

LA STATISTICA IN ECONOMIA

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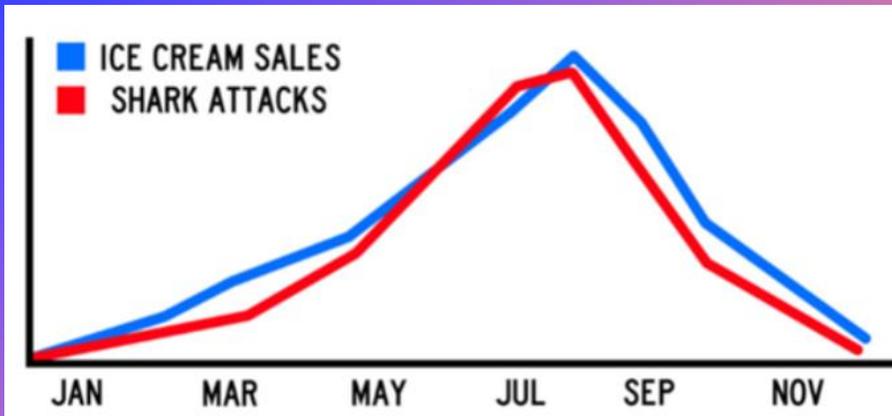
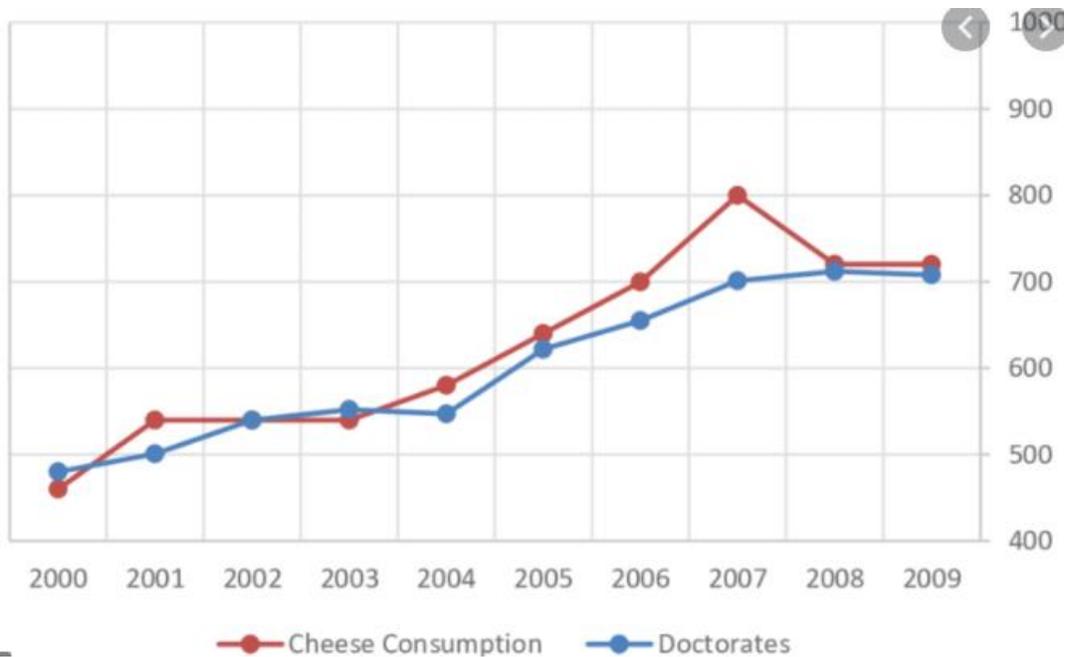
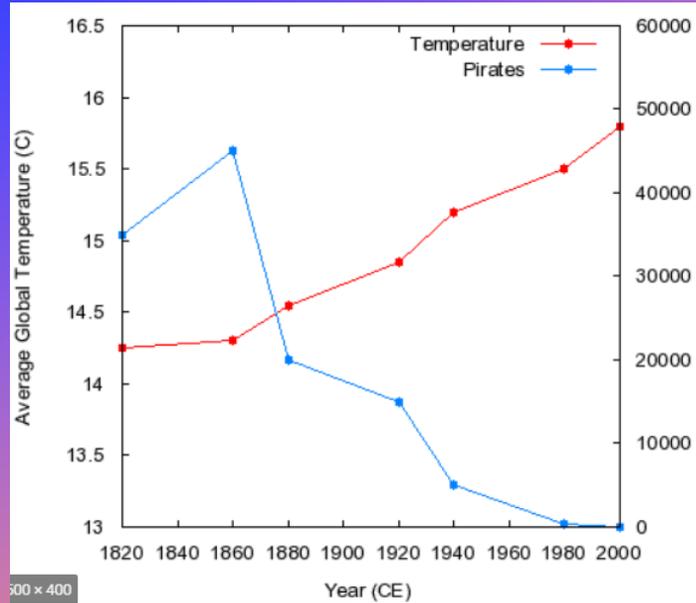


Perchè la statistica?

