

Dottorato in Banca e Finanza

**"Workshop: Research trends in Banking & Finance"**

*Naple "Villa Doria d'Angri" – May, 30<sup>th</sup> 2006*

**The role of coordination in the  
exchange industry process:**

*a cross-listing, cross-membership and  
cross-trading analysis*

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# Summary

- The concept of “integration”
- The research questions
- Integration and links between exchanges  
*(Official integration Vs “Unofficial” integration)*
- The analysis: *cross-listing, cross-membership and cross-trading*
- Conclusions

# The concept of integration

What means “integration”?

***Integration... as the possibility for investors to trade in foreign securities and/or trade with foreign investors.***



Every solution that links together investors and/or issuers from different countries enhance the market integration.

# The research questions

**1**

What's the role of links across exchanges in european securities market integration process?

**2**

How deep are these links?

# Integration and links across organisational boundaries

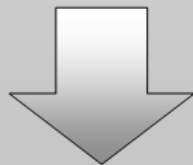
**Official integration**



*Alliance*

**Network**

**M&A** *Competition*



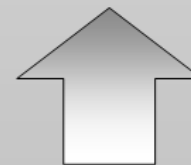
**Top-down  
process**

**Unofficial integration**



*... as links across (market)  
organisational boundaries  
created by single  
stakeholders.*

*(market issuers, intermediaries and investors )*

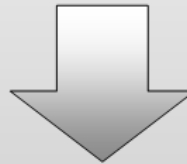


**Bottom-up  
process**

# The research questions

1

What's the role of links across exchanges in european securities market integration process?



**Links across exchanges enhance the market integration level**

# The Analysis

How much “really” integrated  
are the european securities  
markets?



*Cross-listing analysis*

*Cross-membership analysis*

*Cross-trading analysis*

# European markets

<b>Country</b>	<b>Exchange</b>
Austria	Wiener Börs
Baltic Republic	Joint Baltic Markets
Belgium	Euronext- Bruxelles
Denmark	CSE - Copenhagen Stock Exchange
Finland	Omx- Hex
France	Euronext- Paris
Hungary	BSE - Budapest Stock Exchange
Germany	Deutsche Börse AG
Ireland	ISE - Irish Stock Exchange
Italy	Borsa Italiana
Norway	Oslo Börs
Poland	Warsaw Stock Exchange
Portugal	Euronext - Lisboa
Spain (Barcelona)	BMEX- Barcelona
Spain (Madrid)	BMEX - Madrid
Sweden	Omx - Stockholmbörsen
Switzerland	SWX - The Swiss Market
The Netherlands	Euronext - Amsterdam
UK	LSE - London Stock Exchange



