

# How to Manage Risk in a Deteriorating Credit Environment

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## *Introduction to FischerJordan*

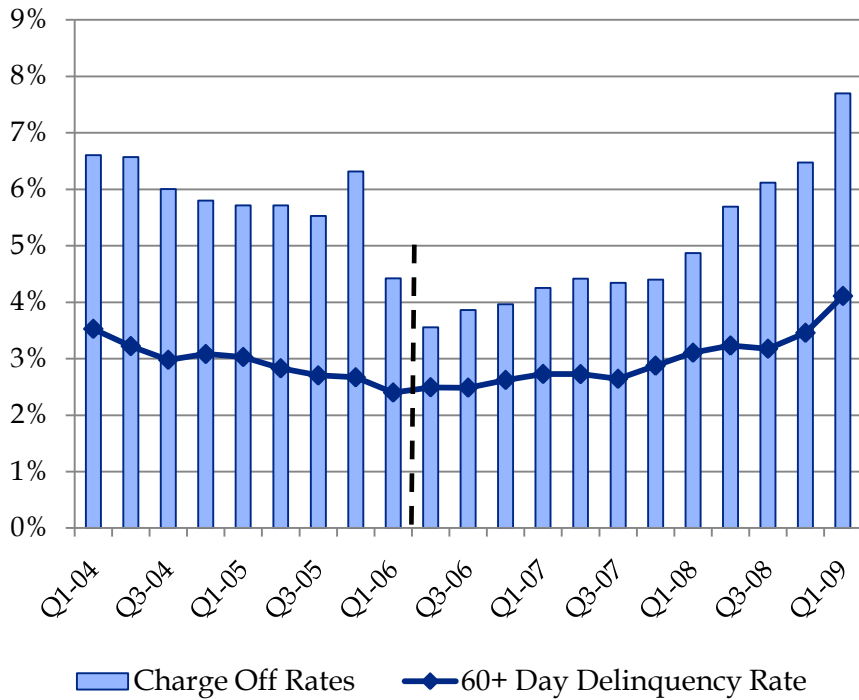
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- Analytics consulting firm specializing in financial services space
- Focus on leveraging analytics and technology to drive rapid bottom-line impact
- Provider-agnostic approach

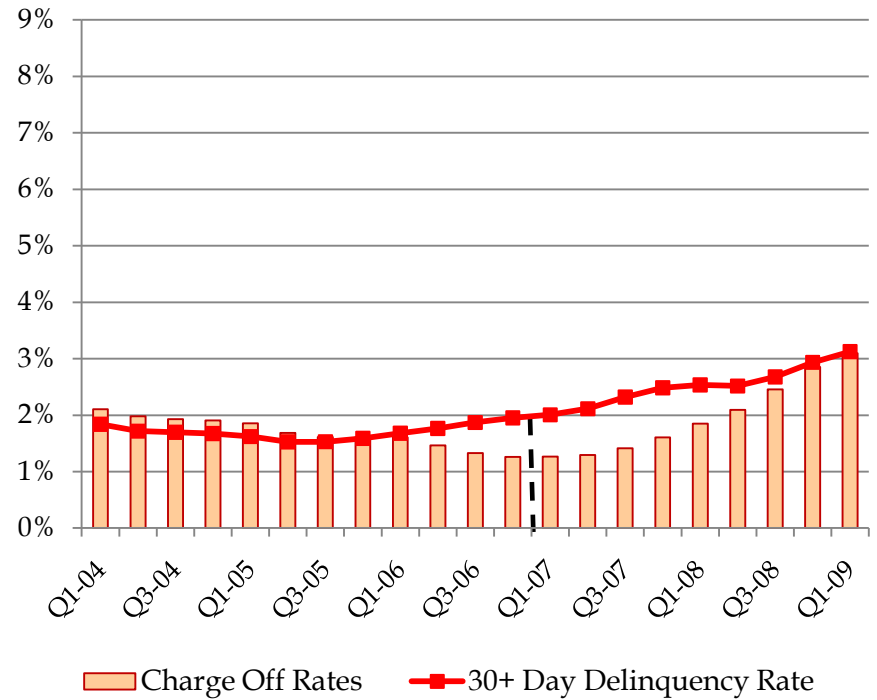
# Increase in Charge Off Rates & Delinquencies

Over the last 15-21 months, delinquencies & charge-off rates have deteriorated substantially

