EMU and Financial Integration

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Introduction

- European monetary union a rare "natural experiment" in macroeconomics and finance
- Question: How important is a single currency to financial integration?
- Question: Macroeconomic implications for member countries
- Identification Problem: EMU occurs simultaneously with general trend towards financial globalisation and financial reform (EU and elsewhere)

Financial Integration and Financial Development

- Creation of deeper, broader, more liquid financial markets
- Virtuous cycle: greater activity reduces transactions costs stimulating further growth in activity
- Reinforced by potential international role for the euro
- Good for member countries; good also for non-members

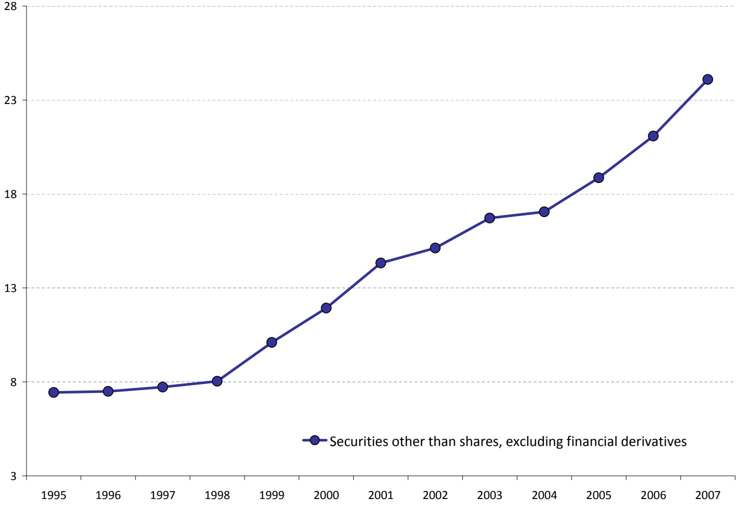
Differential Impact Across Sectors

- Debt markets
- Banking
- Equity markets
- Cross-Border Mergers and Acquisitions

Debt Markets

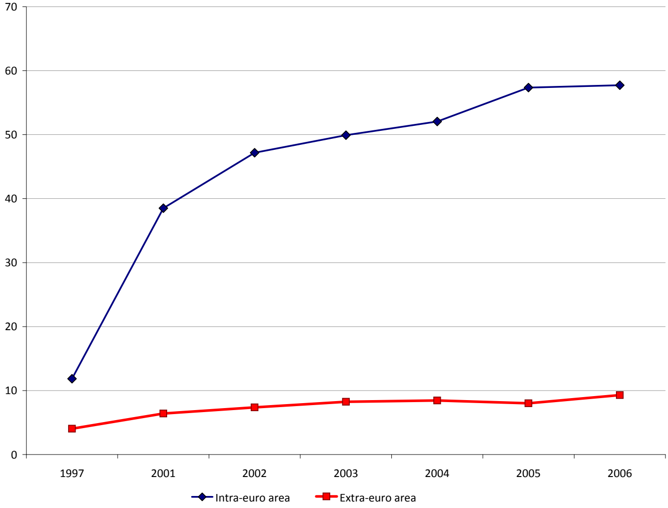
- High level of integration of money and bond markets
- High level of cross-border inter-bank lending
- High substitutability across bonds from different countries [common component in bond returns]
- Controlling for other factors, EMU doubles cross-border bond holdings
- Growing role of the euro in international bond market
- Impressive growth in euro area corporate bond issuance
- 2007/2008: resurgence of 'national' factors (government bond spreads; two-tier inter-bank market)

Figure: Outstanding Securities Issued by Non-MFI corporations.



Source: Author's calculations based on ECB data.

Figure: Cross-Border Ownership of Euro Long-Term Debt.



Source: European Central Bank's *Financial Integration Indicators* database.

Table: Issuance of Euro Securities by Non-Euro Countries

	1998	2007
United States	9.9	15.9
United Kingdom	11.1	33.5
Japan	6.0	15.6
Switzerland	18.4	50.9
Denmark	38.3	73.4
Sweden	25.6	58.9
Norway	15.7	41.4
Iceland	30.3	52.0
Canada	9.3	13.4
Australia	4.5	26.3
South Africa	14.9	40.8
Brazil	9.5	8.8
Russia	15.3	15.7
India	3.6*	4.7
China	3.9	7.5
Korea	5.6	12.9
Mexico	13.3	16.5

Share of Euro-denominated securities in total outstanding securities. *: 1996. Source: Author's calculations based on data from Bank of International Settlements.