# European markets



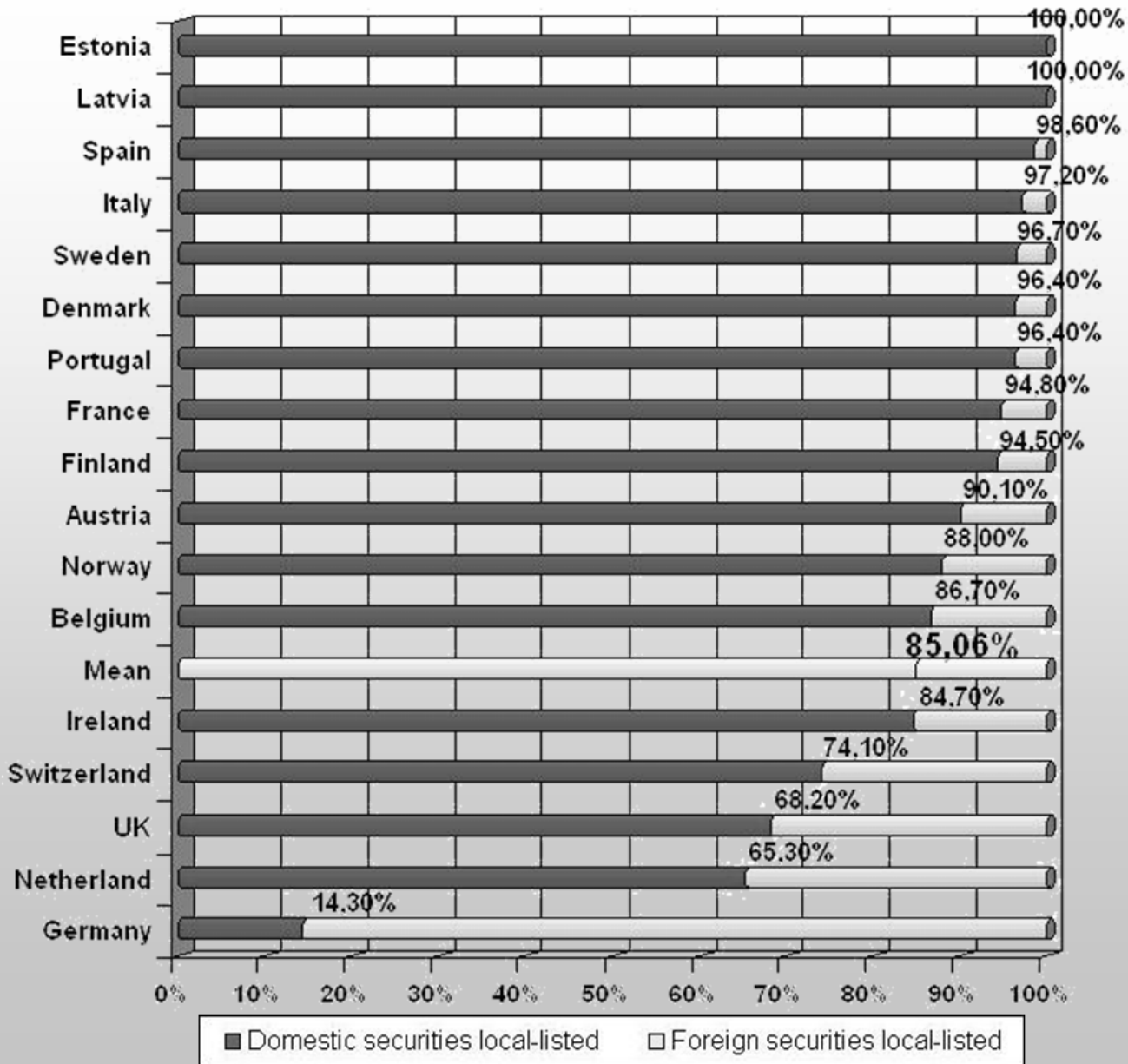
# Cross-listing

## Analysis of 17,537 listed-securities

*... identified by