### Credit Card<sup>1</sup>



### Auto Loan<sup>2</sup>



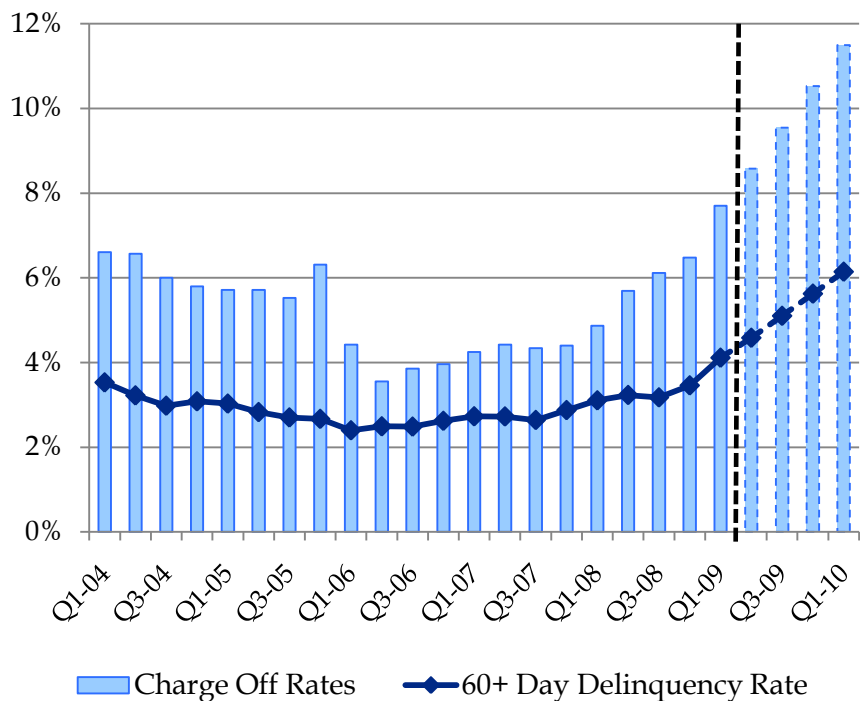
**Source:**

1. JP Morgan ABS Monitor 4/1/2009, Credit Card, Bank Card
2. JP Morgan ABS Monitor 4/1/2009, Auto Loan, Prime average 20 - 30 months, smoothed

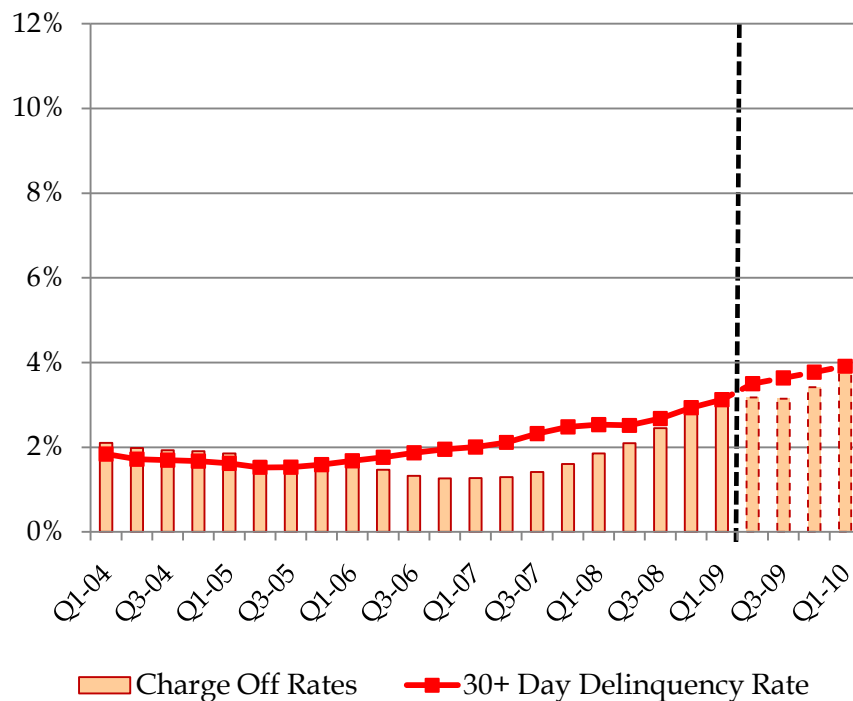
# Projected Decline in Delinquencies and Write Off Rates

Based on consensus projections, this deterioration is likely to continue over the next year

