

PROVISIONAL
GLOBAL BUSINESS AND FINANCIAL ENVIRONMENT
Project Management October 2014
part 1

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<http://robindcmatthews.com>
<http://www.tcib.org.uk/about.html>.
Also <http://kpp-russia.ru> and <http://www.russtrategy.ru>.
<http://kingston.ac.uk/CIPB.php>

Global business environment: history 1

- **Postwar recovery 1945 – 70**
 - **Keynesian policies**
- **Stagflation 1970 -1980**
- **Monetarism and supply side economics
1980 – 2007**
- **Global crisis**

Fundamentals managing projects 1

Firms as collections of projects

NPV AND NCF

NET PRESENT VALUE and NET CASH FLOW

- Net Present Value
- Net Cash Flow
- Fundamental Equation

$$\Pi(t) = R(t) - C(t)$$

$$C(t) = W\&S(t) + M(t) + I(t) - D(t) + [rd(t) + re(t)]$$

Fundamentals managing projects 2

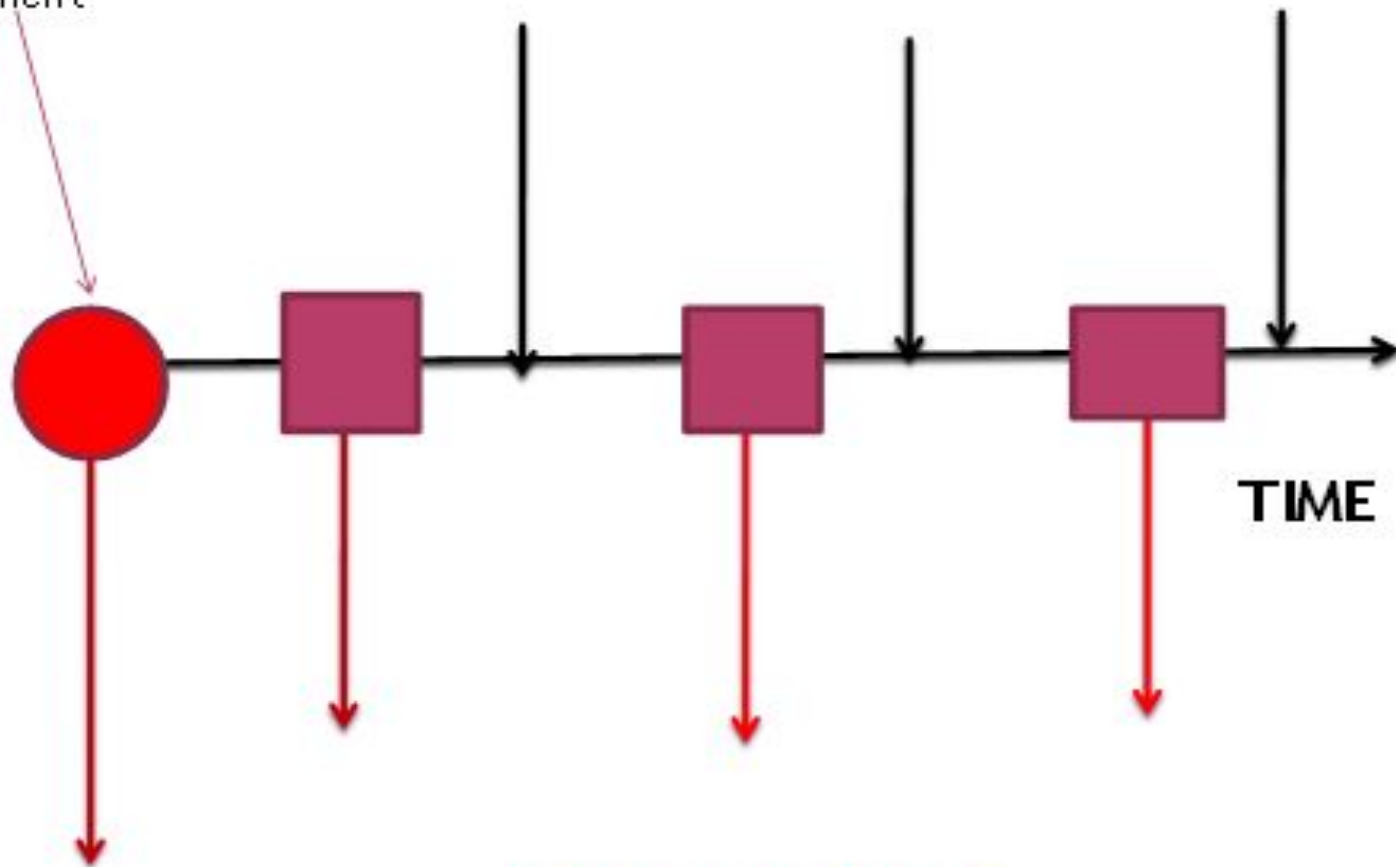
Integrating the real and financial
sectors



BANKS REFINANCE THE TIME GAP BETWEEN CASH INFLOWS AND OUTFLOWS

Initial investment

Cash inflows



Cash outflows

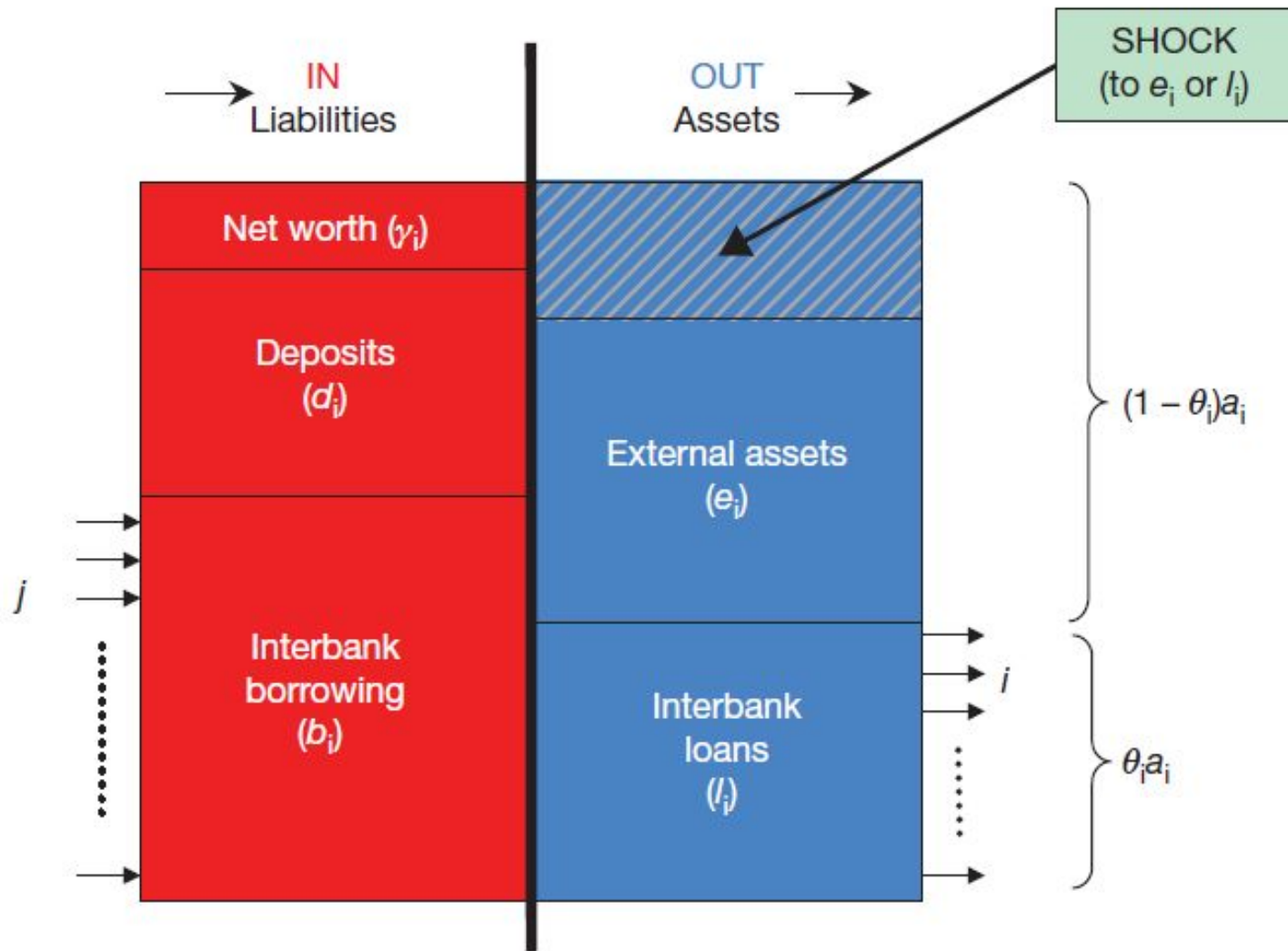
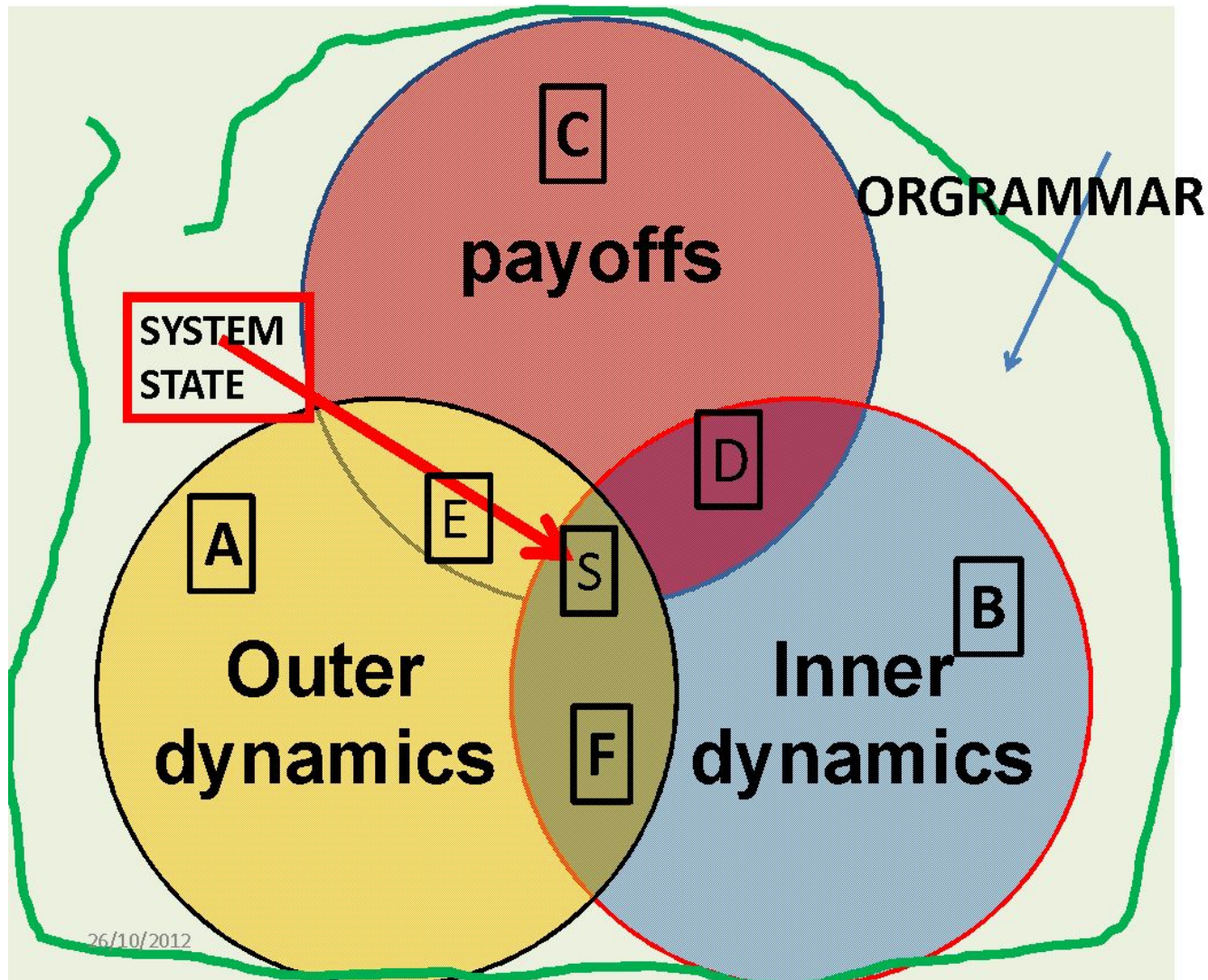


