

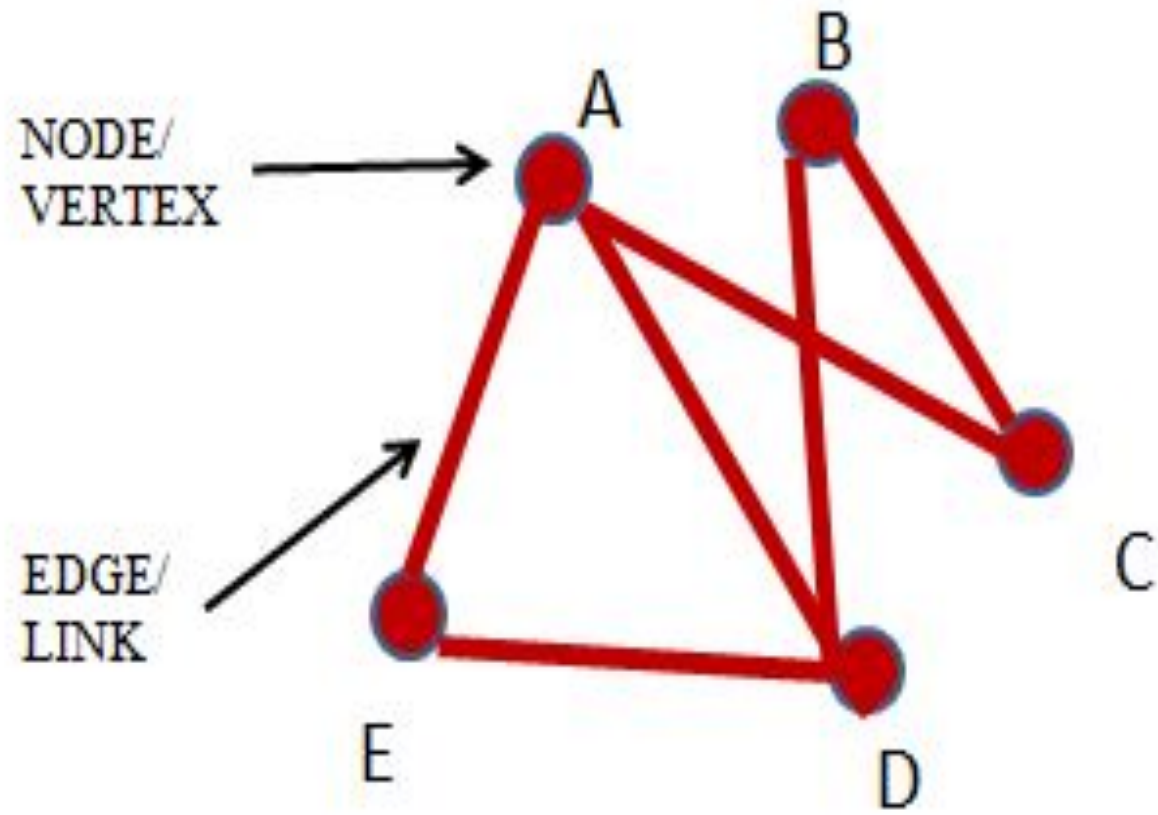
# **Project Management October 2014**

## **part 2**

**Project Management**  
**October 2014**  
**part 2**

# networks

Synergies and feedback

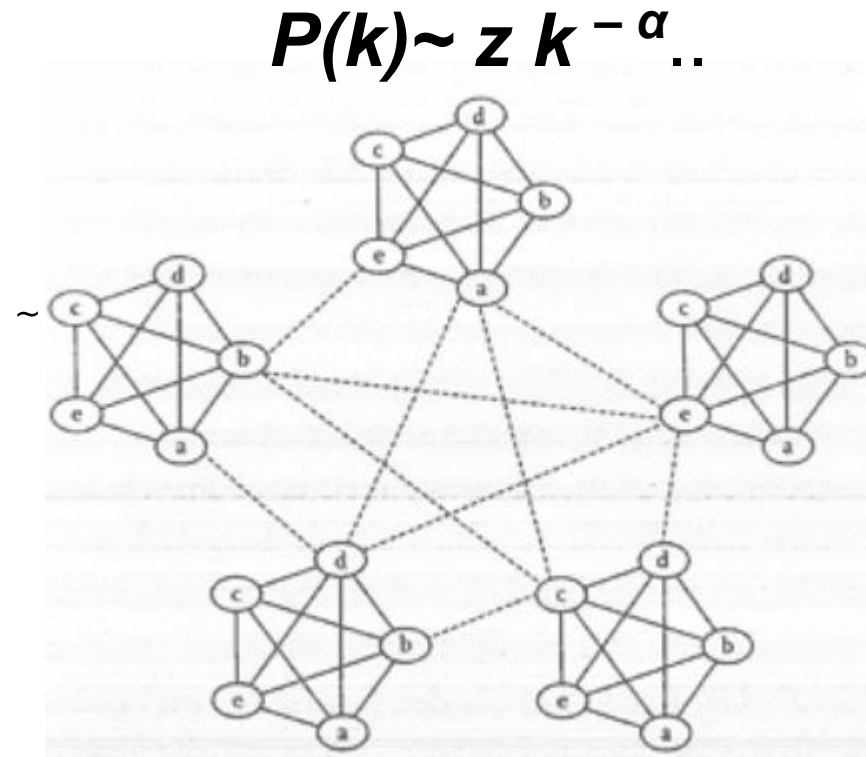


# More complex networks

## Networks: default state

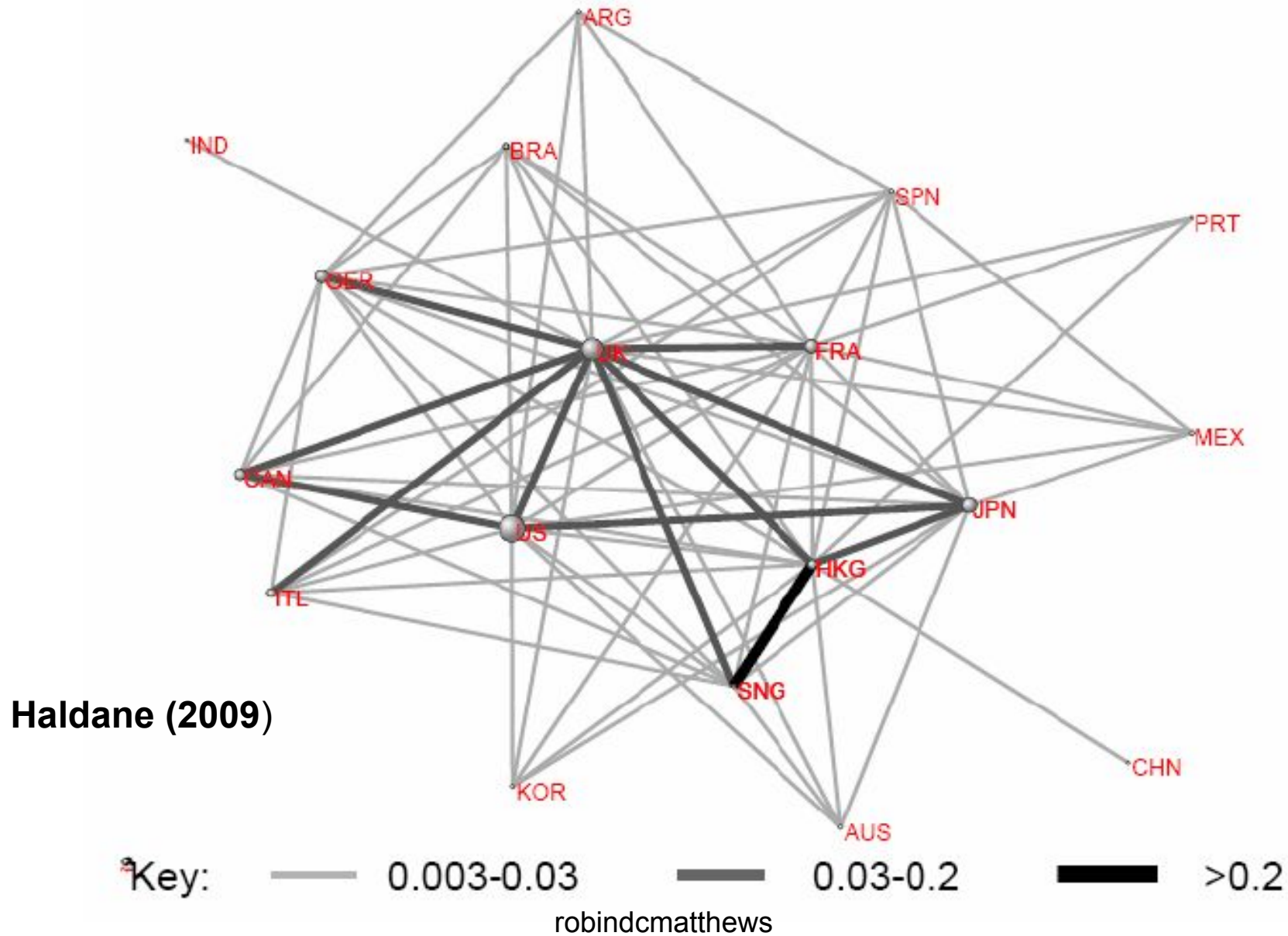
Small world: highly clustered, short path lengths

- Degree of a node is the number of edges ( $k$ ) connecting it to other nodes.
- High degree nodes have many connections (high  $k$ ); low degree nodes have few (low  $k$ )
- $P(k)$  probability of degree  $k$  follows a power law
- $P(k) \sim z k^{-\alpha}..$



