

# Application of Catastrophe Theory to Banking Crisis

Pleten Anastasia

*IEIE SB RAS*

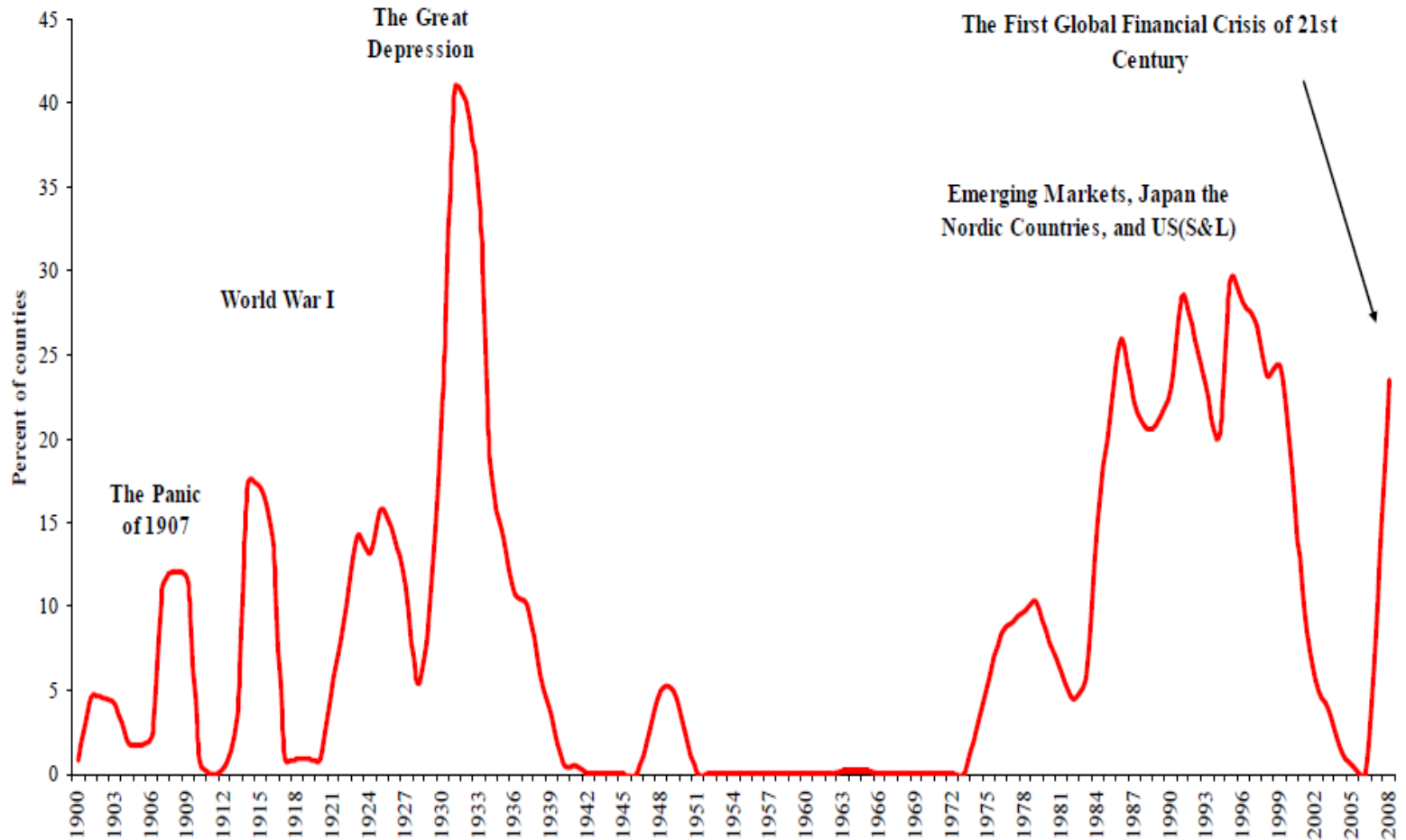
# Consequences of financial crisis 2008

- Devaluation
- Financial instability of export direct business
- Decrease of investment
- Decrease of real estate prices etc

# Banking consequences of financial crisis 2008

- toughening of bank requirements to potential loaners
- Rise of newly-given credit rates
- Reduction of the most mortgage consumer programs etc.

