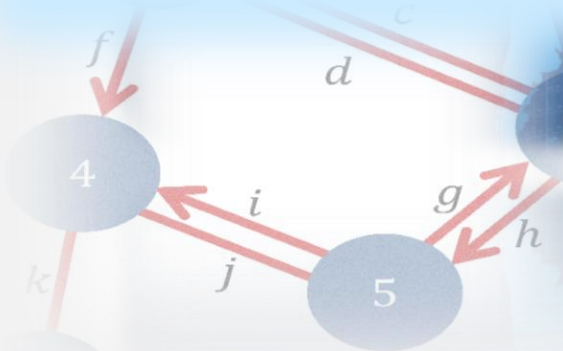


Network theory for quantifying interconnected risks

Researchers have used network theory for banking and financial risks to analyze 2007 financial crisis. But shall we only restrict this analysis to financial sector? What happens to transport network when the natural calamity strikes? What happens to demand when supply side is perturbed? We can quantify and model all these risks using network theory.

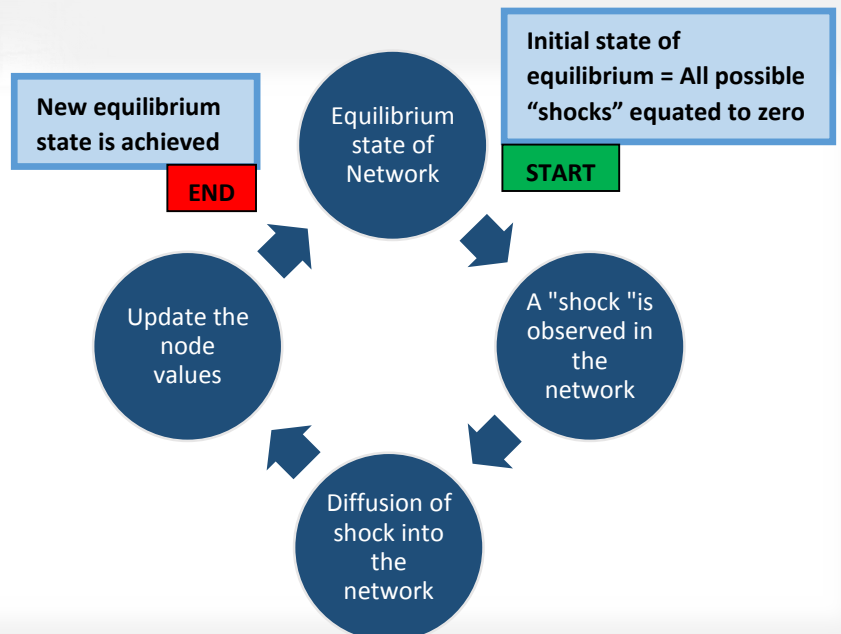
The standard risk framework impact, probability and velocity can be effectively integrated in to network model.



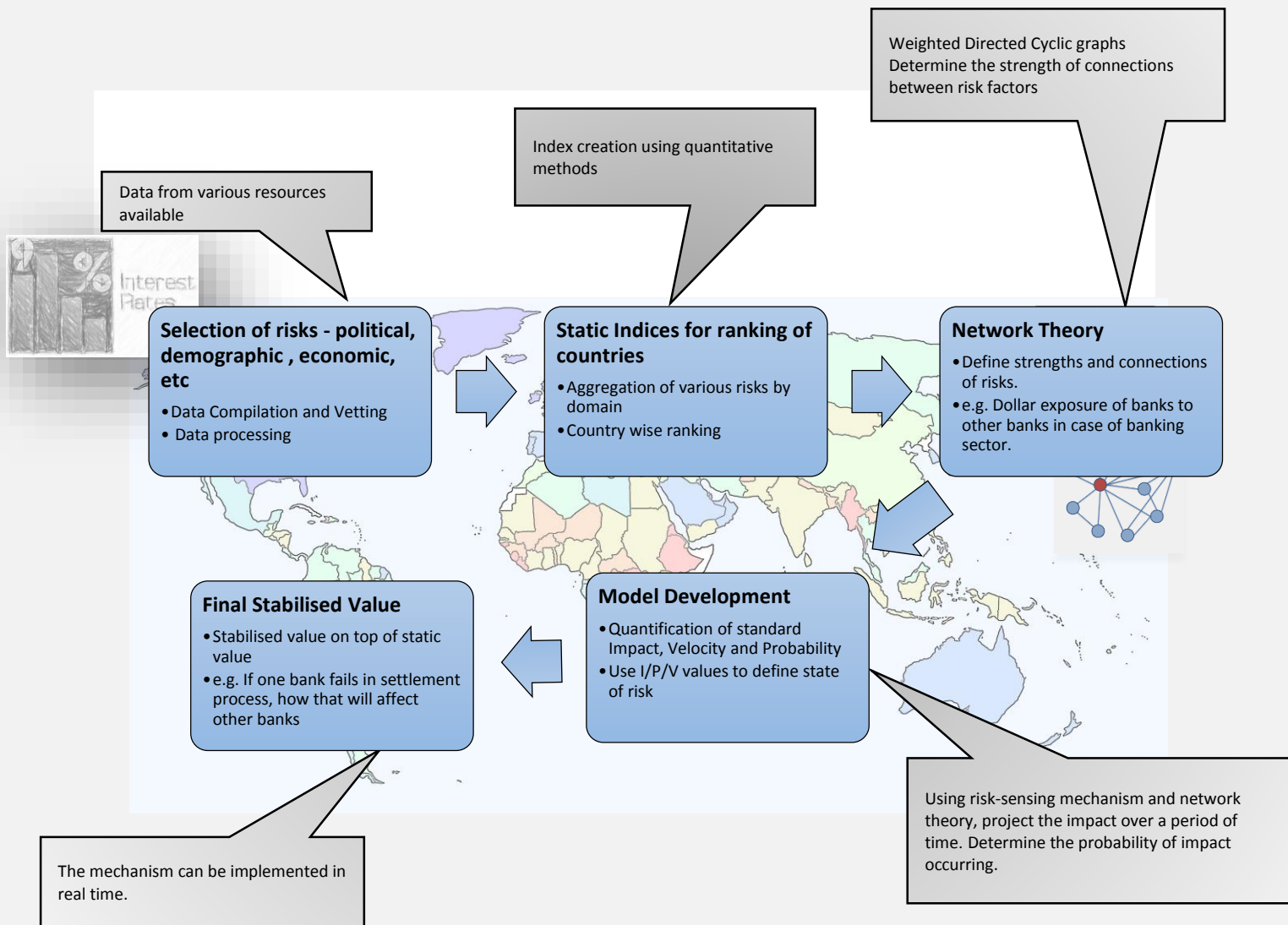
Network theory allows to study the interactions within the risks. It allows us to understand the effect of one risk on the others.

When a shock is given to the node in the system, network model can transfer the shock in to whole network and nodes connected directly or indirectly.

Input output modelling:



Case Study:



About AlgoAnalytics :

AlgoAnalytics Financial Consultancy Pvt. Ltd. has years of expertise in analytics and quantitative trading. The company was founded by Dr. Aniruddha Pant in 2009 and is located in Pune, India. We work at the intersection of mathematics, computer science and other domains. Our core expertise is in the development of advanced mathematical models or solutions for a range of industries, including Retail, Economics, Healthcare, BFSI, and Telecom. The company has highly professional specialists in disciplines of Mathematics, Computer Science, and Financial Markets. Additionally, we work closely with domain experts either from the client's side or our own to effectively model the problem to be solved using analytical tools.