



# *Managing uncertainty*

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# Are we facing uncertain times... and what does it mean to us?

## The 2020s are set to be an economic turning point, says global banking giant

By business reporter Michael Janda  
Updated yesterday at 5:09pm



PHOTO: Bank of America Merrill Lynch says inequality will peak and

The 2020s are set to be a decade of dramatic economic and social upheaval, reversing many of the trends of the past 40 years, according to one of the world's largest banks.

### ECONOMY & SOCIETY

## How to Survive a Recession and Thrive Afterward

By Walter Dwyer  
First Published May 10, 2019

10 min read 10 min read 10 min read 10 min read

In early 2008, a five-year-old online bookseller called Amazon.com sold \$471 million in convertible bonds to shore up its financial position. One month later, the dot-com bubble burst. More than half of all digital start-ups went out of business over the next few years—including lots of Amazon's then rivals in e-commerce. Had the bubble burst just a few weeks earlier, one of the most successful companies ever might have fallen victim to that recession.

Recessions—defined as two consecutive quarters of negative economic growth—can be caused by economic shocks (such as a spike in oil prices), financial panics (like the one that preceded the Great Recession), rapid changes in economic expectations (the so-called “animal spirits” described by John Maynard Keynes), or some combination of the three. Most firms suffer during a recession, primarily because demand (and revenue) falls and uncertainty about the future increases. But research shows that there are ways to mitigate the damage.

In their 2008 RBC article “Rising Out of Recession,” Rajeev Gulati, Nitin Nohria, and Frank Wadsworth found that during the recessions of 1980, 1990, and 2000, 17% of the 4,700 public companies they studied fan

### ECONOMY

## Moody's offers bleak outlook for government debt amid political instability

PUBLISHED MON, NOV 11 2019, 7:26 AM EST

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### KEY POINTS

- In a report published Monday, Moody's said political and geopolitical turbulence is exacerbating a gradual slowdown in trend GDP growth, aggravating structural bottlenecks and increasing the risk of economic or financial shocks.
- Moody's identified the emergence of influential “populist” movements and suggested this is undermining the effectiveness of domestic policy, weakening institutional strength and compounding social and governance risks.
- “Overall, the global environment is becoming less predictable for the 162 sovereigns we rate, encompassing \$63.2 trillion in debt outstanding,” the report said.

## What's Hydrogen's Future As Transportation Energy?



Brad Thompson, Contributor

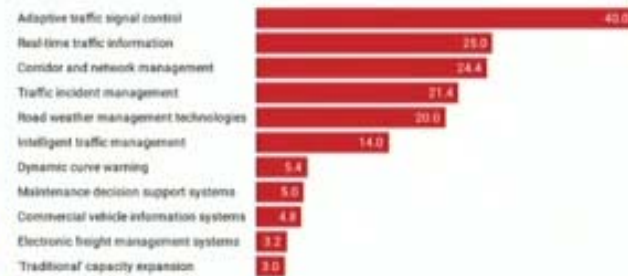
Senior Editor, Technology & previously contributed to our news

### Future directions to investigate

Road customers will have access to a safe, world-class network that supports private journeys, high capacity public transport services and high productivity freight vehicles.

- Provide better road connections between key centres, particularly in regional NSW
- Provide efficient vehicles, taking into account the type of corridor, customer mix and the importance of local spaces
- Physically separate different road user groups with an expanded network of bus lanes and freight priority where possible
- Deliver safer roads that support optimum speeds and are resilient to extreme weather events in line with the NSW Road Safety Plan 2021
- Deliver ‘smart’ motorways and work with industry and innovators on new technologies that can improve the road user experience
- Incorporate safety measures at the planning and design and construction stage for all new and repurposed road asset projects
- Apply the ‘movement and place’ approach to match road function with user groups and create better places and communities.

## Average\* benefit-cost ratios of transport investments



\* Values vary depending on many factors, including base conditions used for comparison

Source: Low Carbon Mobility for Future Cities: Principles and Applications (Dix, H. ed, 2017), adapted from Infrastructure Productivity: how to save \$1 trillion a year (McKinsey, 2013), Author provided.