ISIN (International Securities Identification Number)*

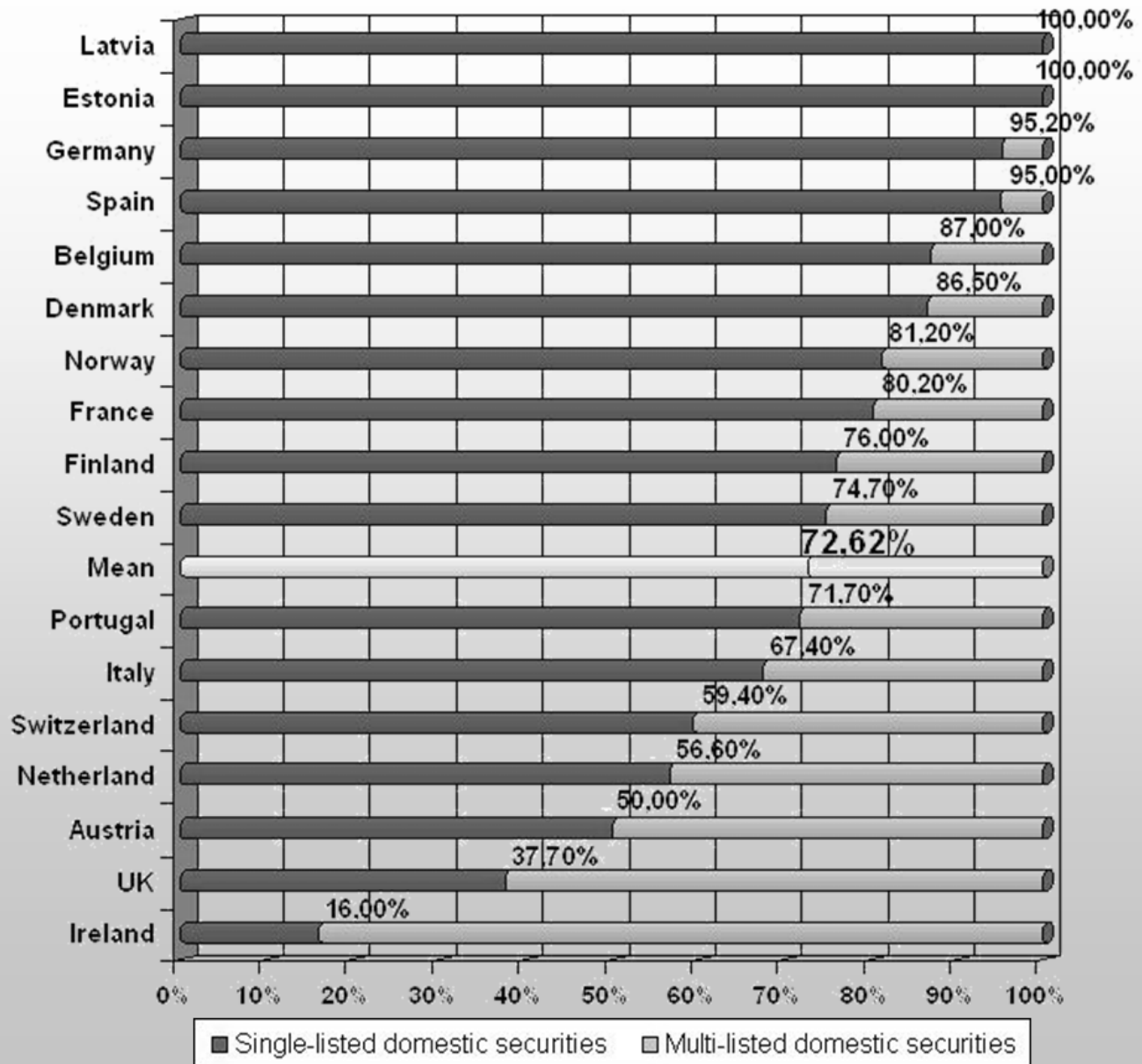
# Domestic and Foreign securities local listed

