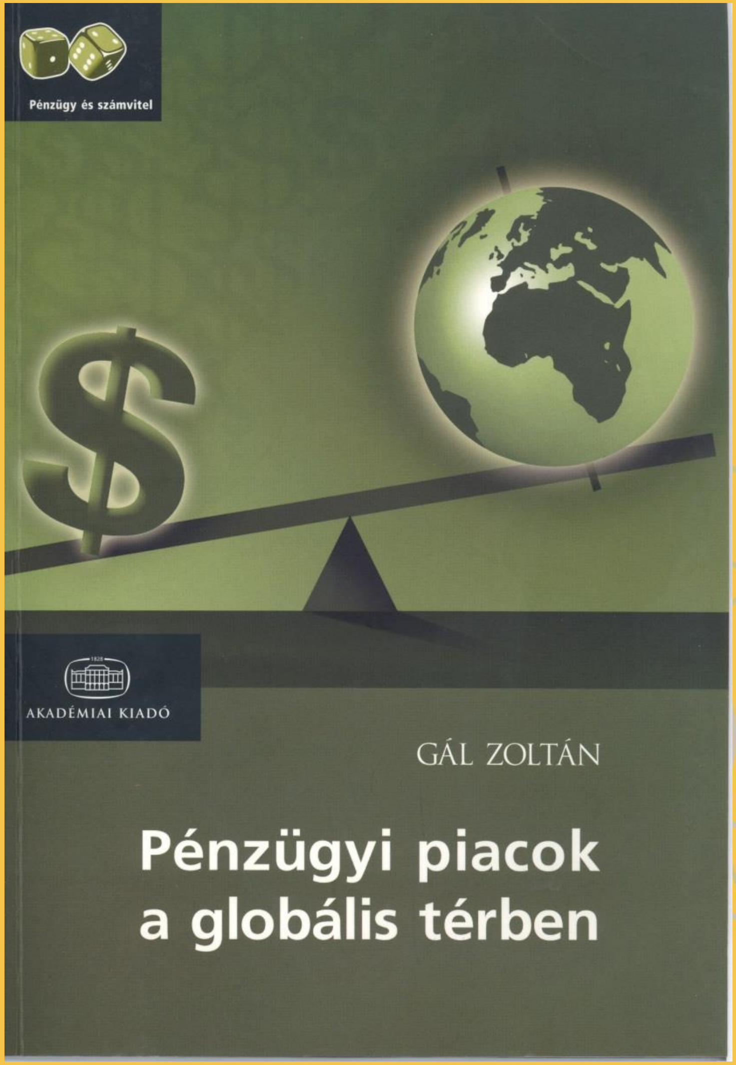
Introduction to Financial Geography

Financial markets in the global space

GÁL, Zoltán (PHD, Dr habil.)
galz@rkk.hu
Centre for Economic & Regional Studies (KRTK),
Hungarian Academy of Sciences
University of Kaposvár, Faculty of Economics, Dept. of Regional Science
Doctoral School in Regional Economics, University of Pécs
21/10/2013

My book: Financial markets in the global space – the crisis destorted financial market space, 2010



Content

1. Significance of space & geography in financial markets
2. What is Financial Geography?
3. Myths of financial globalization
4. Geographical aspects and concentrations of the financial space
5. Geogrpahy of the finacial crisis of 2007-
6. Central and Eastern European peculiarities

About the significance of geographical space in finance …

„In the past has been a rising interest in the geographical aspects of development, namely in those issues that examine where does the econonomic activities take place. Nothing is surprising in this interest but that these issues got for such a long time into the mainstream of economics.” (Paul Krugman, 1999)

„Locations still exist, even though electronic financial markets make that location more difficult to identify in traditional geographical ways. Firms, individuals, markets, even products have to have a sense of place.” (Richard O’Brien, 1992; Author of the „Global Financial Integration: The End of Geography”)

„Financial system are inherently spatial. Within geography, too, recent years have seen increasing recognition of the theoretical and empirical importance of finance and money for understanding the forces that shaping the economic landscape.” (Ron Martin, 1999)

„Geography is still important. Globalization has not diminished the economic importance of location. And the most striking feature of electronic communication is not how much geographical diffusion of activities it has produced but how little. And most received wisdom is that the financial services industry will become still more concentrated in a small number of centres. Technology permits dispersion but that dispersion is not happening.” (John Kay, Financial Times, 2001)

Paradigm shift in spatial sciences?
Economics: increasing significance of spatiality

Paul Krugman

Michael Porter

- The traditional economics is „a Wonderland without a spatial dimension" (Krugman)
- „*One-point economy* " view without spatial extension in the mainstream economics (*costs related to geographical distance do not matter*)
- All fundamentals of economy and economic categories have spatial characteristics
- Inequalities in the spatial distribution of economic activities are significant from the point of view of economic growth: *concentrated or dispersed location of market players can be produced cost increasing (negative) or decreasing (positive) external effects*
- Reasons of durable differences and inequalities (North-South/West/East)
- Globalization ‚paradox': generated by geographical differences and maintains these differences (locally embedded competitive advantages)
  - Transnational spaces (MNCs' & information networks) are standardized/globalized
  - Endowments of local (recipient) spaces reproduce regional differences („anchoring effect")

Integration of spatiality in to the mainstream economics

"There are serious consequences to the representatives of international economics that they do not see that the countries have spatial dimension"(Krugman, 1998, 2000).

Increasing role of spatiality		
	 **Paul Krugman**	 **Michael Porter**
Approach	NEW Economic Geography Further elaboration of neoclassical findings	Applied business economics, Management, Strategy management
Aim	General Spatial Equilibrium SPACE= endogen factor	Theory of Competitive advantages; Applied corporate strategies
Importance of Spatial factors (Imperfect competition, increasing agglomerations, increasing returns)	Macro-level perspective (Centrum-Periphery model at global & subnational level) **Territorial concentrations, agglomerations**	Micro-level perspective (locational advantages) Home-base, Regional-base
Spatial characteristics of economy = shift in economics		
Correlation between SPACE & TIME in Economics		

Financial Geogpaphy matters

- Financial systems in many advanced countries have been undergoing rapid and transformative change, **as globalisation**, **new technologies and deregulation** have combined to stimulate **organisational change** within and amongst financial institutions (concentration, centralisation, rationalisation, outsourcing), the emergence of **new circuits of finance** (venture capital) and **increasing volatility**.
- The money world is what geographers call a ***space of flows***, *partly real, partly virtual flows*, which directly and indirectly mould the ***spaces of places.***
- Money flows, their institutions and organizations have **strong connections with the spatial organization of production and consumption**.
- Financial System have complex organizational forms, particular locations of its institutons/offices and controling international financial centres (IFCs).

- Money and finance are basic to the form and operation of the economic landscape, yet ***traditionally geographers have paid relatively little attention to the spatialities of financial systems.***

Financial Geography

Approaches of Reginal Economics and Geography

Problems of traditional Geography: it is devoted to production sectors

- Diminishing role of „distance” in the IT age homogenizing economic (financial) space’?
- Invisible (intangible) systems,
- Too many forms of rapid transactions,
- Lack of knowledge in basic finance.

Roots of Financial Geography subdiscipline

- ***Fore-runners:*** Labasse, Myrdal, Kindleberger, Conzen,
- ***Post-Keynesian economics; Regional economics*****:** Robert-Fiskind, **Porteous, Laulajainen,** McKillop-Hutchinson, **Dow**, Alessandrini,
  1. Regional capital flows, a credit availability
  2. International financial flows (transfers)
  3. Evolutionary stages of financial/banking systems
  4. Bank location theories
  5. Literature of international & national financial centres (role of finance in urban development)
  6. Financial sociology

Financial Geography

- ***Geography*: Martin, Leyshon, Thrift,** Corbridge, **Clark-Wójcik**, Budd,
- Financial Geography deals with
  - Financial Flows
  - Financial Markets
  - Financial Institutions
  - Regulations of Financial markets
  - Public finance /government finance (gov. Exp. =45= of GDP)
  - Social constuction of Financial Markets
- Money and capital flows generated not only by t**he geographical division of savings and investments**, but by a high degree of **heterogeneity of financial markets and financial instruments** in different geographic locations.
- These regional differences induced – for instance – by differences in *interest rates, profit rates, capital availability/investments, productivity and wages*.

How tangible the spatial flows of money?

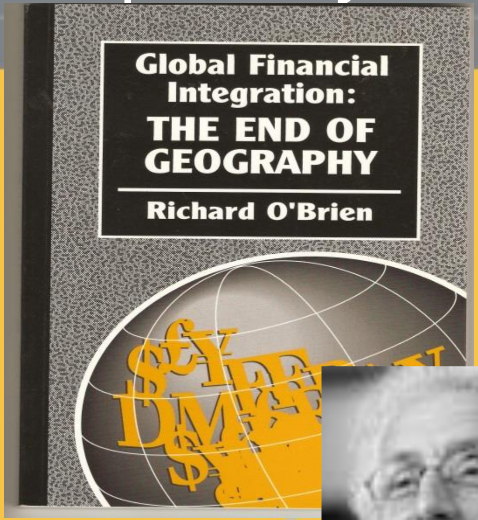
Can the spatial embeddedness of money be proved?

1. **The spatially unbounded money (financial) flows**
   - One can argue that globalisation and new ICTs are increasingly rendering geography and location irrelevant in financial markets.
   - The globalization tendencies are the most advanced in the international financial sector
   - In the age of electronic transactions there is no need for physical proximity, long-distance transactions -- **NO GEOGRAPHICAL CONSTRAINTS**
   - Change of time-dimension due to ICT technology (real-time). -- **NO TIME CONSTRAINTS**

2. **Geographical differences; strong & persistent spatial concentrations**
   - Heterogenity of markets and istruments generated by geographical/regional/territorial differences (capital allocation, interests, profit rates, regulation)
   - The role of nation states is still decisive (in regulation, lender of last resort))
   - The role of traditional financial centres remained unquestionable

„And after all the World is flat?” – virtualization and loosing significance of the spatiality

„The end of geography, as a concept applied to international relationships, refers to a state of economic development where geographical locations no longer matters in finance, or matters less than hitherto.- For the financial firms the chice of location can be greatly widened. The firm can operate whereever the markets and factors of production happen to be.” (1992)



1. Info-communication and the „end of geography”
   – The dispersed locations undermine the role of traditional financial centres
2. The death of nation-state and the „end of geography” theorem
   – Sccording to O’Brien „the end of geography” is the direct result of the decline of the nation state
   – Uniform global regulation necessary, because the financial sector easily can adjust itself to the differences in national regulations (2010 IMF’s global banking tax plan)

„Vitual world witout distances” overcomes geographical barriers?