Figure 3 | Schematic model for a node in the interbank network. Adapted with permission from ref. 25.

Meta Model



grammar

ATTRACTOR

PAYOFFS
(P)

P

S (0)

O

D

ID

OUTER
(OD)
DYNAMICS

INNER
(ID)
DYNAMIC
S

*

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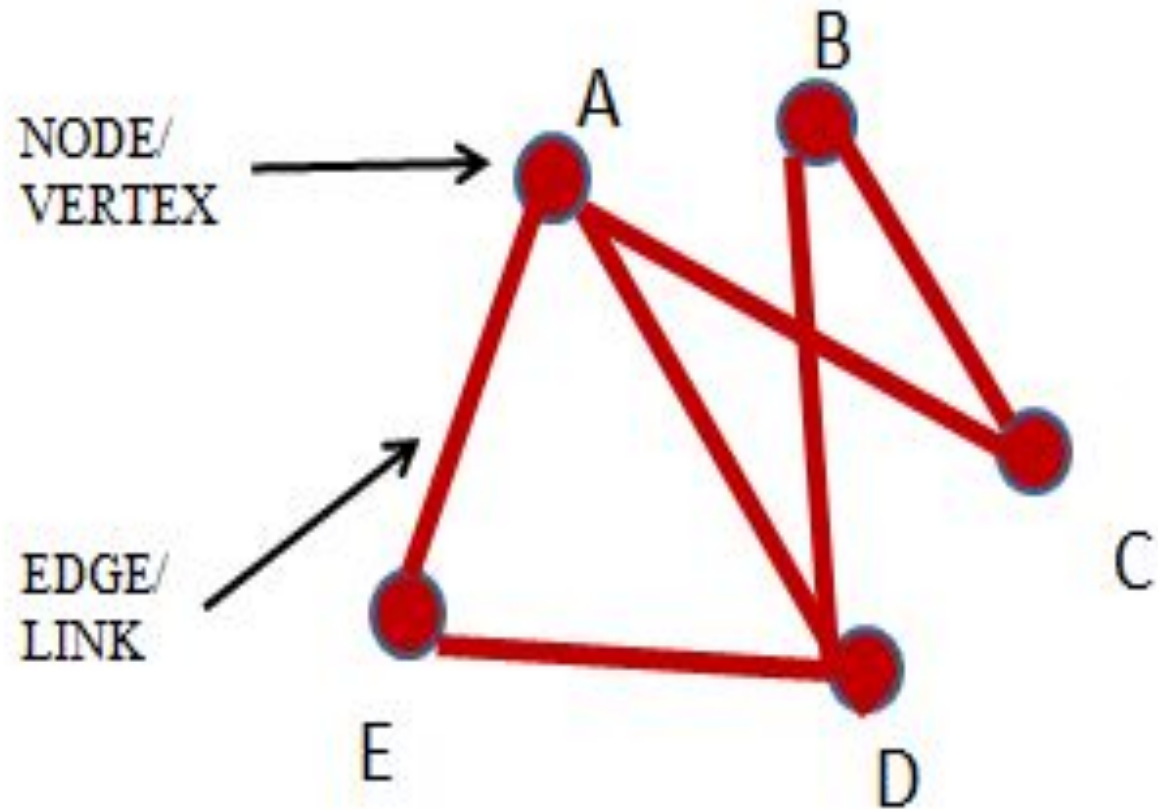
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networks

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
- $P(k) \sim z k^{-\alpha}..$

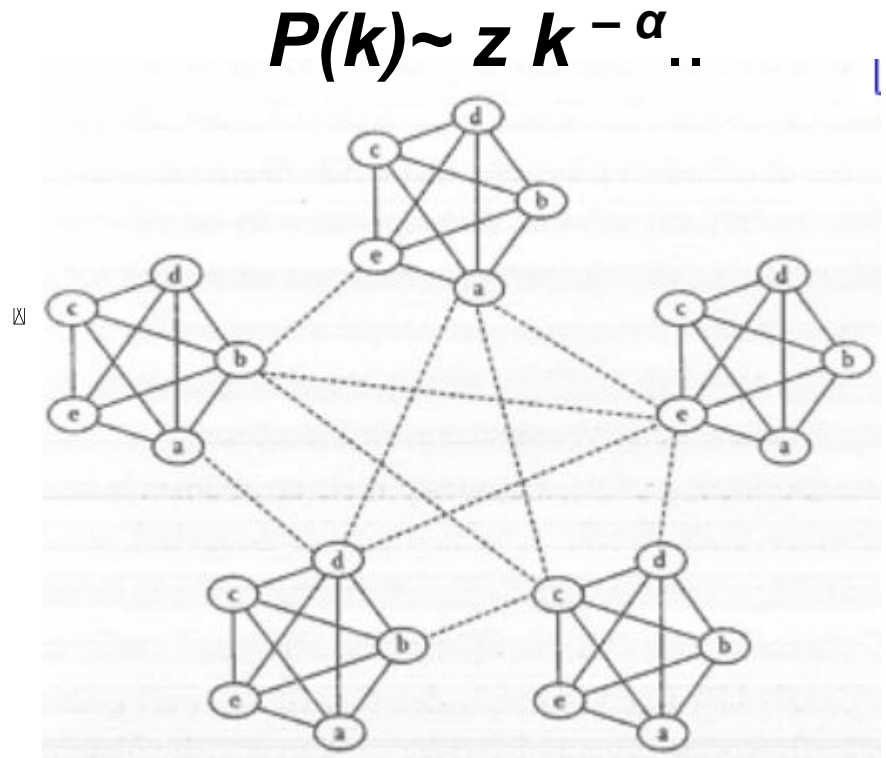
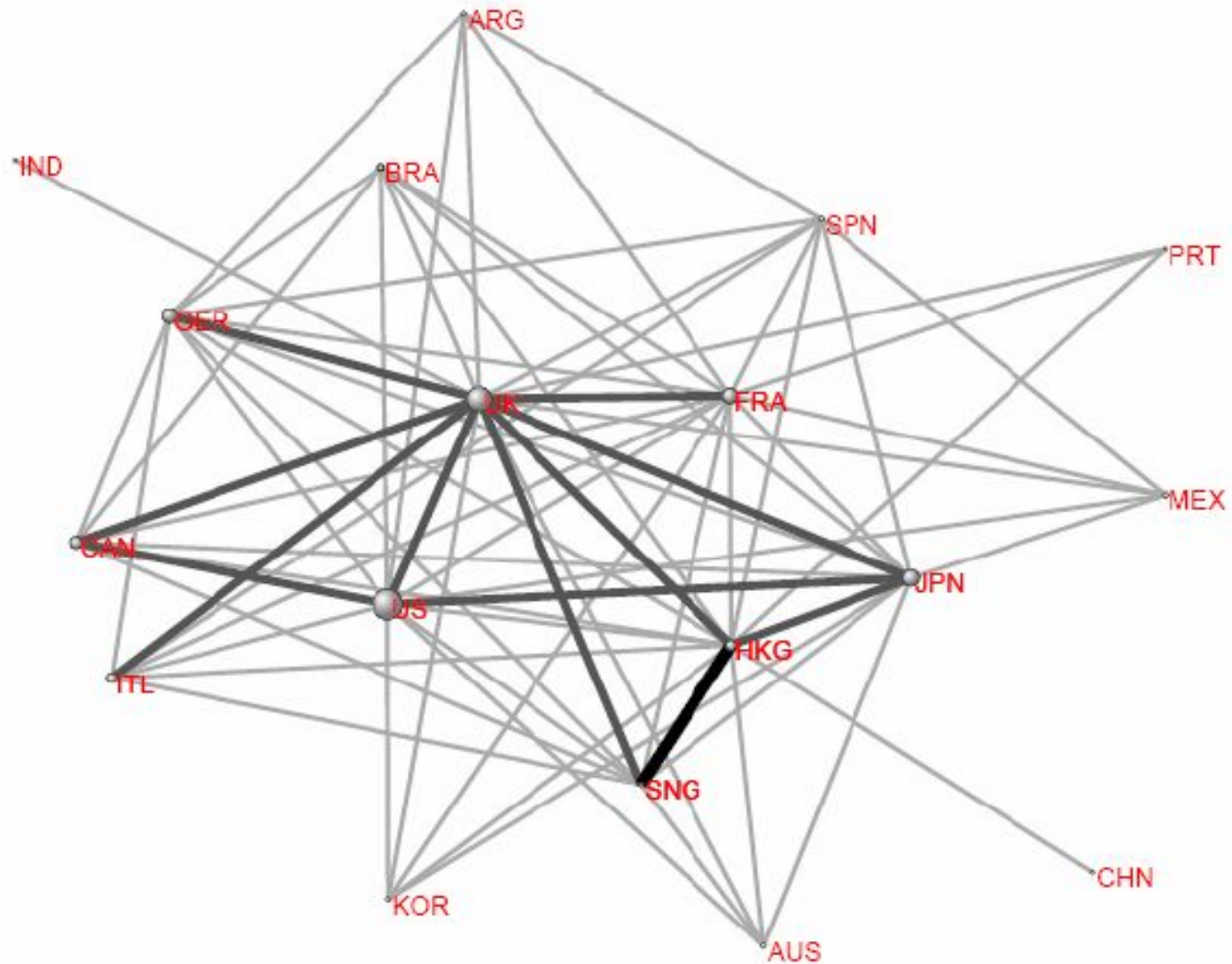


