



**BANCO DE PORTUGAL**  
EUROSISTEMA

## Top Risks Identification

**12<sup>th</sup> Central Bank Risk Managers' Conference**

Mumbai | November 18<sup>th</sup>, 2016

**Carlos Branco**





**01** . How to deal with risks of different nature?

**02** . How to group diverse risk events?

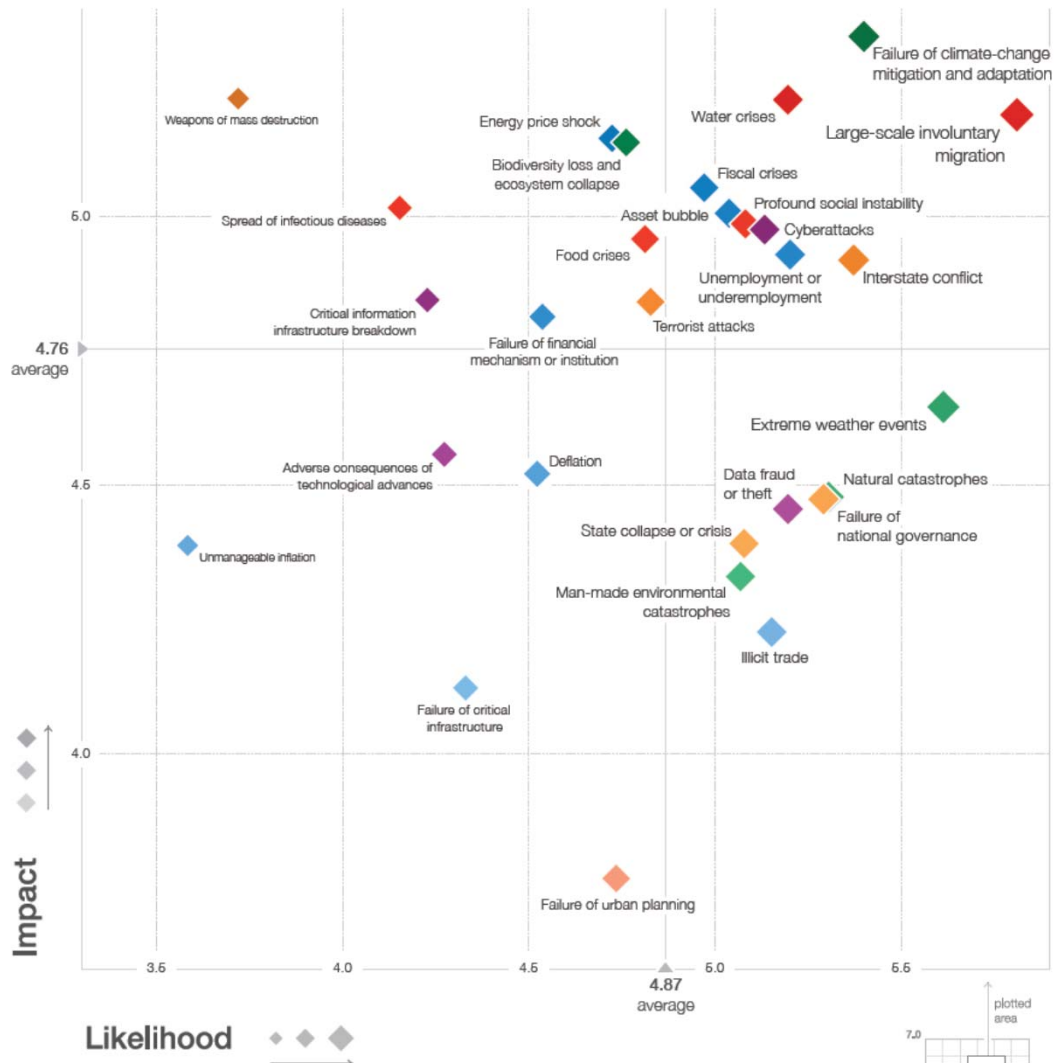
**03** . How to add value?