Greater flexibility
in geographical locations

Local and regional flows channelled to international financial markets

Spread of location-free
real time transaction

You can settle
transaction anywhere & anytime

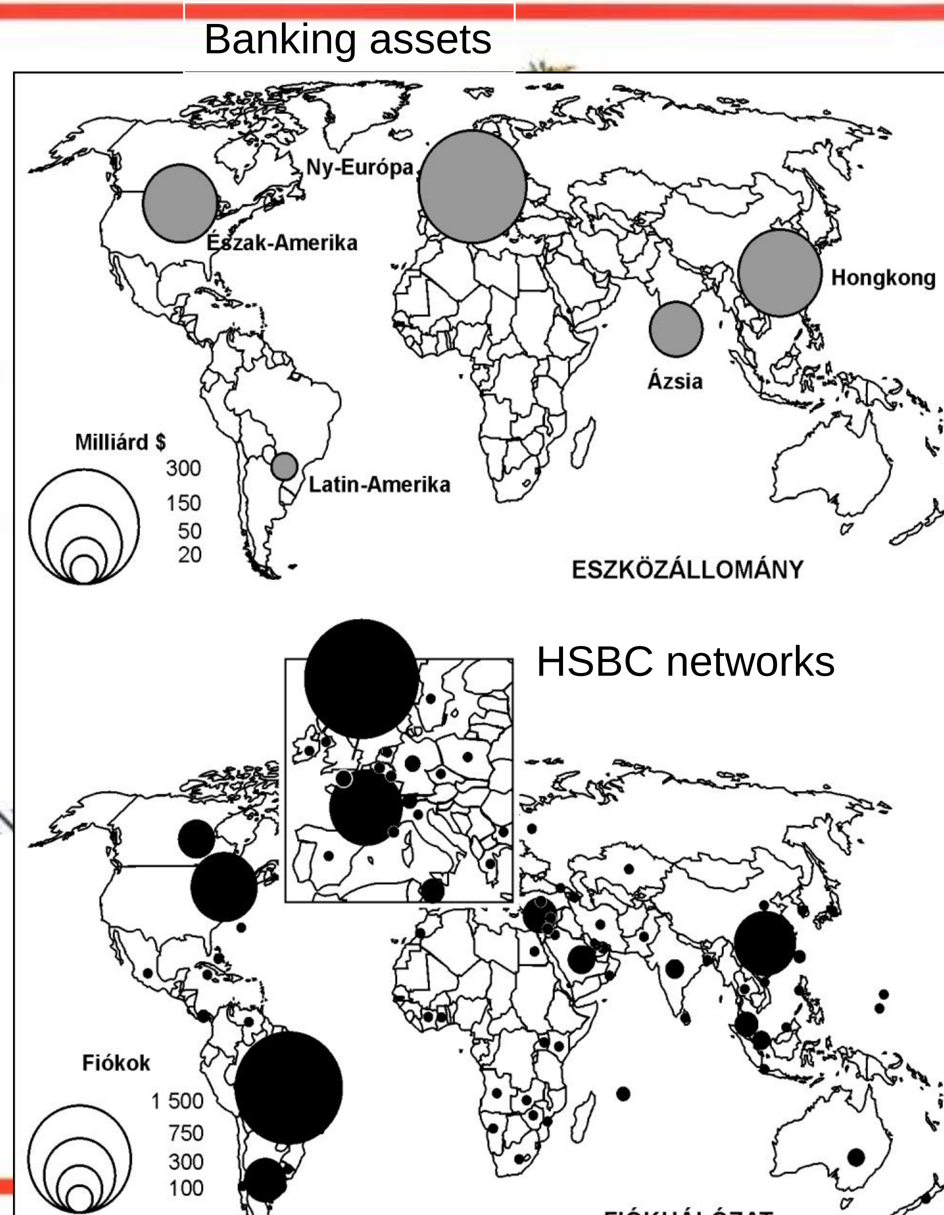
Increasing
competition

„ „And after all the World is not flat" – **persistent significance of spatiality in finance**

- Increasing or constant geographical inequalities (no homogenization)
- Financial market transactions drive by differences between different locations of the financial space
  - While economic activities characterized by globalization, factors of **firms' competitiveness remained large extend localized** (Porter, 1998).
  - Globalization built on the interaction takes place between the **<u>flow economies and territorial economies</u>. Locations of capital do not easily replaceable and this is proved by the fact that capital despite its increasing international character preserved home country peculiarities**. (Yeung, 1998).
  - Intanglible (location-specific) knowledge that requires the local embeddedness of international capital
  - Integration of global financial markets did not diminished the significance of geographical space ONLY the markets' characteristics have changed.
    - Increased the number of financial players, markets pressurres for competitiveness and for the exploitation of locational differences and geographical conditions.
    - Location arbitrage and the financial instruments; mobil és immobil factors of location

HSBC "The World's local bank"

HSBC
The world's local bank



Financial globalization
– the context –

Definition

- Flows of capital and foreign direct investments between countries which bring about them closer and more interrelated
- A complex integration process of the domestic financial system of a particular country with the international financial institutions and the financial markets
- Liberalisation of balance of payments transactions

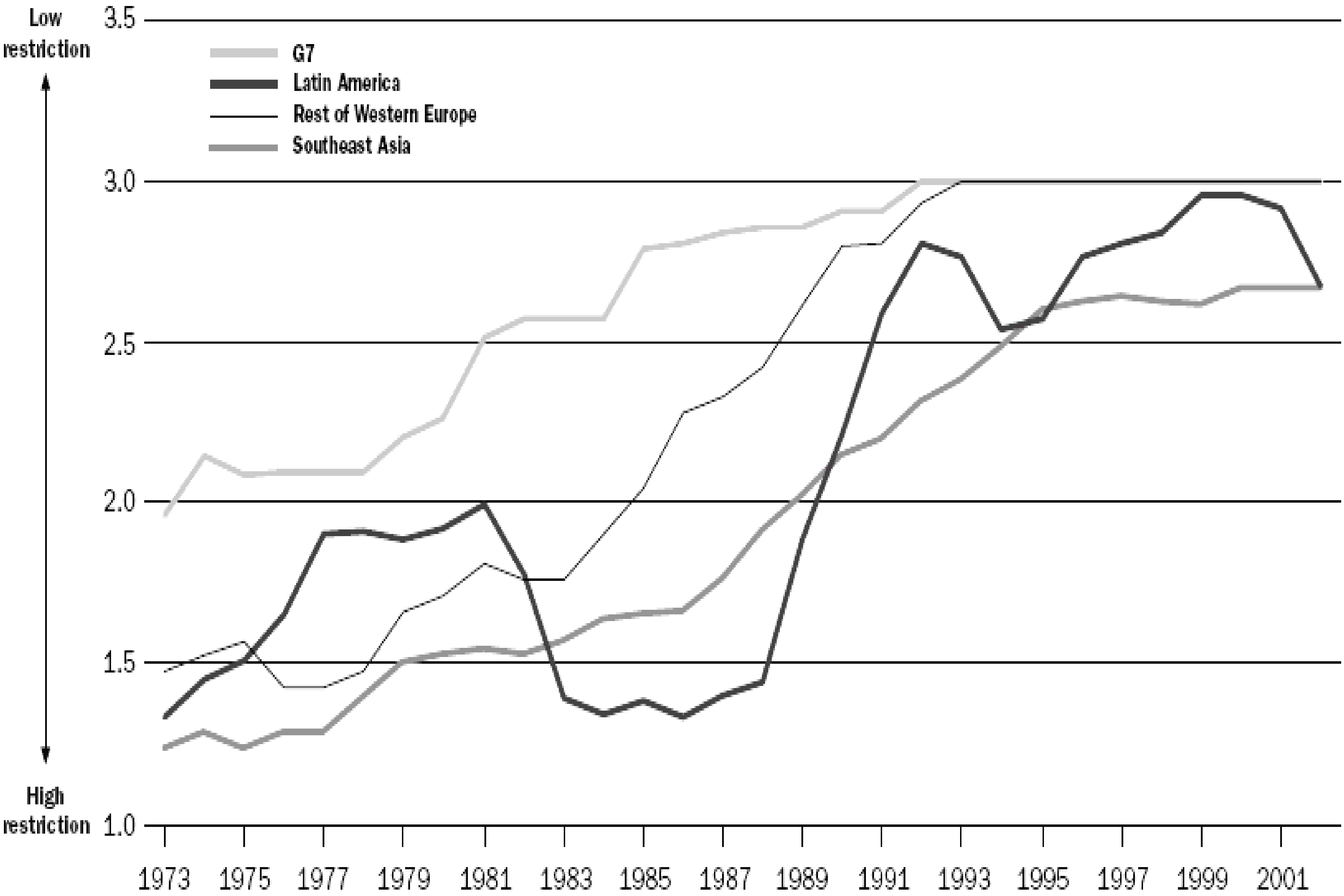
Driving forces

- – trade openness, domestic financial and economic development, abolition of capital account restrictions, regional (EU) integration, the country size and financial centres development

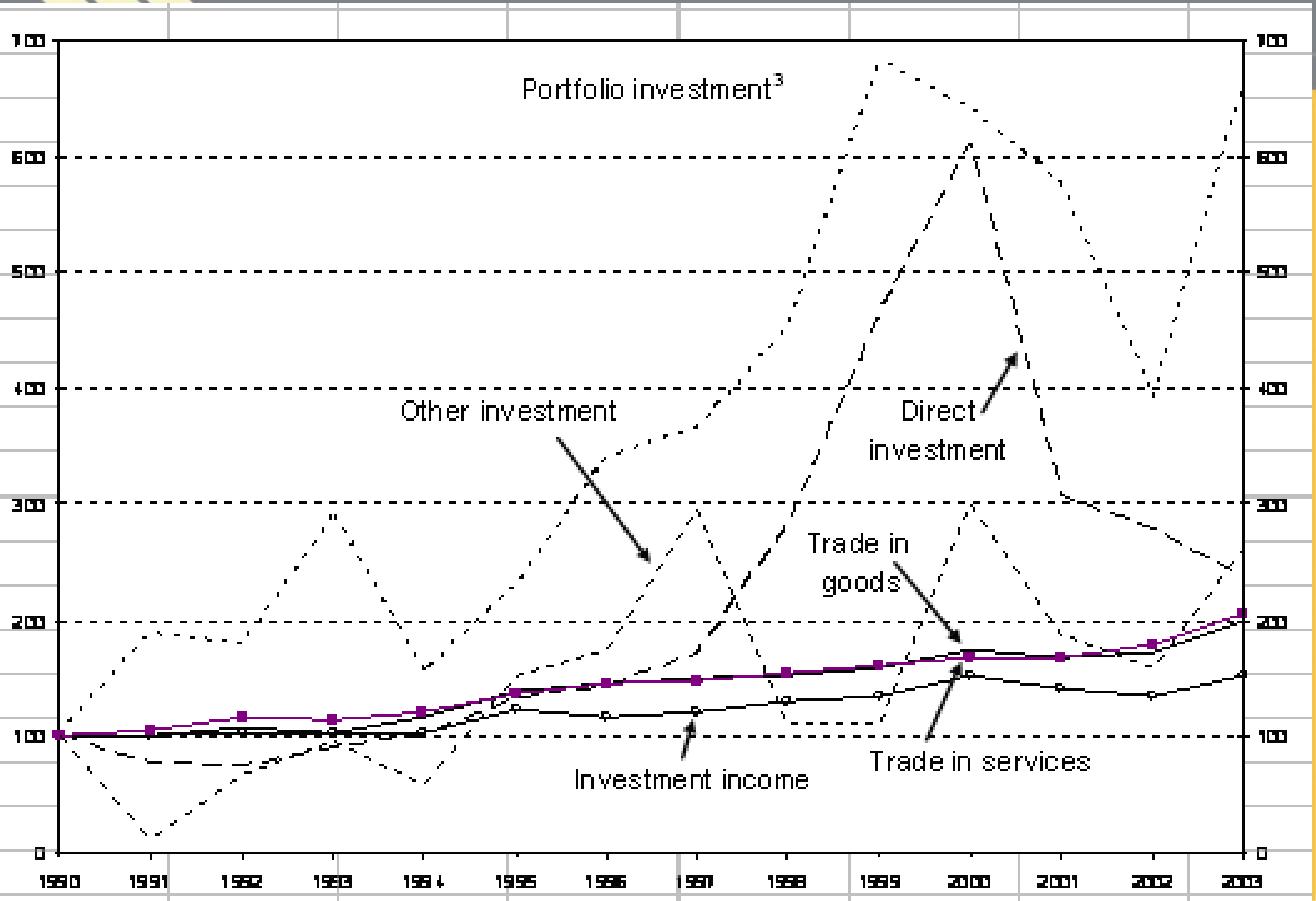
Stages

1. 1870 – 1914 First Financial Globalization (Gold Standard, free trade, FDI)
2. 1970s –1999 Second Financial Globalization (Result of Oil shock and Break-up of the Bretton Woods system)
3. 1999 – 2008 Third Financial Globalization (emerging coutries, financialization, securitization)

Financial Liberalization in Developed and Developing Countries (Index)



Trends in international trade and investment components



The myths of finacial globalization

- H1: Development of financial globalization without any constraints (Unrestricted integration of intl. financial markets) H2: International finance is the most globalized economic sector (*Intl. Financial „superstructure”*)
- H3: International financial market gains ascendancy of over domestic financial markets
- H4: Growth rate of international finance detached from the growth of the real economy

H1: Borderless integration of financial markets vs. Geographical constraints of this integrartion

„ As markets become integrated the relevance of geography and the need to base decisions on geography will alter and often diminish. Money, being fungible, will continue to try to avoid, and will largely succeed in escaping, the confines of the exisiting geography.” (Richard O’Brien, 1992)

„Financial systems are inherently spatial. Initially, this statement might not be though valid or important, since the very fungibility and convertibility of money enable it to tanscend space more readily than any commodity. However, financial systems have complex institutional and organizational geographies that both reflect and influence their functioning. Various circuits of finance capital are constatntly moving immense sums of money, credit and debt between different localities of a country, as well as between countries.” (Ron Martin, 1999).