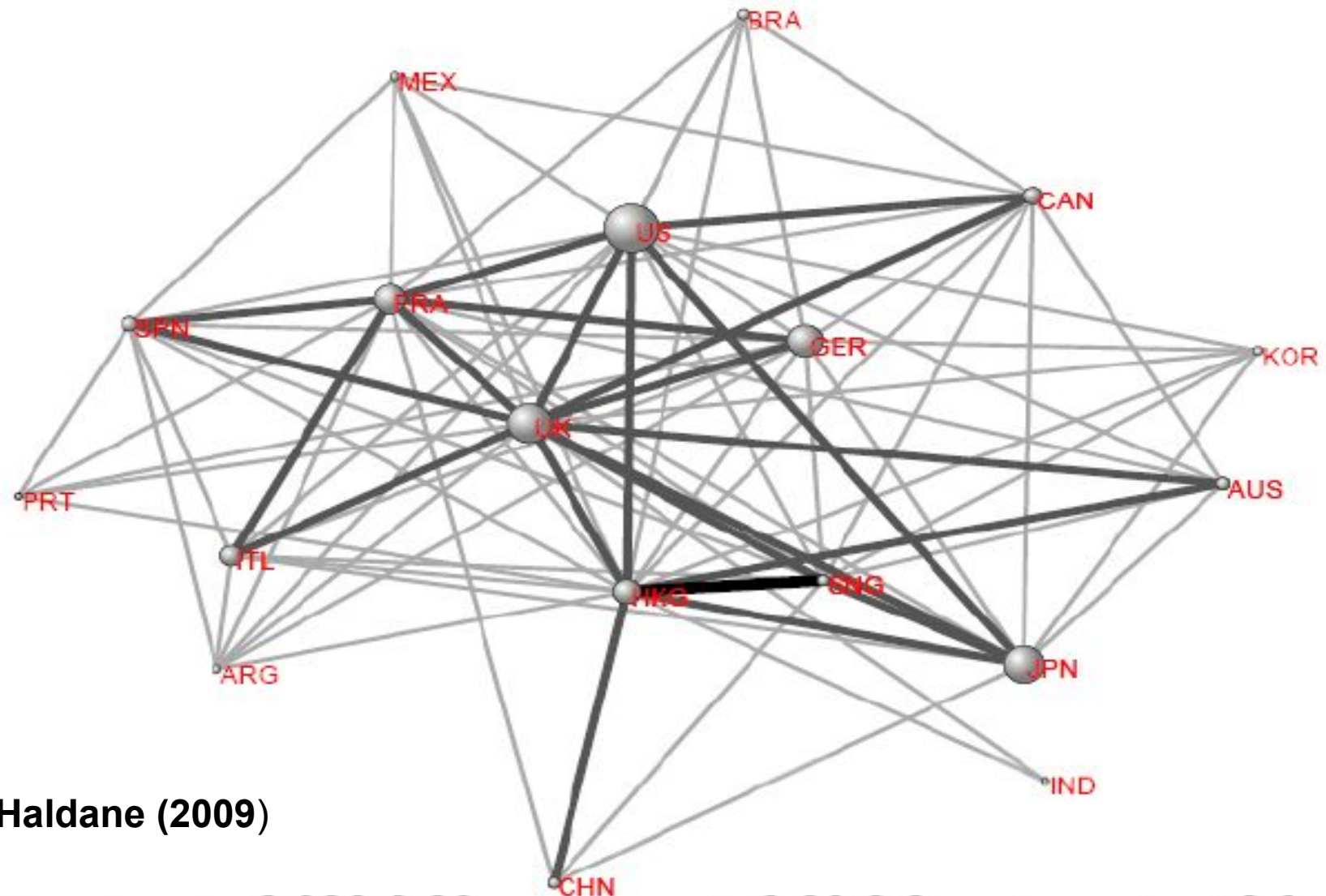
# Chart 1: Global Financial Network: 1985

