

**BusinessConnect and SolutionsConnect**

It's time to make bold moves.

# **SMARTER RISK**

**Building trust and value  
amidst uncertainty**



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The environment in which we do business today is more complex than ever, and riddled with uncertainty

**Profitability pressures**

**Emergence of Big Data**

**Capital shortage**

**Emboldened, socially active customers**

**Significant skills gaps**

**Unprecedented cybercriminal access to technology**

**Increasing social, government & regulatory pressures**

**Changing business models**

## Why now?

**More than  
\$30B lost**

when a large financial institution **failed to assess known risks** on its derivatives in its models <sup>1</sup>

**42% of top  
100 losses**

since 2007 have been **boundary events**<sup>3</sup>

**210 loss events  
over \$1B**

as of Q1 2014, vs. **9 as of 2007**<sup>5</sup>

**\$33,000  
per minute**

cost of average **retail banking attack** <sup>2</sup>

**40 million**

**credit and debit cards  
compromised** in a recent retail cyber attack <sup>4</sup>

<sup>1</sup> Protiviti Global Consulting, "Model Governance and Effective Risk Management," 2012

<sup>2</sup> Ponemon study of Retail Banking, 2012

<sup>3</sup> IBM Algo FIRST Database

<sup>4</sup> IBM Algo FIRST Database

<sup>5</sup> IBM Algo FIRST Database

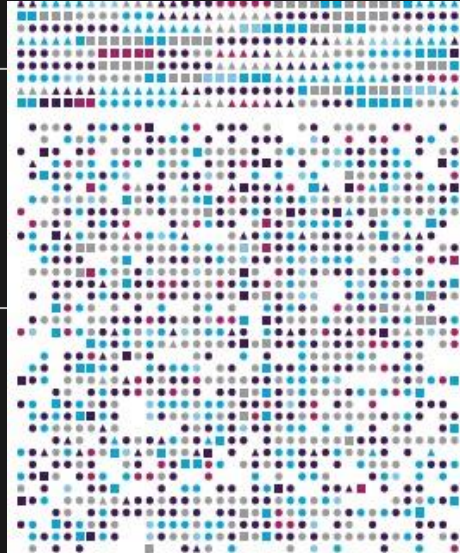
# Rich new and existing data sources present an opportunity, with the right technology

**1 trillion** •

connected objects and devices on the planet generating data by 2015

**80%** •

of the world's data is unstructured. Audio. Video. Sensor data. Social media. All represent new areas to mine for insights



• **2.5 billion**

gigabytes of data generated every day

## Drive business outcomes

apply more sophisticated analytics across more disparate risk data sources

e.g. external loss databases, sentiment analysis

## Change the game

with predictive analytics, advanced visualizations across risk types

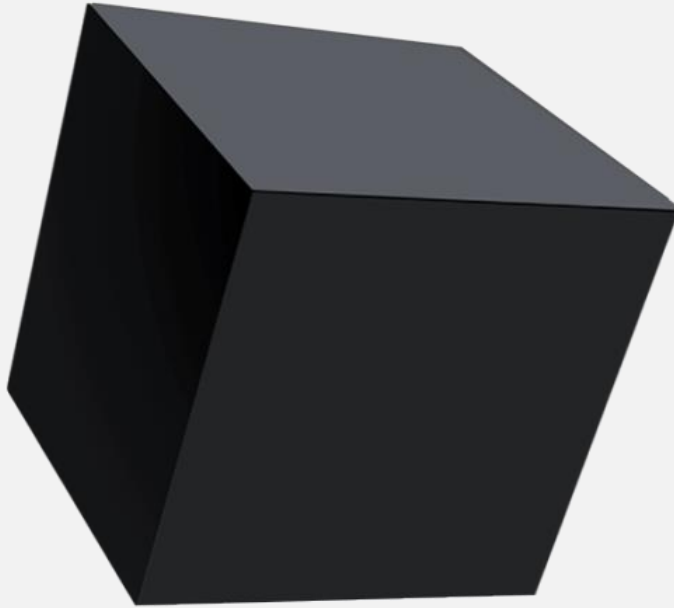
e.g. predictive KRIs, trend analysis

## Capture the time value

by developing "speed of insight" and "speed of action" as core differentiators

e.g. real-time front office decision support OR trust analytics

Most organizations today lack complete trust in their risk management process, and cannot derive full value from them. It's a Black Box.