„National borders – with a few exceptions – fell down due to the free flow of money. A considerable, though less spectacular factor lives longer at the same time: the regional differences remained; although the money market turned into global one. There are considerable interest differences between the single regions – sometimes between single countries. However, the money market is just moved by these differences.” (Miklós Almási, 1995)

H1: Geographical constraints of financial globalization

(1). In the composition of investment portfolios domestic assets dominate (home-bias) ***(Coval-Moskowitz, 1999).***

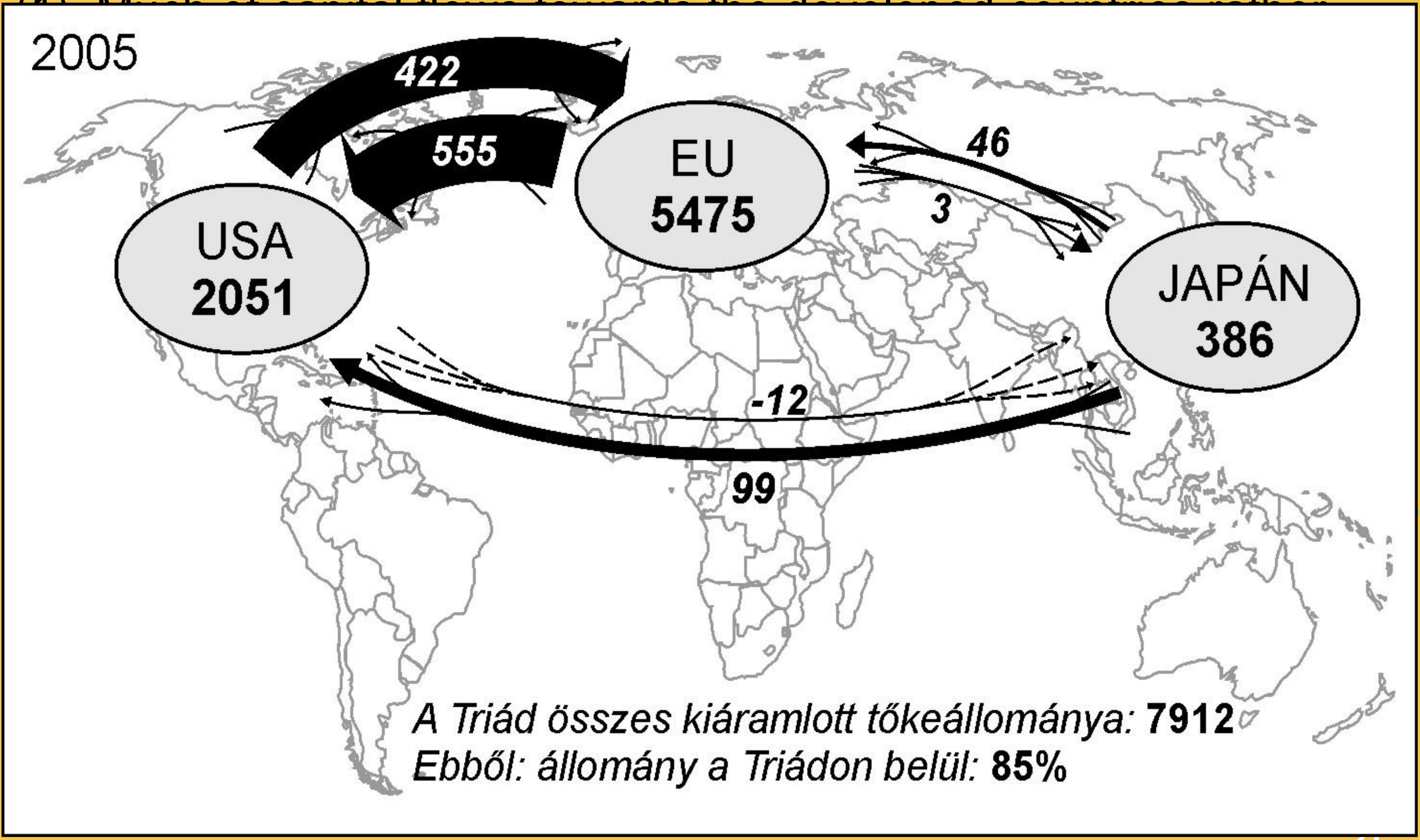
(2). Territorial connections of savings and investments: domestic investments still largely depend on domestic savings ***(Feldstein– Horioka puzzle, 1980).***

(3). Profit yield per shares more largely depends on the issuers' home country than from the given sectors.

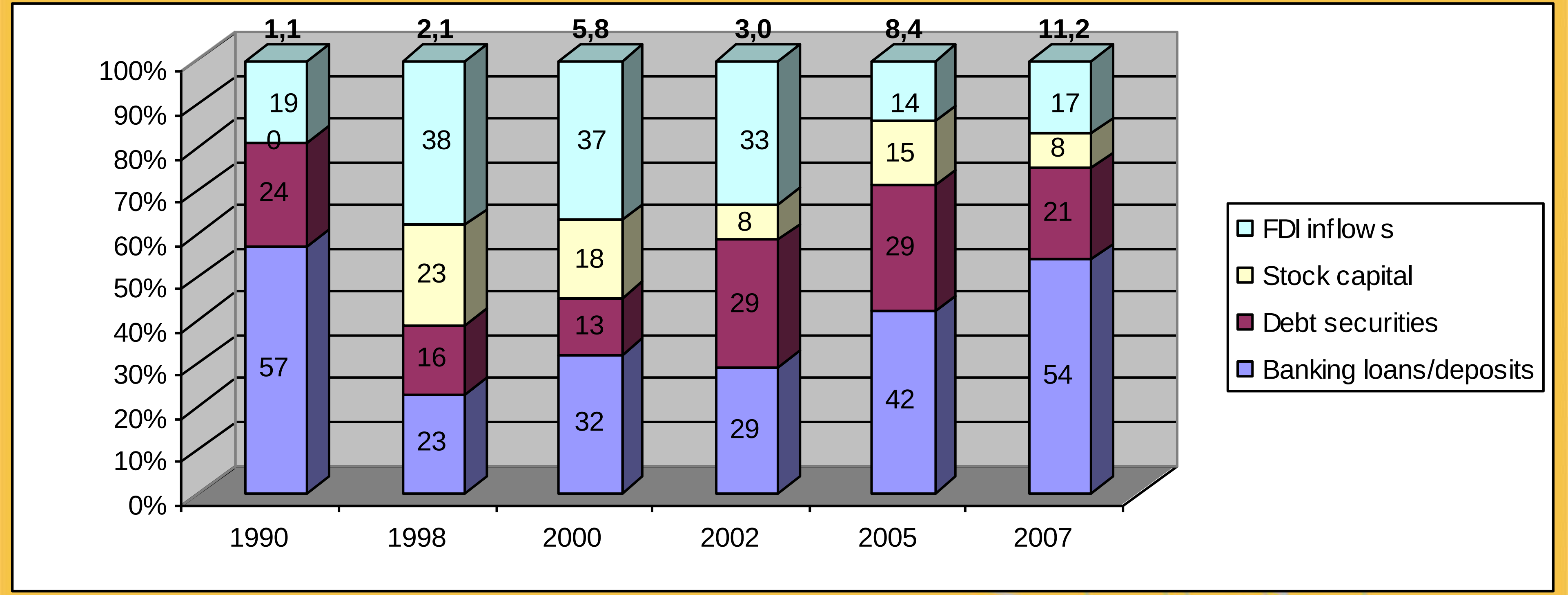
(4). Share of Cross-listing in foreign stock exchanges is still smaller; domestic shares dominate.

(5). National borders are still determinant in the ownership structure and corporate governance

H1 Financial globalization and the paradox of international capital flows („Pervert capital flows”)