### Credit Card<sup>1</sup>



### Auto Loan<sup>2</sup>



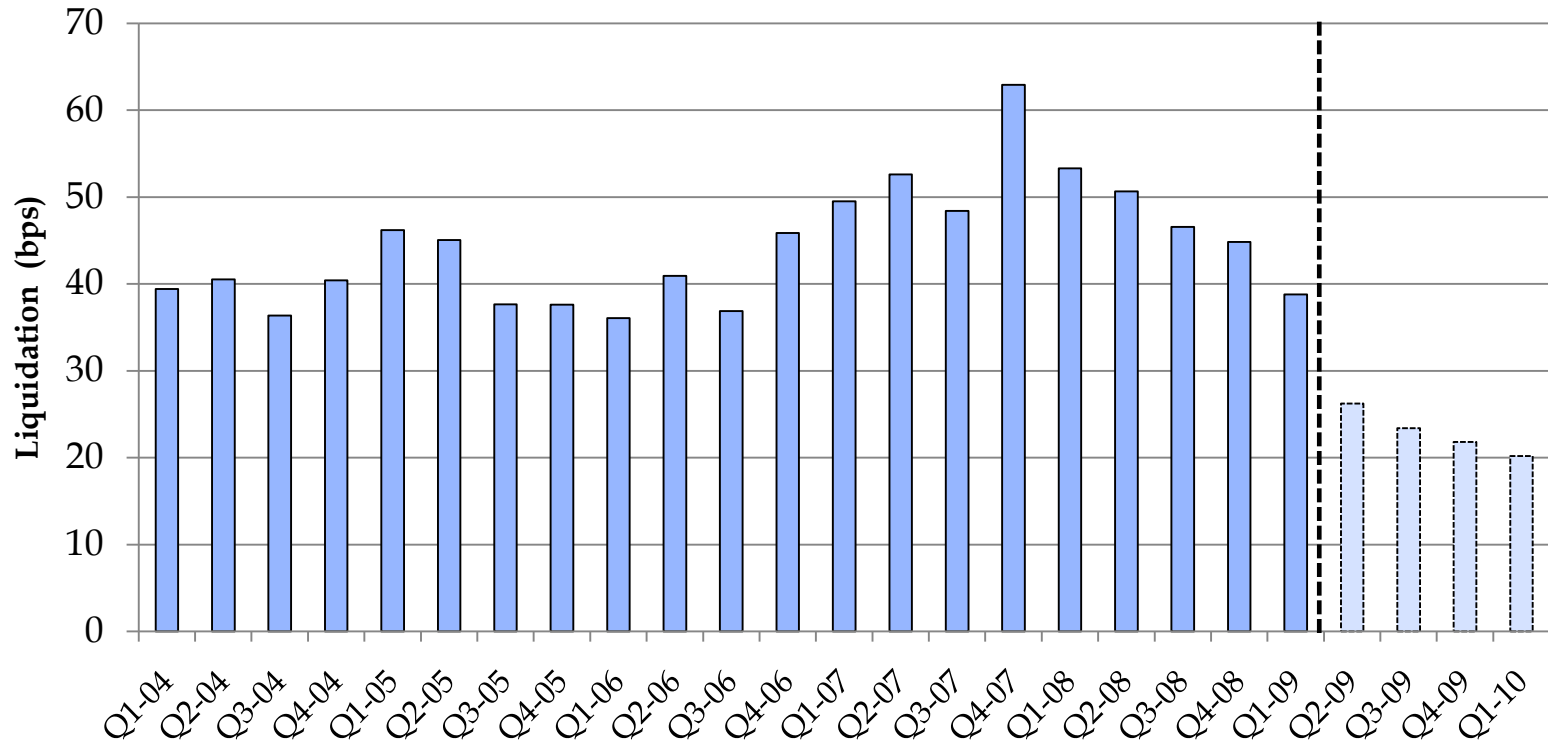
**Source:**

1. JP Morgan ABS Monitor 4/1/2009, Credit Card, Bank Card
2. JP Morgan ABS Monitor 4/1/2009, Auto Loan, Prime average 20 - 30 months, smoothed
3. Projections derived by FischerJordan modeling

# Deficiency Balance Recovery Rate Outlook

The decline in deficiency balance liquidation rates is likely to mirror the collections performance of other asset classes of aged charge-offs

**Aged Bank Card Charge-Off Performance:  
Recent & Near Term Outlook**



# *Techniques Covered in Today's Talk*

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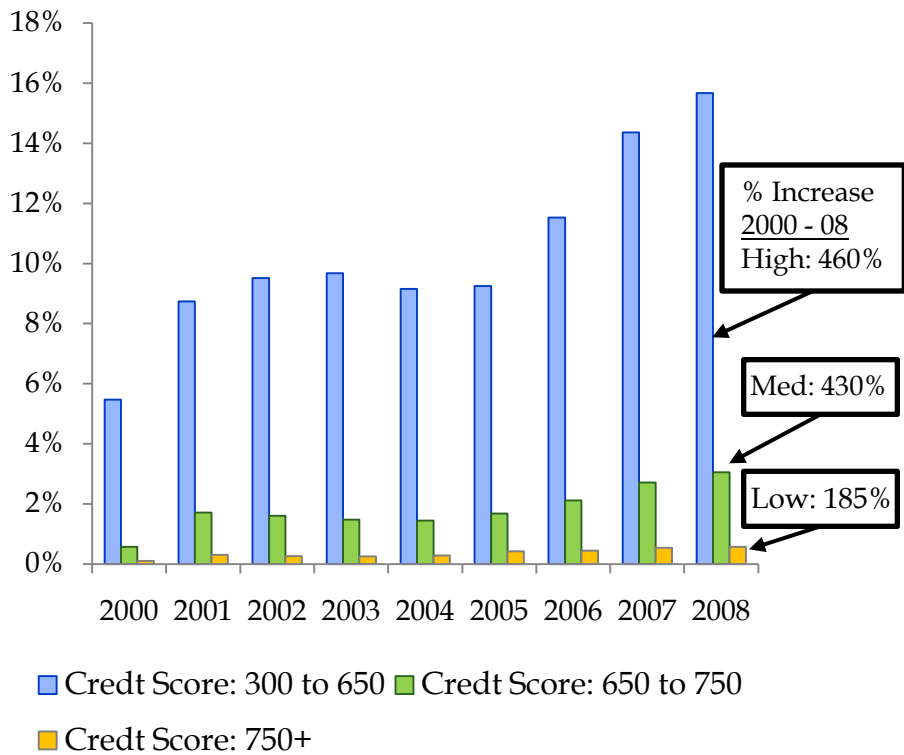
In the current deteriorating environment, originating new loans and servicing existing portfolios requires the use of advanced risk management and yield enhancement techniques