- To serve as a tool for the global process of management, governance and control of the Bank's exposure to risk, mainly in the way the most relevant risks are identified, managed and controlled:
  - 1<sup>st</sup> line of defense (Departments)
  - 2<sup>nd</sup> line of defense (Risk management, control and *compliance*)
  - 3<sup>rd</sup> line of defense (Audit)
  
- To add value to top management:
  - Identify maximum lost events
  - Highlight need to reinforce controls
  - Serve as an anchor for performing more detailed analyses, based on ORM
  - Identify lines of business to focus on the strategic planning



The Global Risks  
Report 2016  
11th Edition





### Top 10 risks in terms of **Likelihood**

- 1 Large-scale involuntary migration
- 2 Extreme weather events
- 3 Failure of climate-change mitigation and adaptation
- 4 Interstate conflict
- 5 Natural catastrophes
- 6 Failure of national governance
- 7 Unemployment or underemployment
- 8 Data fraud or theft
- 9 Water crises
- 10 Illicit trade

### Top 10 risks in terms of **Impact**

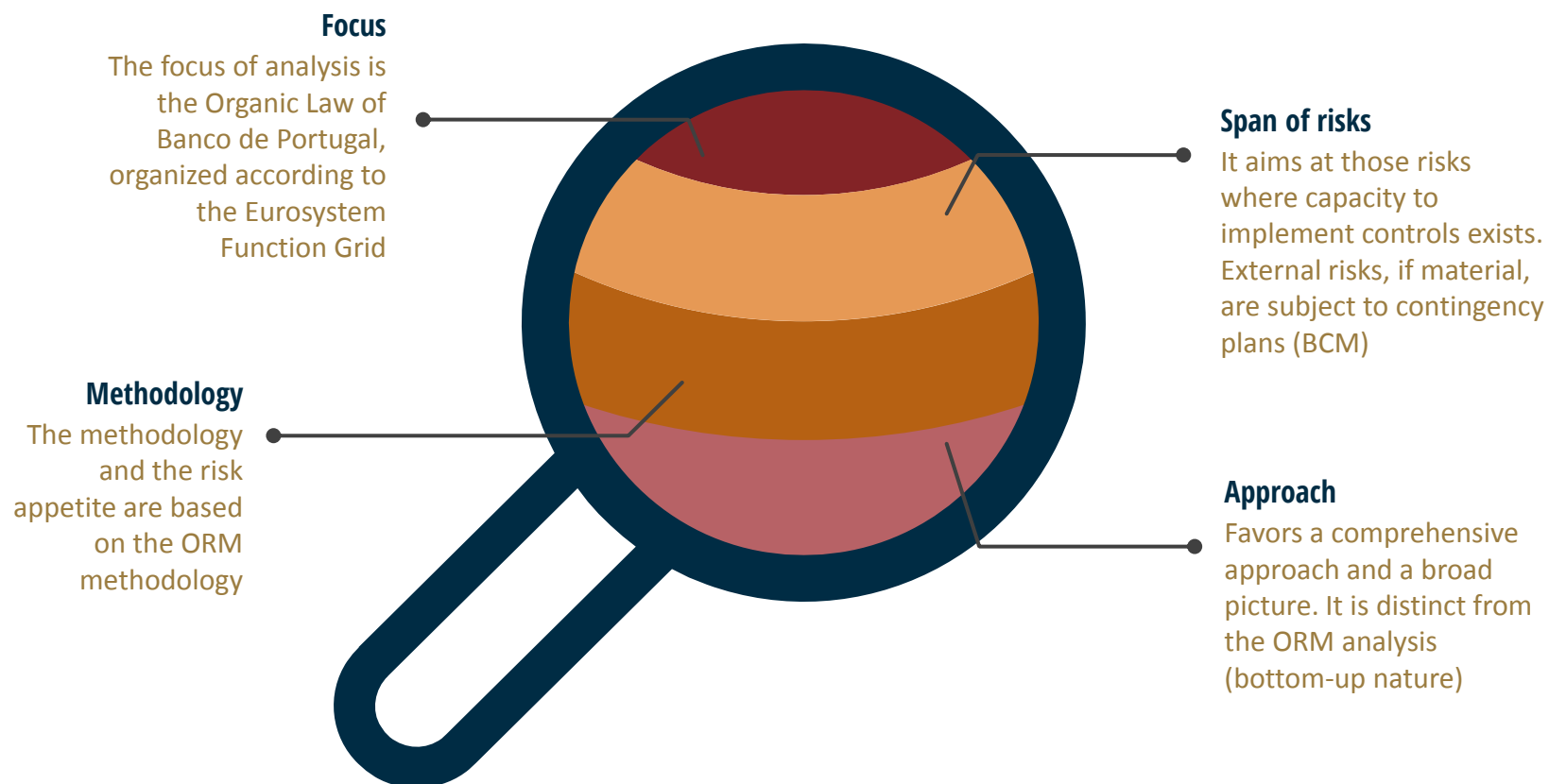
- 1 Failure of climate-change mitigation and adaptation
- 2 Weapons of mass destruction
- 3 Water crises
- 4 Large-scale involuntary migration
- 5 Energy price shock
- 6 Biodiversity loss and ecosystem collapse
- 7 Fiscal crises
- 8 Spread of infectious diseases
- 9 Asset bubble
- 10 Profound social instability