Chart 1: Global Financial Network: 1985

1985

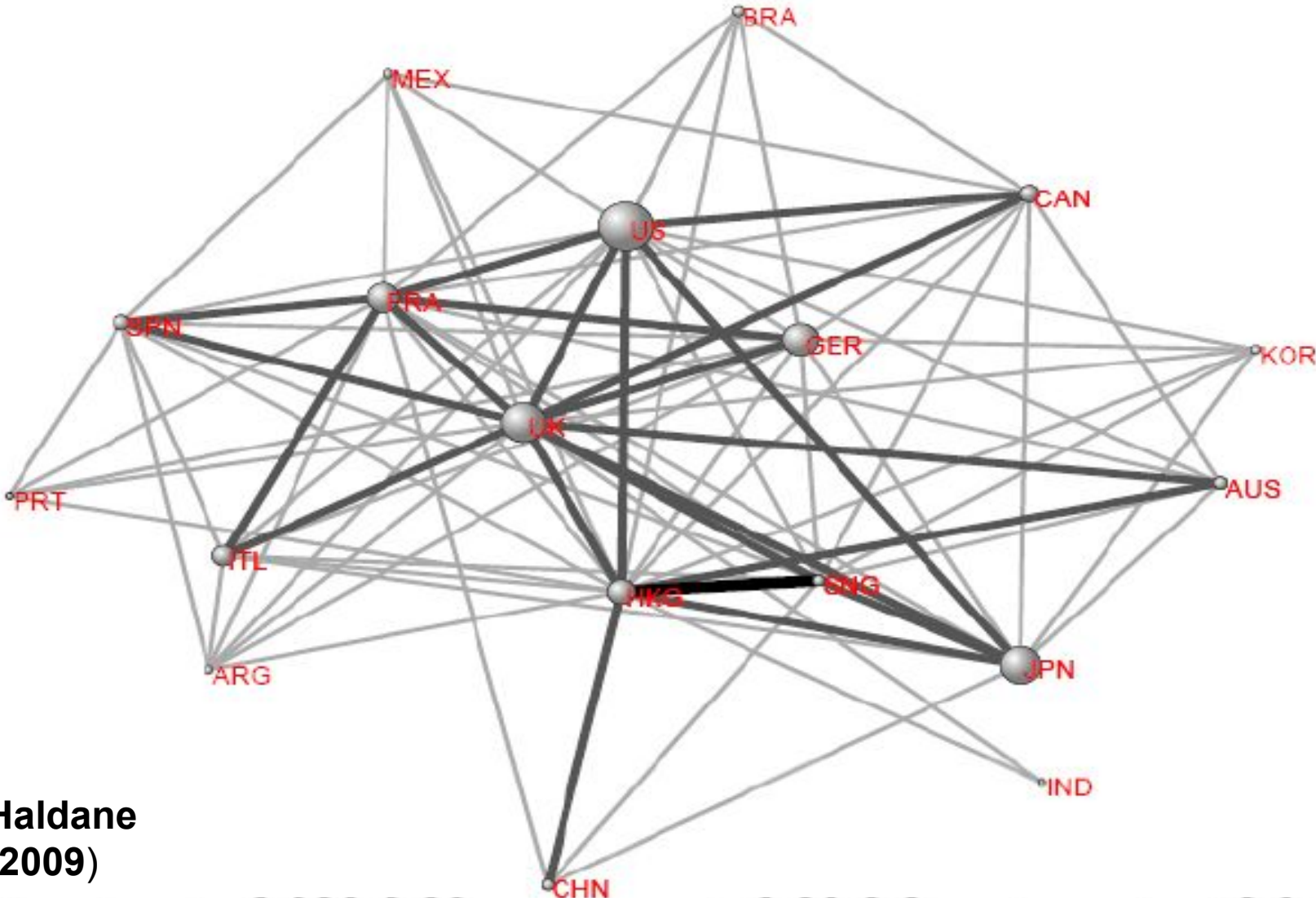


Haldane
(2009)

Key: — 0.003-0.03 — 0.03-0.2 >0.2
robindcmatthews 16

Chart 2: Global Financial Network: 1995

1995

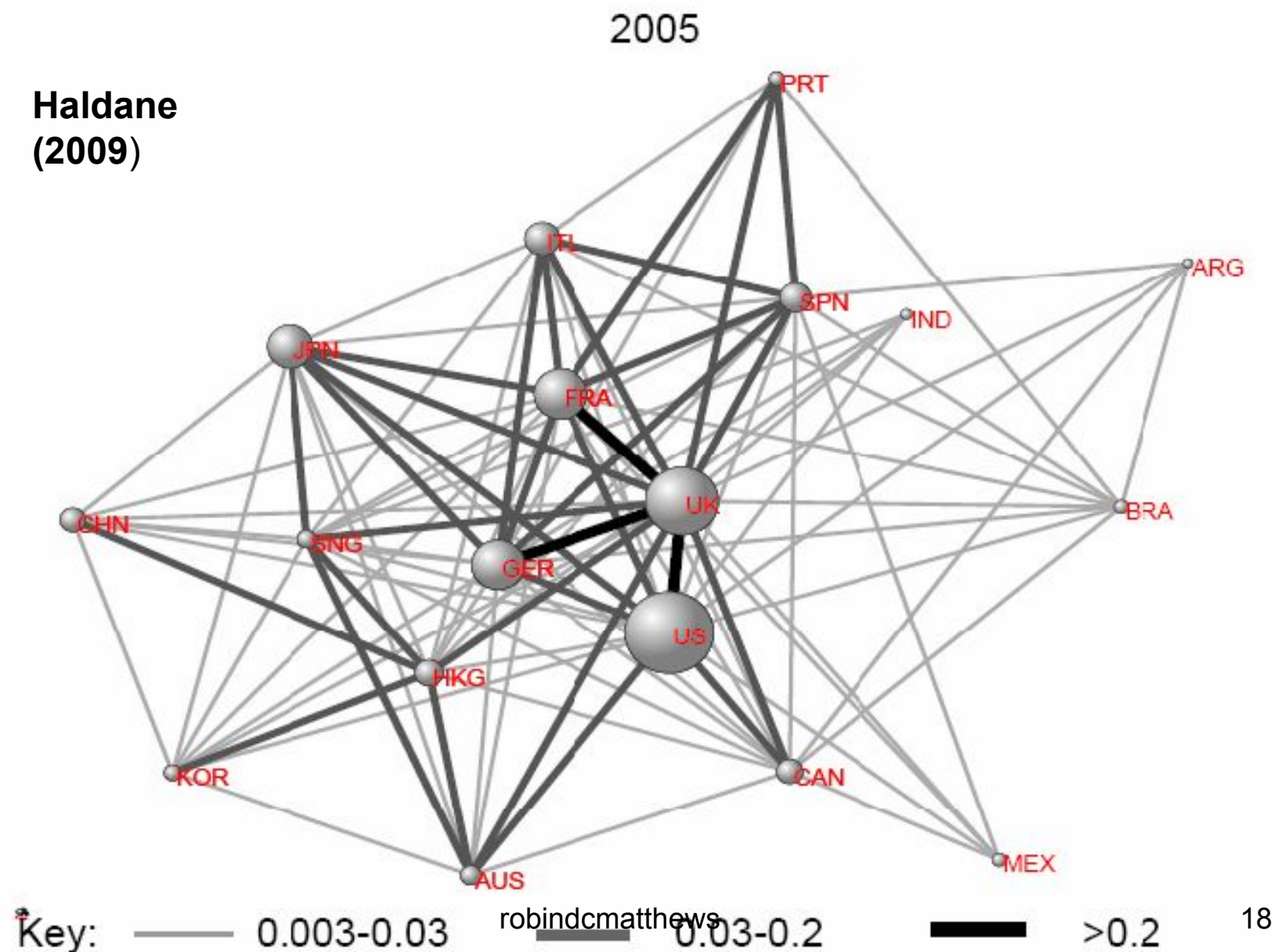


Haldane
(2009)

Key: — 0.003-0.03 0.03-0.2 >1

Chart 3: Global Financial Network: 2005

Haldane
(2009)