- “Complete laws predict individual values. Incomplete laws predicts distribution”.
- Descrivere e sintetizzare i dati
- Progettare la raccolta di dati
- Inferire sulla base dei dati

Attenzione a come valutate le relazioni

Correlazione \neq Causalità



Transactional activities are the most automatable, but opportunities exist across most subfunctions.

Activities that can be automated using demonstrated technologies, %¹



¹ Proportion of tasks. May not add to 100% due to rounding.
Source: McKinsey analysis

Source: prof Peter Verhezen,
Strategic Management course
2019/2020 – Antwerpen
University

2 Major AI Approaches



Augmentation

Assisting humans
with daily tasks

Virtual assistants
Data analytics
Software solutions
Reducing error/bias

Automation

Working autonomously
in a specific field

**Robots - key process
steps in manufacturing plants**
**Trivial, repetitive tasks
in the supply chain**



What's more powerful?



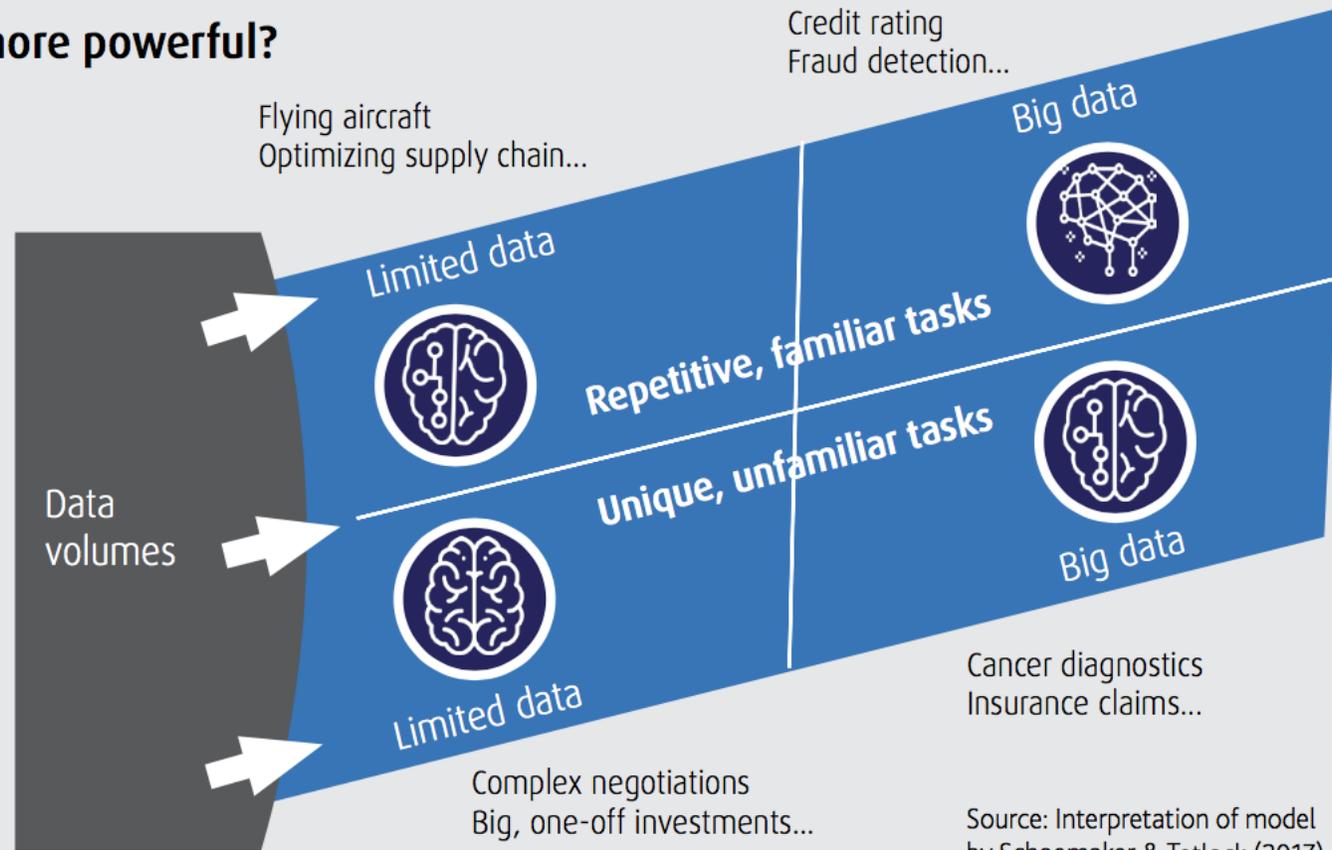
Human +
AI



Human



AI



Source: Interpretation of model
by Schoemaker & Tetlock (2017)

