



Data Management in a Volatile Market

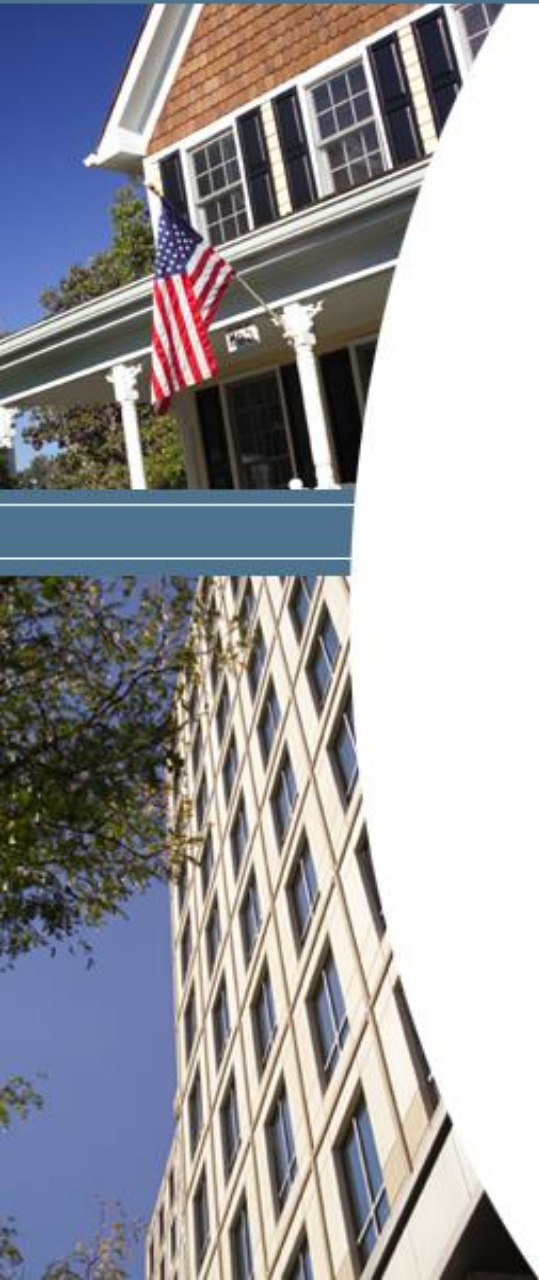
Luiz de Toledo

Fannie Mae IT CAO

October 21, 2008

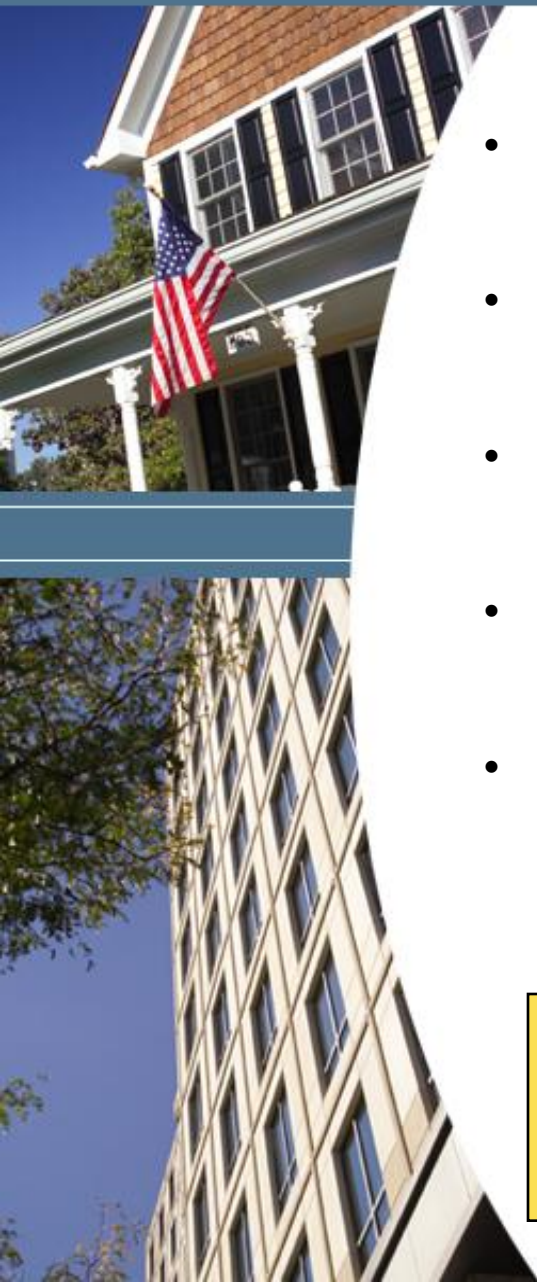


Agenda



- External Environment Overview
- Impact on IT Priorities
- Example Credit Risk Priorities
- Impact on Data Management
- Data Strategy
 - » Data Architecture Strategy
 - » Data Management Strategy
- Summary