The Banking Sector

- Persistent cross-country differences in lending rates to households and SMEs
- Cross-border lending to non-banks less than 5 percent of total lending to non-banks
- Importance of 'real frictions' in retail banking (task at EU level)
- But inter-bank market central in intermediating cross-border flows
- "Euro pairwise" effect in international bank positions (Spiegel 2008)
- EA XB inter-bank loans: 15.5 percent to 23.5 percent (1997 to 2008)
- EA XB inter-bank securities: 12.1 percent to 31.3 percent (1997 to 2008)
- FDI and consolidation in banking sector: substantial potential gains

The Euro and Equity Markets

- 'EMU' factor in driving equity returns; also increases global factor in driving small-country markets
- Controlling for other factors, bilateral equity holdings between member countries increased by 67 percent
- Additional drivers at EU level and via consolidation of stock exchanges
- Positive impact also on direct investments (mergers and acquisitions), especially along extensive margin

Summary on Impact of Euro on Financial Integration

- Impressive level of unification in money and bond markets
- Wholesale banking quite integrated but retail banking remains quite segmented
- Also positive impact for equity markets and direct cross-border investments
- However, 2007-2008 financial turmoil reveals important limitations

Table: Trade in Financial Services

	1998 Exp	1998 Imp	2006 Exp	2006 Imp
Austria	0.7	0.8	0.6	0.5
Belgium			1.1	1.0
France	0.2	0.2	0.1	0.3
Germany	0.2	0.2	0.4	0.3
Italy	0.2	0.3	0.2	0.2
Luxembourg			84.3	44.3
Netherlands	0.2	0.3	0.3	0.4
Finland	0.0	0.1	0.1	0.2
Greece	0.2	0.1	0.1	0.4
Ireland	0.3	1.1	8.6	6.2
Portugal	0.2	0.2	0.2	0.3
Spain	0.3	0.3	0.4	0.5
Switzerland	3.1	0.2	4.4	0.4
United Kingdom	1.6	0.3	2.4	0.5

Macroeconomic Impact of Financial Integration

- Financial Integration and Financial Development
- International Risk Sharing
- Current Account Imbalances

Financial Integration and Financial Development

- Financial Development raises productivity, accelerates convergence
- Evidence is that FINDEV indicators have grown more quickly for EA members than non-EA countries (Papaioannou and Portes 2008)
- Medium-term impact exceeds short-term impact
- Convergence in Bond Market capitalisation
- Decline in cost of capital for firms, especially from less-developed members (Bris et al 2007)
- Increase in investment, especially in sectors dependent on external finance (Dvorak 2006)

Increased International Risk Sharing?

- Increased cross-border financial positions should facilitate risk diversification
- In principle, improves coherence of the monetary union by insulating domestic consumption from national shocks
- Quantitative scale of cross-border positions remains limited
- Also, increase in scale of extra-EMU financial positions – heterogeneity across member countries (Austria in CEE; Spain in Latin America; Ireland and US)
- Local credit and asset price booms in PIGS economies
- Contributor to divergence in wealth dynamics: One-off adjustment phase; not a permanent feature

Figure: Dispersion of Consumption Growth Rates, 1970-2007.

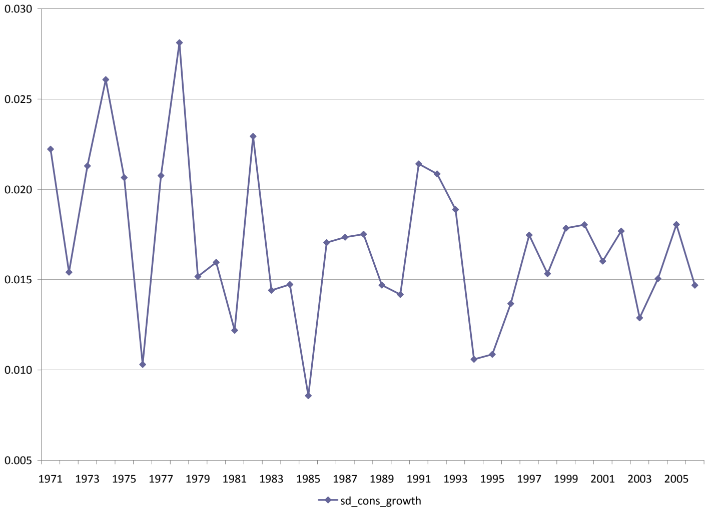


Table: Bilateral Consumption Co-Movements.

