EVALUATING THE RESILIENCE OF WORLD CITIES

Richard Barkham, Grosvenor Group Research Director



We needed to develop a more holistic way of evaluating risks to long term investment...





...so we focused on resilience

The ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organization, and the capacity to adapt to stress and change.

(IPCC 2007)



...which we redefined for real estate

The ability of cities to thrive as centres of human habitation, production and cultural development, despite the challenges posed by climate change, population growth and globalisation.

(Grosvenor 2014)





...and deconstructed

VULNERABILITY

moderated by

ADAPTIVE CAPACITY

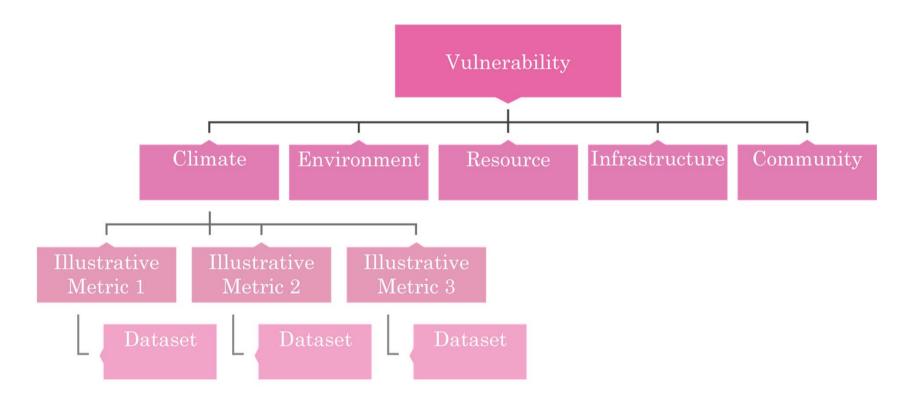
equals

RESILIENCE



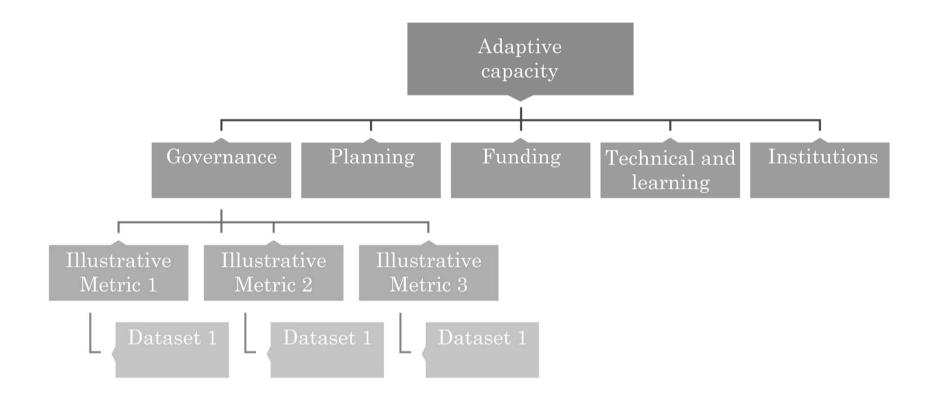


...and measured



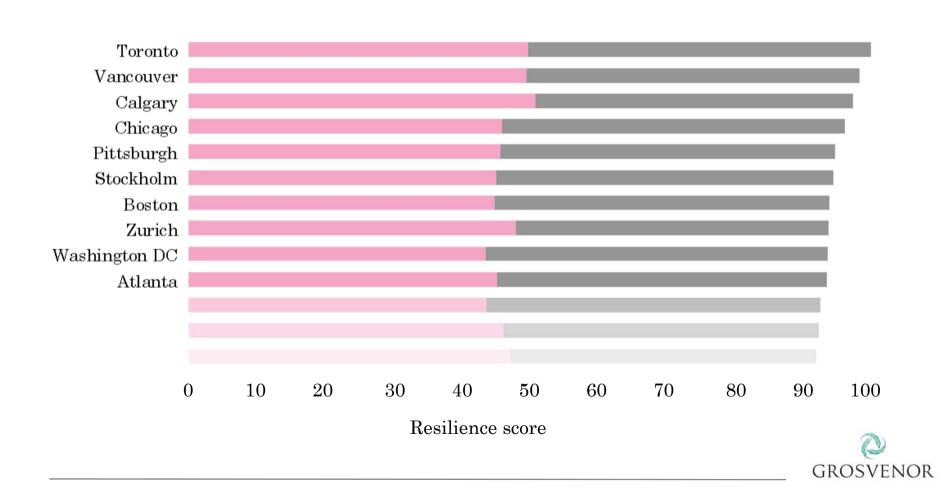


...in two parts

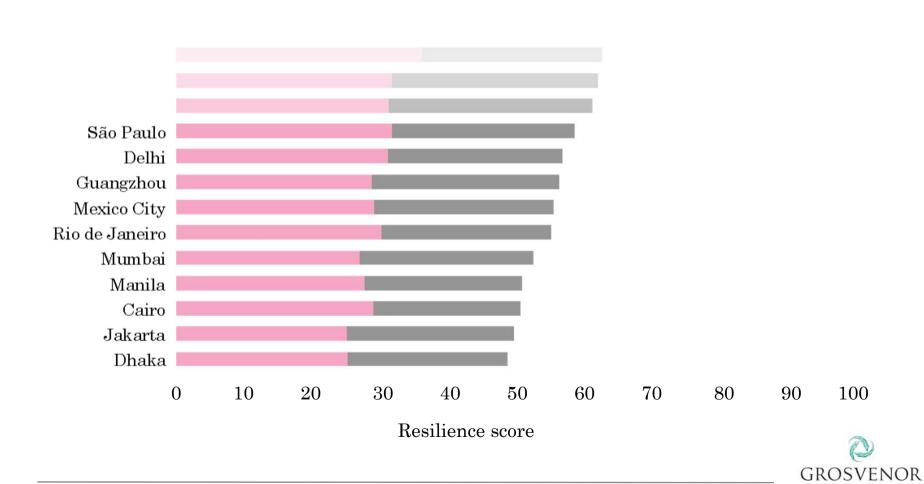




...allowing us to rank the world's most resilient cities