## ***Understand what you don't know!***

***A structured approach to considering uncertainty is useful***



**1**

Clear enough future



**2**

Alternative futures



**3**

Ranges of futures



**4**

True uncertainty

***“Opportunity is often delivered in the fog of uncertainty” – Kahlil Gibran***

## Defining uncertainty

*Understanding uncertainty is important*

A situation where the current state of knowledge is such that

1

The order or nature of things  
is **unknown**

2

The consequences, or magnitude  
of circumstances, conditions, or  
events is **unpredictable**

3

Credible probabilities to  
outcomes cannot be assigned

***“Uncertainty is an uncomfortable position. But certainty is an absurd one.” —Voltaire***



## Defining uncertainty

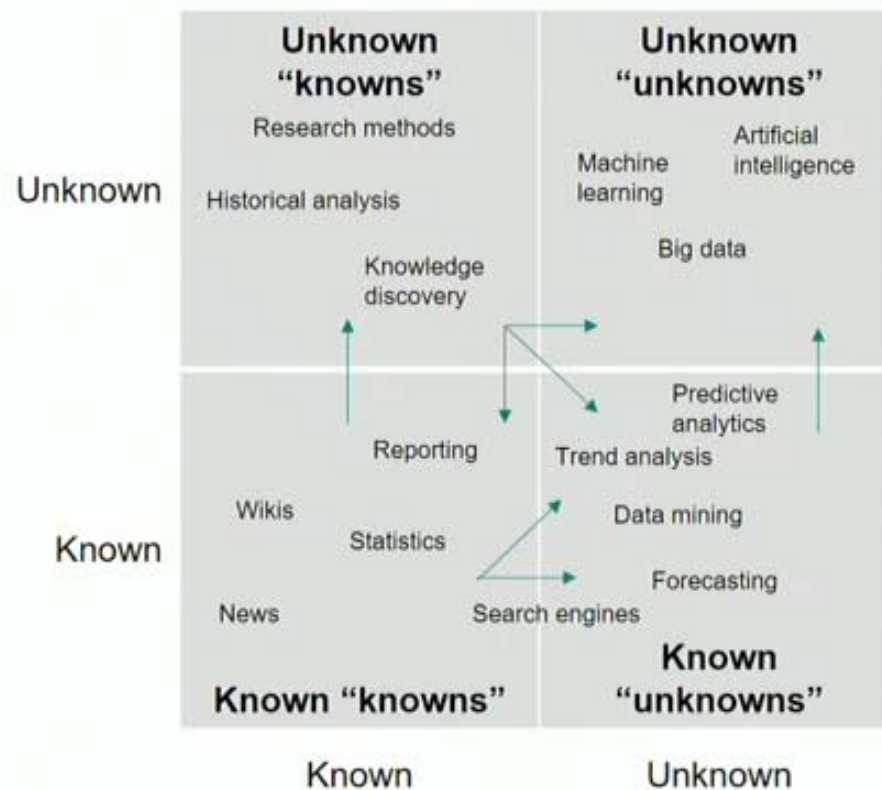
*Understanding uncertainty is important*

Ticket to play	Head in the sand
<b>Known “knowns”</b> Identify what you know or is clearly evident through trends, mega trends or other credible data sources	<b>Unknown “knowns”</b> Things we may understand but are not aware of
<b>Known “unknowns”</b> Identify what you could know if you spent time to analyse, research and seek to know	<b>Unknown “unknowns”</b> Future circumstances, events, or outcomes that are impossible to predict, plan for