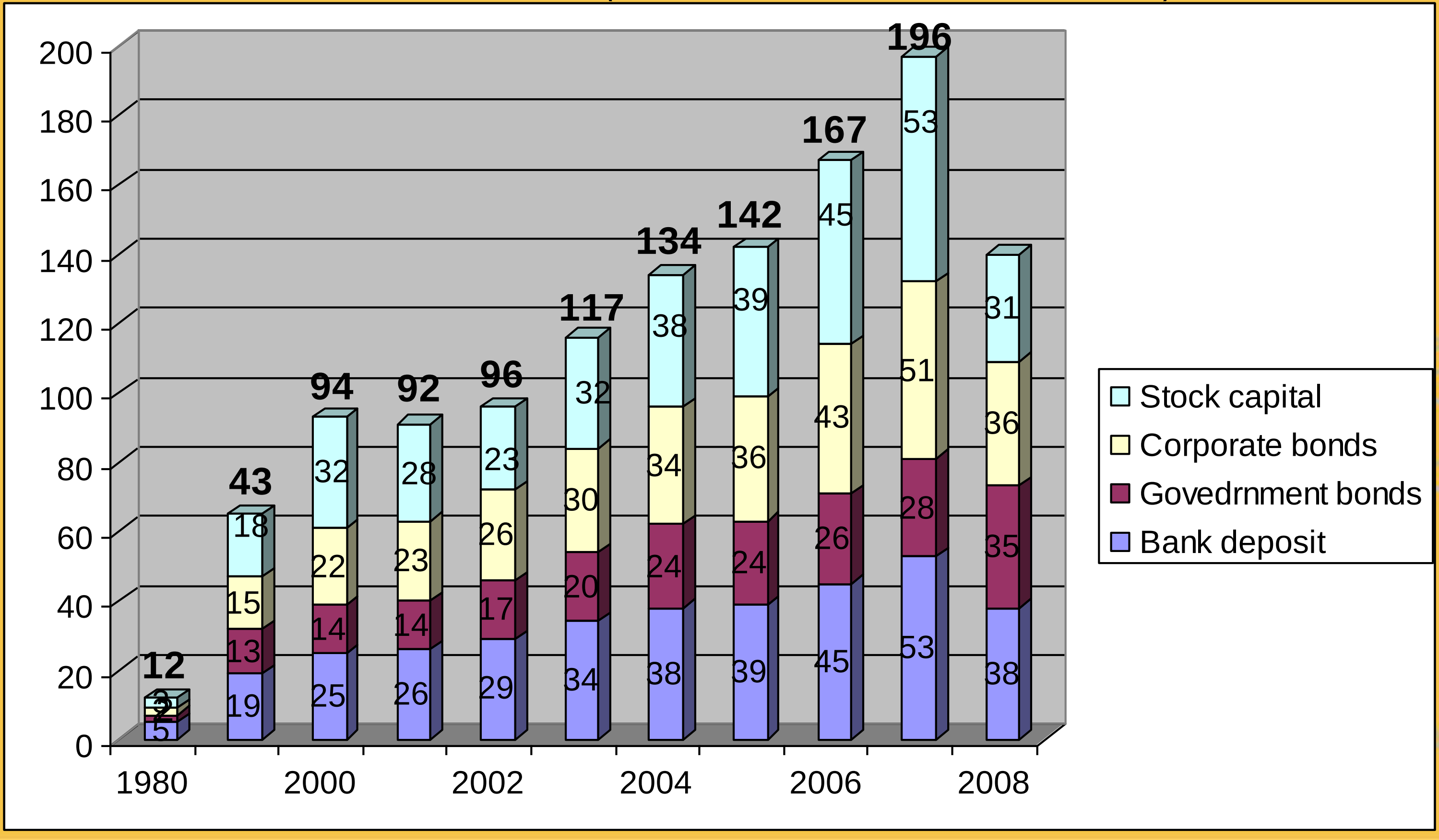
FDI is dwarfed by portfolio investments



H2: International finance is the most globalized economic sector

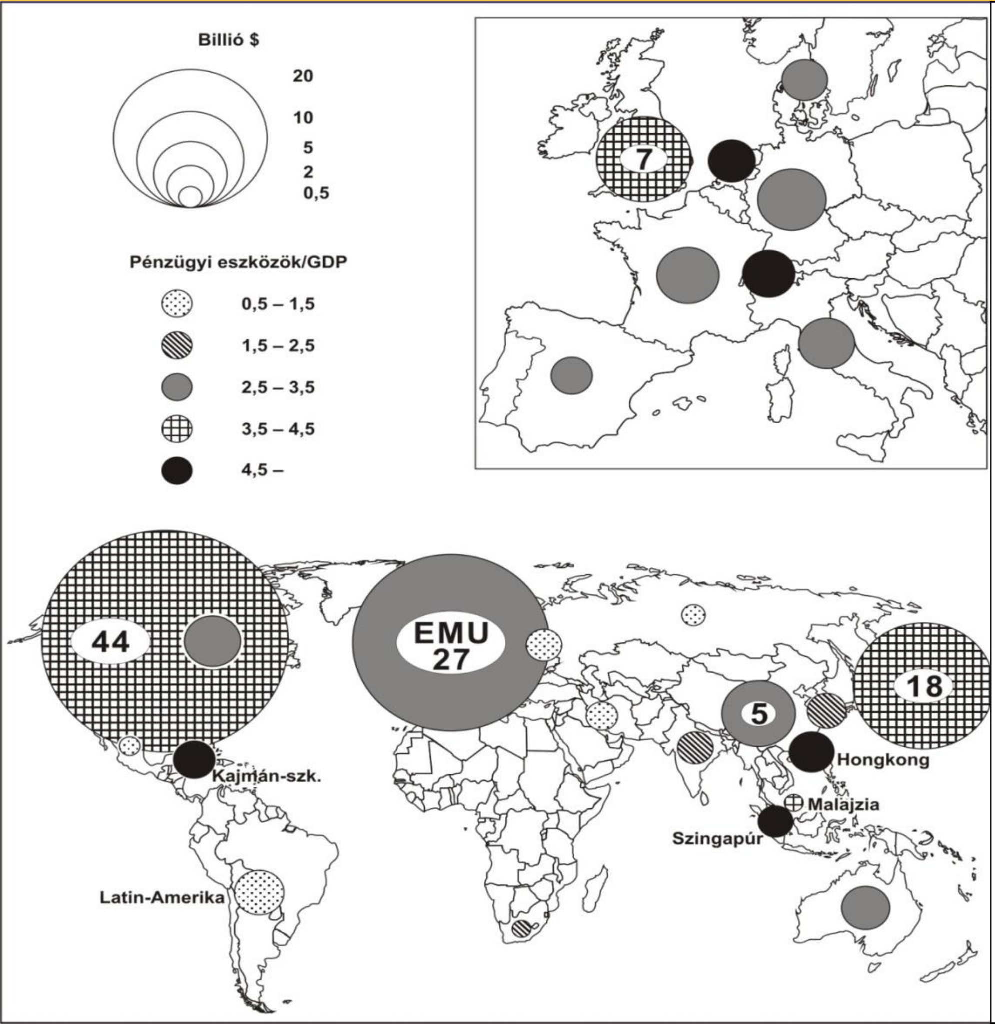
- It produces the largest volumes and turnovers
- Ratio of international and domestic finance?

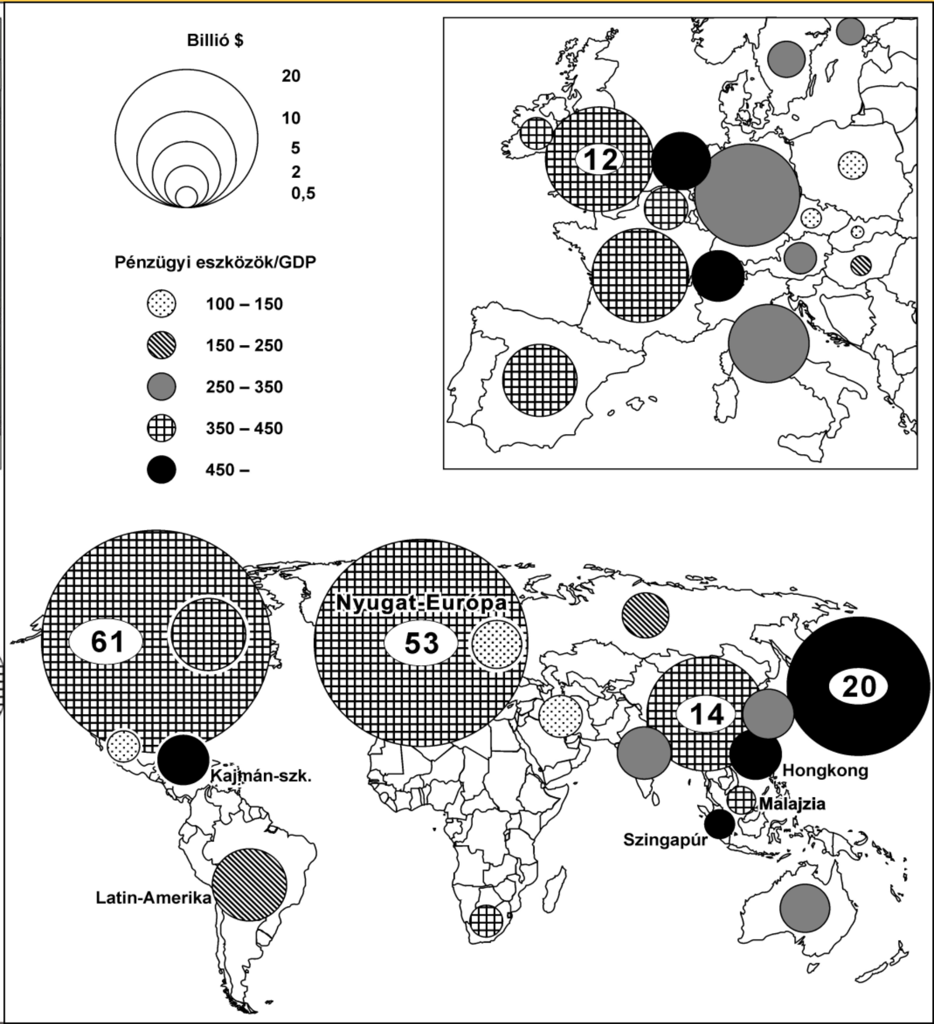
Financial assets in the world (thousand billion USD = trillion)



Global Financial Assets distribution, 2003, 2007

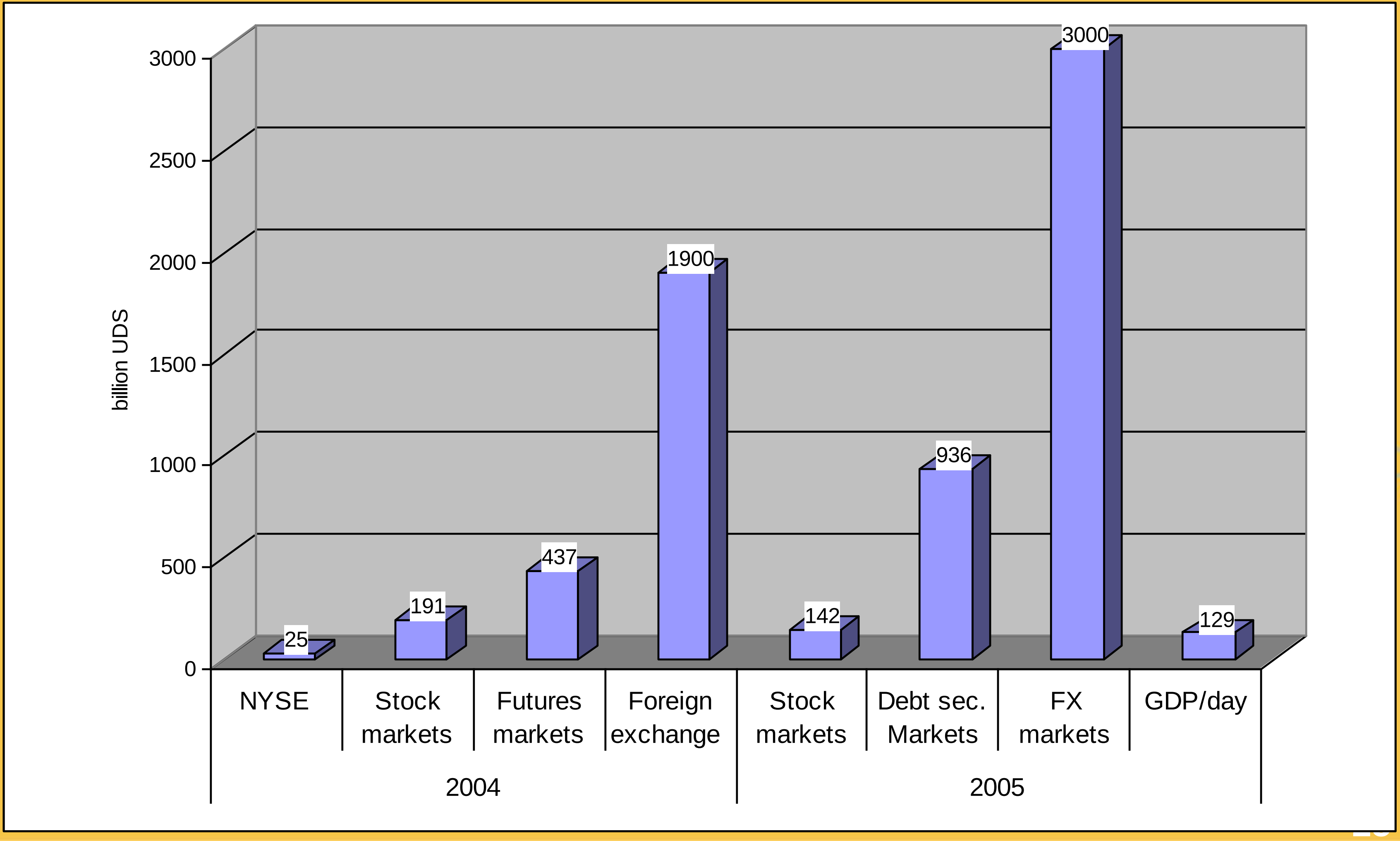
A globális pénzügyi eszközállomány földrajzi megoszlása és a pénzügyi piacok mélysége, 2003, 2007





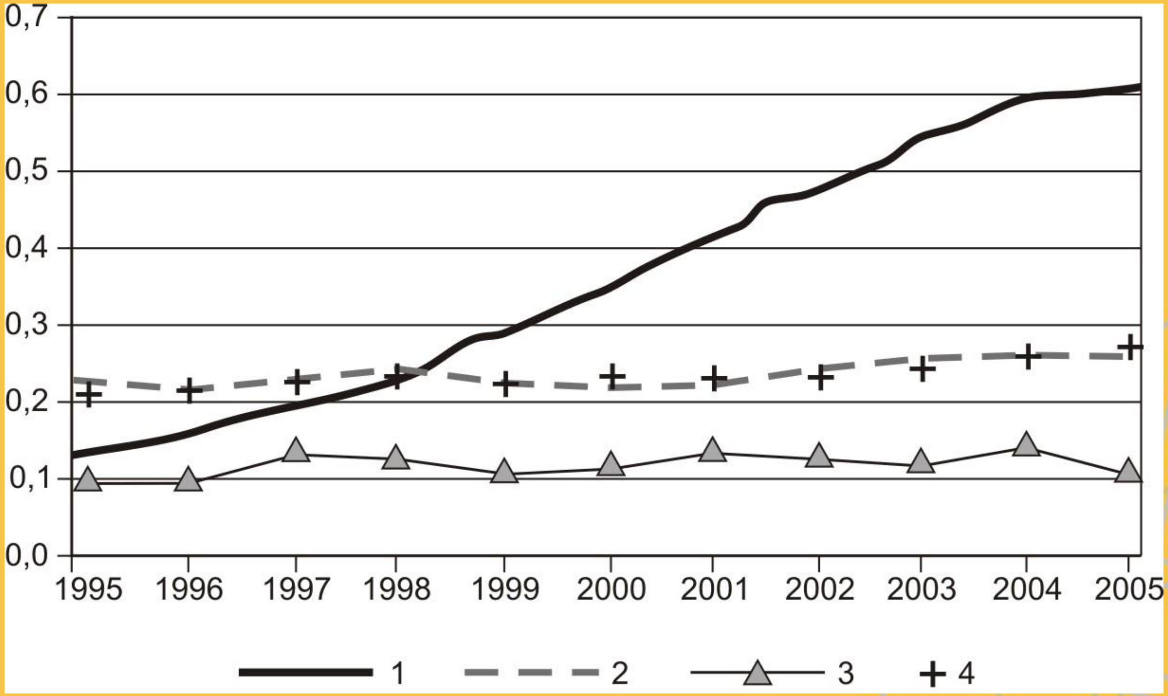
H2:A International finance is the most globalized economic sector

Daily turnover of selected markets (billion USD)