Misurare la variabilità

- Varianza

Population Variance

$$\sigma^2 = \frac{\sum_{i=1}^N (x_i - \mu)^2}{N}$$

Sample Variance

$$s^2 = \frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n-1}$$

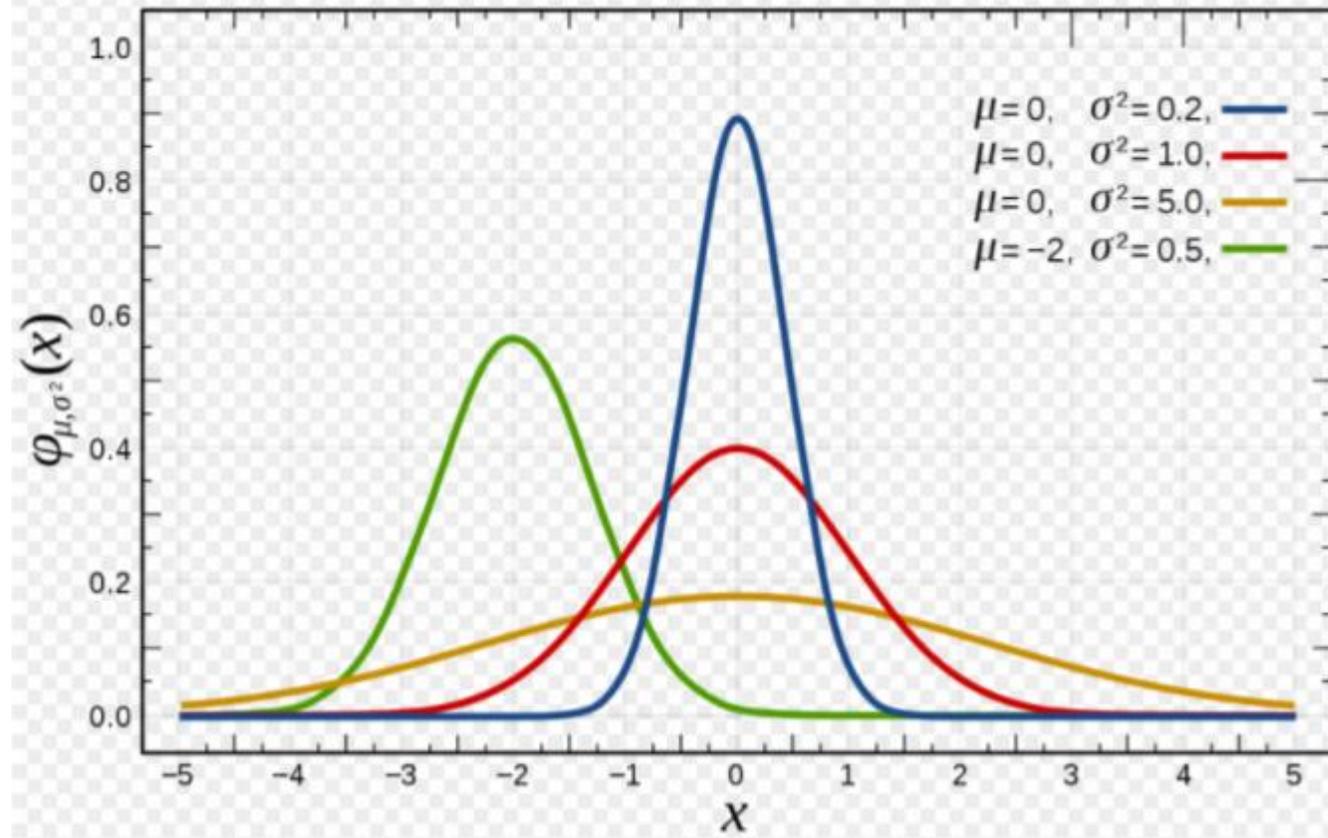
- Deviazione standard

$$\sigma = \sqrt{\frac{\sum_{i=1}^N (x_i - \mu)^2}{N}}$$

- Coefficiente di variazione

$$Va = \frac{\sigma}{\mu} = \frac{\text{devianza standard}}{\text{media}}$$

Esempio

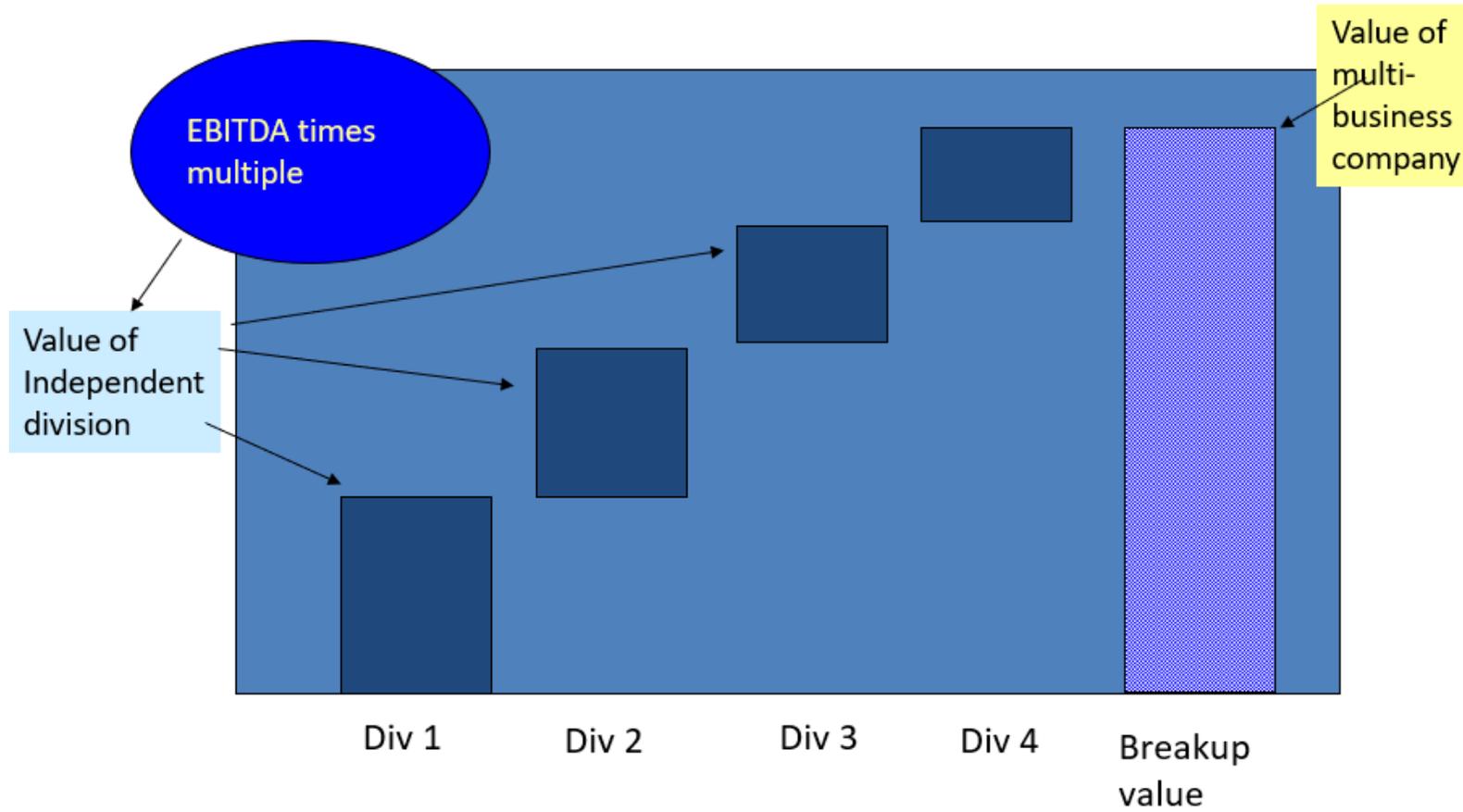


L'importanza della diversificazione

- Tramite una corretta diversificazione si può ridurre (o eliminare) il rischio specifico.
- L'unico rischio non riducibile è il rischio di mercato
- $\sigma_{AB}^2 = w_A\sigma_A^2 + w_B\sigma_B^2 + 2w_Aw_B\rho_{AB}\sigma_A\sigma_B$

Dove ρ rappresenta la correlazione e w le percentuali.

Minore è la correlazione, maggiore saranno i benefici.



Source: prof Peter Verhezen, Strategic Management course 2019/2020 – Antwerpen University

Attenzione!

La diversificazione deve creare valore aziendale