*Proportion of Countries with Banking Crises, 1900-2008*  
*Weighted by Their Share of World Income*

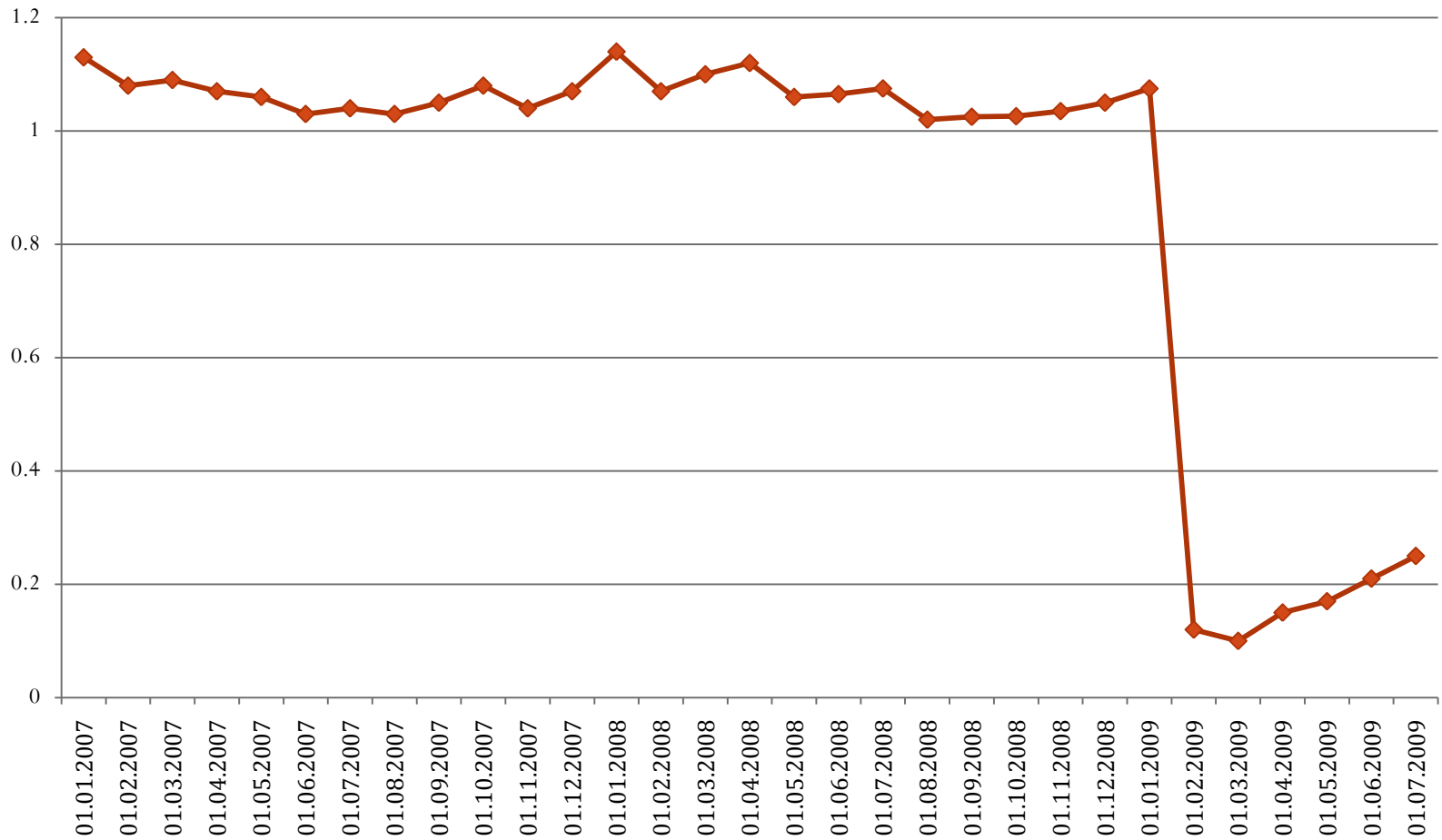


# Financial crisis

<i>Bancing</i>		<i>Currency</i>			<i>Debt</i>
Models	<b>Signal approach</b>	<b>1e generation</b>	<b>2e generation</b>	<b>3e generation</b>	
Demirguc-Kunt, Detragiache (1998 (1)); Demirguc-Kunt, Detragiache (2005); Hardy, Pazarbasioglu (1998); Gonzalez-Hermosillo (1999).	Eichengreen, Rose(1998); Kaminsky, Reinhart (1999); Дробышевский, Трунин, Палий, Кнобель (2006); Kaminsky, Reinhart(1998)	Krugman (1979); Flood, Garber (1984, 1985); Frankel, Rose (1996); Монтес Попов(1999)	Монтес Попов(1999); Obstfeld (1994)	Gerlach, Smets (1994); Tomchynska (2000)	Krugman., Obstfeld (1994); Монтес, Попов (1999)