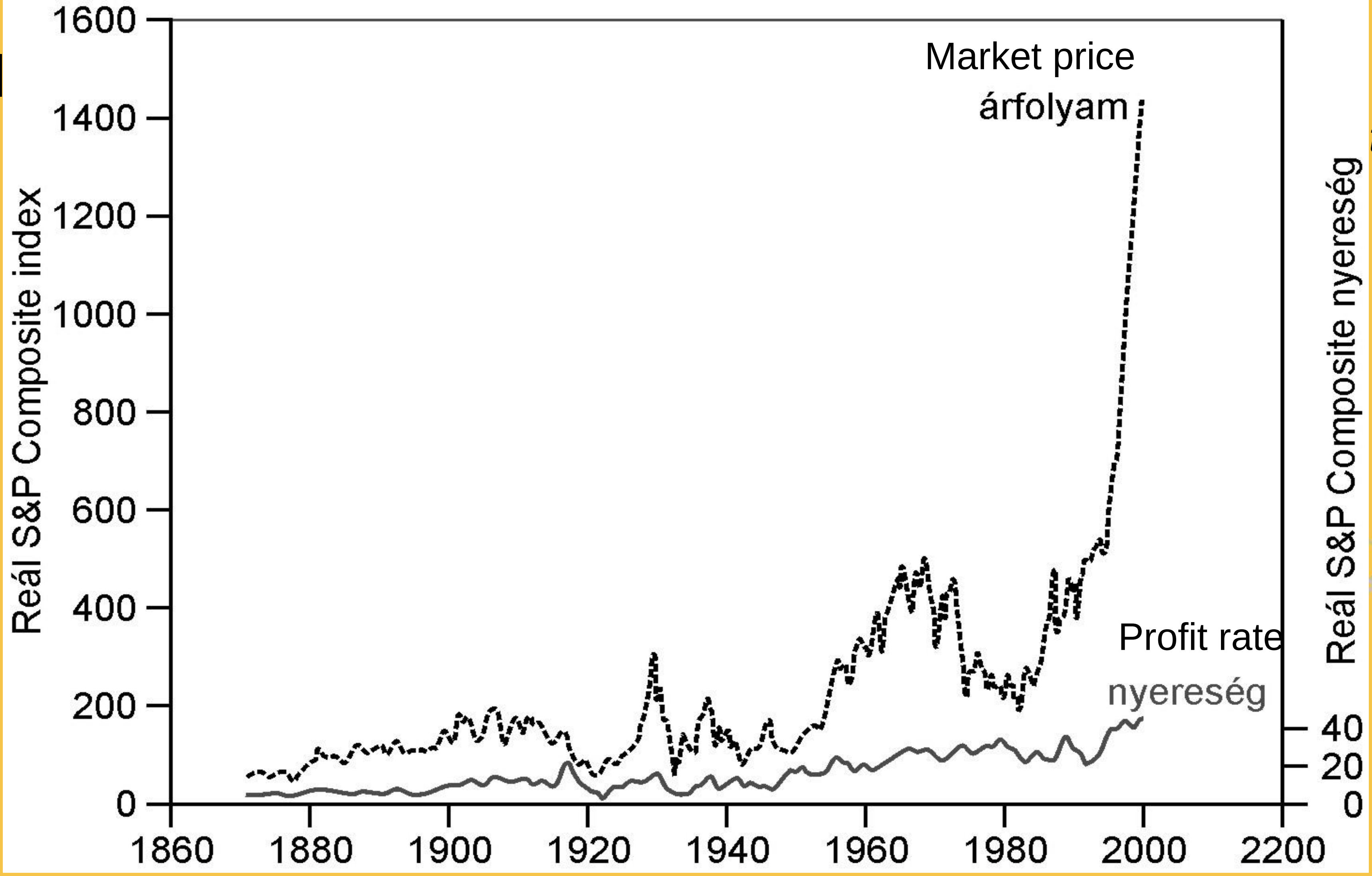
H3: International financial market gains supremacy over domestic financial markets

*Internationalization of finance 1995–2005 (ratio of intl. and domestic stock & flow figures)**



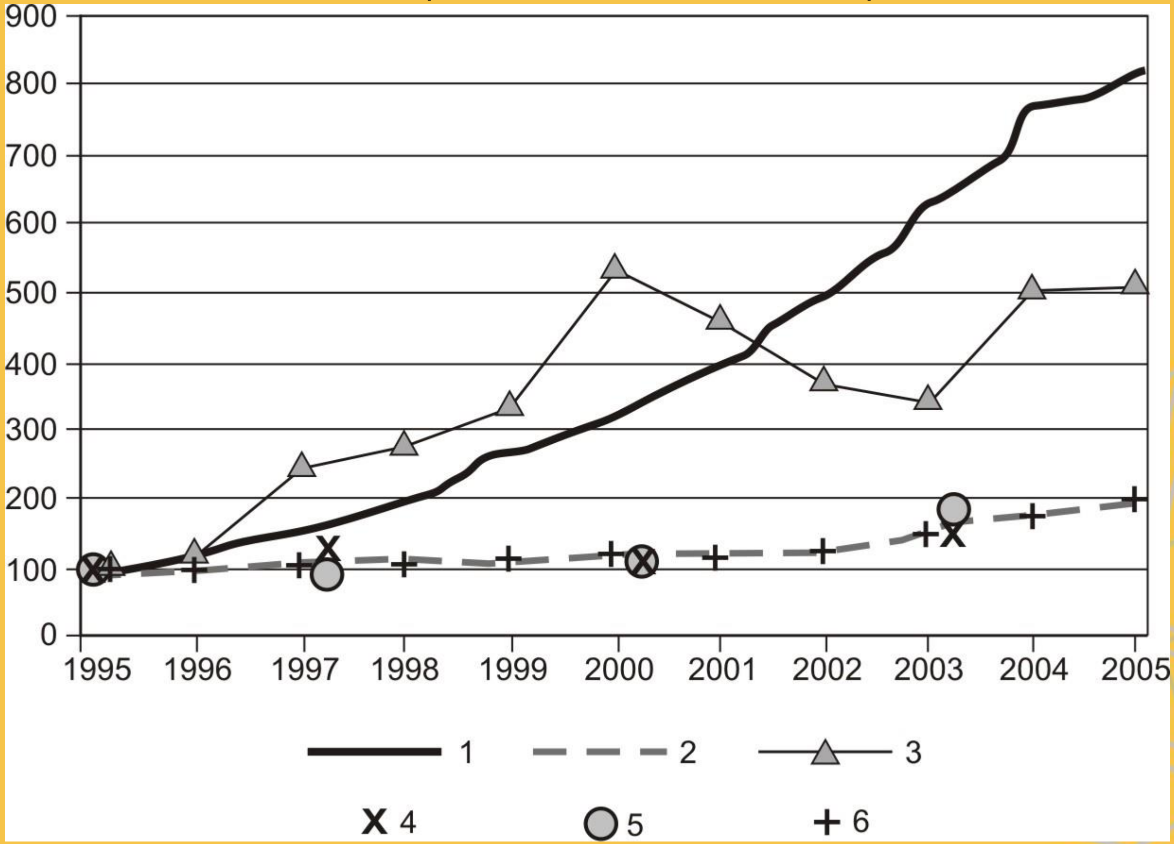
1. Stock of Intl./domestic debt securities;
2. Stock of Intl./domestic banking loans;
3. Turnover of Intl./domestic stocks;
4. Export/GDP. (Forrás: Wójcik 2007, Gál 2009)

H4: Growth rate of international finance is detached from the growth of the real economy



H4: Growth rate of international finance is detached from the growth of the real economy

*Growth rate of diff. segments in international finance 1995–2005, (December 1995 = 100)**



1. Stock of Intl. debt securities; 2. Stock of Intl. loans; 3. Turnover of Intl. stocks; 4. FX turnover; 5. OTC derivativ turnover; 6. Export

Forrás: a szerző számításai, BIS, IMF. (Forrás: Wójcik 2007, Gál 2009)

Concentration of financial markets – methodological approaches

I. Development of international financial centres (C. Kindleberger)

II. Information geography (Clark és O'Connor)

III. New Economic Geography (NEG) (Krugman)

IV. Financial Geography: concentration or deconcentration in financial markets? (Wójcik-Gál)

I. Development of international financial centres

“In the future the world will get by with just a handful of financial centres. At present especially Europe has too many of them.” (Economist, 1998)

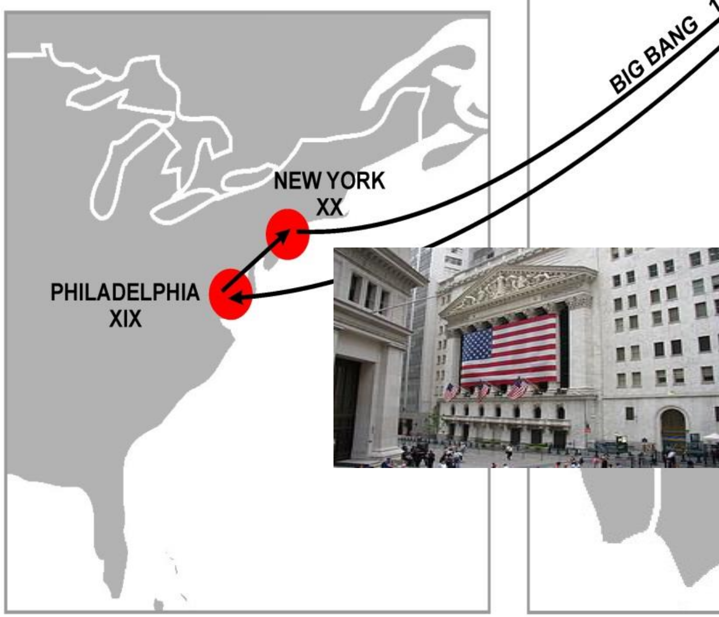
„Capitalist world order lacks spatiality (sic!), though it has a centre and a periphery. The former is the source, while the latter is the user of capital, therefore the centre defines the rules of the game.” (Soros, 1998)

„The centre is located here in New York and London, as the international financial markets do situate there, or in Washington, Frankfurt and Tokyo, since a decision is made here for the world's money supplies. …” (Soros, 1998)

„Geography is still important. Globalization has not diminished the economic importance of location.And the most striking feature of electronic communication is not how much geographical diffusion of activities it has produced but how little. And most received wisdom is that the financial services industry will become still more concentrated in a small number of centres. Technology permits dispersion but that dispersion is not happening.” (John Kay, Financial Times, 2001)

I. Development of international financial centres

•Commercial centres of industrial districts
• Follows the relocation of the economic cores of the world
•Not necessarily the largest cities
•Lonlgstanding stability (path-dependency)