1985



## Chart 2: Global Financial Network: 1995

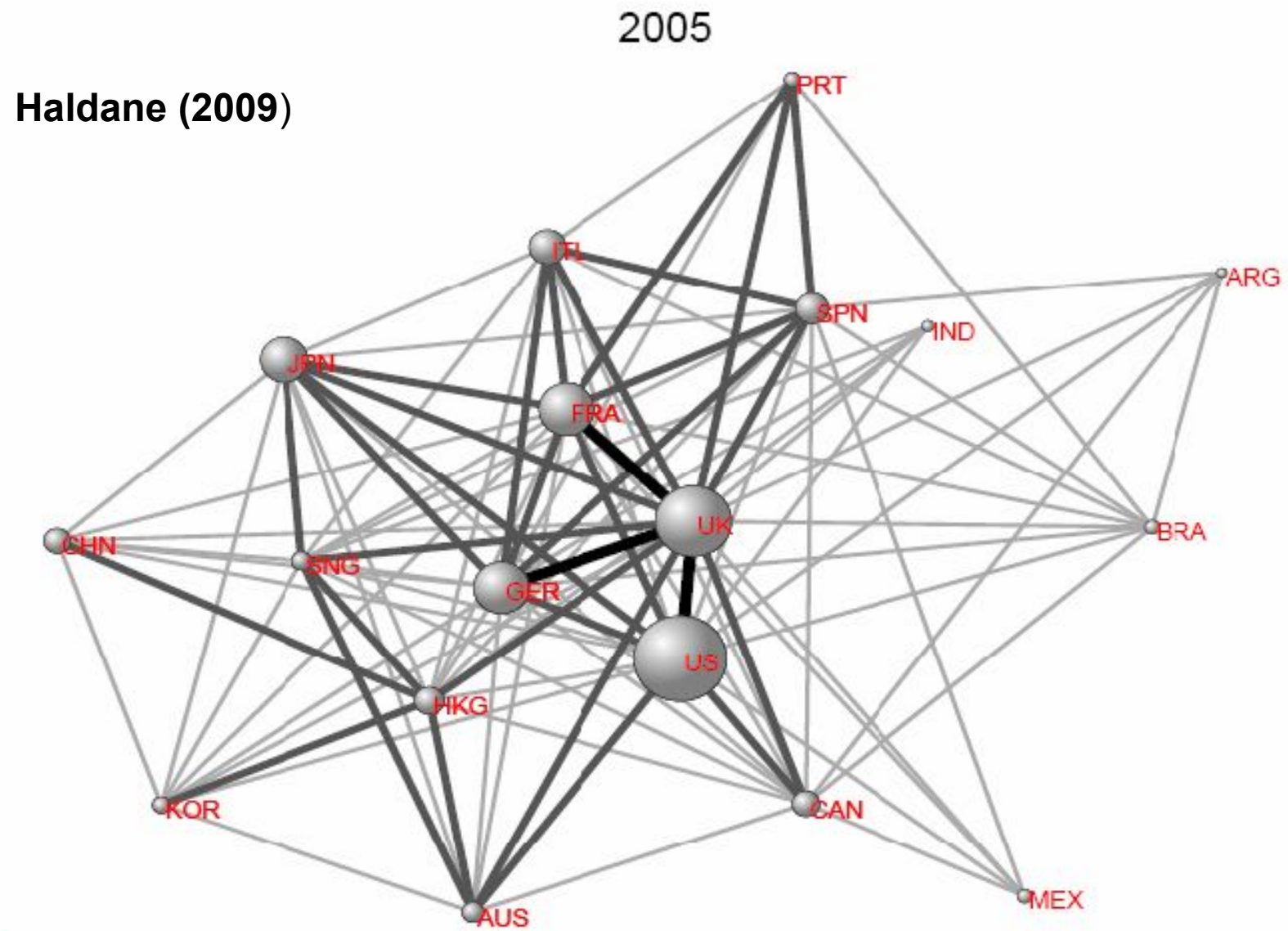
1995



Haldane (2009)

