



Cyclical Convergence and **Divergence in the Euro Area**

Presentation by Val Koromzay,
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to the Brussels Forum, April 2004

- I. Introduction: Why is the issue important?
- II. Measuring convergence and divergence: general considerations
- III. Explaining divergence:
 - A) “potted history” of a decade’s experience with EMU
 - B) The analytical framework
 - Asymmetric shocks versus differential responses to a given shock
- IV. The dynamic transmission of a demand shock: what matters?
 - A key result
 - Policy implications
- V. Differential transmission mechanisms of monetary policy within the euro area: endogenous divergence?
 - Need for further work

II. General considerations: what is the policy-relevant measure of divergence?

a) International comparisons

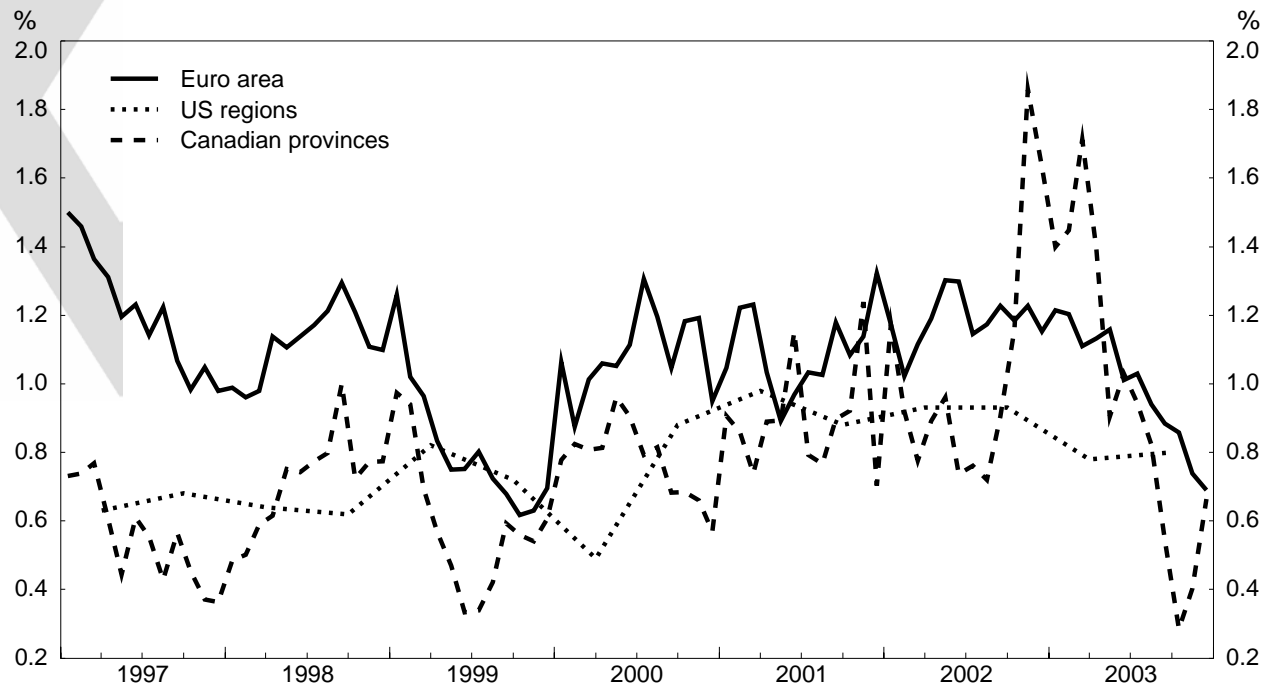
b) The ECB position

c) OECD evaluation in the Economic Outlook and the Country Surveys