I. Development of international financial centres

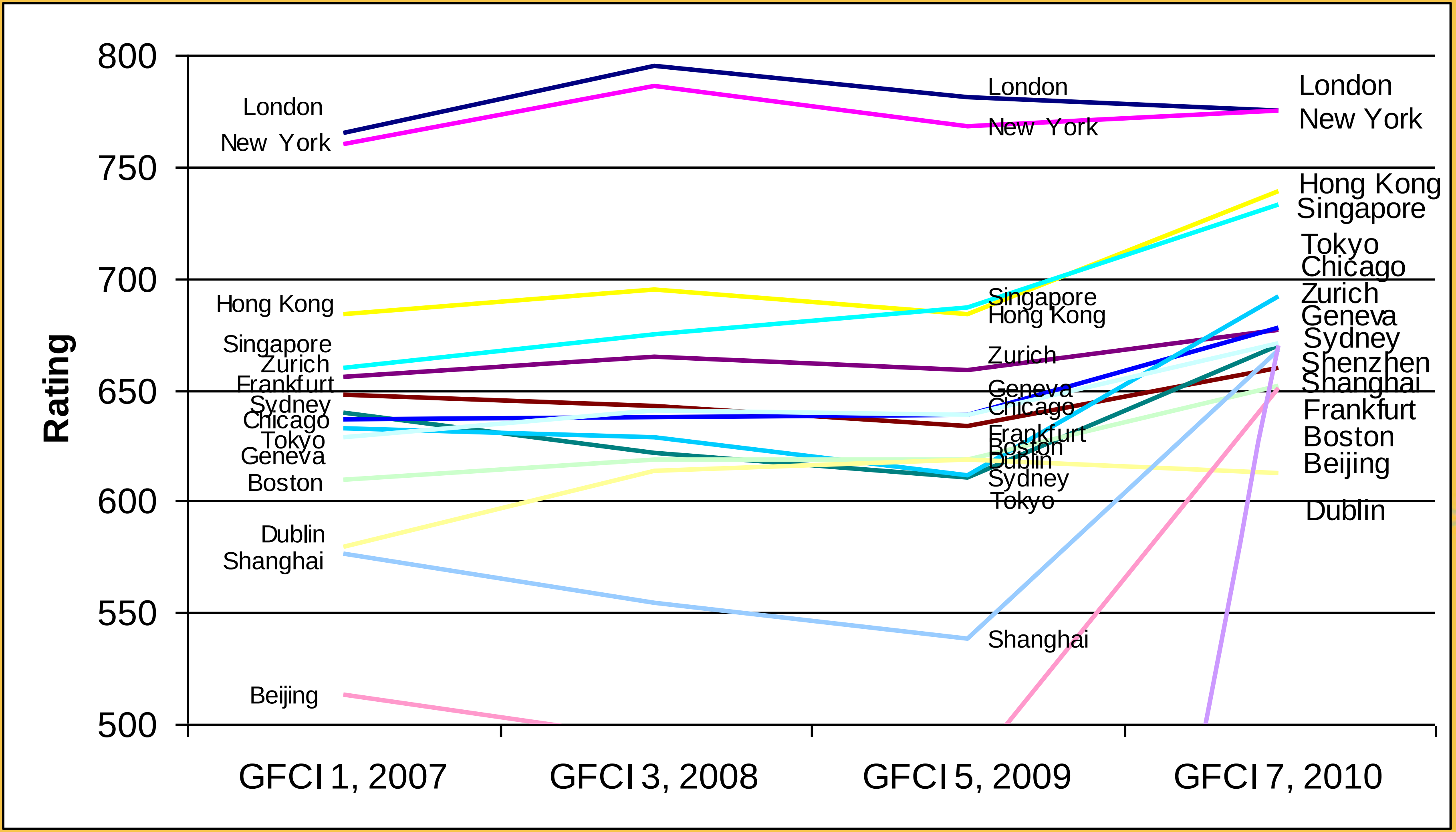
- Financial Geography shows how location remains key to the conduct of financial transactions and markets, and how financial decision-making and the allocation of finance **remain concentrated in the major money centres**, with the implication that *regions and location lacking such centres and remote from them could well be at a disadvantage* in accessing finance (at least on the same terms and conditions as regions and location containing financial centres).

I. Development of international financial centres

- Like the industrial revolution changed the landscapes and townscapes of the 19th and 20th century, the money and banking revolution of the 1980's and 1990's changed the physical landscapes of capitals and metropolitan regions all over the world.

CBDs of International Financial Centres

Global Financial Centre index



I. Financial centres and connectivity

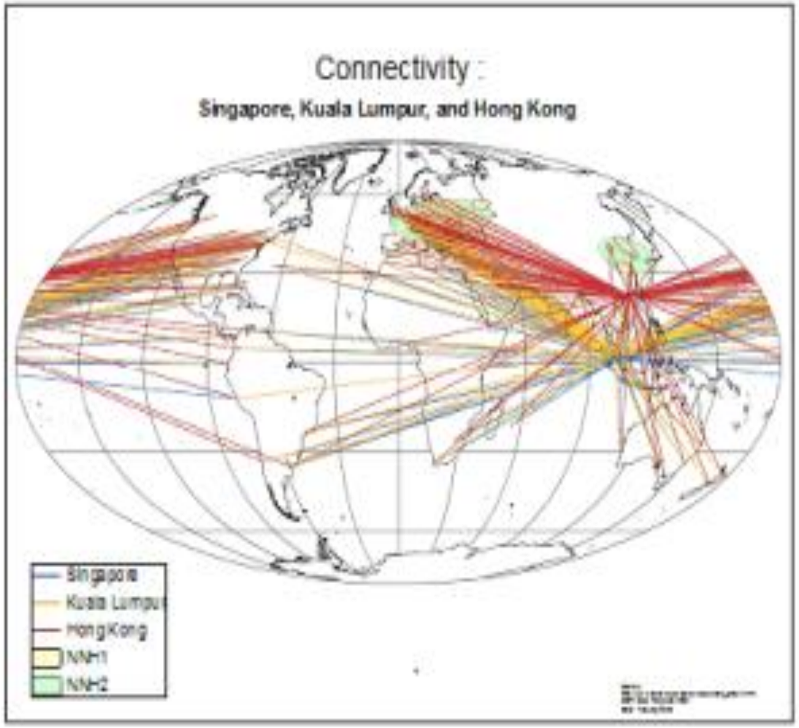
„… while the technical infrastructure anywhere can be created, till then the social connectivity necessary to the acquisition of the qualitative information and his processing can be assured only in the the largest financial centres.”(Saskia Sassen, 2004).

Inter-city (intra-firm) connectivity matrix among Alpha cities (int he percentage of the connection plausibility/probabbility)

Honnan / hová	CH	FR	HK	LN	LA	ML	NY	PA	SG	TK
Chicago (CH)	–	89	89	100	91	79	100	89	83	100
Frankfurt (FR)	67	–	93	100	72	87	100	95	94	95
Hongkong (HK)	60	82	–	100	80	80	100	85	92	90
London (LN)	59	77	87	–	78	78	98	83	83	86
Los Angeles (LA)	67	73	89	100	–	70	97	84	81	89
Milánó (ML)	59	88	93	100	67	–	100	88	91	93
New York (NY)	59	77	87	98	77	77	–	79	83	85
Párizs (PA)	64	85	90	100	80	81	97	–	90	90
Szingapúr (SG)	60	87	98	100	78	83	100	92	–	95
Tokió (TK)	64	84	93	100	83	81	100	87	88	–

From-where To

I. Financial centres and connectivity



II. Information geography
„Death"of distance vs. Role of distance/proximity

„…the death of distance but not the end of geography". (Gorman)

What extent the intensity of spatial connections does depend on geographical distance?

- Distance vs. accessibility
- Distance vs. connectivity
- Transportation vs. information flows
- *Death of distance* vs. Distance/proximity
- Transportation cost vs. information cost (premium)
  - ✓Easier access to information? (basic, quality)
  - ✓Increasing role of information hubs
  - ✓The significance of physical, institutional, linguistic & cultural proximity

II. Information geography
Concentration vs. deconcentration

- Geographical directions of money transfers can generate both the agglomeration and the dispersing effects in financial markets

- **Agglomeration** (stronger embededdness in the local economy)
  - Better access to information, less information asymmetry,
  - (efficient market theorem:the more the well-informed players the more efficeint the markets; faster reaction to price volatility)
  - Liquidity preference theory **(Dow 1991)**
  - Excercice control & supervisory functions in the largest IFCs
  - Economic of scale advantages

- **Dispersion** (money outflows from the regions)
  - '*Money flows like mercury*' (**Clark, 2000**)
  - Geographical diversification: Looking for better investment opportunities
  - Risk distribution by geographical and sectoral directions („risk-averse” management)

II. Information geography

- Information: Raw material of money; Final product of financial markets
- Financial markets are the largest info-processing systems
- Information is the most important location factor in financial markets (Information-paradox)
  - Standard Information vs. Quality Information (costly market premium, information asymmetry)
  - Gain, process of quality information (requires proximity, and local embeddedness)
- Role of geographical proximity in IFCs
  - Tacit knowledge requires physical proximity (the higher the tacit knowledge the higher the need of agglomeration)
  - Information assymmetry: value of information decreases by distance and its cost increases
    - (MARKET INPERFECTIONS: there are no fully efficient markets due to the costly information (Fama a Nobel laurate, 2013)
    - Access to Information of the market players depends on their geographical location!
  - Exploitation of social connections and investment opportunities in the global financial centres requires proximity
- Examples: Home bias in US capital markets

- Real vs. virtual space
  - Financial markets operate in a distance-free virtual space?
  - Real and virtual centres are overlapping
  - Continoous interaction (IT interface)
  - Determined by socio-economic processes of the real space

Geographical concentration of different market segments and products

Bank loans < debt securities < stock market < FX/OTC Derivativ market

Loan
Borrower **Bank**

Debt security
Investor **Issuer**

Stock
Trader **Trader**
Equity Issuer

FX/OTCD
Trader **Trader**
Country of the underlying currency

The significance of proximity:

high

medium

low or none

The significance of physical, institutional, linguistic and cultural proximity

See e.g. Wójcik, 2007, Clark & O'Connor (1997) or Grote et al. (2002)

II. Information geography

H5: Financial markets operate in a distance-free virtual space?
Information nodes of financial markets

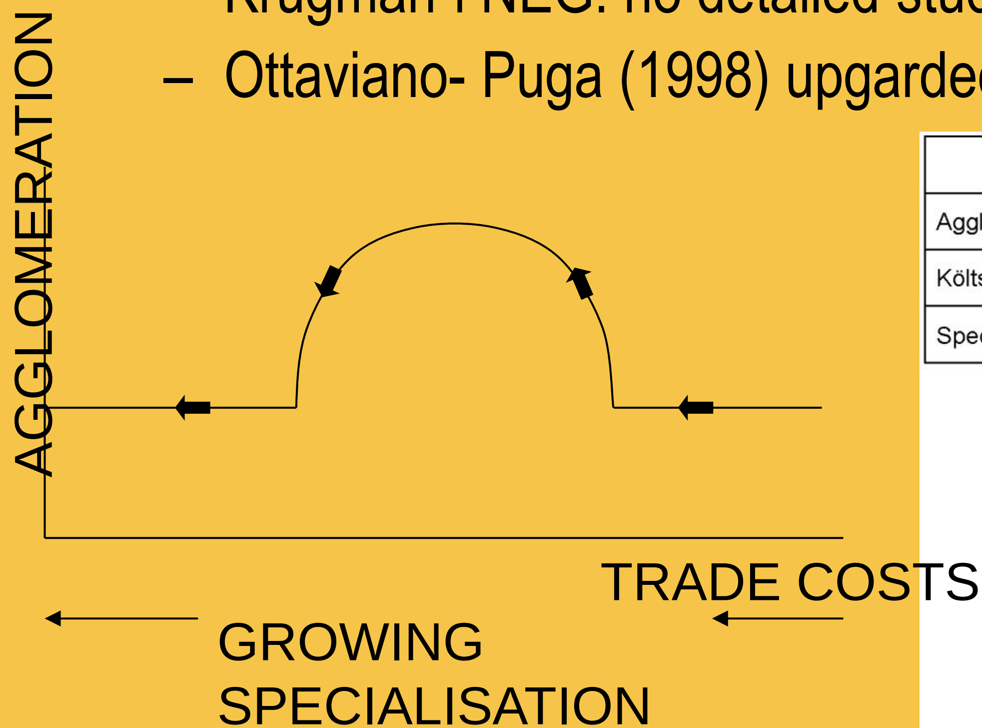
Information content and spatial embeddedness of diff. financial products

Category of financial product	Market type	Locally-specific information intensity	Required special skill	Risk content of return/main traders
Transparent	Global	Low Ubiquitos (easy to access information)	Low (stock market index related products) Traded on intl. markets **Pl.** Gold; FX**, A+++ bonds, blue chip stocks ('standardized blue chips products')**	Low/ Global financial Firms, eg. investment banks
Translucent"	national	Medium (dependent on third party's market)	Significant. Knowledge on national companies is required.. Tradeble in intl. Merkets with upgrading.. **Pl. company bonds, stocks, kötvények, ABS, CBD**	Medium/hedge funds, specialized traders
„Opaque"	Local/regional	High (tranzaction dependent)	Essential. . Trade these products based on trust and longlasting CRM **Pl. venture capital fund, Real estate investment fund, , Privátė equity**	High/local brokers, VC firms

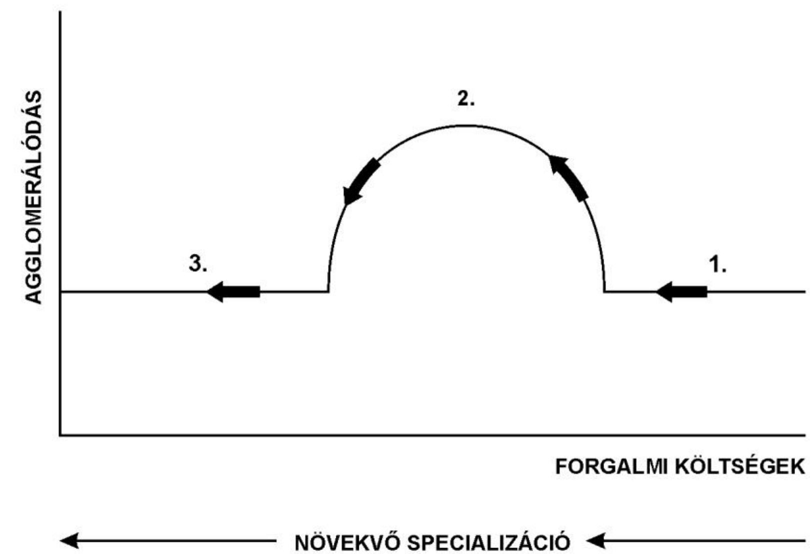
Forrás: Clark – O'Connor (1997).