1. Traditional Scoring
2. Customer-Level Servicing & Account Matching
3. Portfolio Hedging
4. Test & Learn/Segmentation

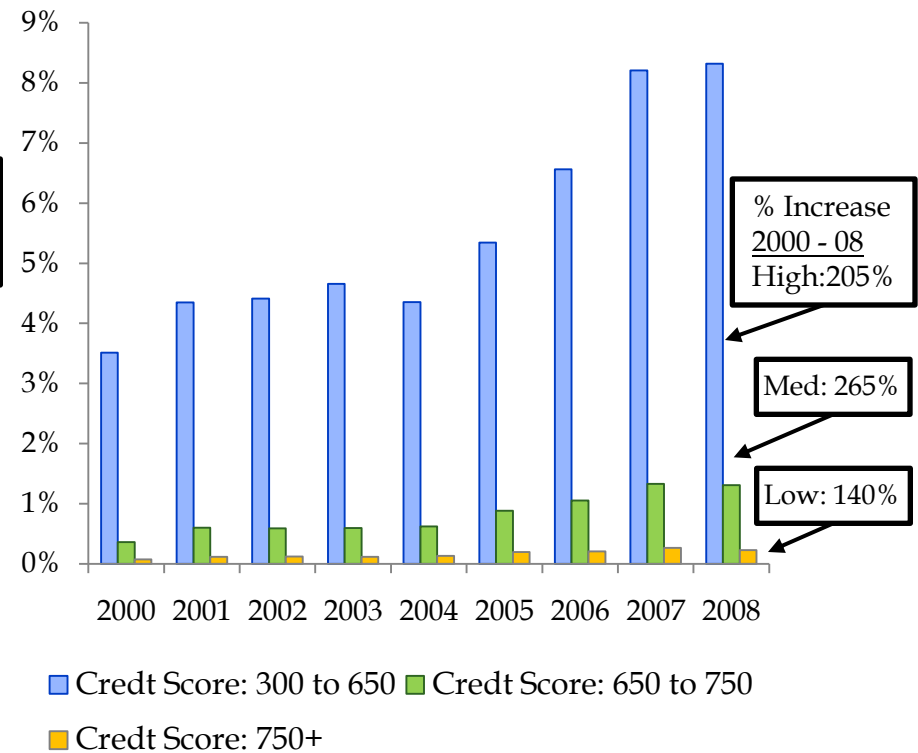
# 1. Traditional Scoring

Traditional scoring methods, while still necessary, are no longer sufficient to discriminate potential non-performing accounts