Key: — 0.003-0.03 — 0.03-0.2 — >0.2  
robindcmatthews

# Chart 3: Global Financial Network: 2005



robincmatthews

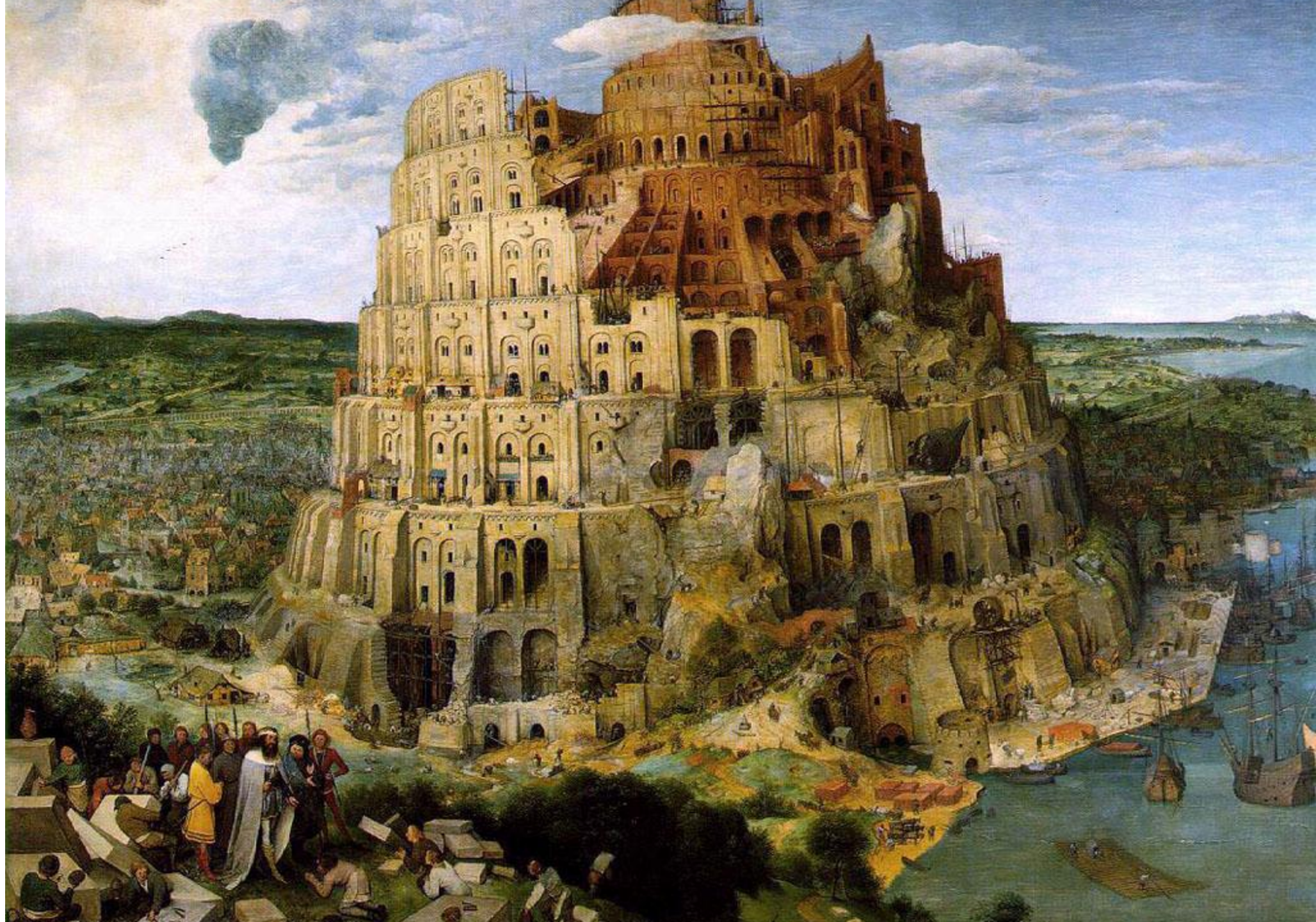