III. New Economic Geography: market dynamic of concentration processes

- NEG: IT use did not diminish the importance of agglomerations, and scale economic concentrations
  - Krugman-i NEG: no detailed studies on finance (positive externalia)
  - Ottaviano- Puga (1998) upgarded model



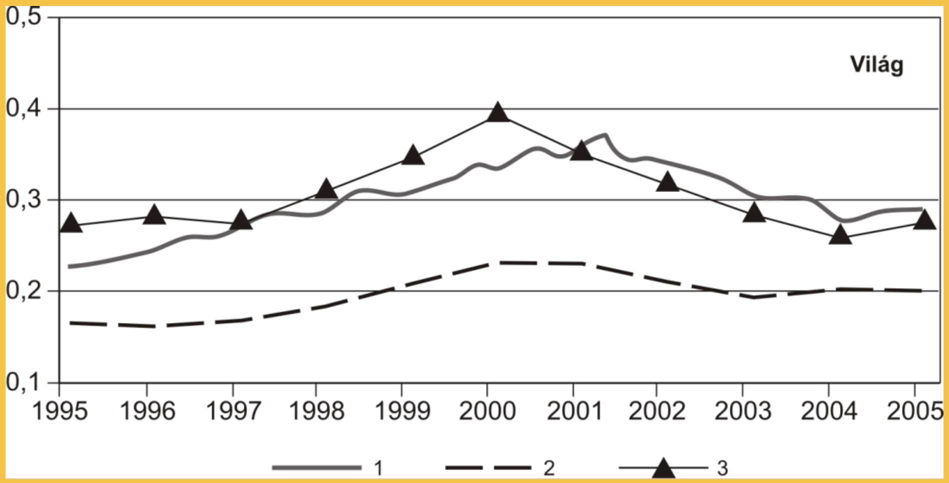
	3. (dekoncentrációs) fázis	2. (koncentrációs) fázis	1. (kiinduló) fázis
Agglomerálódás	alacsony	magas	alacsony
Költség	alacsony	közepes	magas
Specializáció	magas	közepes	alacsony

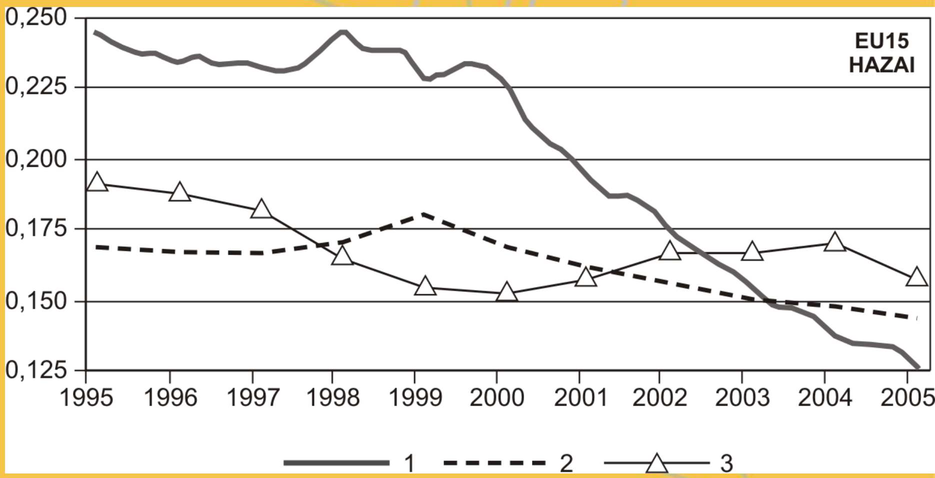


III. New Economic Geography and its limits: ratio of concentration and deconcentration

- Mapping the inverz U model: increasing concentration followed by decrease globally
  - On EU level decrease in concentration started earlier (single market)
  - There is no prove of increasing concentration in time-zones

Concentration of financial market segments (Herfindahl-index)

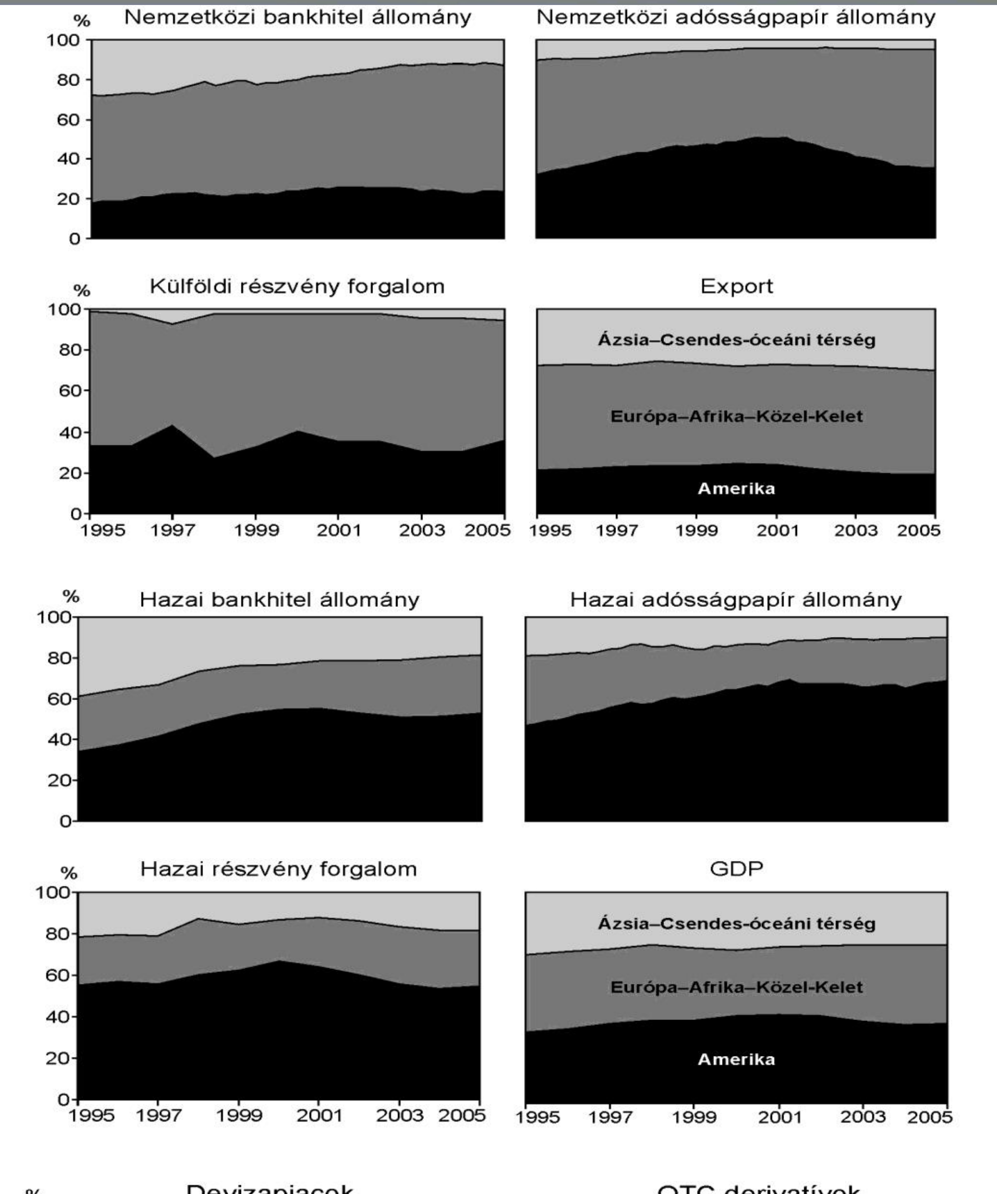




1. Stock of debt sec.; 2. Stock of bank loans; 3. Stock exchange turnover;

IV. Concentration or deconcentration?
Asset distribution by time-zones

- Unequal **distribution by time-zones**
- Little else but the three time zones prevent it from collapsing into one global financial centre
- American dominance in domestic, European in international markets
- Asia lagging behind (1998-2005)
- From 2005 increasing concentration (cycles)
- Asia’s growing shares



IV. Concentration or deconcentration?

Weighted share of financial markets and diversification (financial indices)

	Domestic	International
Stock *(az állomány nagysága)*	Domesttic loans (50 Tr $) Domesttic debt securities (45 Tr $)	International (cross-border) bank assets(15 Tr $) International debt securities (14 Tr$)
Flow *(kibocsátás/ /kereskedés forgalmi értéke)*	Domesttic stocks (47 Tr $)	Cross-listed stocks (5 Tr $/év) FX products (2 Billió $/nap) OTC FX derivatívs (2 Tr $/nap) OTC IR derivatívs 81 tr$/ nap)

Americas	Europe, Africa, Middle East	Asia-Pacific
Canada USA Bahamas Bermuda Cajman island Holland Antillák Mexico Brazil Chile Argenína	**Eurozone:** Austria, Finnl, , germany. , Greece., ,Ireland, Italy, , Luxembourg, Netherlands, Portugália, Spain, Belgium, Denmark, Sweden, , Norway, UK, Poland, Russia, , Turkey, South Africa	Japan South- Korea , China (Mainland) Hong Kong (SAR) Taiwan India Thailand Malaysia Singapore Ausztrália
10 ország	*21 ország*	*10 ország*

$$IFI_i = \left(\frac{L\,\&\,D_i}{\sum_{i=1}^{41} L\,\&\,D_i} + \frac{DSEC_i}{\sum_{i=1}^{41} DSEC_i} + \frac{STOCK_i}{\sum_{i=1}^{41} STOCK_i} + \frac{FX\,\&\,OTCD_i}{\sum_{i=1}^{41} FX\,\&\,OTCD_i} \right) x25$$