### Categories

-  Economic
-  Environmental
-  Geopolitical
-  Societal
-  Technological



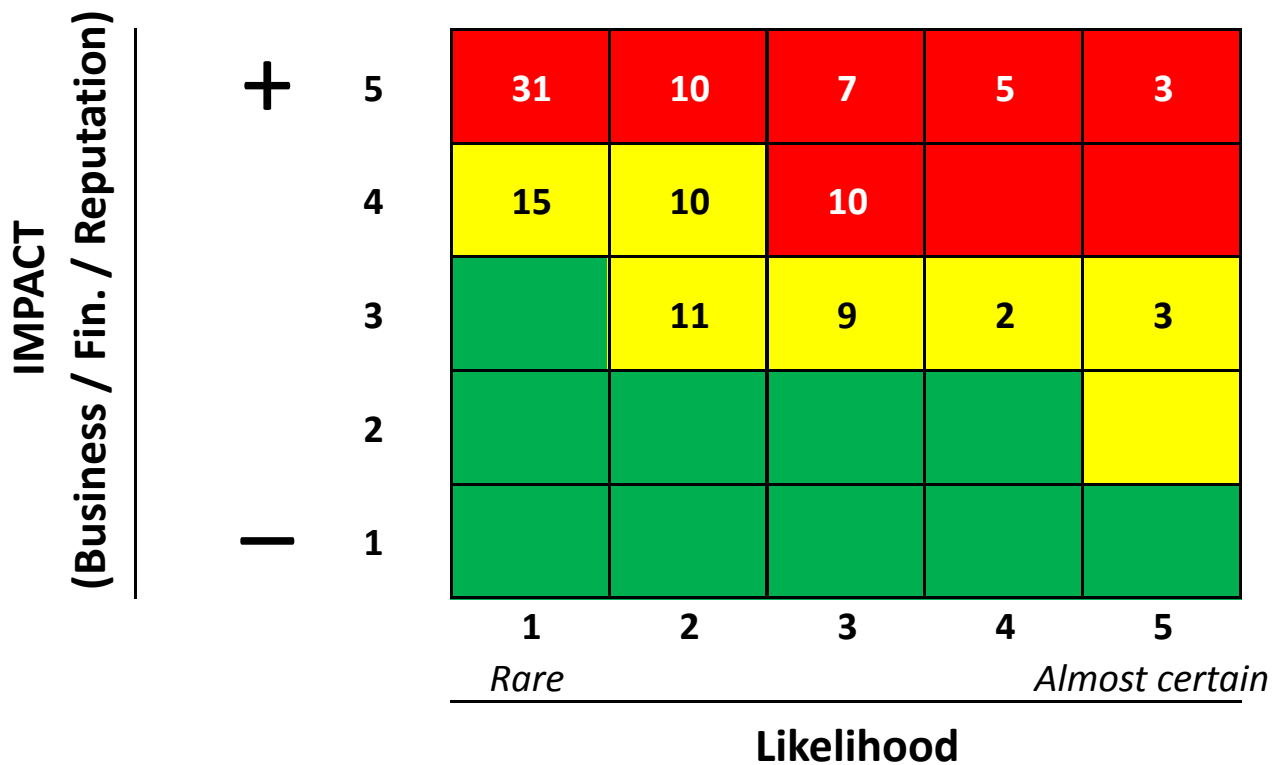
## 01 | Methodological assumptions





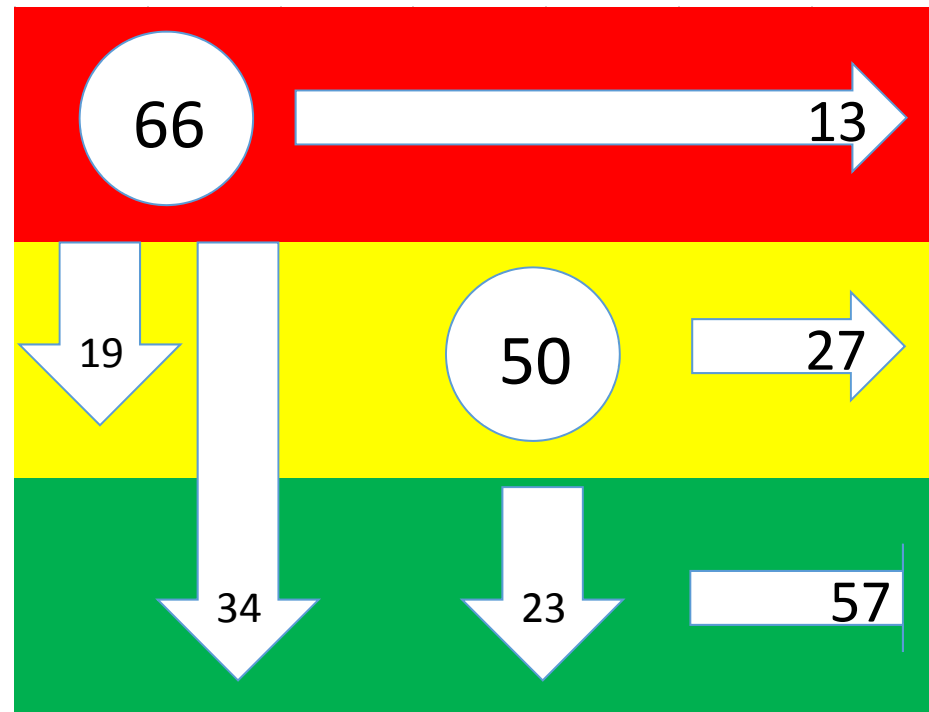
## 01 | Placing the events in the matrix (“gross” risk)

Initially, a “gross” notion of risk is considered, resulting in an assessment without considering the effect of controls, in order to identify the events that could have greater impact on financial, business and reputation. The final figure captures the effect of controls, providing a “net” notion of risk.