85%

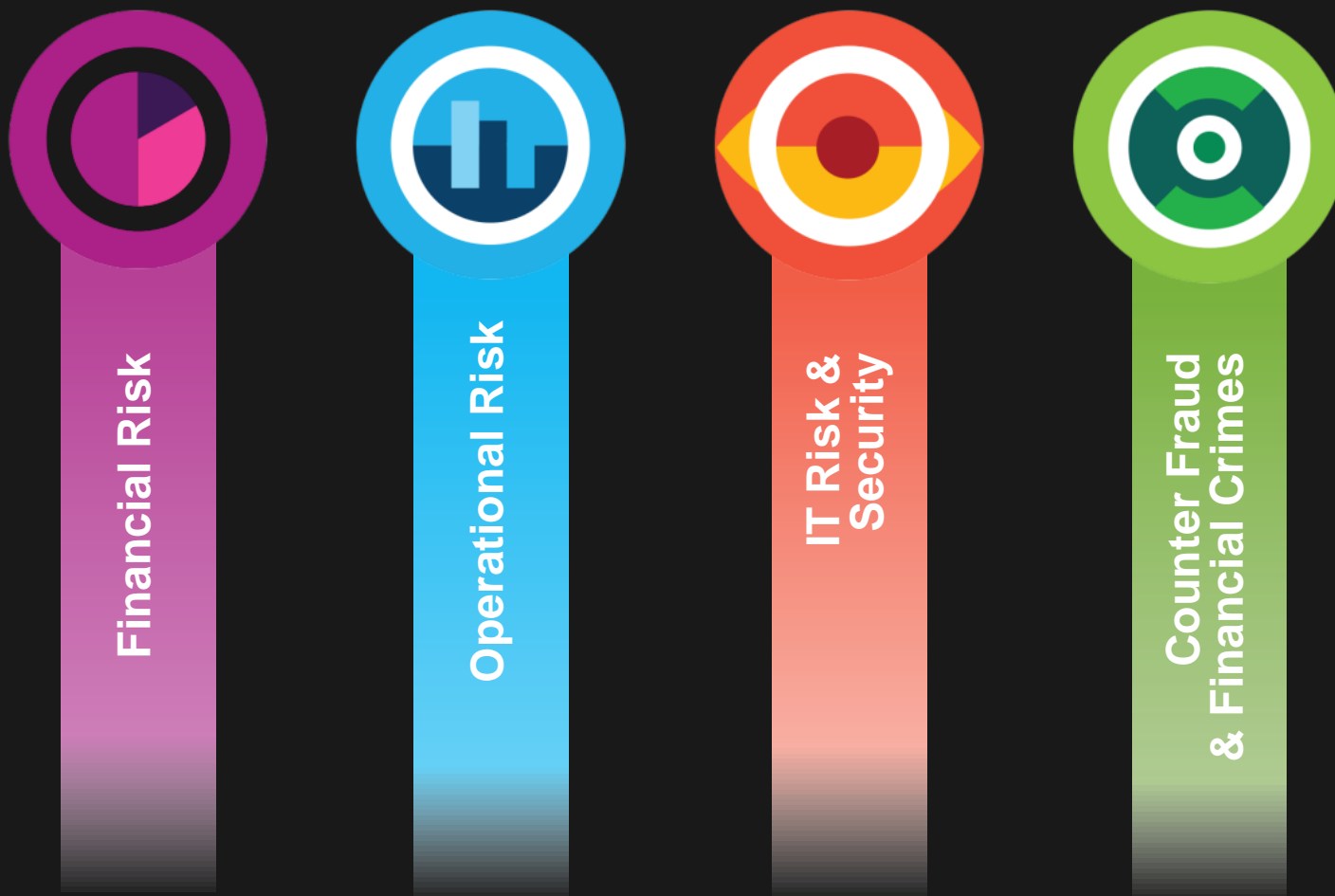
of respondents in a 2012 survey have little or no trust in their risk weights, and confidence is falling rapidly<sup>1</sup>

<sup>1</sup>"Constraining discretion in bank regulation," Andrew Haldane, Bank of England, April 9 2013