	PWT 1990-98	PWT 1999-04	Hybrid 1999-06	UN 1990-98	UN 1999-06
β_0	0.83	0.95	0.96	0.72	0.77
	[0.02]***	[0.06]***	[0.05]***	[0.02]***	[0.04]***
β_1	-0.16	-0.21	-0.15	-0.11	0.04
	[0.03]***	[0.06]***	[0.05]***	[0.03]***	[0.04]
β_2	-0.24	-0.28	-0.23	-0.16	0.02
	[0.03]***	[0.06]***	[0.05]***	[0.03]***	[0.05]
Observations	2277	1518	2024	2277	2024

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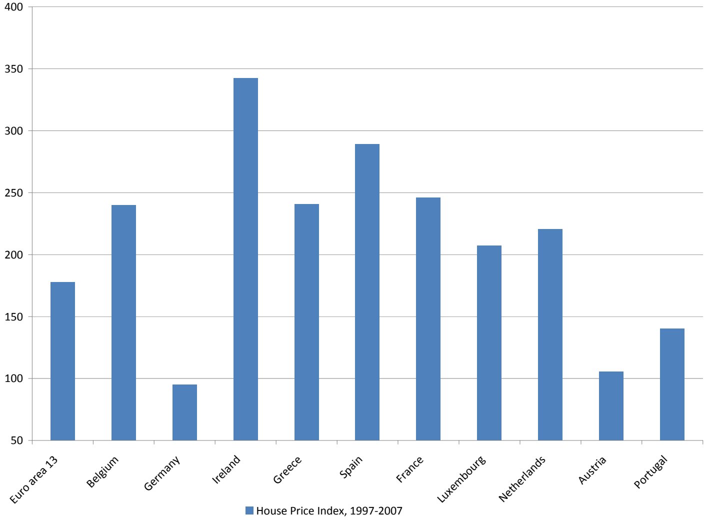
Figure: Cumulative House Price Increases, 1997-2007.

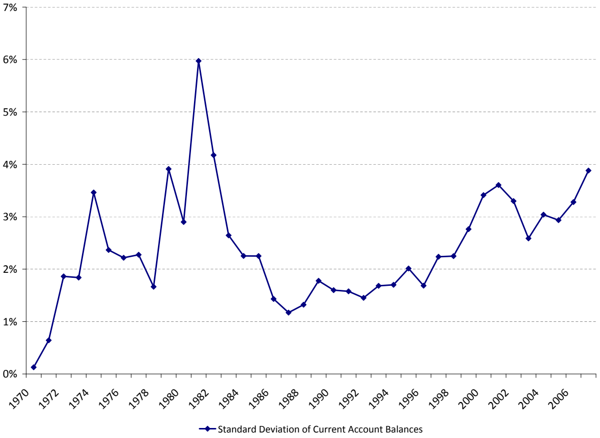


Source: Author's calculations based on ECB data.

Macroeconomic Impact: Current Account Dispersion

- Large and persistent deficits in ‘peripheral’ economies
- At one level, positive welfare gains - but overborrowing possible and adjustment painful
- Deficit countries inside EMU: ‘sudden stops’ still possible
- Outsiders (Iceland, CEE countries): riskier positions

Figure: Dispersion of Current Account Balances, 1970-2007



Note: Standard deviation of CA/GDP ratio for Euro 12 group of countries (excluding Luxembourg). Source: Author's calculations, based on data from the World Bank's *World Development Indicators* database.

Table: Current Account Persistence

	1980-1989	1990-1998	1999-2007
EMU			
δ	0.59 [7.6]***	0.67 [8.5]***	0.81 [11.3]***
Observations	105	108	108
Non-EMU			
δ	0.43 [4.7]***	0.64 [7.7]***	0.59 [8.1]***
Observations	108	108	108

Fixed-effects panel regressions $CA_{it} = \alpha_i + \delta CA_{it-1} + \varepsilon_{it}$. *** denotes significance at 1 percent level. Data source: World Economic Outlook database.

Conclusions

- EMU has transformed European financial system, in combination with forces of financial globalisation and EU integration
- Many benefits from more integrated financial system: long-term payoffs, even if transition path is 'bumpy'
- Adjustment phase: some divergence in wealth dynamics
- Longer term: greater integration promises greater macroeconomic coherence
- Major challenge: appropriate European and global financial supervision and regulatory system