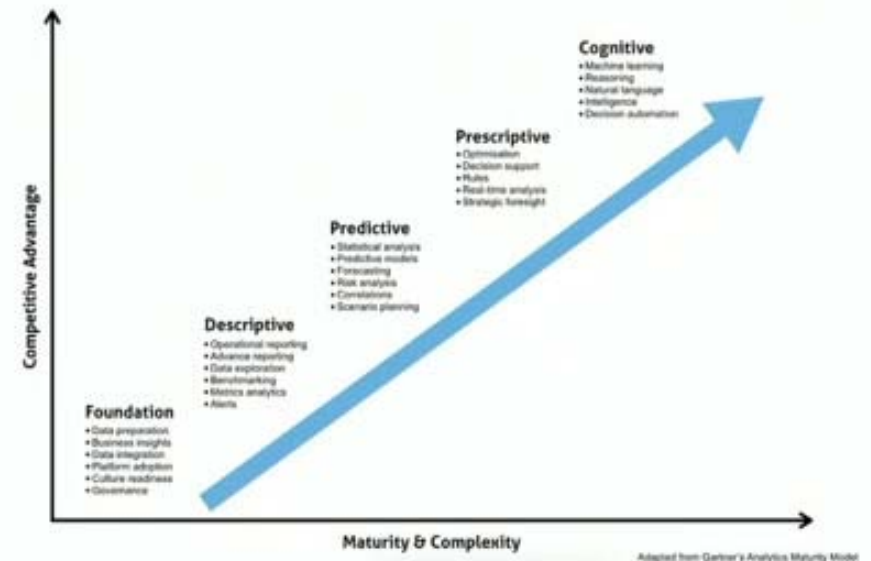
*After figuring out what you know, and what you ought to know...  
the residual is true uncertainty...*