## What if you could break down the Black Box?



## Managing risk in silos will not get you there





We must bring together an interconnected view of risk across the enterprise



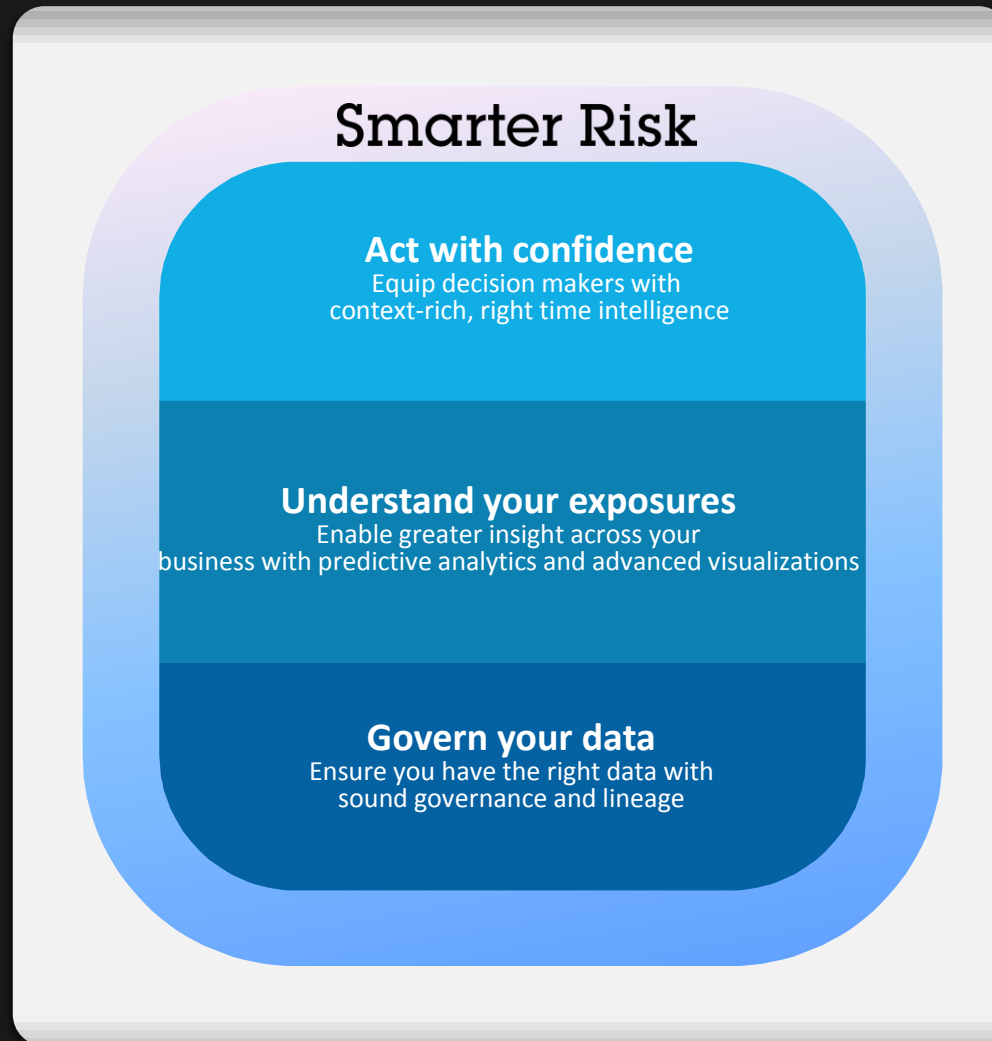
## A Smarter Risk approach: Govern your data