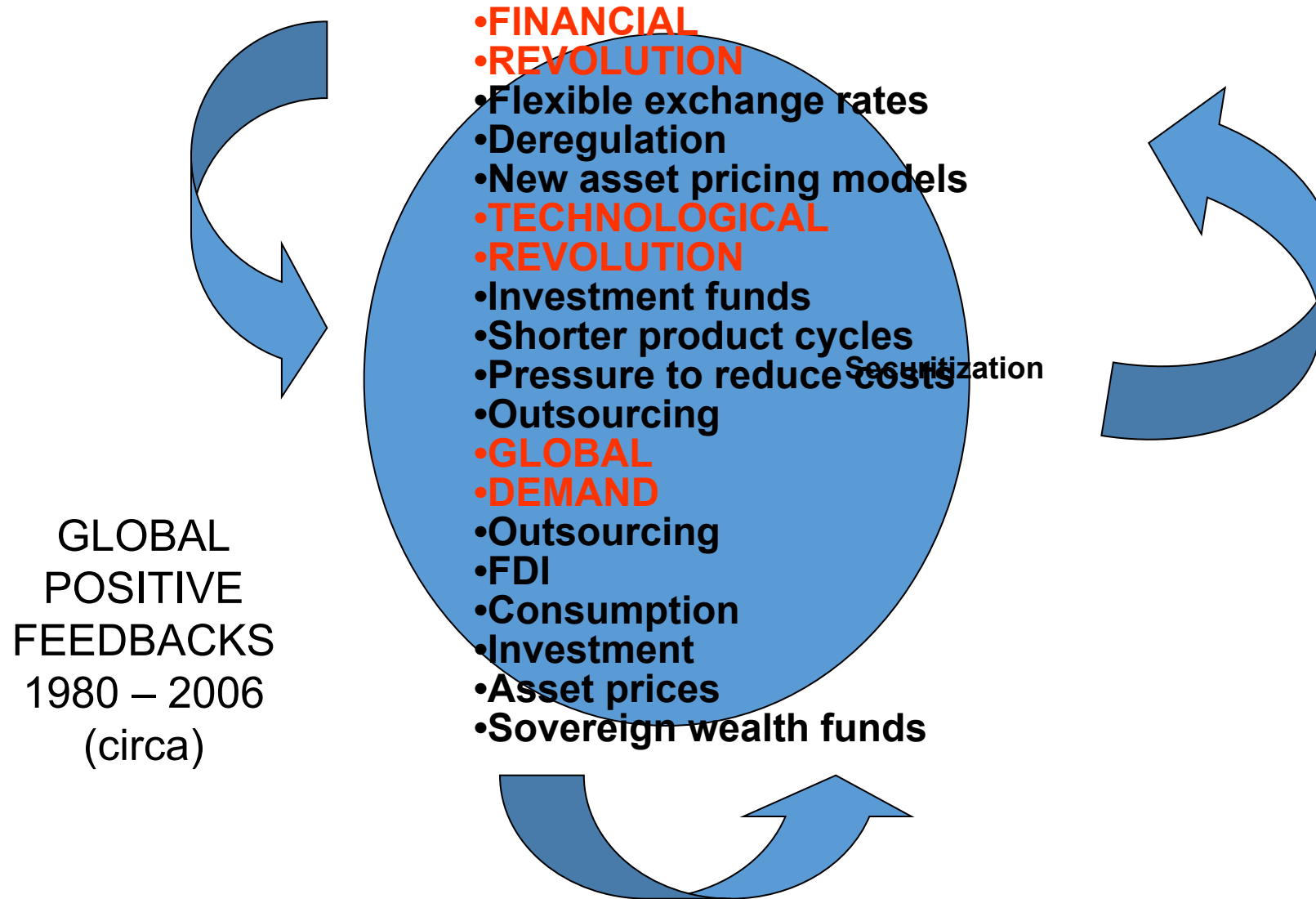
# **Project Management October 2014**

## **part 3**

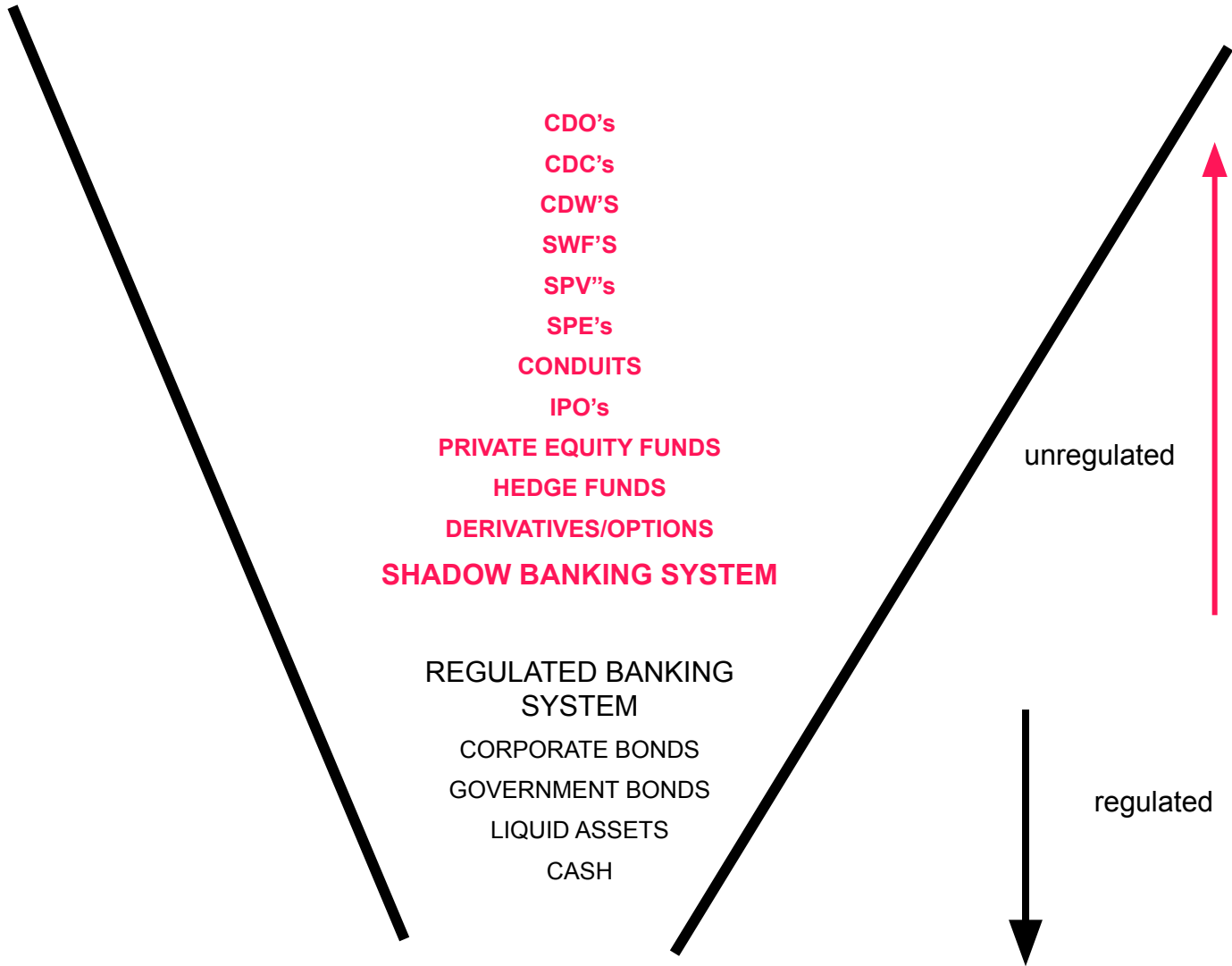