...and the least resilient.



So, how can Grosvenor and others use this research?



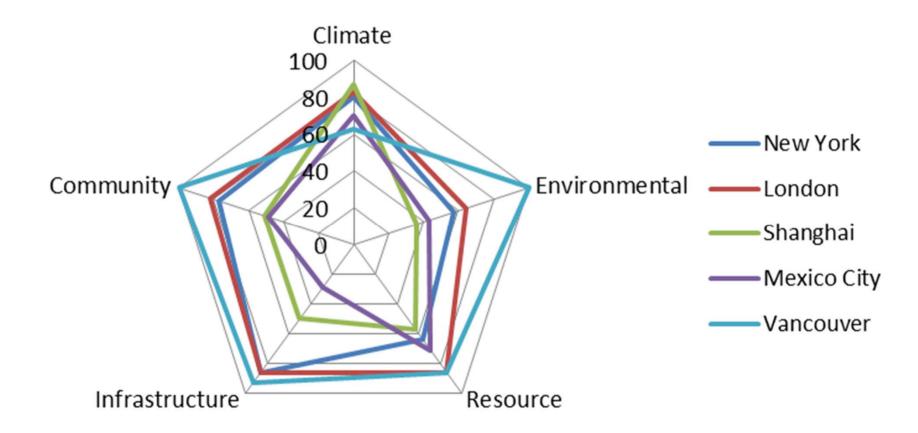


We can use it to analyse cities, like London...

Trend area	Vulnerability trend	Ranking
	Sea level rise	Medium
Climate vulnerability	Frequency and intensity of storm events	Medium
	Frequency and intensity of rainfall events	Low
	Temperature change	Low
	Droughts	Very low
	Extreme events: earthquakes/tsunamis	Very low
	Extreme events: volcanoes	Very low
Environmental vulnerability	Air pollution	Medium-high
	Pollution (water, waste, sewage, transport)	Medium
	Urban sprawl	Low
Resource vulnerability	Energy	Medium-high
	Water	Very low
	Food	Very low
Infrastructure vulnerability	Transport	Medium
	Housing	Medium
	Utilities	Very low
Community vulnerability	Affordability	High
	Crime	High
	Demographics	Medium-high
	Inequality	Medium-high
	Health	Medium
	Corruption	Low
	Liveability	Very low
	Education	Very low
	Culture	Very low