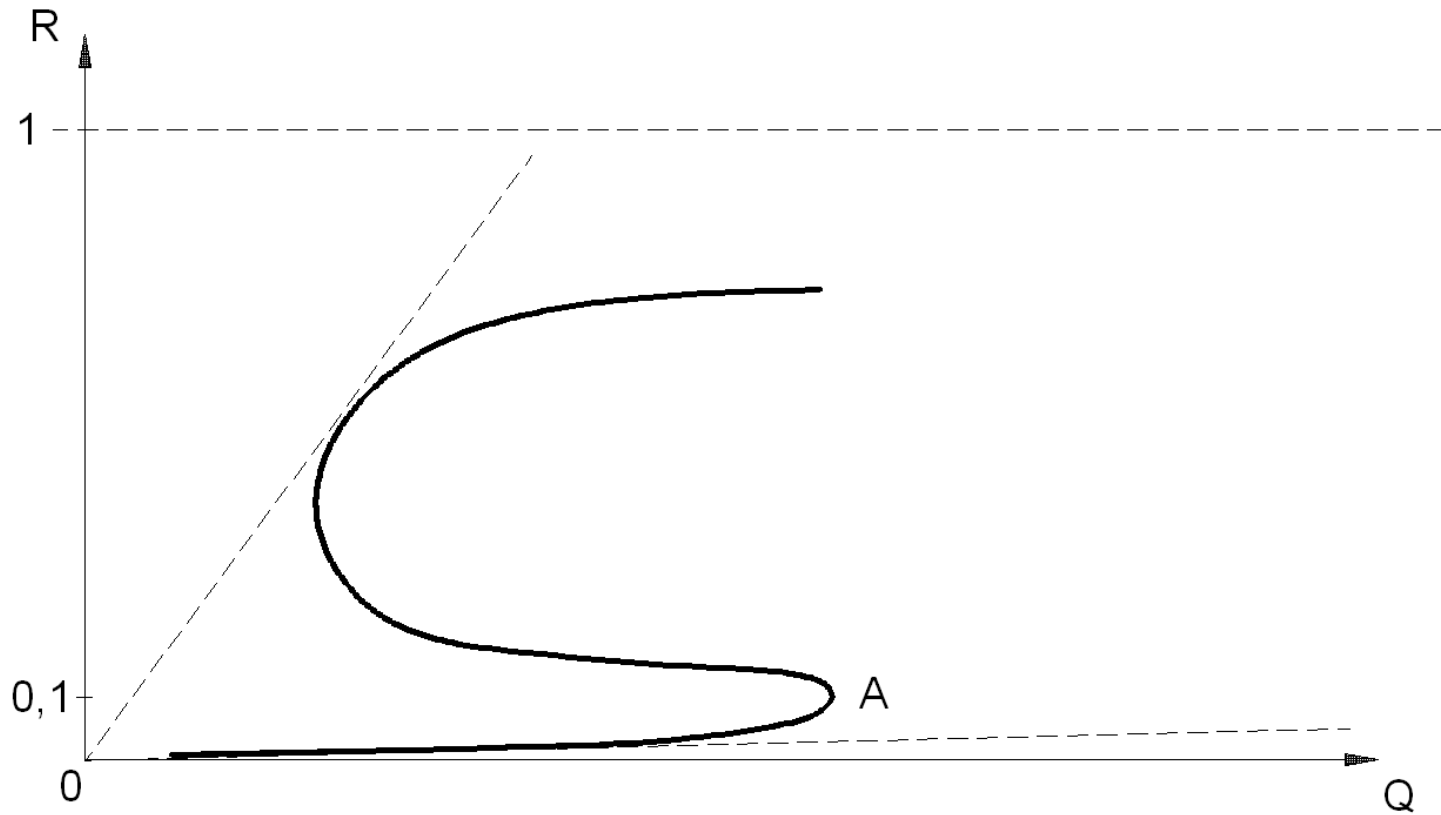
# Size of credit was given at the Russian Federation