### % of Total Portfolio Balance

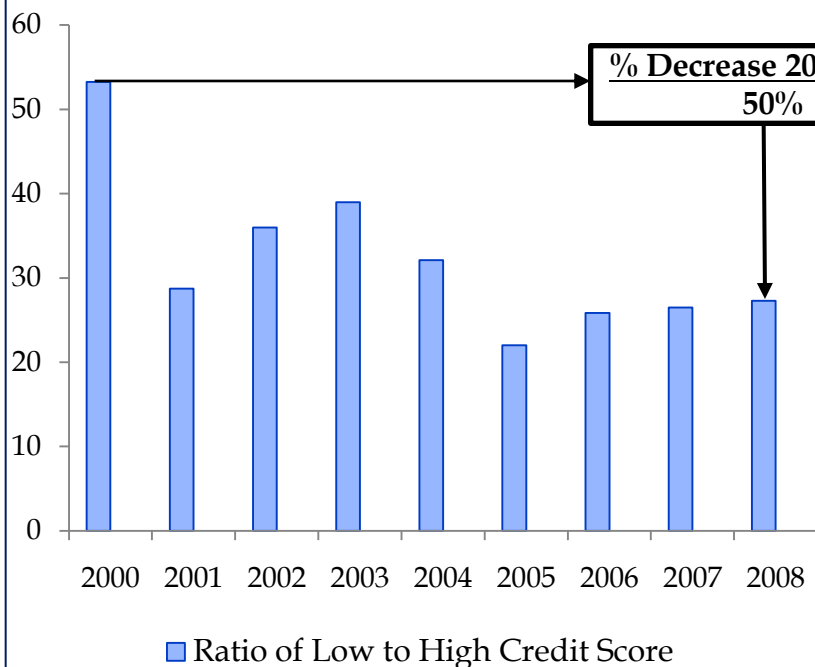


### % of Total Portfolio Accounts

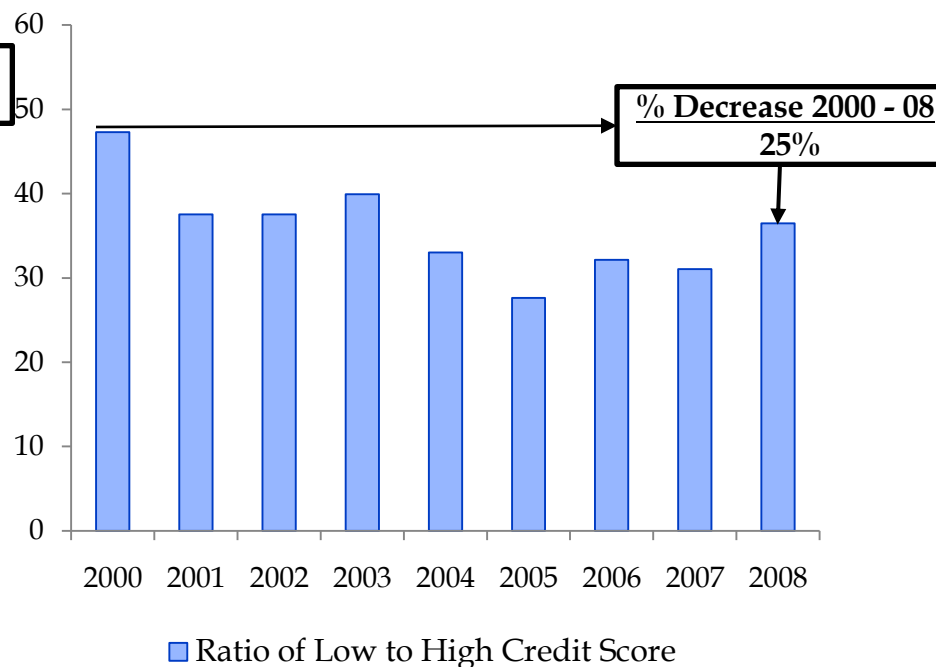


# 1. Traditional Scoring

## Ratio by % Tot Portfolio Balance



## Ratio by % Tot Portfolio Accounts





## 2. Customer-Level Servicing & Account Matching

Using all available customer level information & enhanced account matching can yield substantial cost savings and incremental revenue

<i>Utilization of Customer Level Information</i>		<i>Enhanced Account Matching Success</i>				
<i>Customer Level Variable</i>	<i>Indication</i>	<i>Match Variable 1</i>	<i>Match Variable 2</i>	<i>Match Variable 3</i>	<i>% True Positive</i>	<i>Error rate</i>
<i>Income</i>	<i>Propensity to pay &amp; collectability</i>	<i>Name</i>	<i>Address</i>	<i>Zip Code</i>	<i>49%</i>	<i>1%</i>
<i>External credit lines</i>	<i>Credit-seeking behavior</i>	<i>Name</i>	<i>Address</i>	<i>State</i>	<i>55%</i>	<i>3%</i>
<i># of Derogatory Tradelines</i>	<i>Outstanding debt obligations</i>	<i>Name</i>	<i>Address</i>	<i>Phone</i>	<i>25%</i>	<i>2%</i>
<i>Credit Score</i>	<i>Customer-level risk</i>	<i>Name</i>	<i>Address</i>	<i>None</i>	<i>65%</i>	<i>8%</i>
<i>Trade Line Utilization</i>	<i>Credit seeking behavior</i>	<i>Name</i>	<i>Phone</i>	<i>State</i>	<i>50%</i>	<i>9%</i>
<i>State</i>	<i>Legal eligibility</i>	<i>Name</i>	<i>Phone</i>	<i>Zip Code</i>	<i>40%</i>	<i>9%</i>