# **The Crisis 2007 – 20012**

## **The financial tower of Babel**





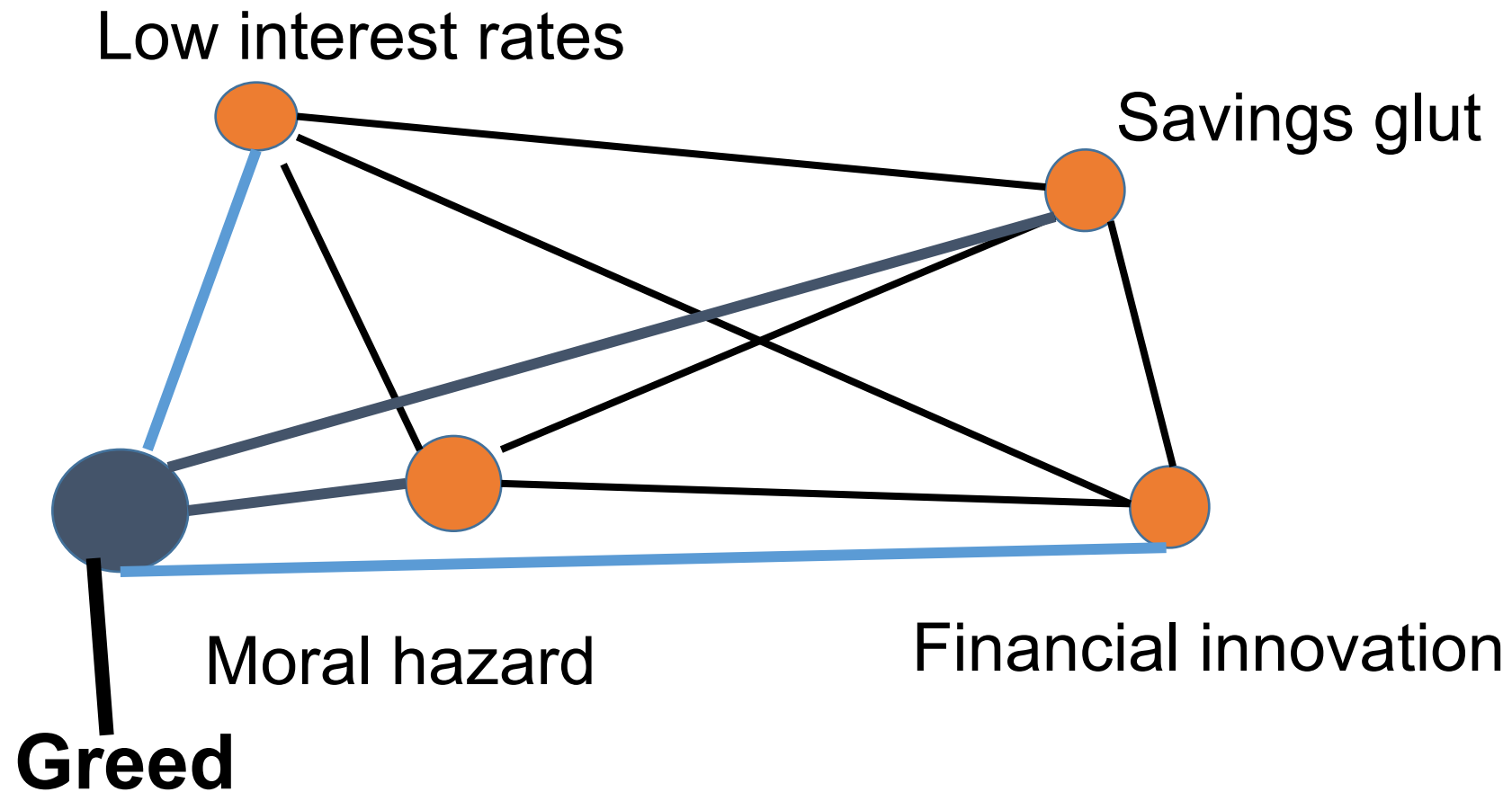
# The financial tower of Babel: 21<sup>ST</sup> century