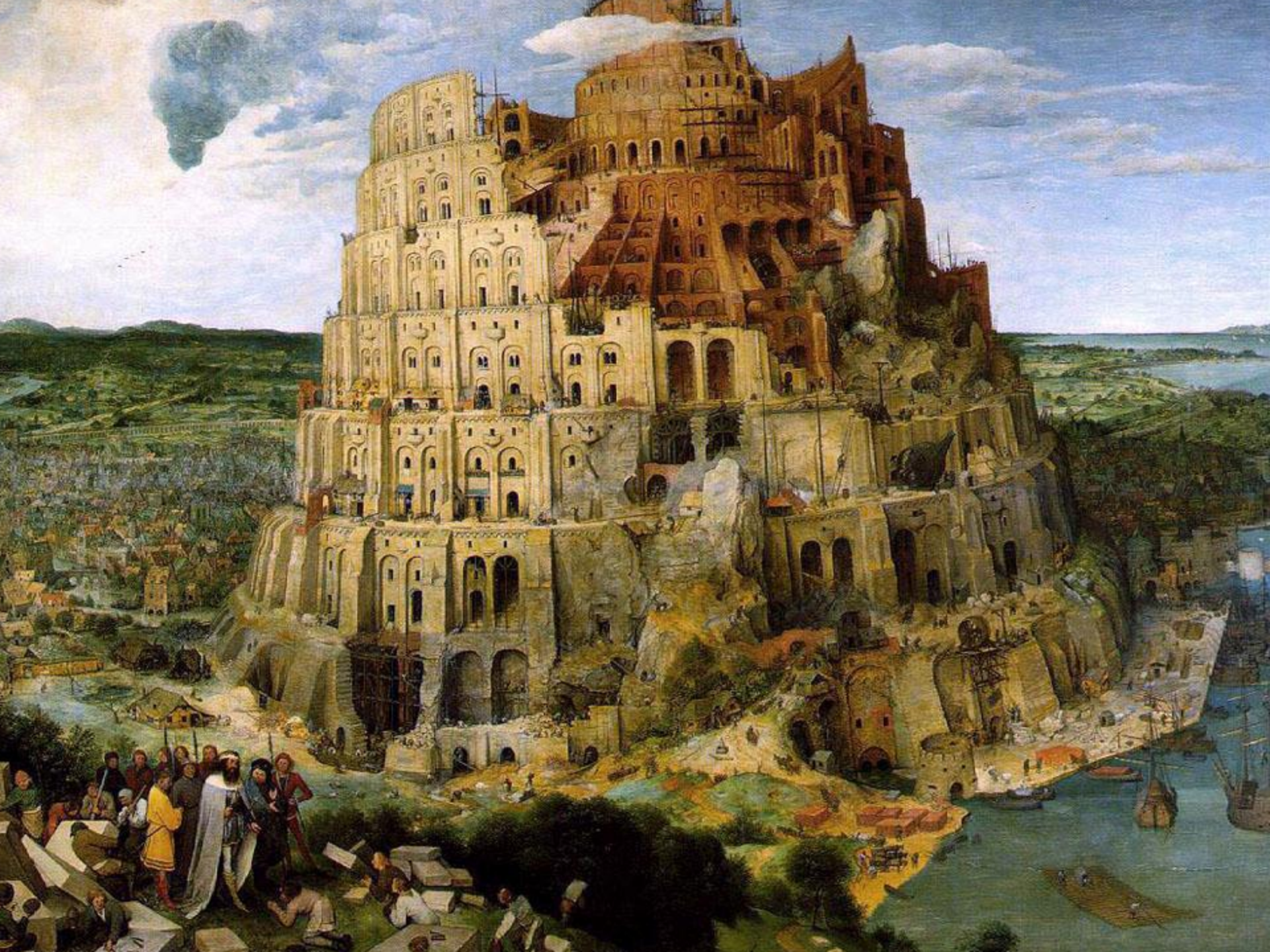


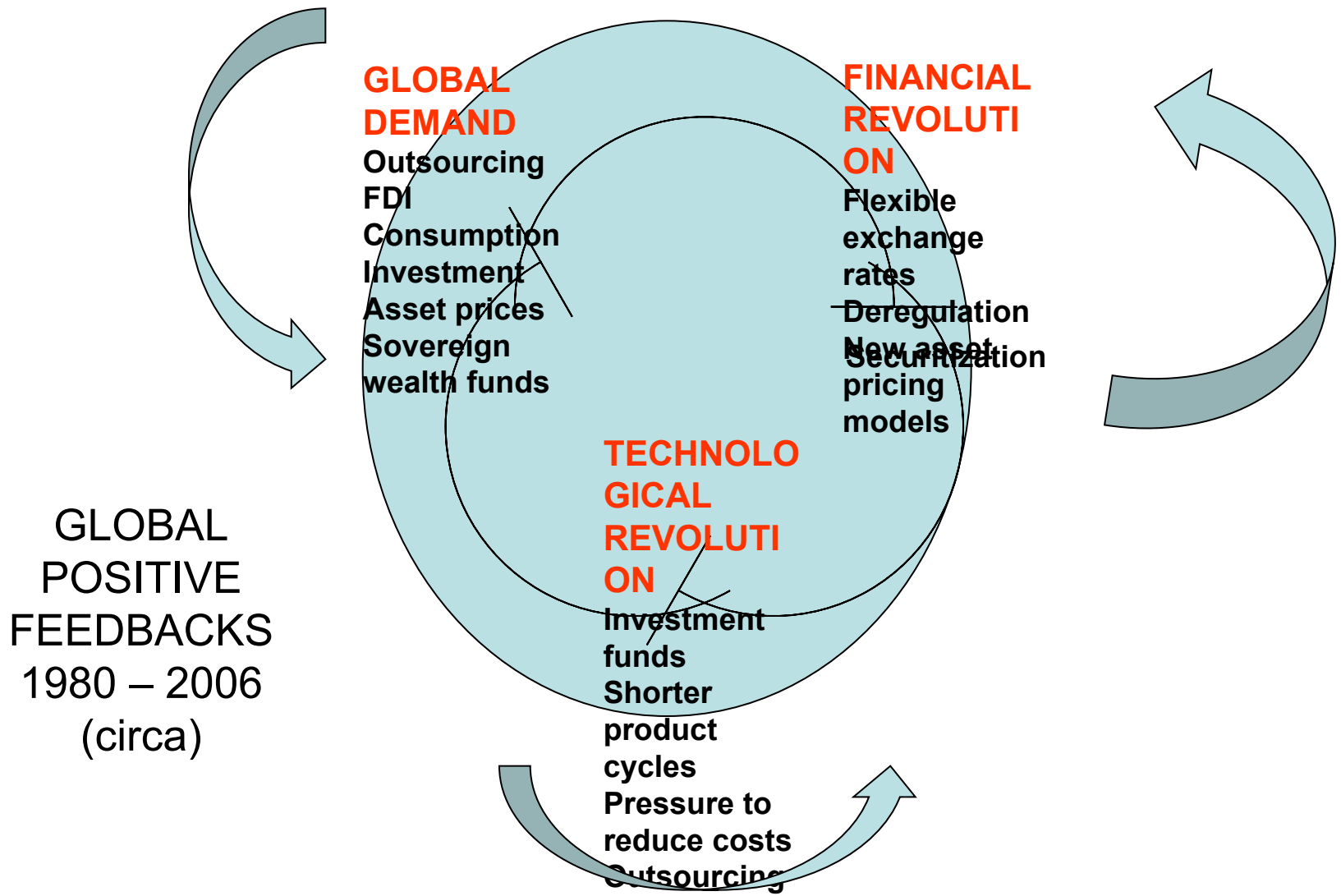
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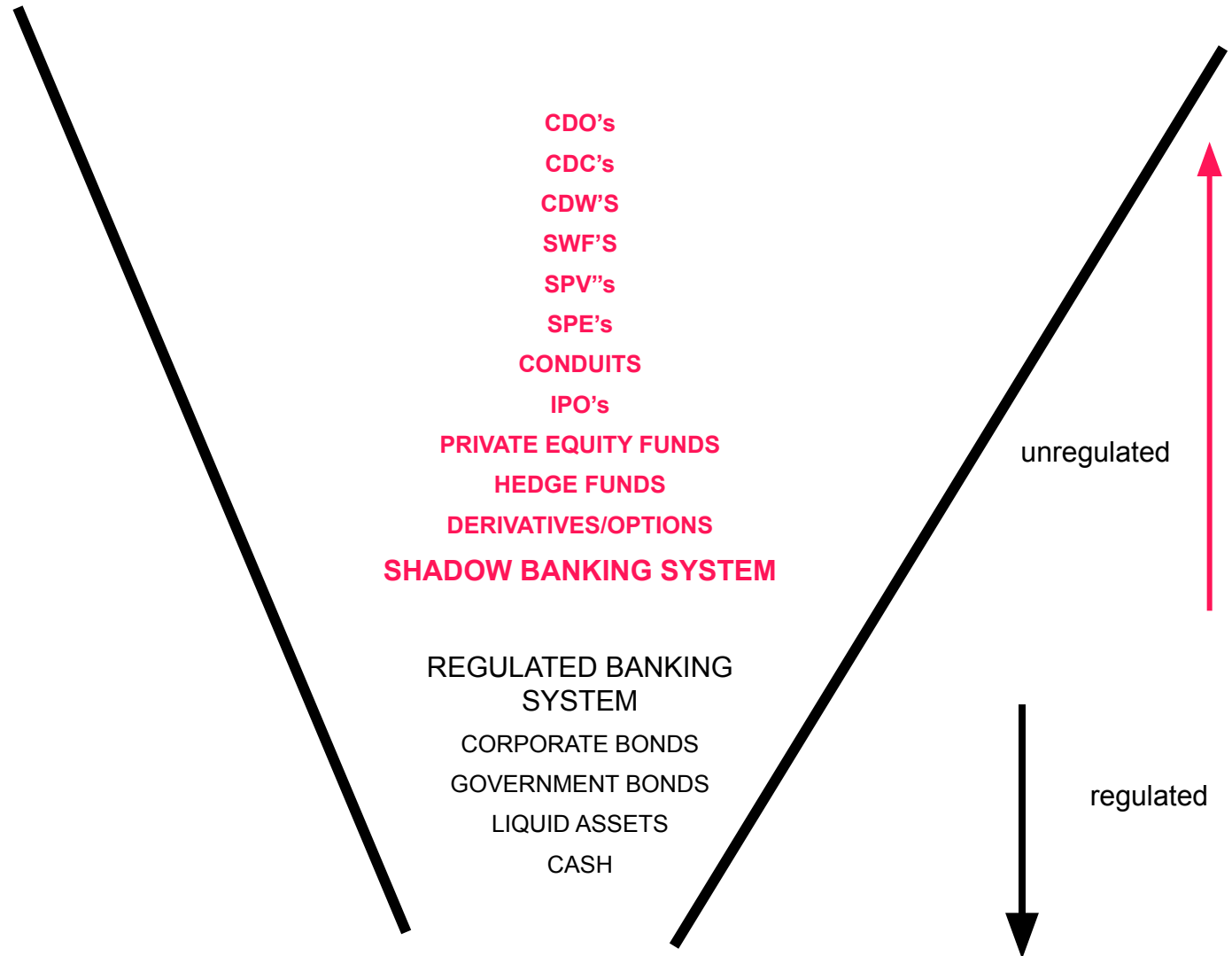
The Crisis 2007 – 20012