IV. Concentration or deconcentration?
Weighted share in financial markets

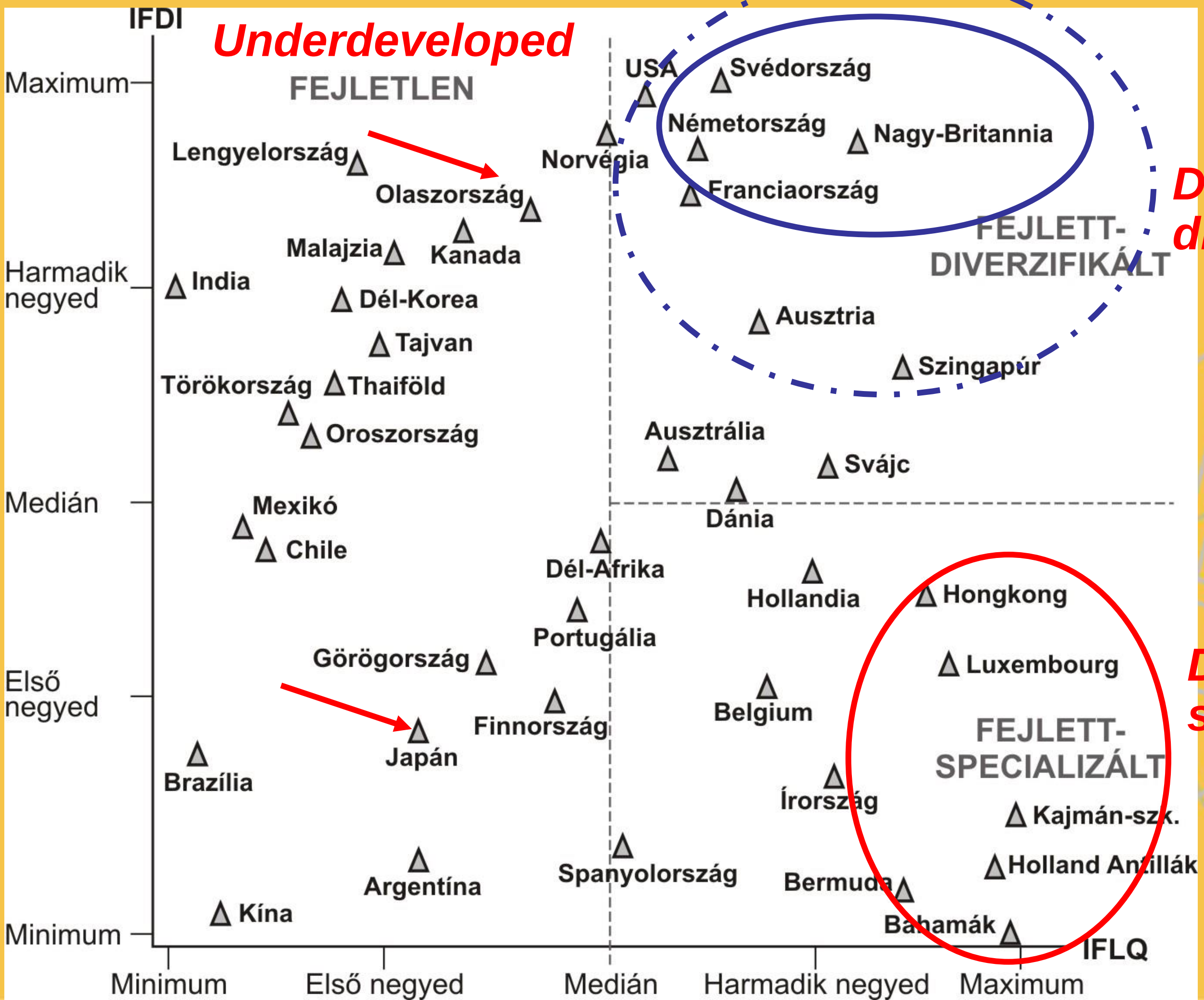
Domestic Financial Index (DFI)						International Financial Index (IFI)					
1995			2005			1995			2005 **(2007)**		
	ország	Weighted share, %		ország	Weighted share,%		ország	Weighted share,%		ország	Weighted share,%
1	USA	42,2	1	USA	41,2	1	UK	30,4	1	UK	29,5**(30,3)**
2	Japan	17,9	2	Japan	16,0	2	USA	17,3	2	USA	23,8**(21,3)**
3	Germany	7,0	3	UK	5,3	3	Japan	7,3	3	Germany	7,2
4	UK	4,9	4	Germany	5,1	4	France	5,0	4	France	5,4
5	France	3,9	5	France	4,1	5	Germany	4,1	5	Holland	3,2 **(3,4)**
6	Italy	3,8	6	Olaszország	3,7	6	Svájc	3,6	6	Japan	2,9
7	Canada	2,5	7	China **(+)**	3,0	7	Hongkong	3,3	7	Kajmán-szgk. **(+)**	2,8 **(3,4)**
8	Spain	2,0	8	Spanyolország	2,9	8	Singapore	3,2	8	Switzerland	2,6
9	Switzerland **(-)**	1,7	9	Kanada	2,0	9	Holland	3,2	9	Hongkong	2,5 **(3,6)**
10	Taiwan **(-)**	1,4	10	South-Korea	2,0	10	Canada **(-)**	2,7	10	Italy	2,2
	Others	*12,7*		*Others*	*14,3*		*Others*	19,9		*Others*	17,9

IV. Concentration or deconcentration?

Weighted share and diversificity of financial markets

$$IFDI_i = \{1 - [(L\&D_i^2 + DSEC_i^2 + STOCK_i^2 + FX\&OTCD_i^2) / IFI_i^2]\} x4/3$$

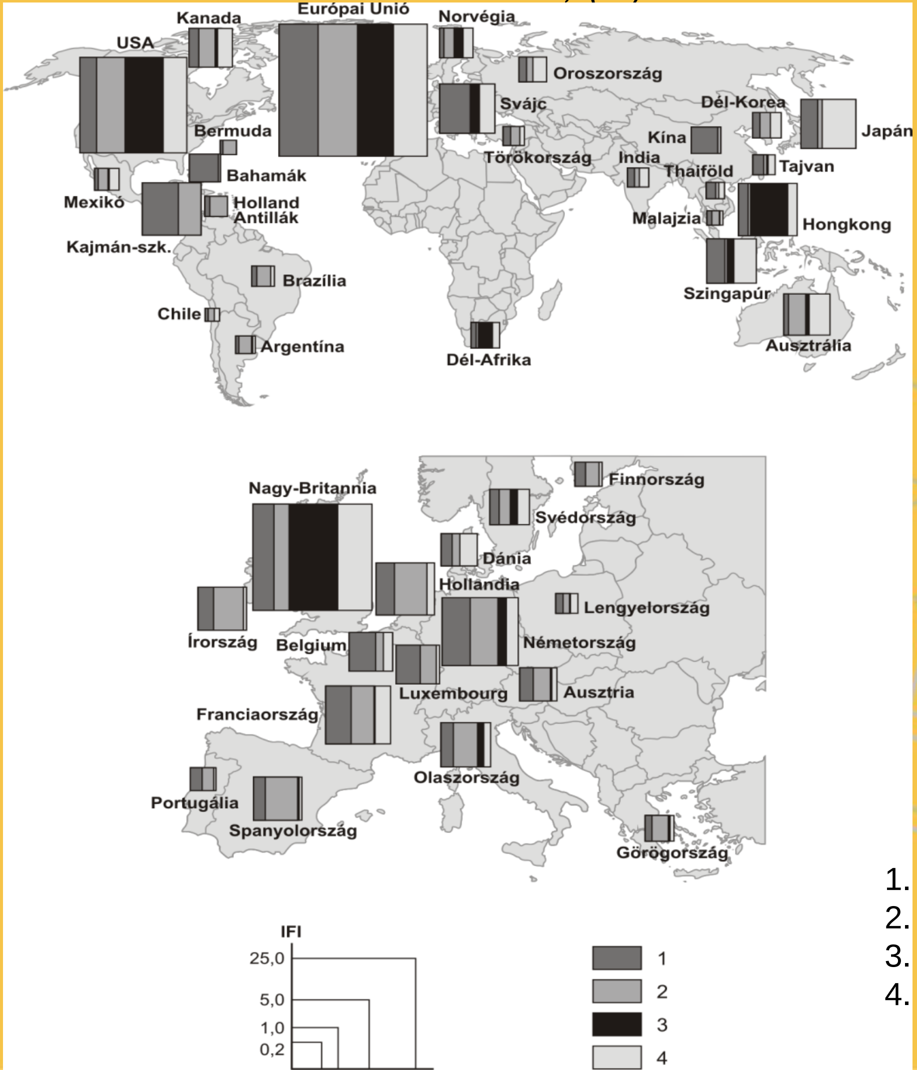
Breakdown of International financial markets by Intl. Financial location quotiens (IFLQ) and diverzification index (IFDI)



$$IFLQ_i = \frac{IFI_i}{100} / \frac{GDP_i}{\sum_{i=1}^{41} GDP_i}$$

IV. Concentration or deconcentration?

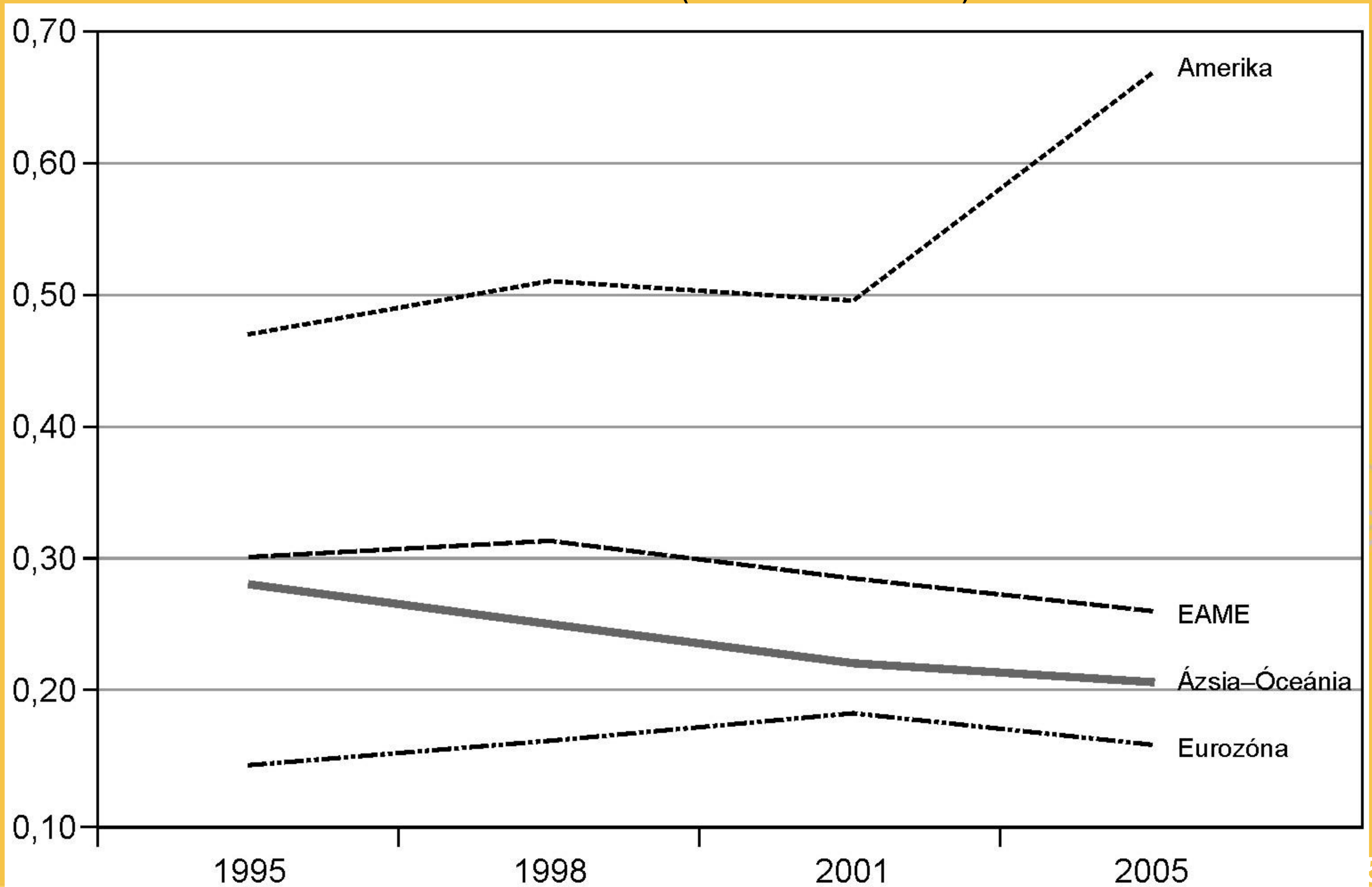
International financial markets by the Intl. Financial I*ndex 2007, (%)*



1. Foreign loans & deposits;
2. Intl. Debt securities;
3. Turover of foreign stocks;
4. FX & OTC drivatives.

IV. New Economic Geographical hypothesis:

Concentration of Intl. Financial Index within
each time-zones (Herfindahl-index)



Conclusion
The limits of financial globalization

- Geographical distribution differs crucially between different financial activities and products, but in general there is no evidence that the geographical concentration of finance increases over time, even with respect to international finance. Little else but the three time zones prevent it from collapsing into one global financial centre
- The concept of three major time zones determining the geography of global finance may be exaggerated. The distribution of international financial transactions between time zones is very unequal and is not becoming more equal with time.
- Direction of intl. Financial flows does not lead to international adjustment/levelling of capital (tankönyvi tételek cáfolata)

Conclusion
The limits of financial globalization

- Financial globalization a rather cyclical than irreverzibile process
- Dominance of international financial markets over domestic markets can not be proved (Role of domestic markets and the nation state do increase during ctrisis time)
- Globalization and ICT development do not diminish the information assymmetries between distant places, do not improve transparency of intl. markets
- Information is the most important in financial centre creation
- Crisis: more emphasis put on internal rather tahn internatonal finance (internal savings)
- Risisng Asia: limits of their IFC functions