External Environment Overview

- 
- Current market is **volatile**; characterized by **poor credit fundamentals** and **deepening losses**.
 - Mortgage **default** problems **began in the subprime market, but have spread** across the market.
 - **Home price declines** are likely to be large and to **continue through 2010**.
 - **Inventories** of new & existing homes for sale have reached **record levels**.
 - **Investors and financial institutions are suffering** heavy losses, depressing overall earnings and creating significant **capital challenges**.

Implications

- Risk measurement and evaluation needs: Accuracy of data
- Importance of continuing to provide liquidity: Data timeliness and accuracy

Impact on IT Priorities

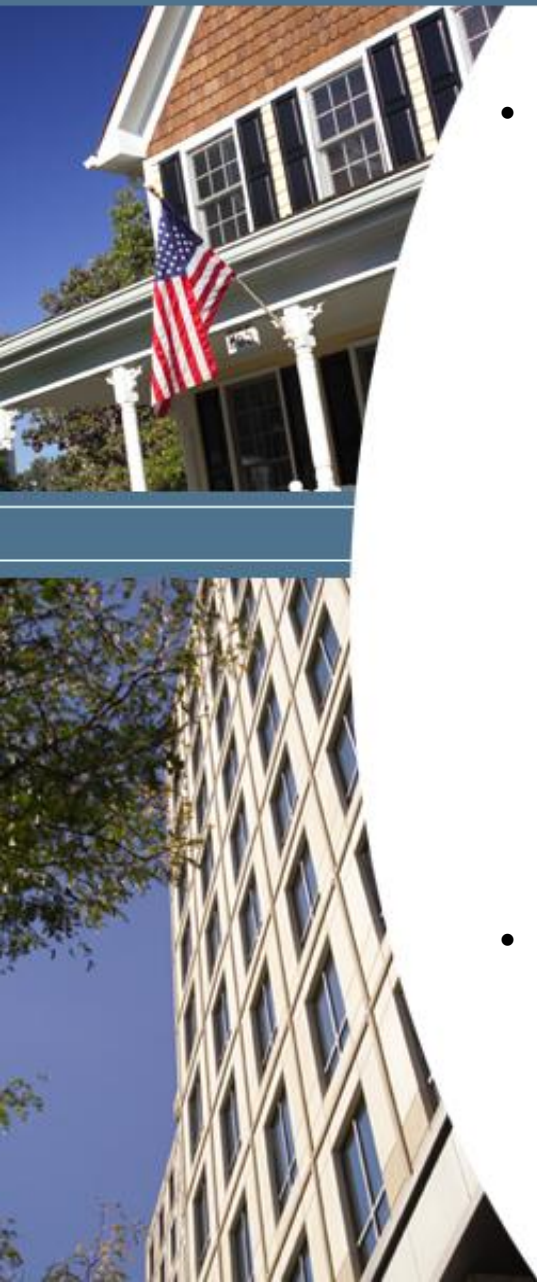
- **Improve credit risk management**
 - » Improve decisions through more precise and timely business information.
 - » Early warning reports and credit loss metrics will be key.
- **Productivity / infrastructure improvements**
 - » Human capital management
 - » Leverage tools and technologies.
 - » Architectural and process simplification.
- **Enable business growth**
 - » Allocate a greater share of IT budget to business growth investments.
 - » Innovation

Reduce losses and price risk appropriately

Lower costs; convert fixed costs to variable

IT as a Strategic Partner to its Customers

Example: Credit Risk Management

- 
- High default and foreclosure is demanding **better decision models, more data**, and increased emphasis on **data quality**.
 - » **Credit risk management**
 - Create better credit models.
 - Push credit models to the front lines.
 - Focus on data quality and consistency.
 - » **Credit loss mitigation**
 - Industry now demands scale – automate interfaces to REO service providers.
 - Optimize selection of alternative loan workout scenarios through rules-based decision tools.
 - **Issues affecting data latency must be addressed** – to be effective, these **decision tools must be timely**.