The financial tower of Babel





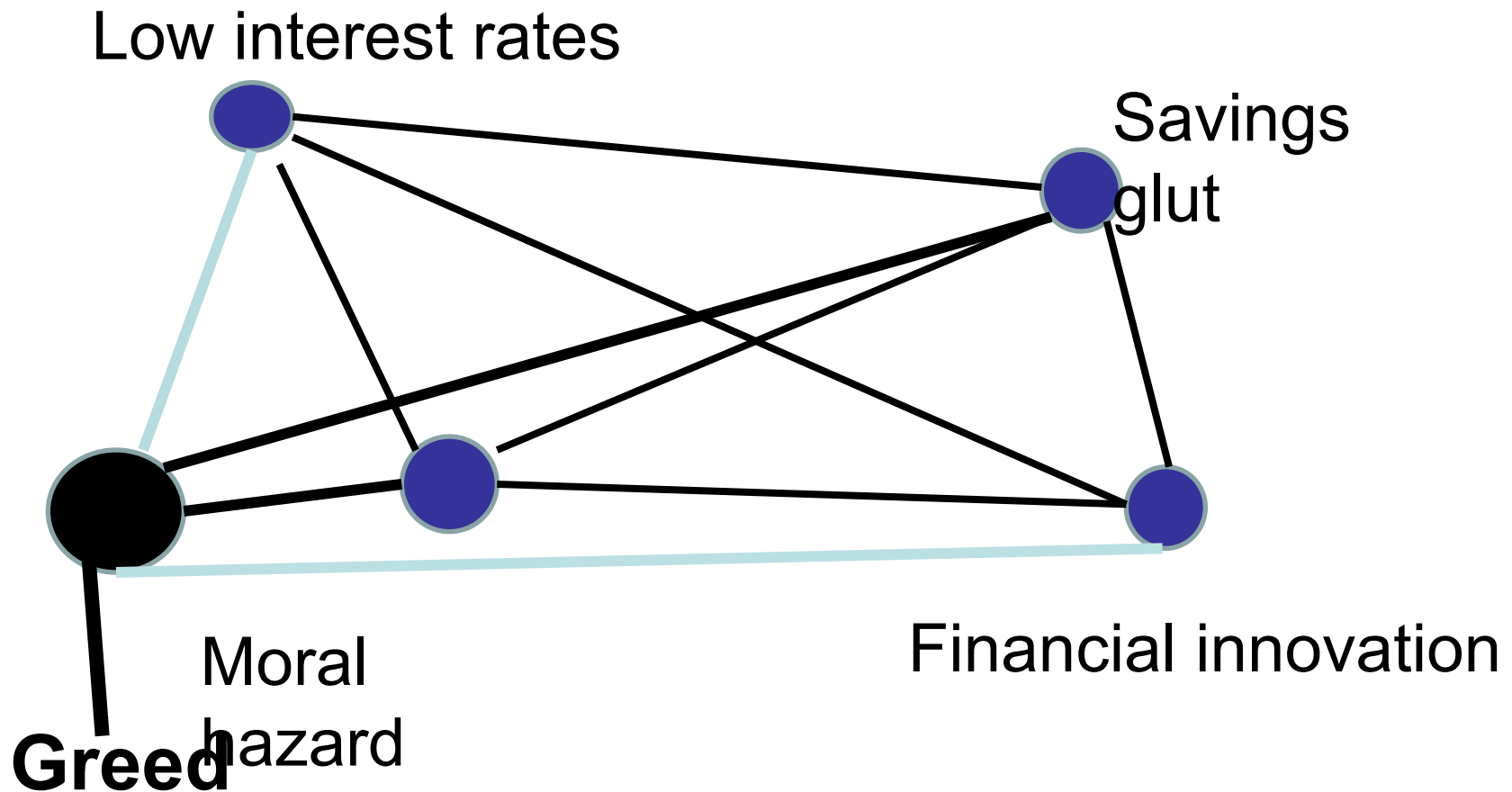
The financial tower of Babel: 21ST century

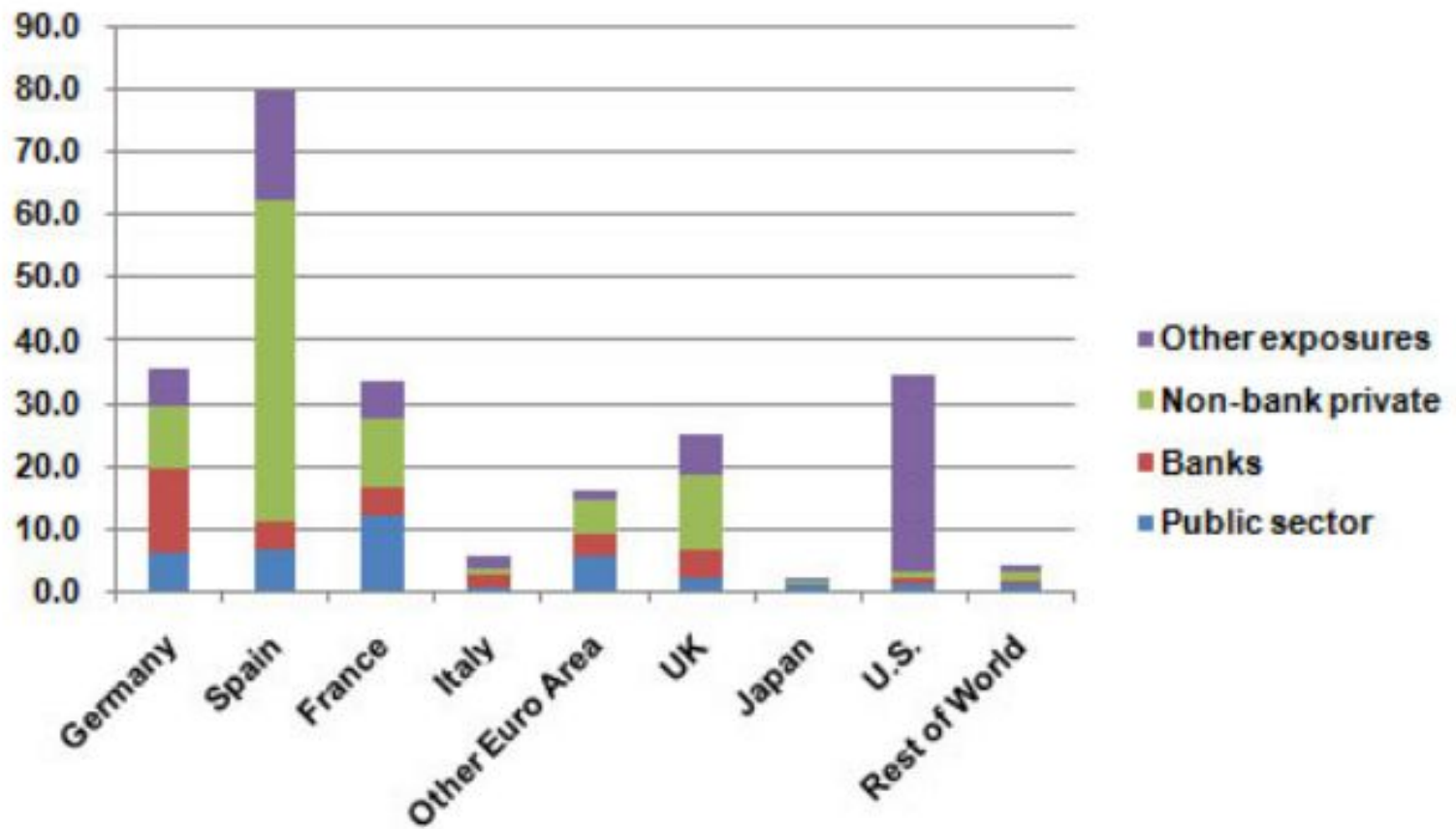


Causes of crises

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

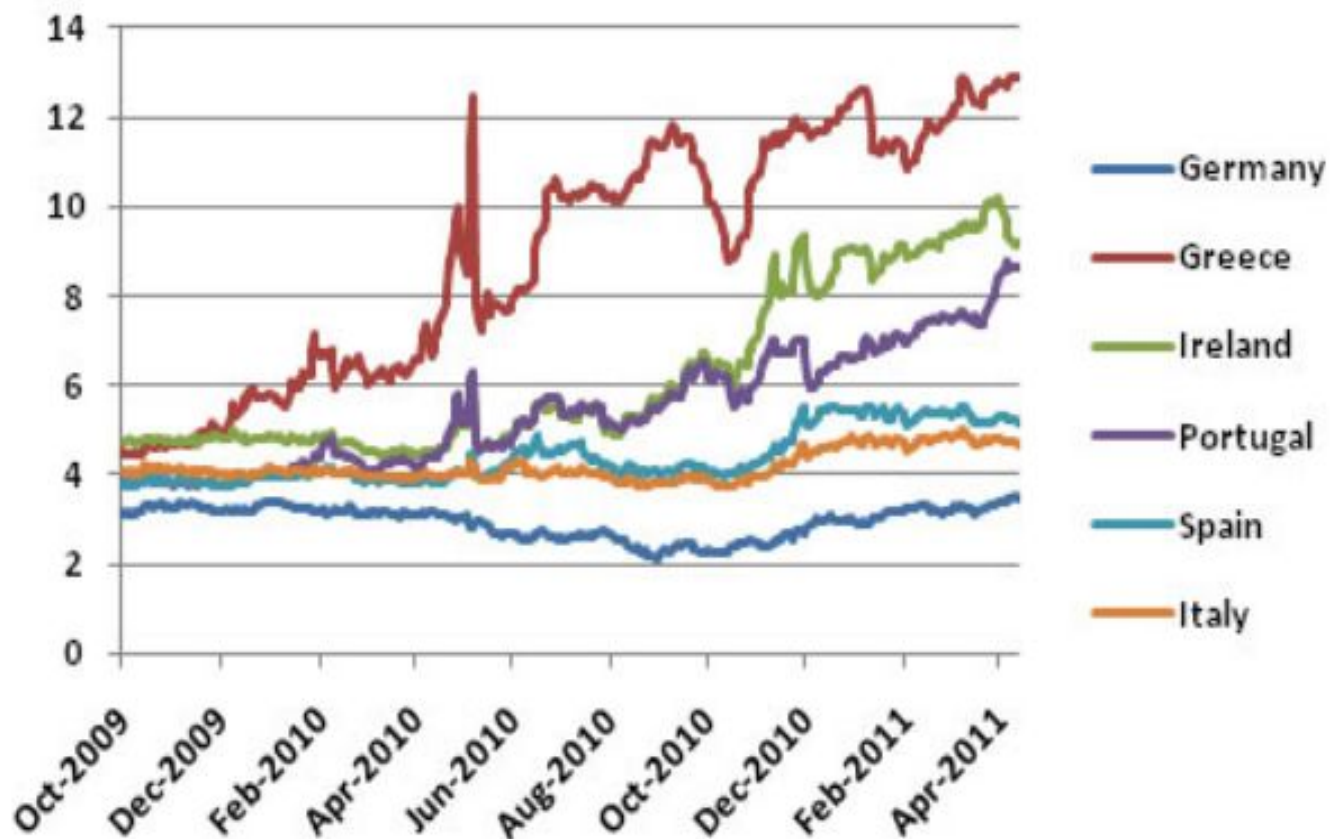
Causes of the crisis?