Cross-listing



# Listing and multi-listing of domestic securities

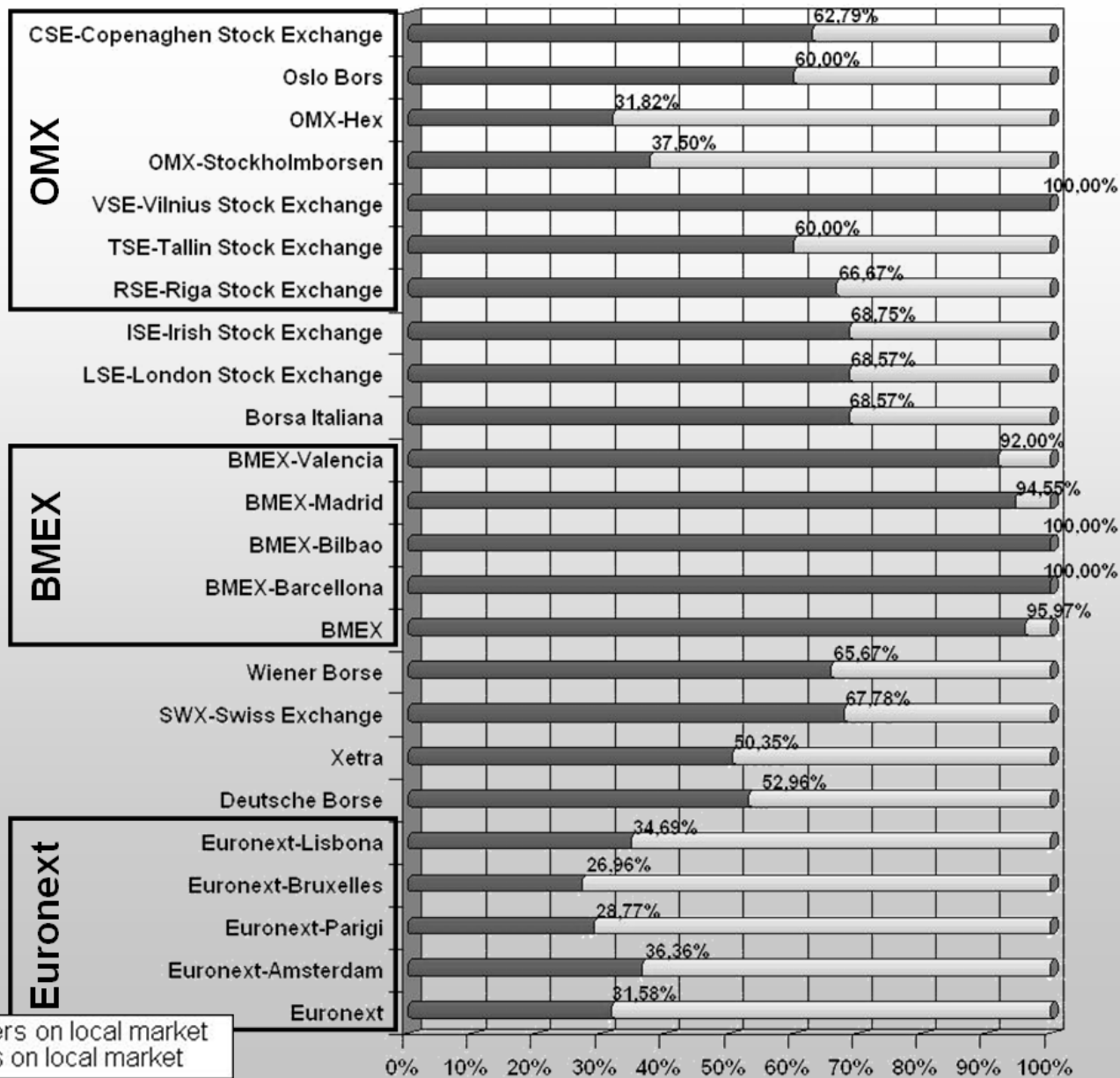
Cross-listing



# Cross-membership

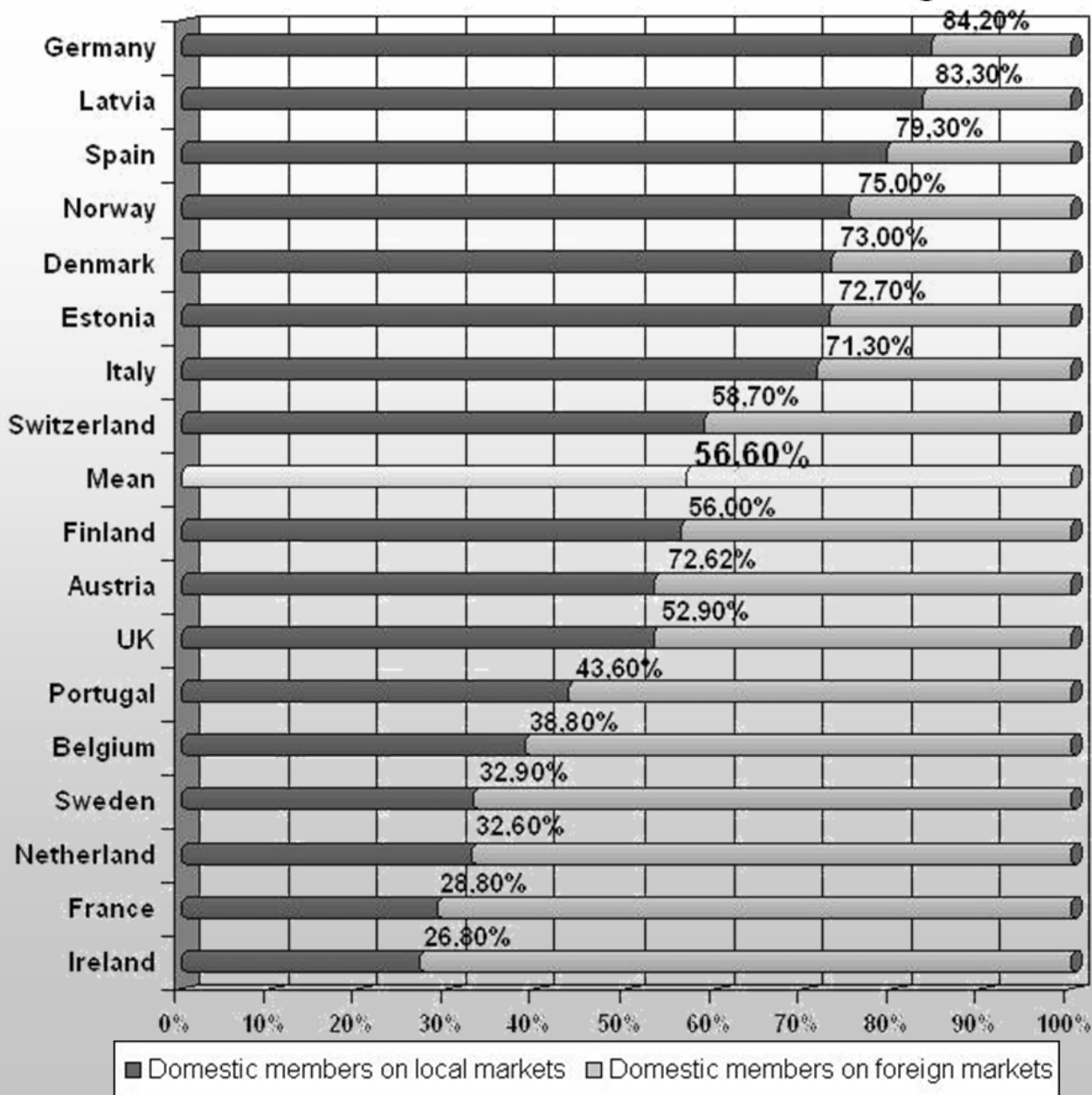
# Domestic and foreign members on local markets

Cross-membership



# Domestic members on local and foreign markets

Cross-membership



# Cross-trading



# Cross-trading

**Where the traders come from?**



**Market index correlation as  
cross-trading proxy variable**

# Cross-trading

## Data ...

- Source: *Reuters*
- Type: *General Market Indexes*
- Frequency: *Weekly Average Prices*
- Period: *1996 - 2005*

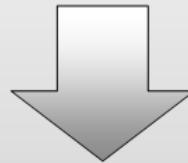
## ... Results

- *Increasing correlation (from 1996 to 2005)*
- *Leaving home-bias*
- *Two-speed Europe*

# The research questions

**2**

How deep are these links?



**Different Countries show different  
data**



***“Two-speed” Europe***

# Conclusions

- 1) Links between exchanges are strongly relevant  
*(Integration analysis can't be done ignoring unofficial integration)*
- 2) There is a “two-speed” Europe
- 3) There is correlation between cross-listing, cross-membership and cross-trading  
*(Some markets are more linked than others)*
- 4) Can links across markets be leading indicators for market integration? → They help you ... but they are not enough

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