www.cbr.ru

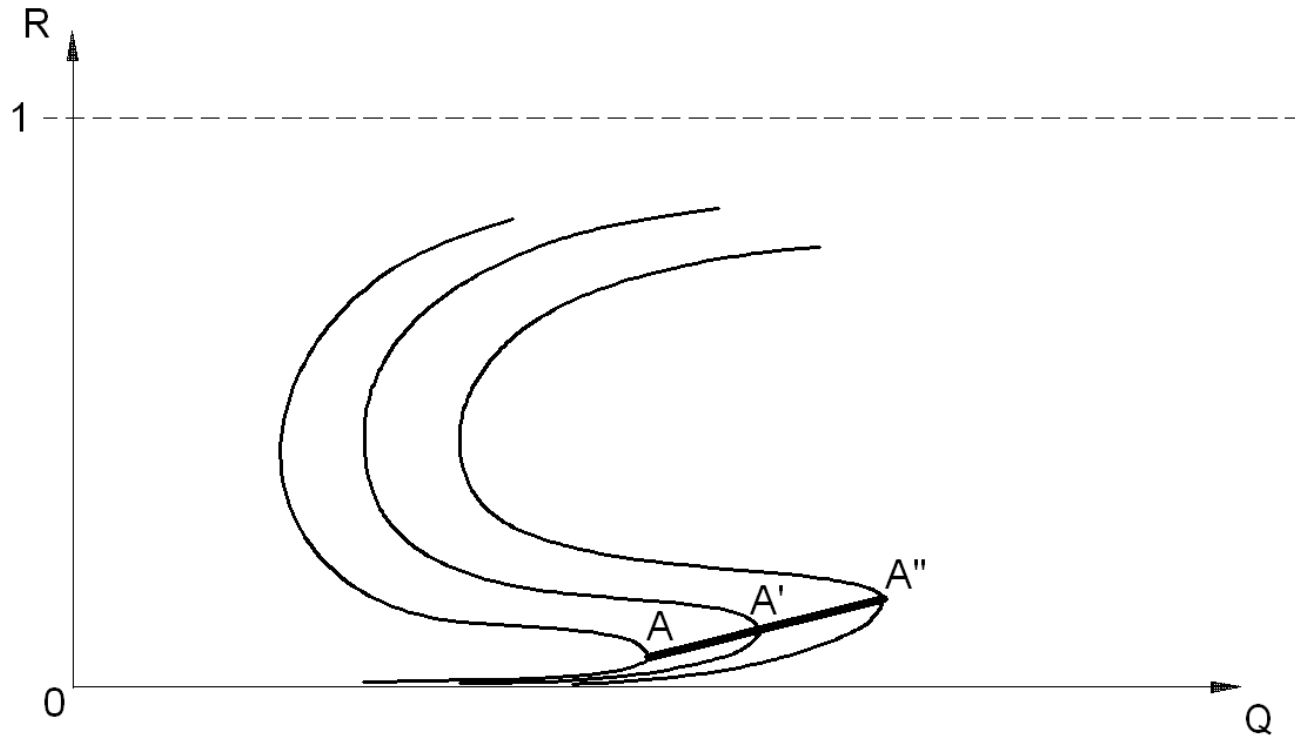


Pleten Anastasia IEIE SB RAS

# Catastrophe



# Catastrophe and economic cycle



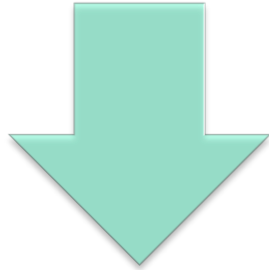


# Influence degree of different factors to banking crisis

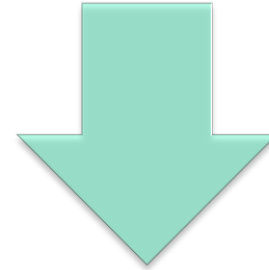
Banking crisis factors*	%**
Defects in regulation and inspections	90
Defects in a banking management	69
Degradation trade conditions	69
Economic recession	55
Political intervention	40
Credit to finical persons	31
Speculative "bubble"	24
Financial fraud	21
Credits to national enterprise	21
Outflow of capital	7
Defects of judicature	7
«Depositors panic»	7

Caprio, Gerald Jr. Daniela. Bank In solvency: Bad Luck, Bad Policy, or Bad Banking? In: Michael Bruno and Boris Plescovic eds., Annual World Bank Conference on Development Economics

# Indicators of financial stability \*



**Macroeconomic**



**Banking indicators**

\*Financial soundness indicators  
Bank of Russian federation indicators

Thank you for attention!