# Known “unknowns”

## Analytical and research methods and tools



## Analytics Maturity Curve

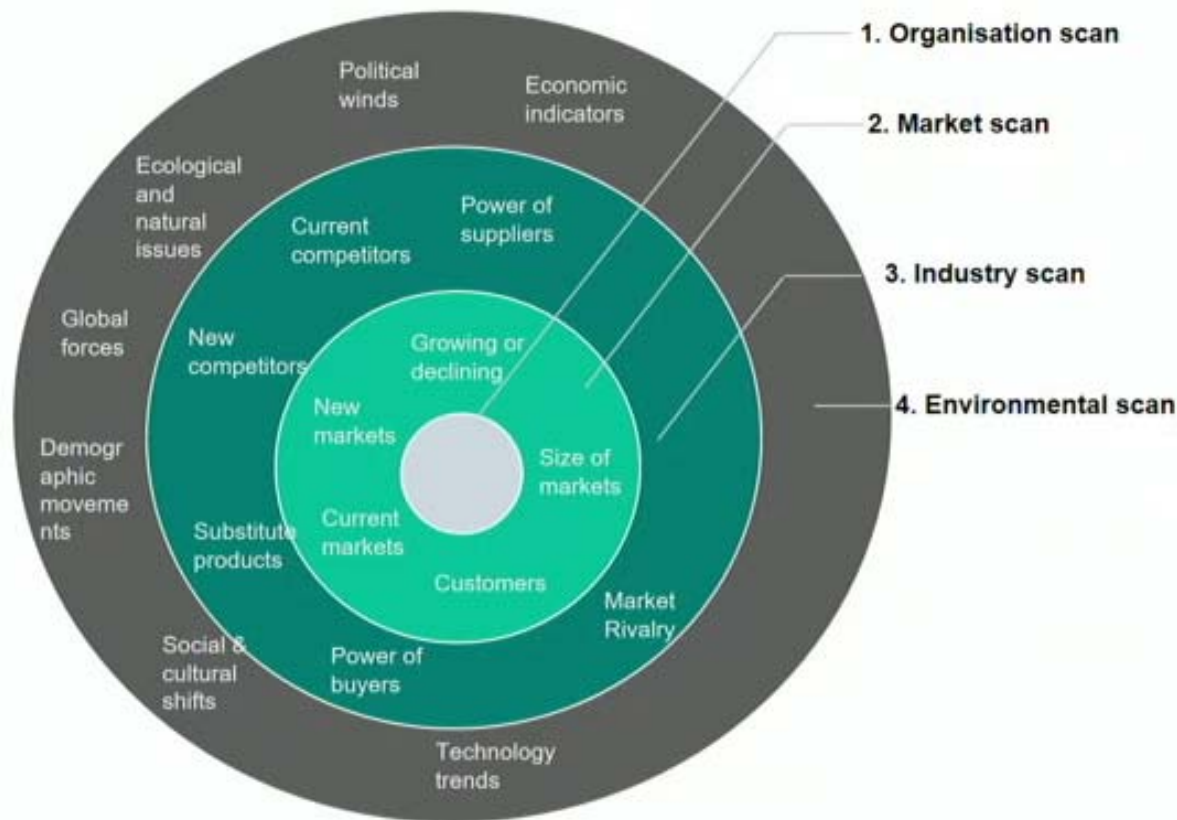


These tools and this type of analysis help you to:

- Understand more about what you know
- What you don't yet know
- Seek to reduce the level of uncertainty

# Scanning your environment

## Assess levels of uncertainty



- Structure your scanning by using a SWOT analysis
- Consider impacts from long term trends
- Move inside out and then back
- Have a process to gathering Information to enable you to regularly scan your environment



# How mature are you in the use of Data Analytics?

*Data analytics and the use and application of information is a strategic advantage!*





# Four levels of uncertainty

## Level 1: a clear enough future



### What can be known

Little residual uncertainty that would impact on the outcomes

A narrow range of possible outcomes that the uncertainty doesn't impact on strategic decisions

Able to forecast the likely within a narrow range

### Analysis and tools

#### Standard strategic analysis:

Market research, competitor analysis, Porter six forces framework

Standard discounted cash flow modelling, and budgeting

### Examples of environment

Market not prone to external shocks or internal upheaval

Regulatory environment stable

New competitor but no disruption

Slow technological change

# Four levels of uncertainty

## Level 2: alternative futures



### What can be known

There is some residual uncertainty

A few discrete outcomes that define the future

Unable to identify which outcome is likely to occur

Forecasts assessed around likelihood of outcomes

Important key is to identify possible trigger points

### Analysis and tools

**Standard strategic analysis:**

Decision analysis frameworks –  
i.e. Decision Trees

Game theory

Comparative budgets and financial analysis; what if

### Examples of environment

Change in the:

Procuring approach of Government

Regulation regarding buses

Disruptive technology

# Four levels of uncertainty

## Level 3: a range of futures



### What can be known

There is significant residual uncertainty

Unable to identify which outcome is likely to occur

A range of possible outcomes

No natural probability of an outcome occurring

### Analysis and tools

#### Standard strategic analysis:

Scenario planning

Monte-carlo analysis,  
real options

Complex financial models –  
scenario analysis; best case,  
mid point, worst case

### Examples of environment

Multiple options regarding economic environment

Various regulatory impact options

Significant political investment considerations into competing modes of transport

Multiple emerging technologies

Alternative transport technologies

# Four levels of uncertainty

## Level 4: true ambiguity



### What can be known

There is true uncertainty around possible future options

No real basis to forecast the future

### Analysis and tools

Standard strategic analysis:

Decision driven  
scenario modelling

Artificial intelligence and  
machine learning

Non-linear dynamic modelling

### Examples of environment

Despite analysis, unable to ascertain where the industry is going

Unable to assess market conditions or political environment

Market demand is extremely uncertain



## Defining your environment

*Based on your environment scan assessing uncertainty*

Considerations		Level of uncertainty
Demand for services	▶	Low to Moderate uncertainty
Type of or mix of services	▶	Moderate to high uncertainty
Impact of technology	▶	Moderate uncertainty
Impact of socio-economic	▶	Moderate uncertainty
Market dynamics	▶	Low to moderate uncertainty
Impact from regulation	▶	Low to moderate uncertainty