Note: Ultimate risk basis except Germany

Source: BIS, Q3 2010



Source: Bloomberg

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Emerging nations

Back to the past

Why they matter

1

Emerging economies as % of world total, 2005



Sources: IMF; MSCI; BP

Economist Sept 17 2006

Why they matter

Emerging economies as % of world total, 2005

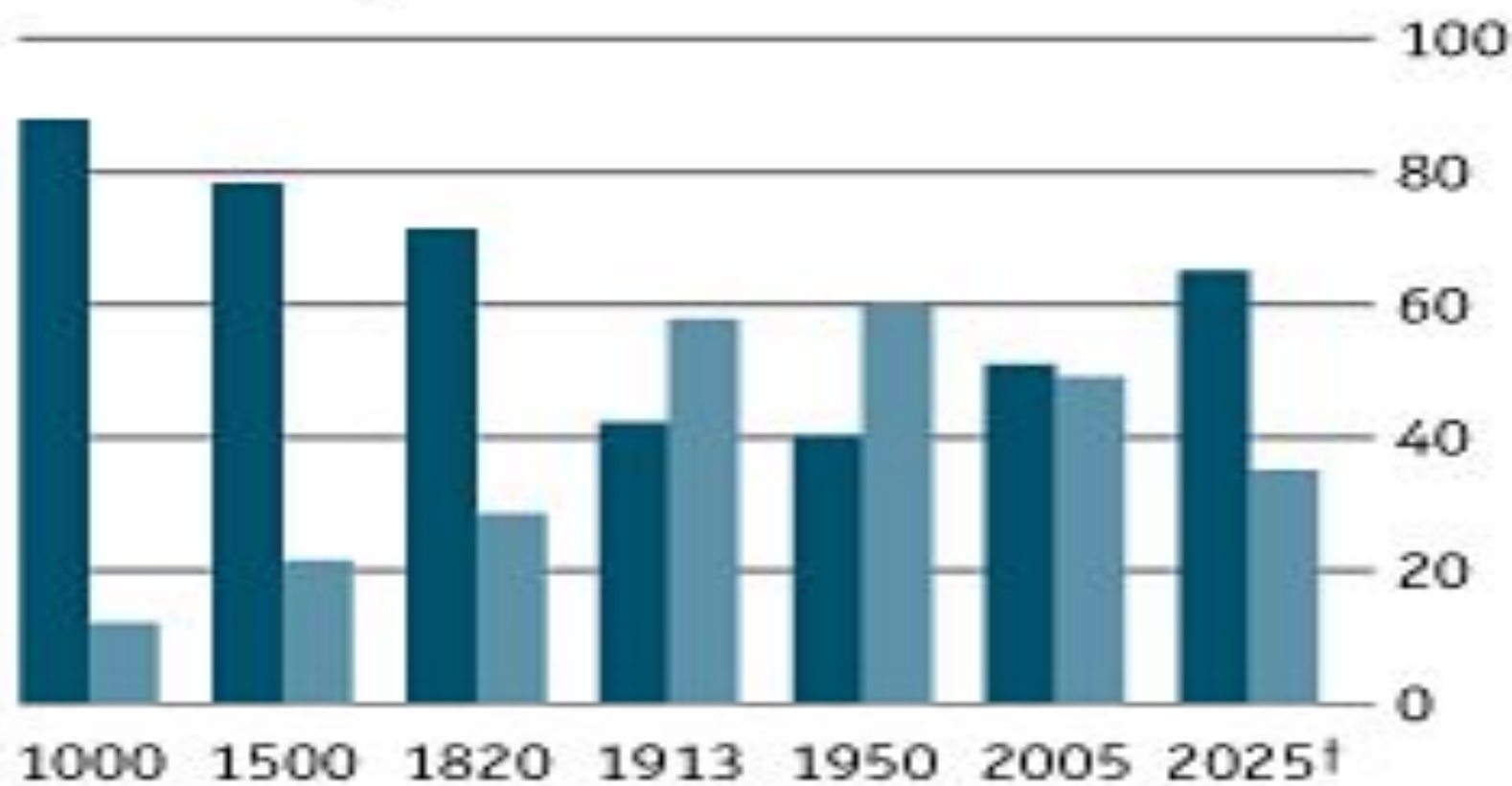


Sources: IMF; MSCI; BP

Re-emerging

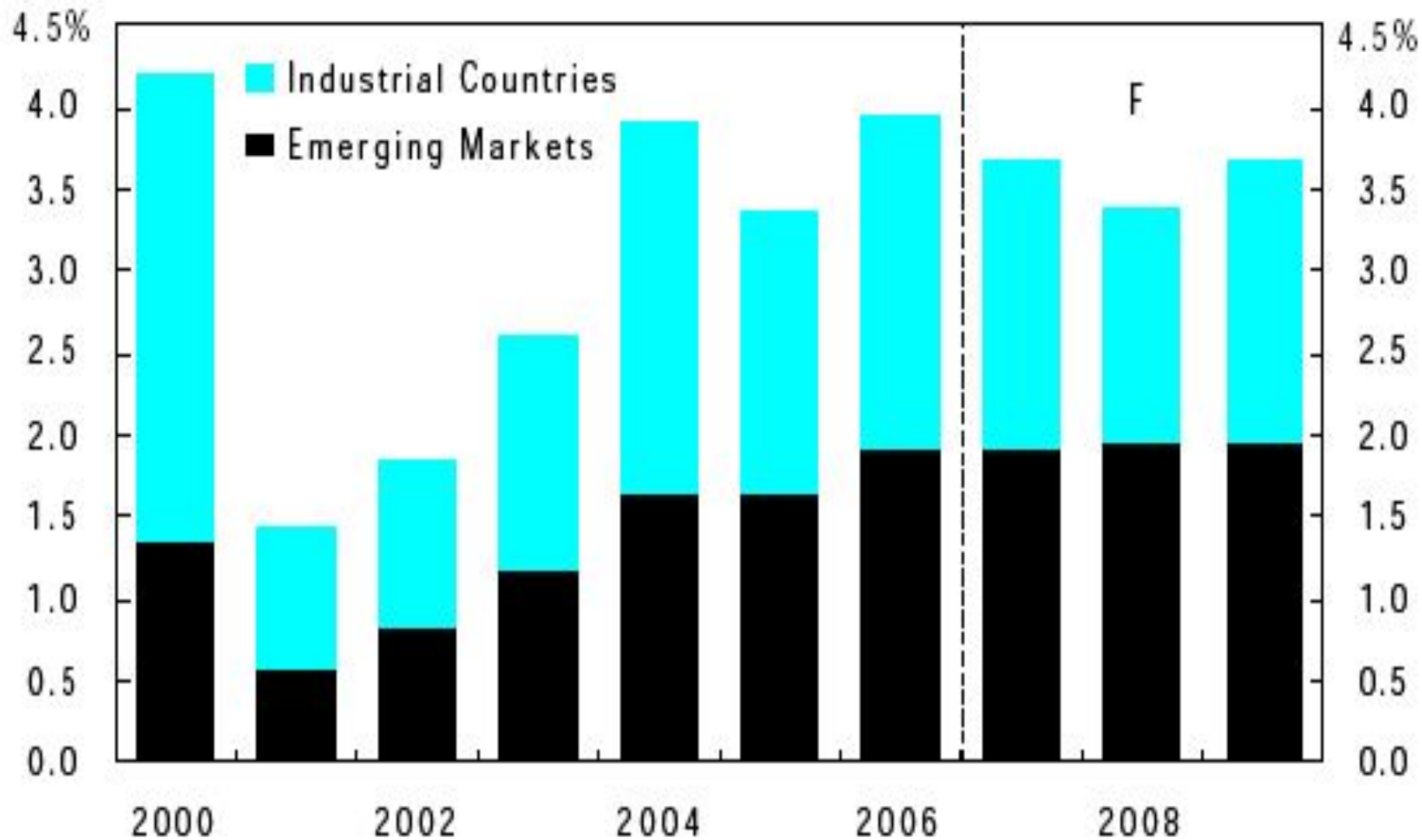
Share of global GDP*, %

■ Emerging economies
■ Developed economies



*At purchasing-power parity †The Economist forecasts
Sources: OECD, Angus Maddison; IMF

Figure 4. Global – Contributions to Global Growth (Percentage Points)



Sources: IMF and Citi.