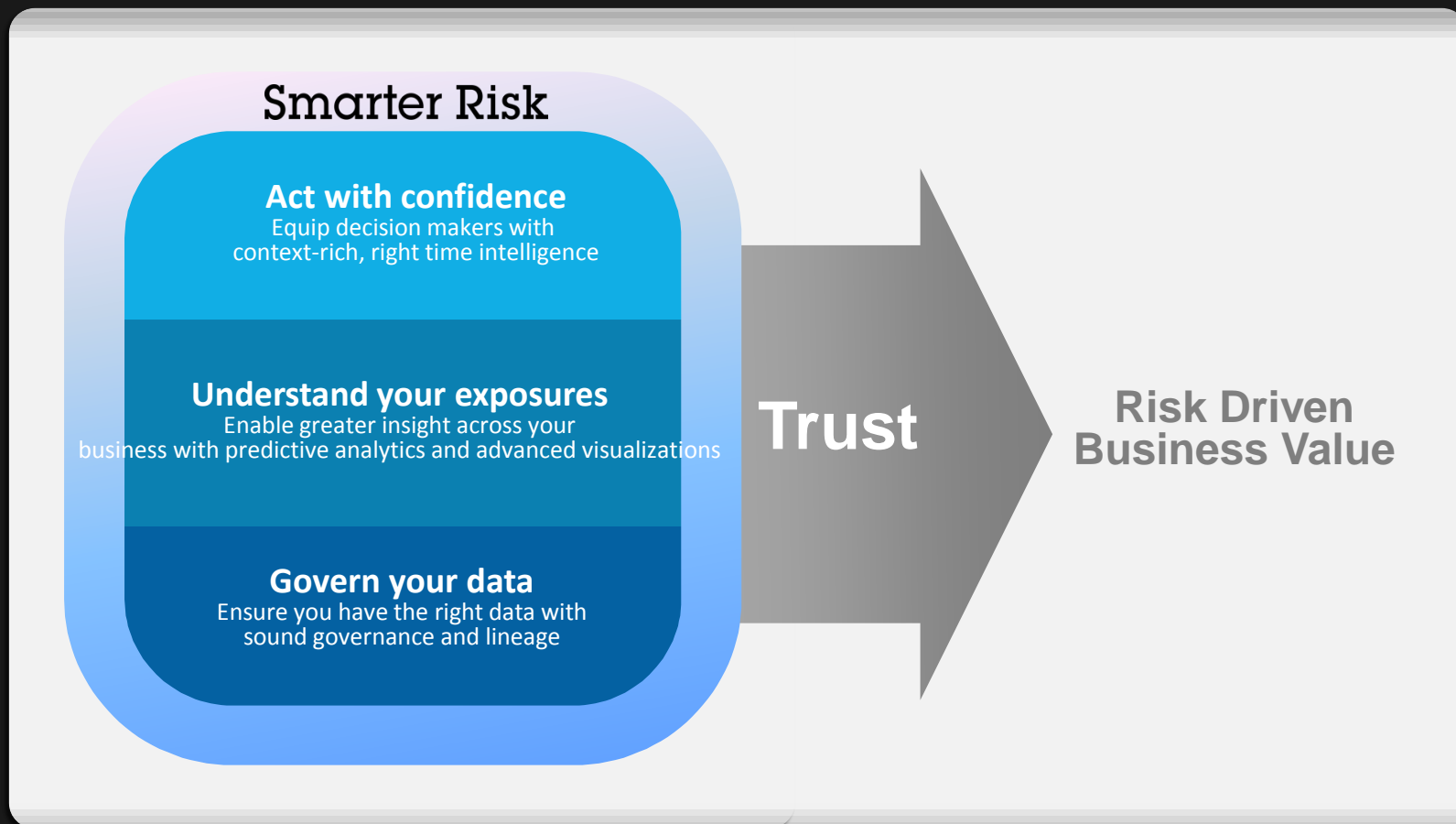
## A Smarter Risk approach: Understand exposures across the organization



## A Smarter Risk approach: Equip decision makers to act with confidence



## A Smarter Risk approach: Build trust and value amidst uncertainty



## IBM is innovating within each area...

### Operational Risk

- **Predictive analytics enhanced with advanced visualizations** help you proactively manage enterprise-wide risk exposures
- Supporting a risk-enabled ecosystem with **aggregated control and incident data** from operational systems
- **Ensure a holistic approach to enterprise risk governance** with real-time policy and compliance monitoring



### Financial Risk

- **Trust analytics** enhance decision makers' ability to act confidently on risk information
- **Risk-aware business planning** supported by aggregated risk dashboards that pull from across risk silos
  - **Real-time risk intelligence and decision support** equips the front office to price every transaction adjusted for risk