Either level 2 or a level 3 depending ability to identify likely outcomes



## ***Managing through uncertainty***

# Managing through uncertainty

## Strategic intent in the face of uncertainty



### Strategic intent and posture



#### ***Reserve your right to play***

Invest to stay in the game but avoid premature bets



#### ***Be ready to adopt a direction when the future when clear***

Organisational speed, agility, flexibility and adaptability to capture opportunities



#### ***Help shape the industry and your market***

Setting standards; creating demand

# Managing through uncertainty

*Have a portfolio of actions that you can take*



**Based on level of investment and return**

## ***No-regrets decisions***

Positive impact regardless of scenario

## ***Options analysis***

Options that are likely to result in a positive impact in scenarios and a small negative impact in other

## ***Big bets***

Focused strategies with big pay-offs in one or more scenario but negative effects in others



# Managing through uncertainty

## Intent and action...



### **Strategic objectives**

- Seek to set industry standards to govern unregulated technology based market entrants
- Capture new on-demand market, end-of-trip

**Posture: shape the industry and reserve the right to play**

### **Portfolio of actions**

- Lobby for regulatory intervention government
- Seek to set standards across the industry
- Invest in technology for on-demand services
- Enter different geographic markets

**Actions: a combination of both no-regrets and options**

# Business model canvas

*Apply the business case to different scenarios that you identify*

<p><b>KEY PARTNERS</b></p> <p>Who are the organisations key partners and suppliers</p> <p>Which key resources are we acquiring</p> <p>Which key activities do our partners perform</p>	<p><b>KEY ACTIVITIES</b></p> <p>What are the key activities required to support our goods and services</p> <p><b>KEY RESOURCES</b></p> <p>What are the key activities required to support our goods and services</p>	<p><b>Value proposition</b></p> <p>What value do you deliver to the customer</p> <p>Which customers problem are we solving</p> <p>Which customers needs are we satisfying</p>	<p><b>CUSTOMER RELATIONSHIPS</b></p> <p>What is the relationship between the customer(s) and the organisation</p> <p><b>CHANNELS</b></p> <p>How do the customer segments want to be reached?</p> <p>How are channels integrated?</p>	<p><b>CUSTOMER SEGMENTS</b></p> <p>Who are you creating value for?</p> <p>Who are the most important customers?</p>
<p><b>COST STRUCTURE</b></p> <p>What are costs associated with the business model and what key resources and key activities are most expensive</p>			<p><b>REVENUE STREAMS</b></p> <p>What are the customers willing to pay; what do they currently pay; how are they paying and how would they prefer to pay?</p>	

– Alex Osterwalder

# Business model canvas

*Increased focus on regulation and investing in on-demand*

<b>KEY PARTNERS</b>  Lobbyists  Transport Associations  Regulators  Community Action Groups  Technology partners	<b>KEY ACTIVITIES</b>  Demand driven flexible scheduling  Limited transaction friction  Easy communication  <b>KEY RESOURCES</b>  On-demand technology specialists	<b>Value proposition</b>  Certainty over availability  Vehicle options that meet all your needs  Lower cost than an Uber  A part of the local community	<b>CUSTOMER RELATIONSHIPS</b>  Public consumer but segmented  Aged care / Schools  Local councils / Local community  <b>CHANNELS</b>  Direct channels Social media Aged Care Providers	<b>CUSTOMER SEGMENTS</b>  School services  Route services  Charter services  On-demand services
<b>COST STRUCTURE</b>  The cost of technology, specialist IT support, licencing, lobbyists, increased management			<b>REVENUE STREAMS</b>  Standard rate, rate per kilometre, subscription model	



## Key takeaways

### *Managing uncertainty for your business*

#### **Understand the uncertainty landscape**

Spend to capture knowledge

What you know, and probably should know

Undertake systematic environmental scanning

Become a data driven organisation

#### **Identify the level of uncertainty**

Assess the level of uncertainty that you are operating in and consider those tools that make sense for your environment

Remember most likely to be operating in level two or three

#### **Consider your strategic intent and various options**

Consider what your strategic intent is

And then consider those options that will add value given various outcomes and reduce the likelihood of costly outcomes