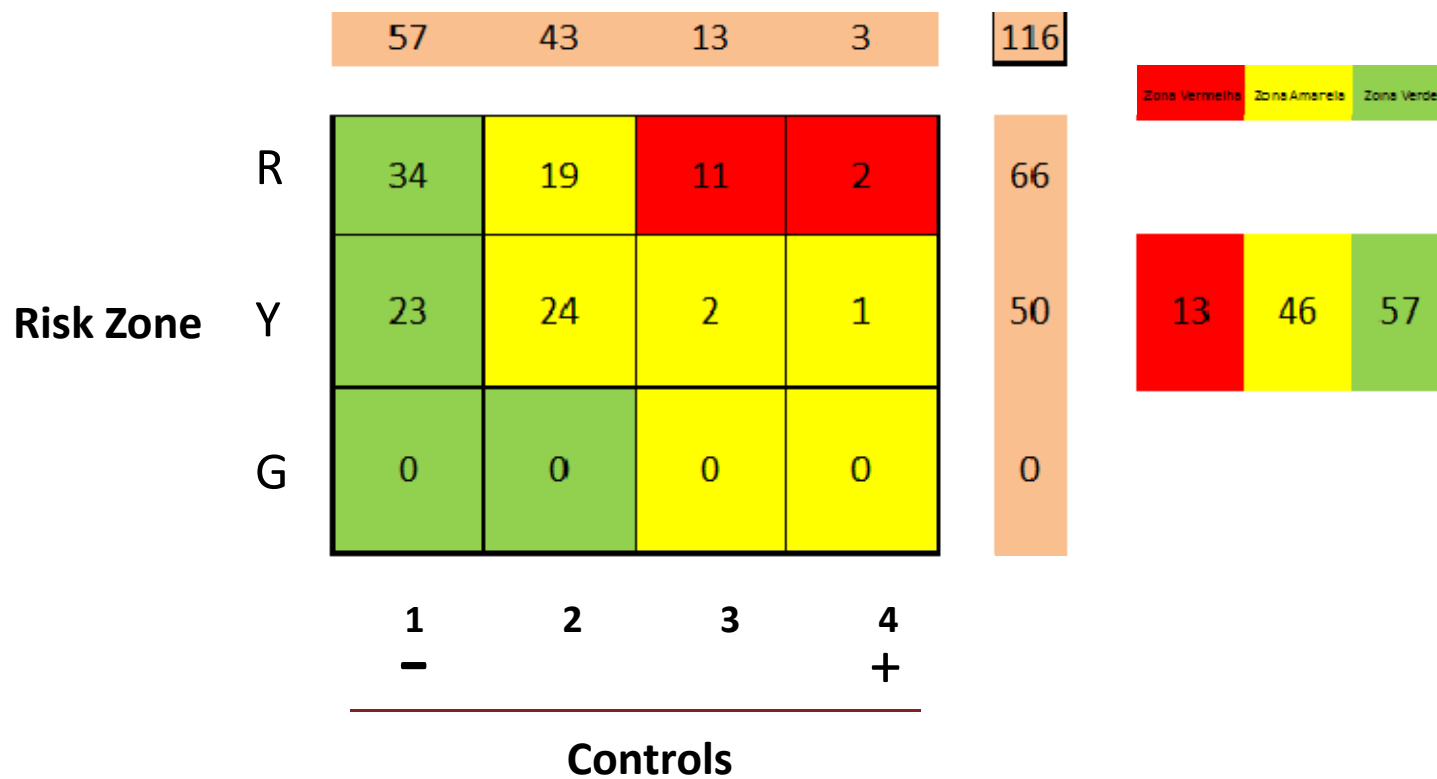
## 01 | Effect of controls (“net” risk)