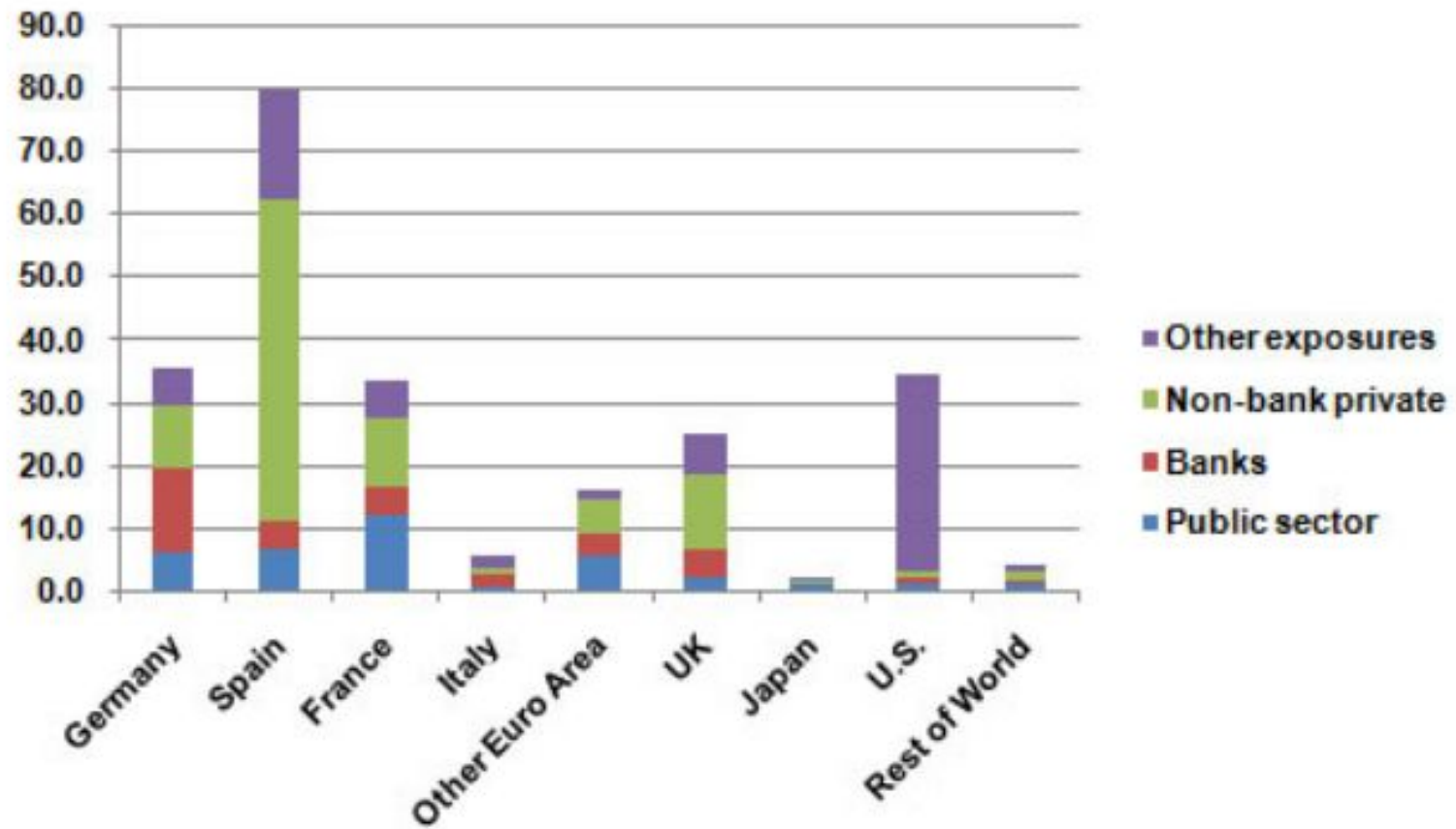


# Causes of crises

- Low interest rates
- Savings glut
- Financial innovation
- Moral hazard
- None of the above
- All of the above
- Samudaya (the second noble truth: thirst)

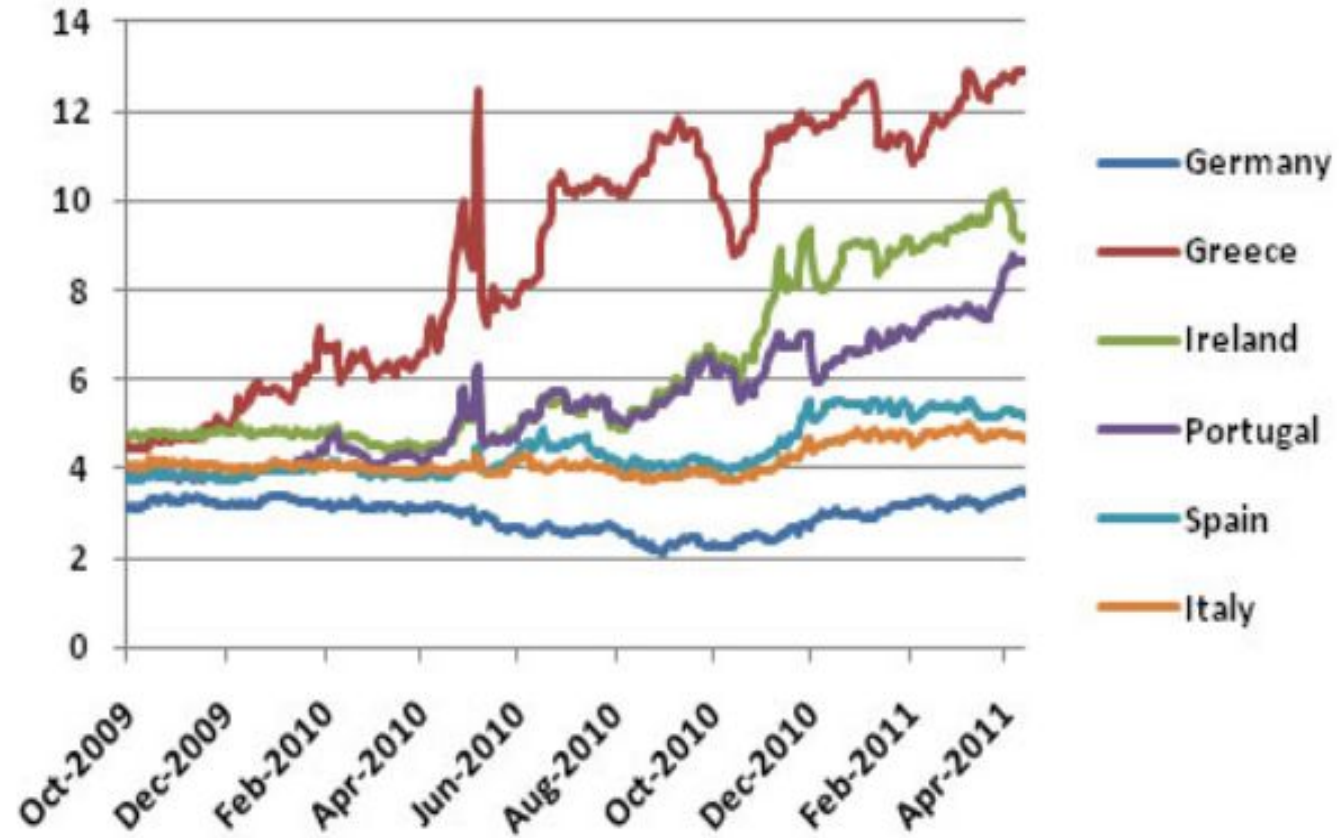
# Causes of the crisis?





Note: Ultimate risk basis except Germany

Source: BIS, Q3 2010



Source: Bloomberg