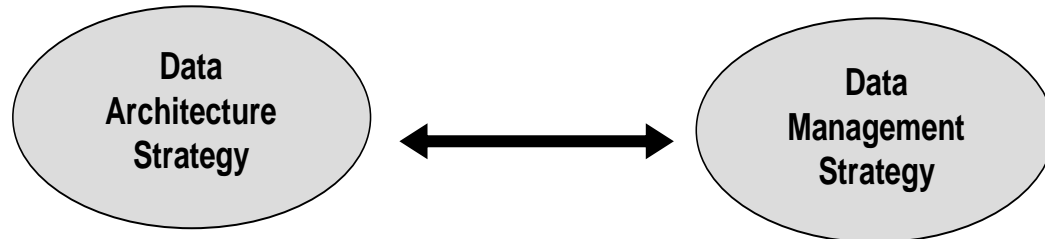
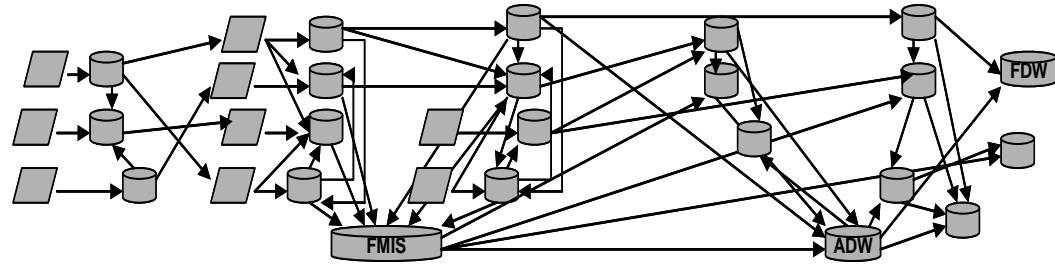
Credit Risk Management needs to be a scalable business.

Impact on Data Management

- 
- Increased demand for:
 - » **New sources** of data
 - » Greater **granularity**
 - » More **timely, accurate** and **consistent** data
 - **Proactive** and more **integrated views** of information
 - Require more efficiency in **time to market**
 - » Common **data model**
 - » Streamline **architecture**
 - » Cutting edge **tools** and techniques
 - » **Reuse** when ever possible

The business is asking for it all, we need to get it right.

Data Strategy



Fewer, more integrated data stores

Data managed consistently

- Faster time to market
- More efficient operations
- Deliver systems faster for less cost
- Reduced complexity
- Data architecture policy & standards
- Integrated with technology standards

- Data used to drive the business
- Common data practices
- Data tools and automation
- Easy access to trusted sources of data
- Business/Operations/IT alignment
- Managed through lifecycle

Data Architecture Strategy

- **Fewer, more integrated data stores**
 - » **Transaction systems** run the business.
 - » **Operational data stores (ODS)** provide near real-time data services to manage the business.
 - » **Master and reference data** as a centralized data service.
 - » Data publishers and subscribers - **SOA** architecture.
 - » **Warehouses** are for planning for the business and corporate reporting (historical data).
 - Trusted reconciled data sources.
- **Untangle the legacy**
 - » **Standards and polices** support architecture strategy.
 - » **Data quality** performed as far **forward** as possible.
 - » **Minimize the data overlap.**

Streamline architecture reduces cost and time to market

Data Management



- Data **policies and standards** enforced by the stewards.
- Data **Stewardship**
 - » Responsible for business definitions.
 - » Execute data quality in business units.
- Data **Quality**
 - » Define, measure, and actively manage Critical Data Elements (CDEs).
 - » Metrics describe the state of the data.
- **Metadata**
 - » Central, user friendly repository for all data.
 - » Data lineage defines critical paths for CDEs.
- **Corporate Data Model**
- Data Management **Tools**
 - » Data discovery and management tools.

Data managed consistently across the enterprise

Summary



- Our industry is in turmoil and in response we must be able to identify, measure and react to risk timely, accurately and consistently.
- Data is the life blood of the company, we must have a streamlined, documented architecture and strong data management policies, practices, resources and tools to address our risk.
- Success is highly dependent on an enterprise data wide approach.