### IT Risk & Security

- **Predictive analytics** that help prevent breaches and mitigate security and resiliency threats
- **Cognitive learning technology** and security services that enable continuous operations and increase customer confidence
- IT risk, threat & security analytics that fortify existing safeguards and compliance mandates in the era of **Cloud and Mobile**

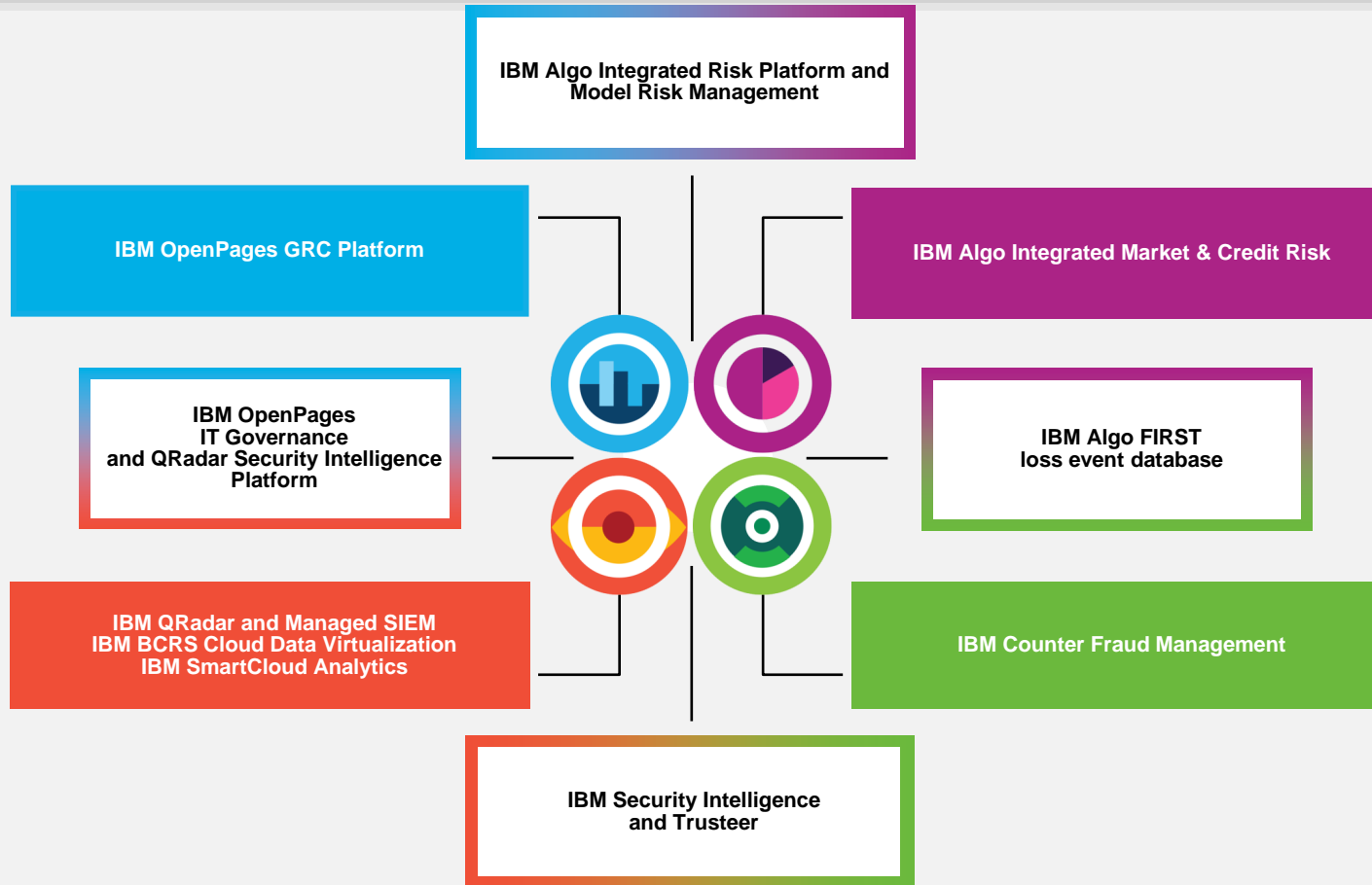


### Counter Fraud & Financial Crimes

- **Advanced, multi-layered analytics** provide more accurate detection and investigation
- Ability to derive heightened insights by **investigating information from disparate sources** to develop richer profiles and real time risk weightings
- **Out-of-the-box integrated capabilities** across the entire fraud management lifecycle reduces cost and risk



