewal**

Portfolio analytics drives deepening relationship

Behaviour Score
Bureau Behaviour
Transactions

On us behaviour	Off us Behaviour: Transactor	Off us Behaviour: Revolver
Transactor	Transaction based analytics	Off us debt analysis - drive balance transfer
Revolver	Predictive analytics for cross sell	Protect good balances through proactive retention
Inactive	Transaction and behaviour analysis Value proposition	Customer profile and card proposition 6ctivate usage to engage

Deeper and enhanced analytics drives robust risk management while enabling positive balance growth

Collections Strategy
Malaysia – Credit Cards X - dpd

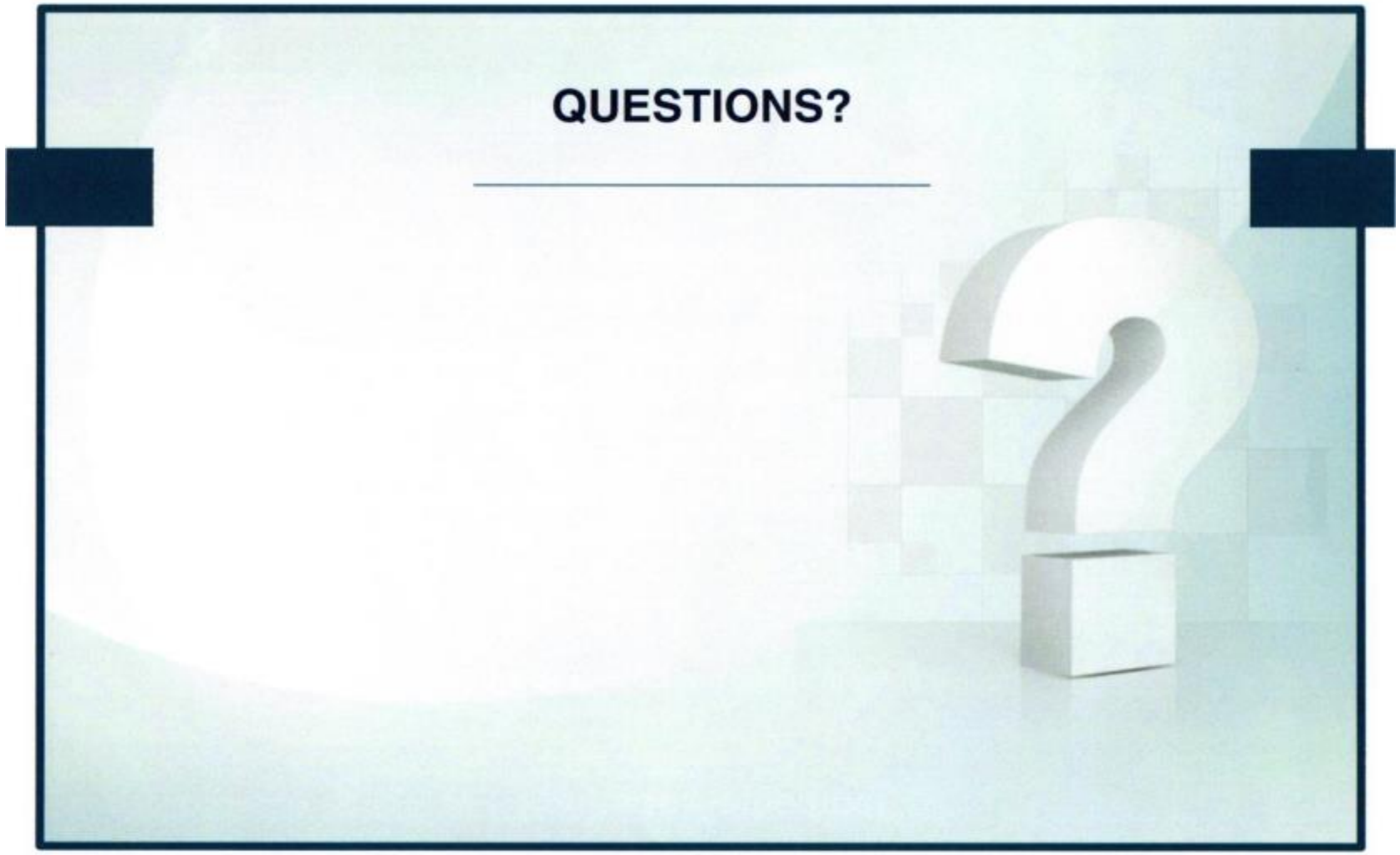
Segmented collections strategy analytics drives robust risk management while enabling positive balance growth
High Risk, high balance is prioritized for collection actions

Risk Level (Based on Beh Score)	Statement Balance (RM)	Strategy 1	Strategy 2
Very High	>8500	Calling from Day 1	NONE
Very High	>3500-8500	Calling from Day 15	SMS on Day 5 and 10
Very High	<=3500	Calling from Day 20	SMS on Day 5 and 10
High	>8500	Calling from Day 1	NONE
High	>3500-8500	Calling from Day 15	SMS on Day 5 and 10
High	<=3500	Calling from Day 20	SMS on Day 5 and 10
LT 6 MOB-New to Bank	>3500	Calling from Day 1	NONE
LT 6 MOB-New to Bank	<=3500	Calling from Day 20	SMS on Day 5 and 10
LT 6 MOB-New to Product	>8500	Calling from Day 25	SMS on Day 5 and 10
LT 6 MOB-New to Product	<=8500	Calling from Day 27	SMS on Day 5 and 10
Medium	ALL	Calling from Day 25	SMS on Day 5 and 10
Low	ALL	Calling from Day 25	SMS on Day 5 and 10
Very Low	>8500	Calling from Day 25	SMS on Day 5 and 10
Very Low	<=8500	Calling from Day 27	SMS on Day 5 and 10

Expected Portfolio GCO % ANR
Malaysia Credit Cards

- **Portfolio Impact can only be achieved under circumstances where :**
  - Significant reduction in New acquisition (40% impact in volatile segment)
  - The distribution remains same as per existing analysis
  - Sustained focus on better quality sourcing
  - No Worsening assumed in Macro Economic Factors
  - RDF benefits GCO/ANR by 2017
- **Monthly Monitoring to be done to ensure same the trend is within expected**

Questions



Notes