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The environment

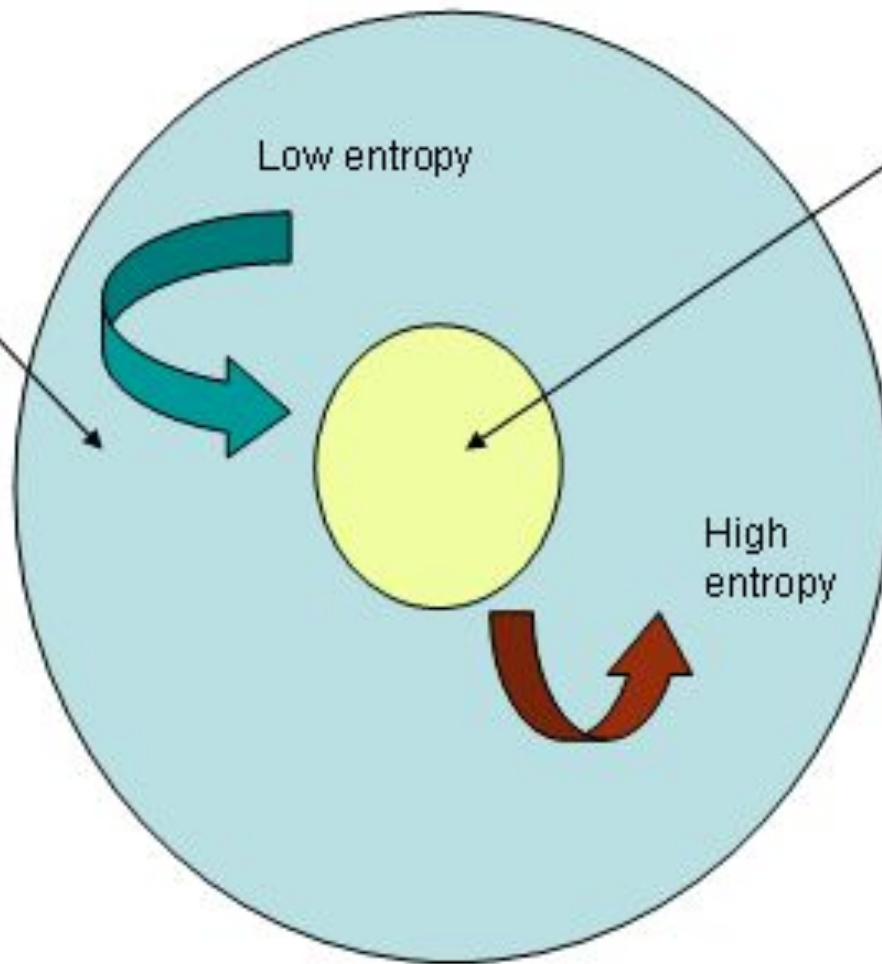
Gaia or exploitation

The
biosphere

Low entropy

The earth

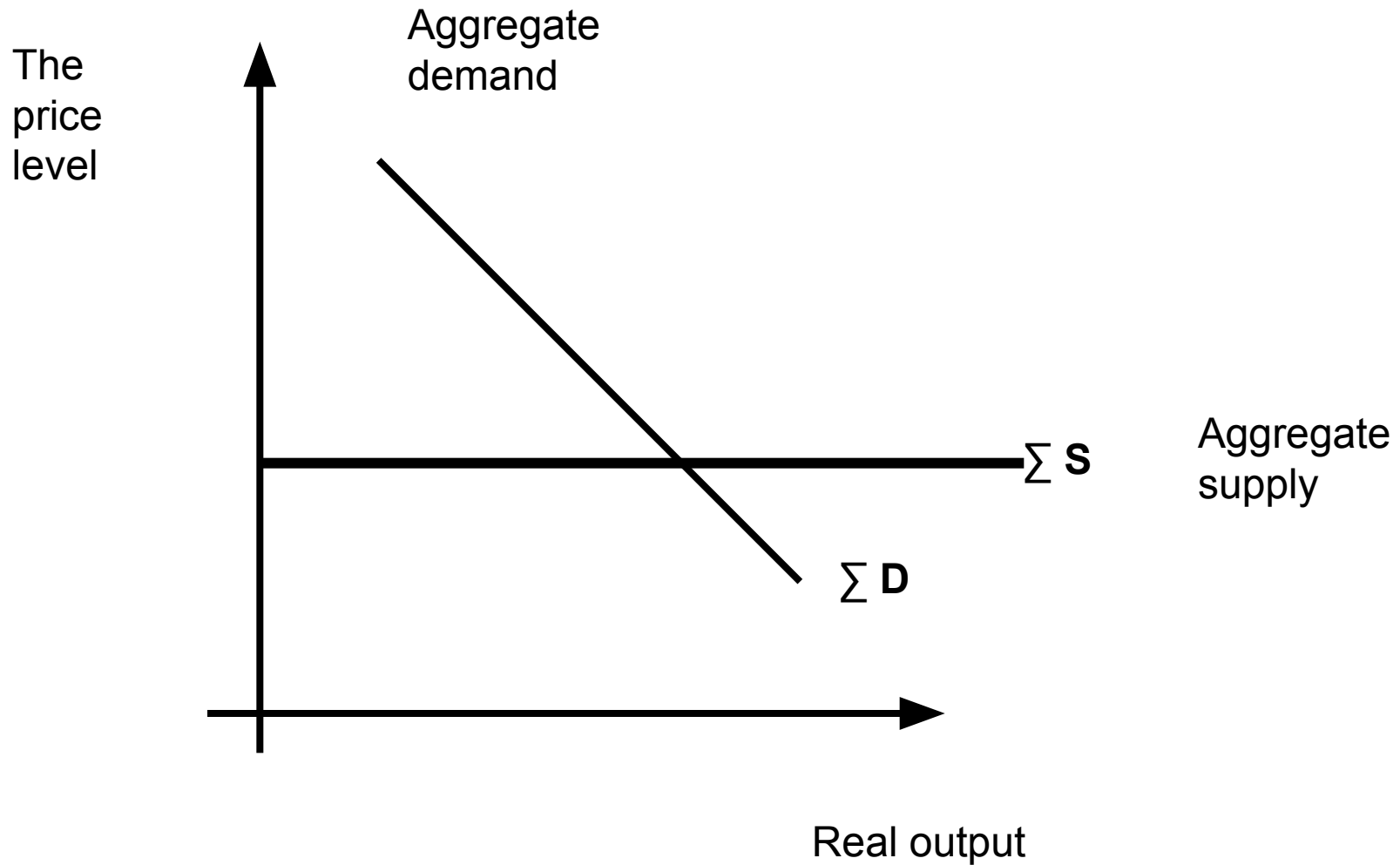
High
entropy



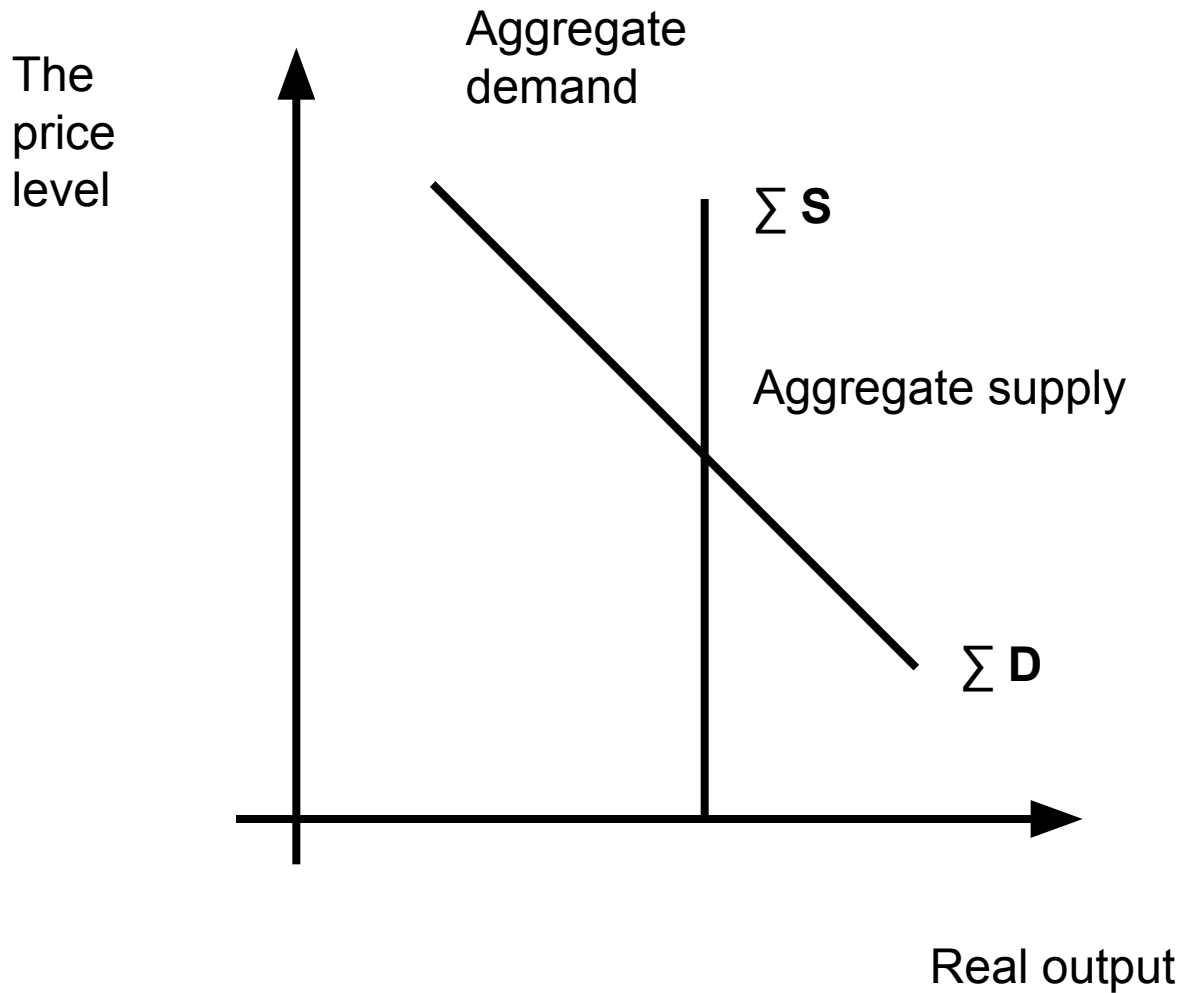
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Cryptic models

Keynesian and monetarist



Keynesian case with liquidity trap



Simple Keynesianism

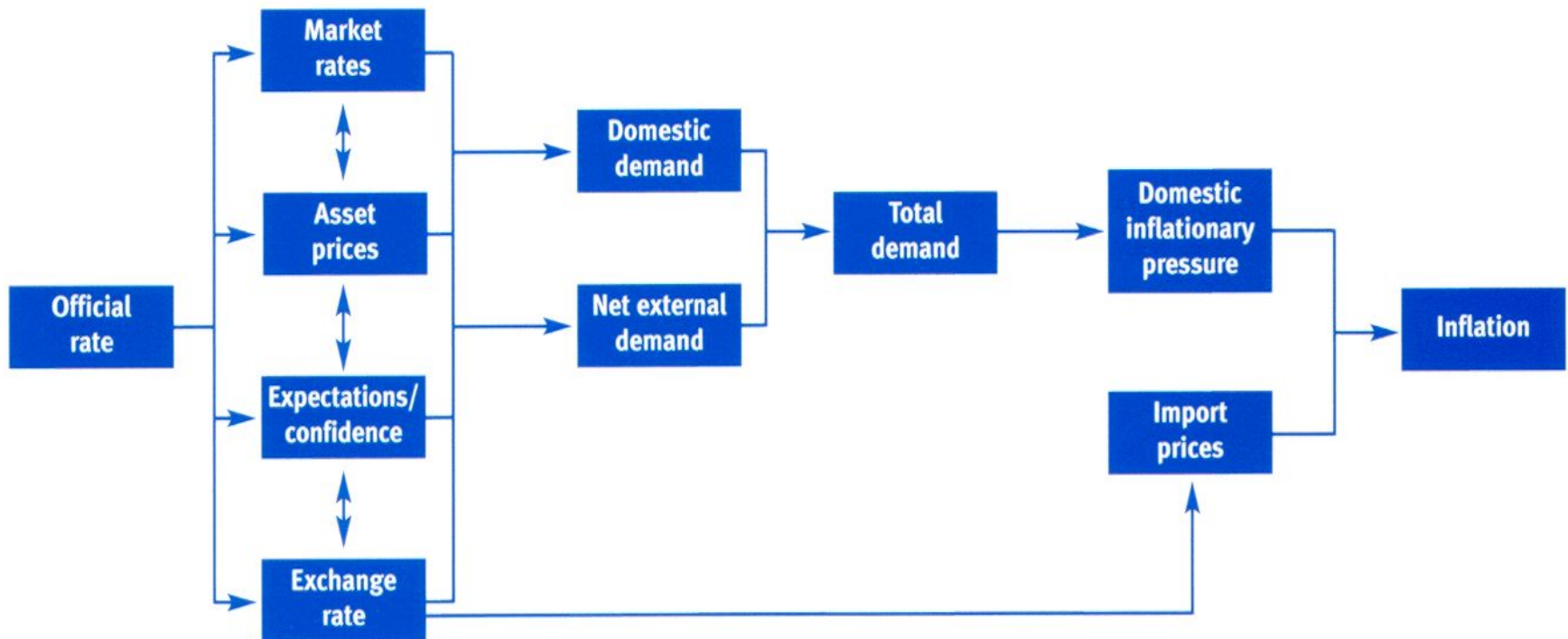
- The multiplier
- The marginal propensity to consume
- The importance of aggregate demand