## 2. Customer-Level Servicing & Account Matching

<i>Matching Type: Debtor with ____</i>	<i>Opportunity Description</i>	<i>Net Opportunity</i>
<b>Non-Profitable Account &amp; Profitable Account</b>	More aggressively treating non-profitable accounts of debtors with profitable accounts	~\$2 mm
<b>Non-Legal Account &amp; Successful Legal Account</b>	Suing non-legal account of debtor who had an account treated successfully in the legal channel	~\$3 mm
<b>2+ Accounts in Legal Channel</b>	Suing the combined accounts of debtors with 2+ legal channel accounts to save on court fees	~\$5mm
<b>2+ Accounts in non-Legal Channel</b>	Service 2+ accounts simultaneously to save on collection costs & offer favorable settlements that achieve higher liquidation rates	~\$9 mm
<b>Total</b>		~\$ 19mm

### 3. Portfolio Hedging

When originating or purchasing a loan portfolio, a large part of the risk can be hedged using off-the-shelf instruments

<i>Type of Risk to be Hedged</i>	<i>Hedging Vehicles</i>
Default Risk	<ol style="list-style-type: none"><li>1. Put/Calls Unemployment Rate Risk</li><li>2. Long/short Municipal Bond</li><li>3. Long/short employment sensitive securities (eg ADP)</li><li>4. Non-Farm Payroll Futures Contracts</li></ol>
Real Value Risk	<ol style="list-style-type: none"><li>1. Treasury Inflation-Protected Securities</li><li>2. Gold ETFs</li><li>3. Consumer Staples ETFs</li></ol>
Interest Rate Risk	<ol style="list-style-type: none"><li>1. Treasury Futures Contract</li><li>2. Interest Rate Swaps</li></ol>
Collateral Value Risk	<ol style="list-style-type: none"><li>1. Used-car market sensitive securities (eg CarMax)</li></ol>

### 3. Portfolio Hedging

<i>Variable</i>	<i>Example Auto Portfolio</i>
Date	January 2007
Pool Cost	\$100 MM
Hedge Type	CarMax put options
Hedge Cost	\$1 MM
Correlation of Collections % Shortfall to Security	-0.6
2 yr Unanticipated Losses	\$4 MM
2 yr Gross Hedge Proceeds	\$3 MM
Hedge Return	90%

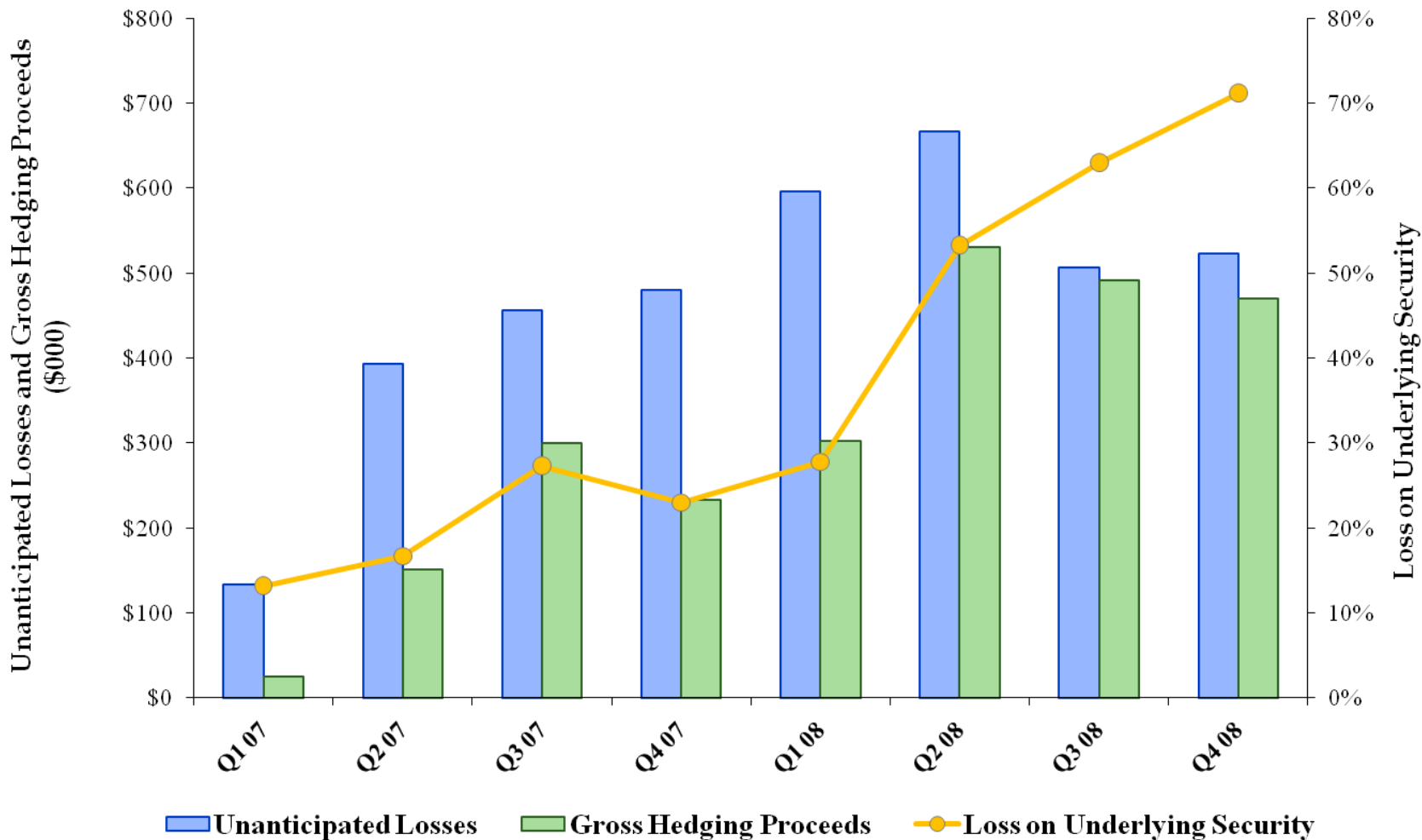
### 3. Portfolio Hedging- Auto Loan Losses Hedged w CarMax Put Options