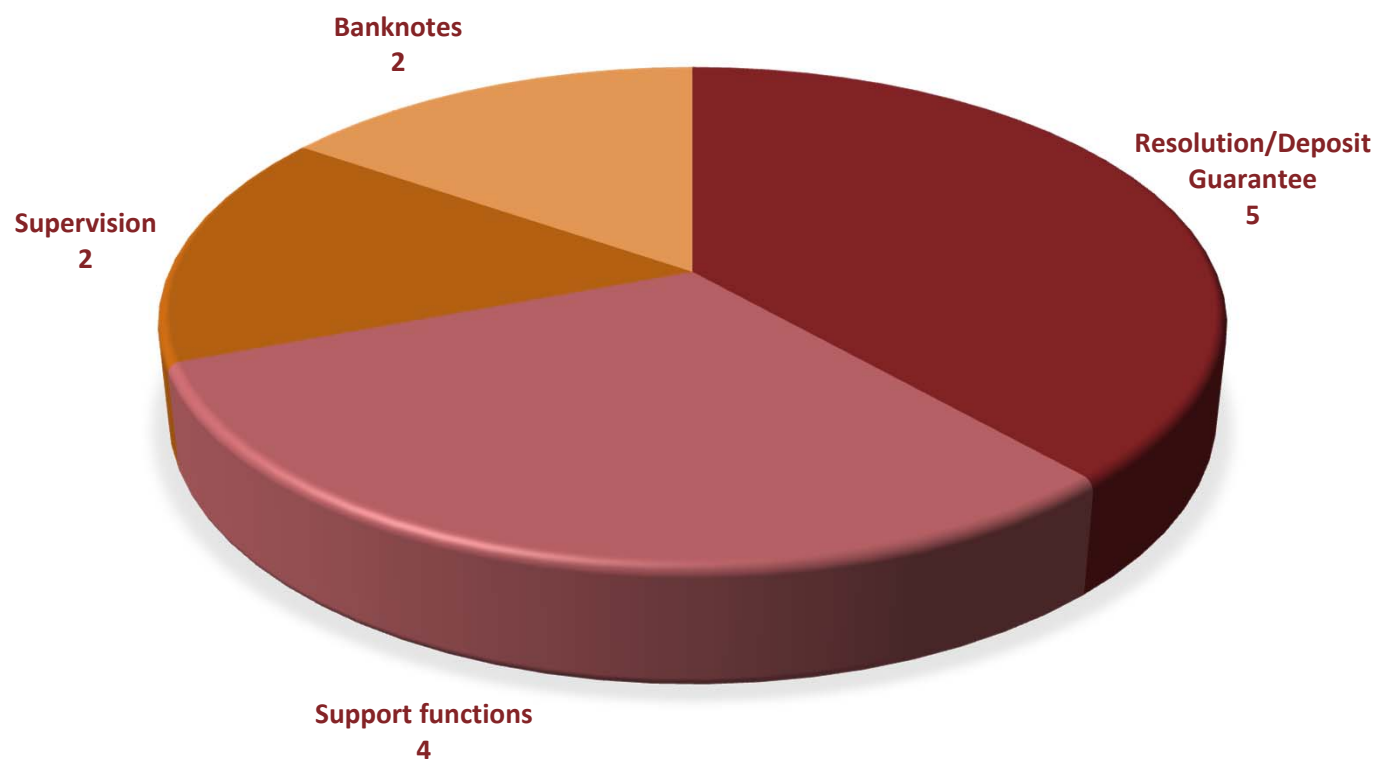






## 01 | Effect of controls (“net” risk)







**01** . How to deal with risks of different nature?

**02** . How to group diverse risk events?

**03** . How to add value?



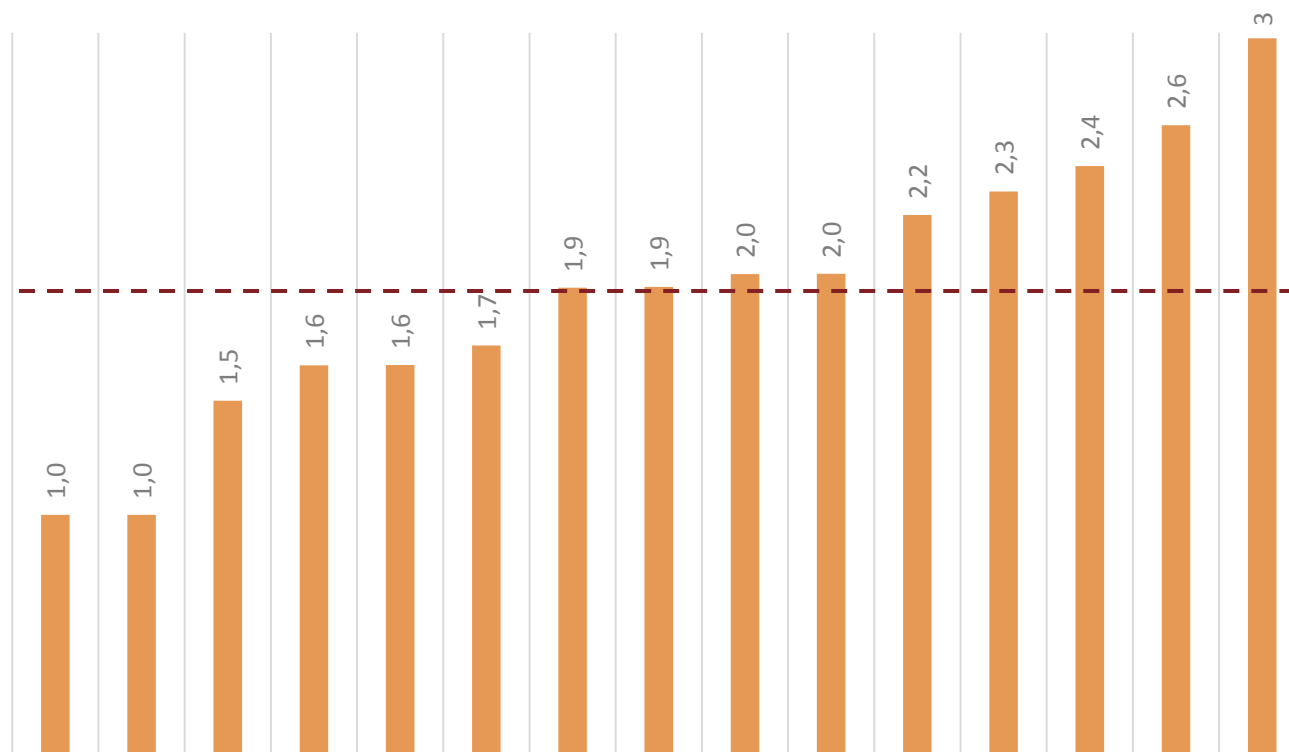
Event	Business	Reputation	Financial	Max	Likelihood	Risk zone	Controls	Risk level
Event #1	5,0	3,0	5,0	5,0	1,0	3	1	1
Event #2	4,0	5,0	4,0	5,0	2,0	3	2	2
Event #3	3,0	5,0	5,0	5,0	3,0	3	3	3
Event #4	1,0	3,0	1,0	3,0	4,0	2	4	2
Event #5	5,0	5,0	5,0	5,0	1,0	3	4	3
<b>Average</b>	<b>3,60</b>	<b>4,20</b>	<b>4,00</b>	<b>4,20</b>	<b>2,20</b>	<b>2,80</b>	<b>2,80</b>	<b>2,20</b>

**SD/AVER** 0,38

**RISK INDEX** 2,58



## 02 | Risk measures by business line





**01** . How to deal with risks of different nature?

**02** . How to group diverse risk events?

**03** . How to add value?



- Risk monitoring (KRI)
- To highlight the need for deeper assessments
- To identify potential needs to reinforce controls
- As an input to Strategic Planning
- To strengthen the association with Audit and Compliance



- Differences persist among the inputs by a lack of standardization of responses, as well as differences in interpreting and evaluating maximum loss events. It is necessary to challenge the responses at a stage where the information will allow for a better perception of the relative positioning.
- Although it is considered that the risk index captures the relative risk of the various business lines, additional dimensions could be added to discriminate the risk in a more granular way.
- It is necessary to consolidate the aggregation method of events, for example, describing the events in terms of importance / resources involved, to reinforce the feasibility of the figures.





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