Keynes: sources of unemployment

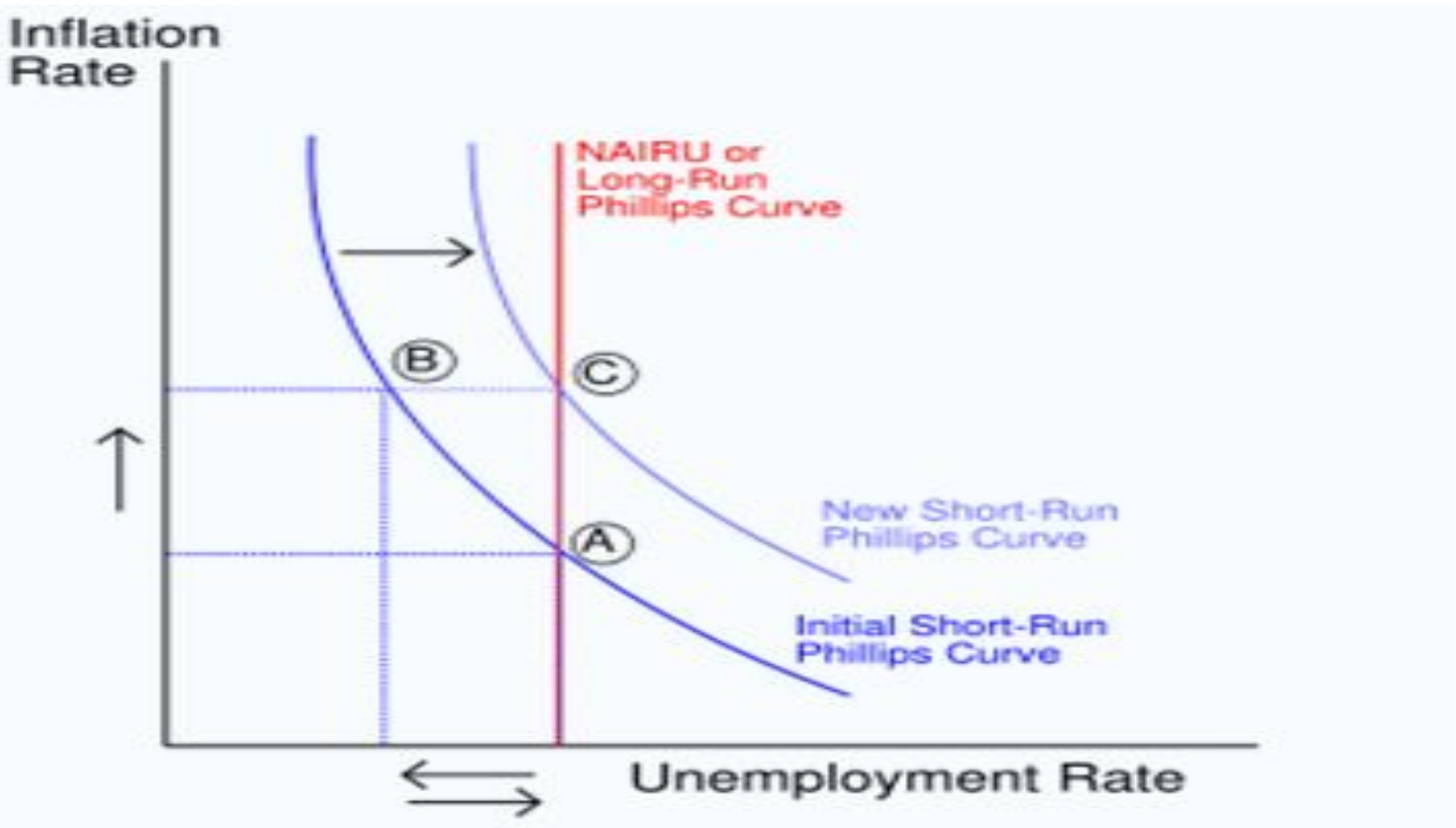
- **The liquidity trap**
- **Inconsistency between savings and investment**
- **Rigid money wages**

Monetarism

Figure 1: From interest rates to inflation – the transmission mechanism of monetary policy



The Phillips curve



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Micro-foundations

Costs

Revenues

Risk

NPV AND NCF

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$$\Pi(t) = R(t) - C(t)$$

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costs

AVOIDABLE

UNAVOIDABLE

V

F2

F1

Variable
Avoidable by
cutting
Down output
(marginal costs)

Fixed
Avoidable by going
out of business

Sunk costs
Unavoidable once incurred
(*True costs*)

Scale and scope economies

- Leveraging
- Outsourcing
- Restructuring

Marketing

segmentation

Elasticity (price)

- % change in quantity bought/% change in price
- Defined as an absolute value
- Varies along demand curve
- $E > 1$ implies price reduction increases sales revenue
- $E < 1$ implies price reduction decreases sales revenue

	Effect on sales revenue of price reduction	Effect on sales revenue of a price increase
Elastic $E_p > 1$	Sales Revenue RISES	Sales Revenue FALLS
Inelastic $E_p < 1$	Sales Revenue FALLS	Sales Revenue RISES

ELASTICITIES

$E_p = |E_p|$ = price elasticity

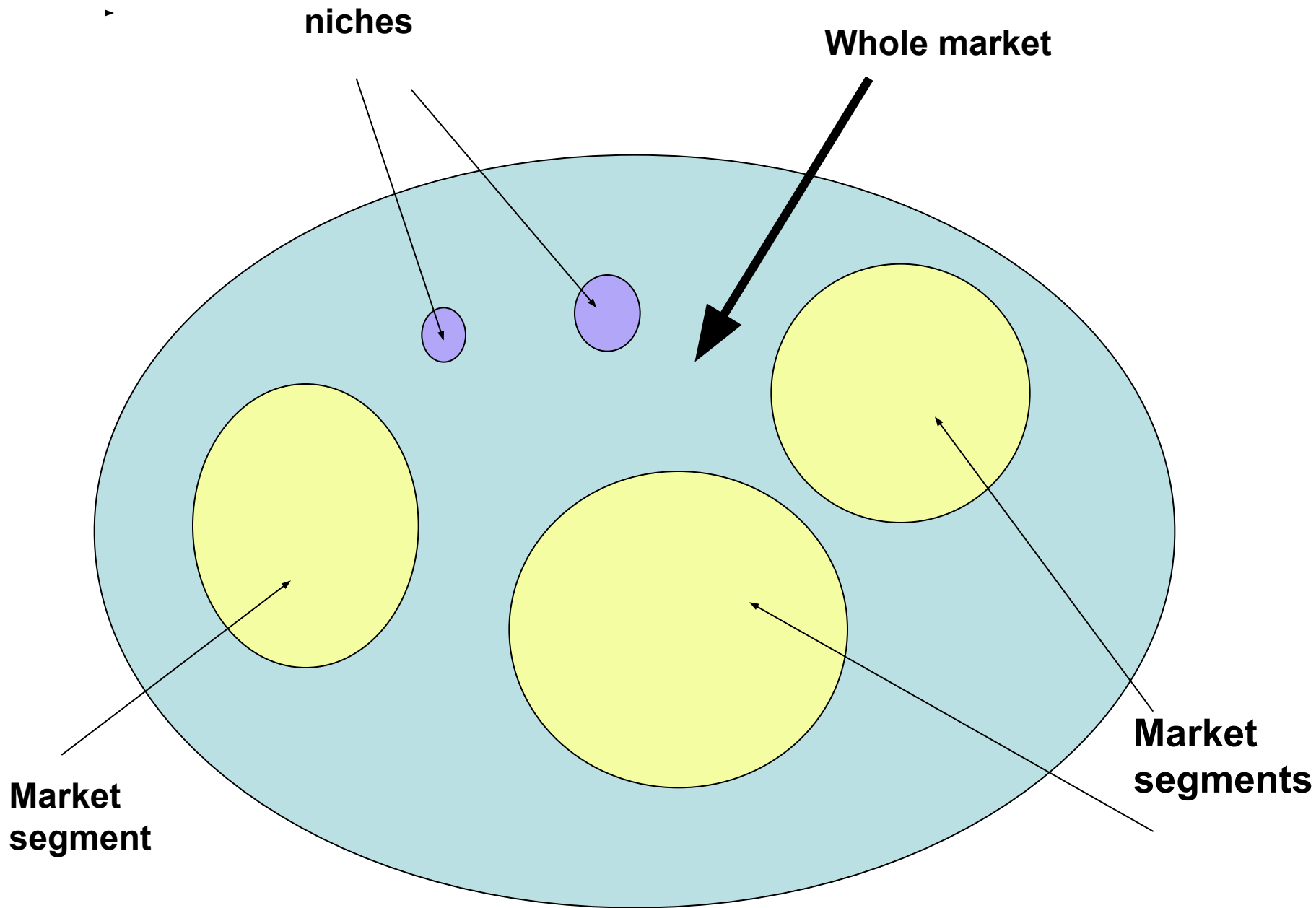
E_y = income elasticity

$$E_p = \frac{\% \text{change in quantity demanded}}{\% \text{change in price}}$$

$$E_y = \frac{\% \text{change in quantity demanded}}{\% \text{change in income}}$$

$$E_P = \frac{p}{q} \frac{dq}{dp}$$

$$E_y = \frac{y}{q} \frac{dq}{dy}$$



$$E_m = \sum s_i E_i$$

$$(i = 1, 2, \dots, m)$$

- where E_m denotes the elasticity of the market as a whole E_i denotes the elasticity of the segment i , E_i denotes the elasticity of the segment i and s_i denotes the share of the segment in total expenditure on the good.

Elasticity of demand for the market as a whole (for a particular product X)

equals

the sum of the elasticity of each of the segments of the market multiplied by the share of that segment in total expenditure on the market.