Principal = \$100 MM

Hedge Proceeds = \$3 MM

Hedging Cost = \$1 MM

Hedge Returns = 90%



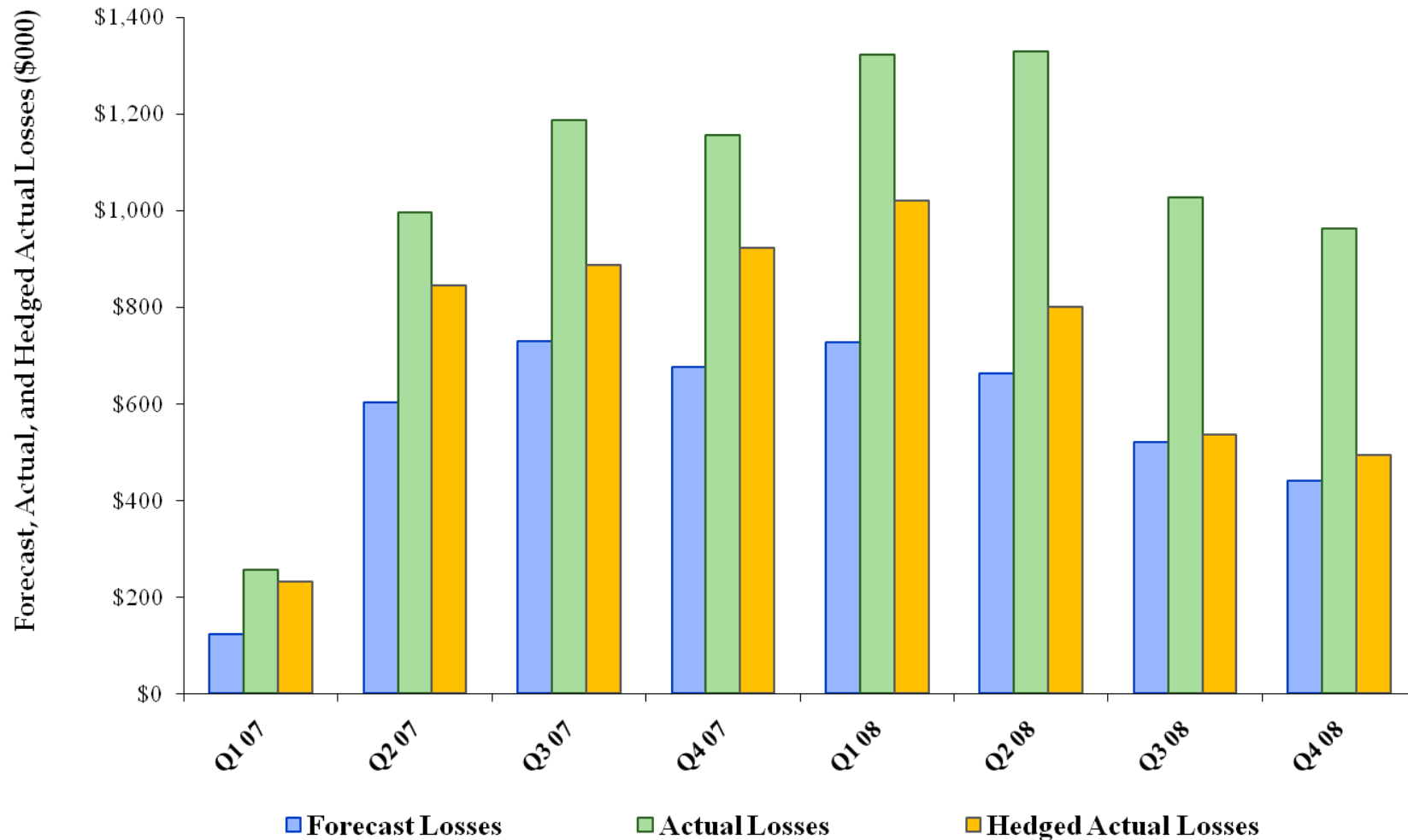
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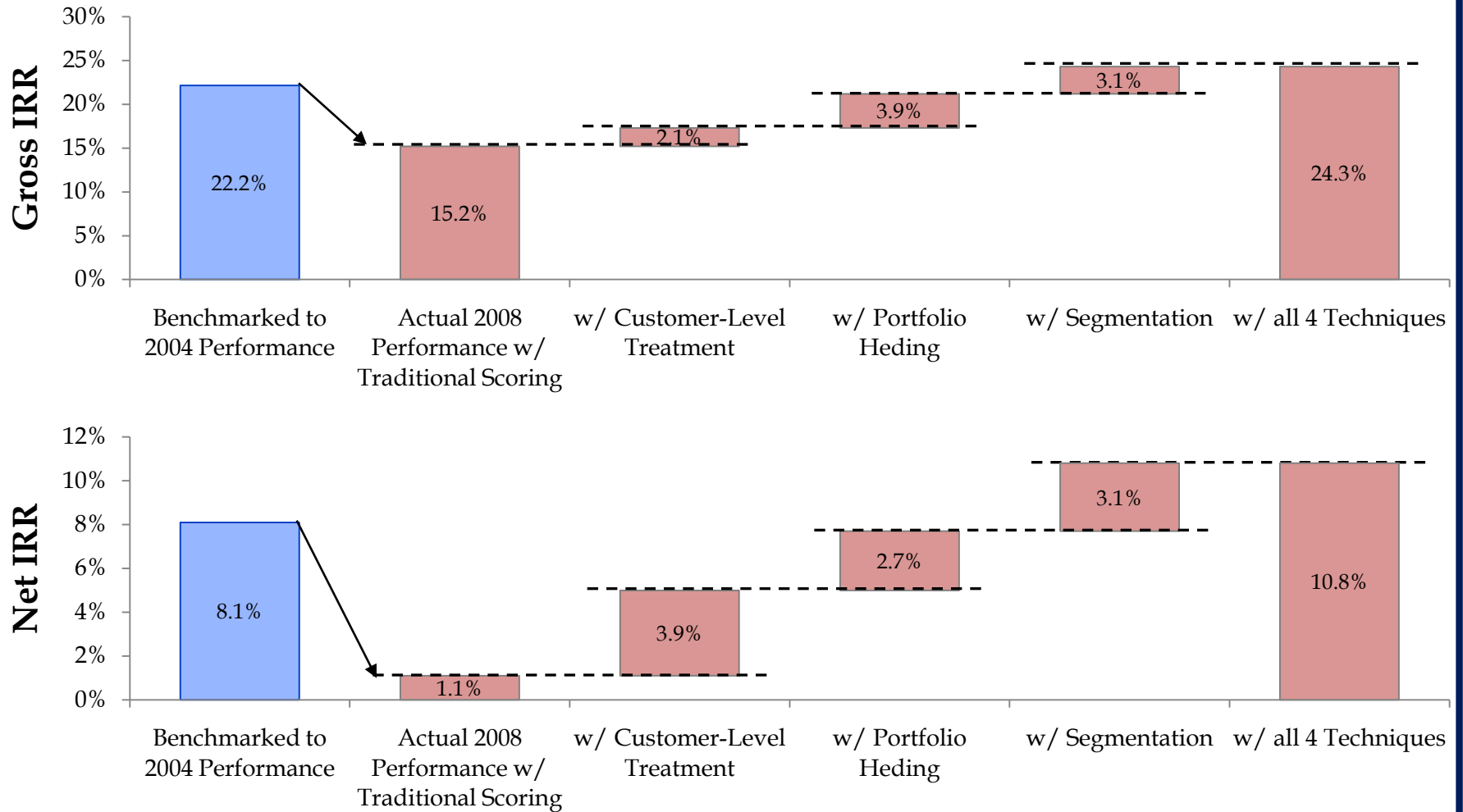
## 4. Test & Learn / Segmentation

Account Lifecycle Stage	Segmentation Opportunity	IRR Component Impacted
Origination	Risk- & Sensitivity-Based Pricing	Improved Net Credit Margin
Performing	Cross-Sell	Increased Revenue
Performing	Segmented Servicing	Decreased OPEX
Delinquent	Risk Based Collections	Improved Credit Performance & Decreased OPEX
Charged Off	Value Based Recoveries	Improved Recoveries & Decreased OPEX

*Confidential and proprietary information.*

# Impact of Advanced Analytical Techniques

By leveraging a variety of advanced analytical techniques, the performance of new loan portfolios can be effectively managed even in the current environment



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**For more info, contact:**  
**[boaz.salik@fischerjordan.com](mailto:boaz.salik@fischerjordan.com)**