## ...and in bridging across risk domains



## Our customers are seeing results

### Operational Risk

#### 99% time savings

Creating risk reports in just 3 hours vs. 30 days helps decision-makers at DCV develop and action future business strategies based on real, up-to-date evidence about the potential risks

*Depósito Central de Valores (DCV)*



### Financial Risk

#### 15% benefit

in credit lines optimization with a powerful analytics solution that conducts millions of scenario simulations pre-deal, pricing trades more accurately, providing more flexibility and room for business with its customers

*Italian bank Intesa Sanpaolo*

### IT Risk & Security

**30** potential offenses found amongst **30,000,000** events per day

*Canadian Financial Services firm*

### Counter Fraud & Financial Crimes

**50% faster** fraud detection improves fast tracking of legitimate claims to improve customer experience

**\$1.4 billion** in increased profits

*Large Korean Insurance company*



## Our commitment to deliver Smarter Risk is unmatched

**Technology**

**\$24 billion**

invested to date to build IBM's capabilities in Big Data and analytics, with \$7 billion in organic investment

**Expertise**

**More than  
1500**

dedicated risk professionals

**Vision**

**2/3**

of IBM Research is focused on data, analytics and cognitive computing

## Chartis' The Risk Enabled Enterprise™

A two-year research program launched in May 2013 and sponsored by IBM



**Chartis**



The  
Risk  
Enabled  
Enterprise™

Register to participate  
and receive updates at  
[www.chartis-research.com/tree](http://www.chartis-research.com/tree)

- Quarterly series of surveys
- Quarterly publications
- Webinars

### Research topics include:

- Model risk management
- Enterprise-level stress testing
- Conduct risk
- Risk-based performance management
- Risk Enabled Enterprise maturity model

# Engage with Smarter Risk on the web

## Critical thinking and expert insight on risk management

The screenshot displays the Smarter Risk website interface. At the top, the IBM logo is on the left, and the title "Smarter Risk" is prominently displayed in blue, with "Financial & Operational Risk" underneath. A navigation bar contains tabs for "Overview", "Smarter Risk Journal", "Blog", "Videos", and "Resources". To the right of the navigation is a graphic of two interlocking gears, one blue and one purple, with data points around them.

Below the navigation, the main heading reads "Critical thinking. Expert Insights." followed by a large graphic of a person surrounded by colorful arrows pointing in various directions.

On the right side, there is a featured article titled "In conversation: Wrong-way risk with Jon Gregory and Alex Kreinin". The text below the title states: "Wrong-way risk was a key part of the global financial crisis. What is it, why is it important and how is it impacting financial firms today?" and includes a "Read this article" link.

At the bottom, there are three columns of content:

- Smarter Risk journal** with a "More Articles" link. It lists three articles:
  - "Enterprise risk governance: The key to the risk-enabled enterprise" by Diane Reynolds and Neil Bartlett, Dec 3, 2013.
  - "When models fail: A path forward for model risk governance" by Peter Timotejew and Neil Bartlett, Dec 3, 2013.
  - "Evolution for efficiency: Active Collateral Management" by David Wechter and Fraser Schad, Dec 3, 2013.
- Featured Resources** with three items:
  - "Wholesale banking: Challenges in automating commercial credit risk mgmt"
  - "Market practice for calculation and reporting of wrong-way risk"
  - "Risk governance, big data and cultural alignment"
- IBM Risk Analytics** with a paragraph: "Massive growth in data. Daunting regulatory demand. Market uncertainty. Capital constraints. Faced with these challenges, risk management is evolving into a holistic, strategic function capable of using risk intelligence to unlock value across the organization. Visit here for critical thinking and expert insights to help navigate these changes." and a link "For more about IBM's risk analytics".

[ibm.com/SmarterRiskAnalytics](http://ibm.com/SmarterRiskAnalytics)

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**Thank You**



## Acknowledgements and Disclaimers

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