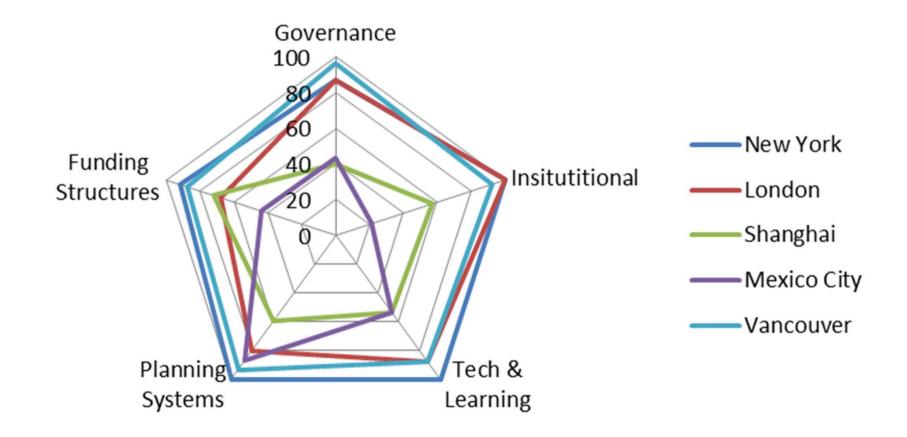


... to benchmark cities' vulnerability





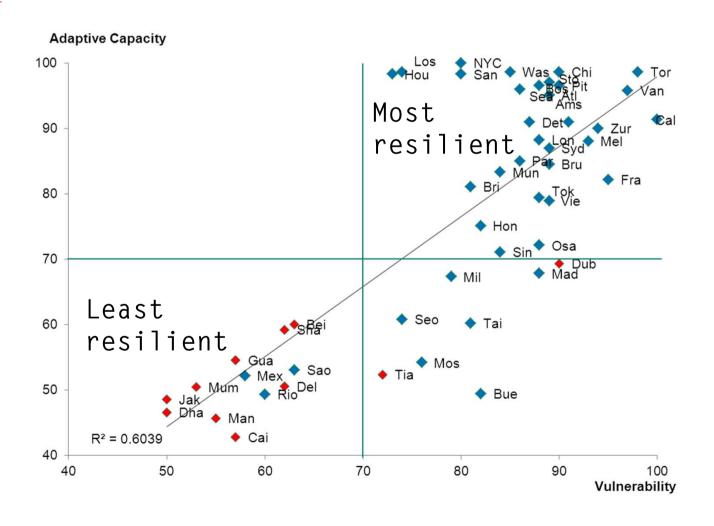
...and their adaptive capacity.





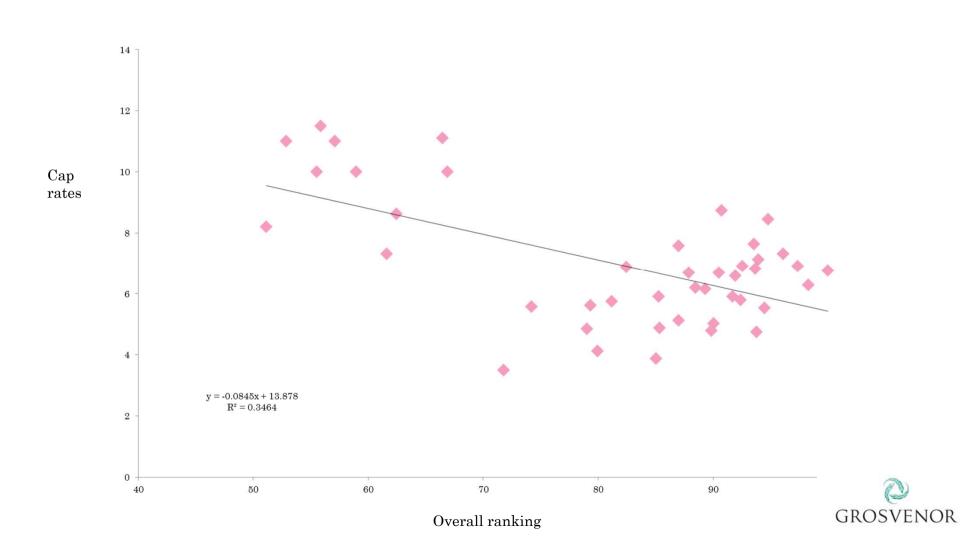


We hope to create awareness...





...and to investigate property pricing.





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