d) A simple Taylor Rule illustration

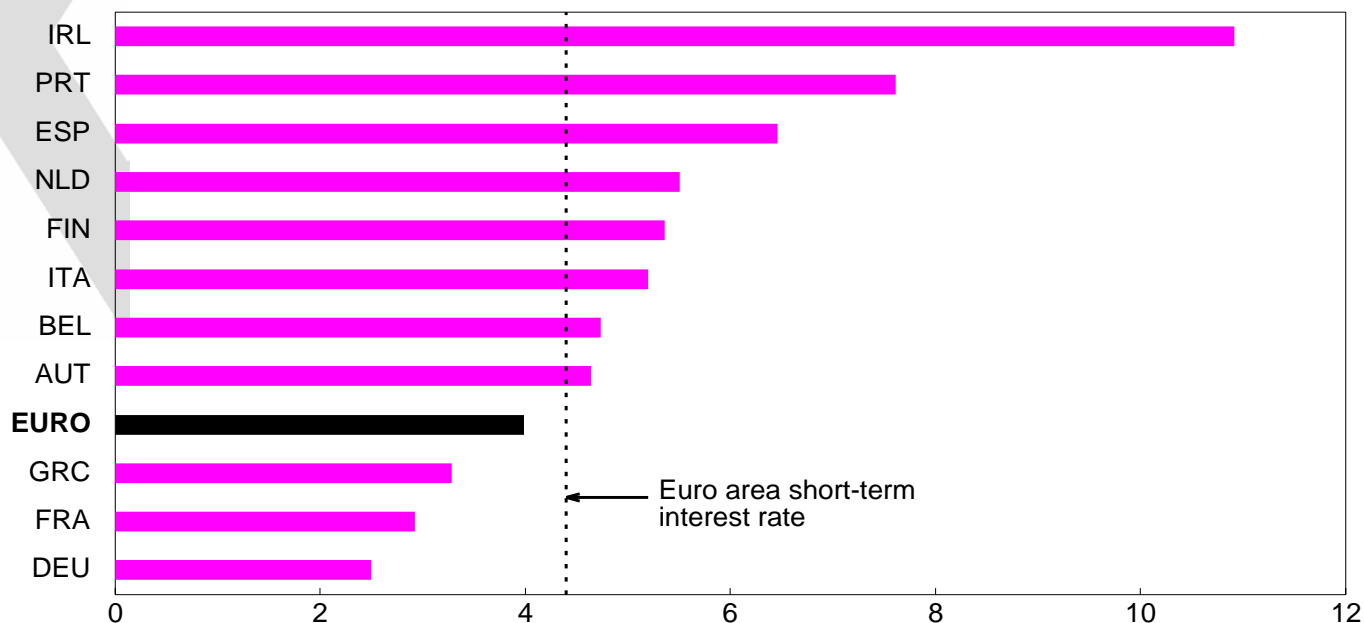
-- Qualifications

Chart I. Inflation differentials in the Euro Area, United States and Canada (Standard deviation)



Source: US Bureau of Labour Statistics, CANSIM-Statistics Canada and OECD.

Chart II. Taylor rule for euro-area countries (2000)



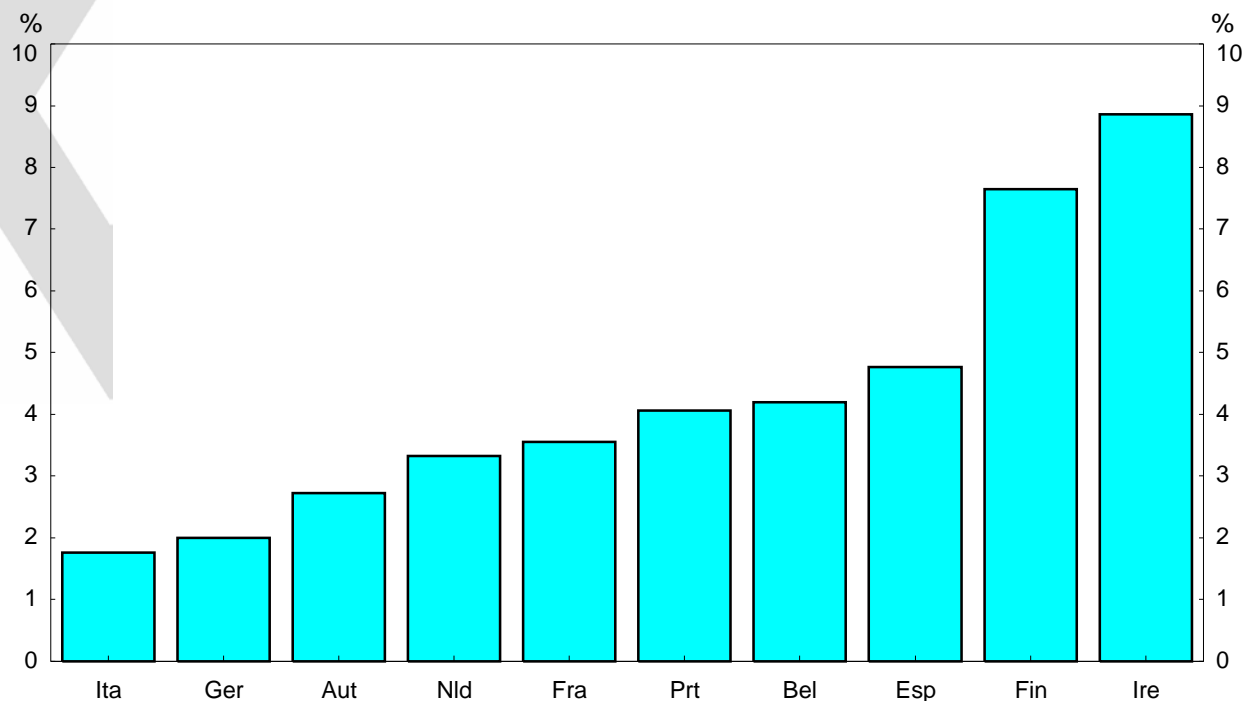
1. The Taylor rule computes the short-term interest rate that would be recommended by a simple monetary policy rule. It is based on the equilibrium interest rate level and the extent to which inflation rises above (falls below) its target or the output gap turns positive (negative). The weights attached to inflation and the gap are 1.5 and 0.5, respectively. The assumed inflation target is 1.8 per cent and the assumed equilibrium interest rate is 2.8 per cent. Source: OECD.

III. Explaining divergence

A) A “potted history” of a decade’s experience with EMU

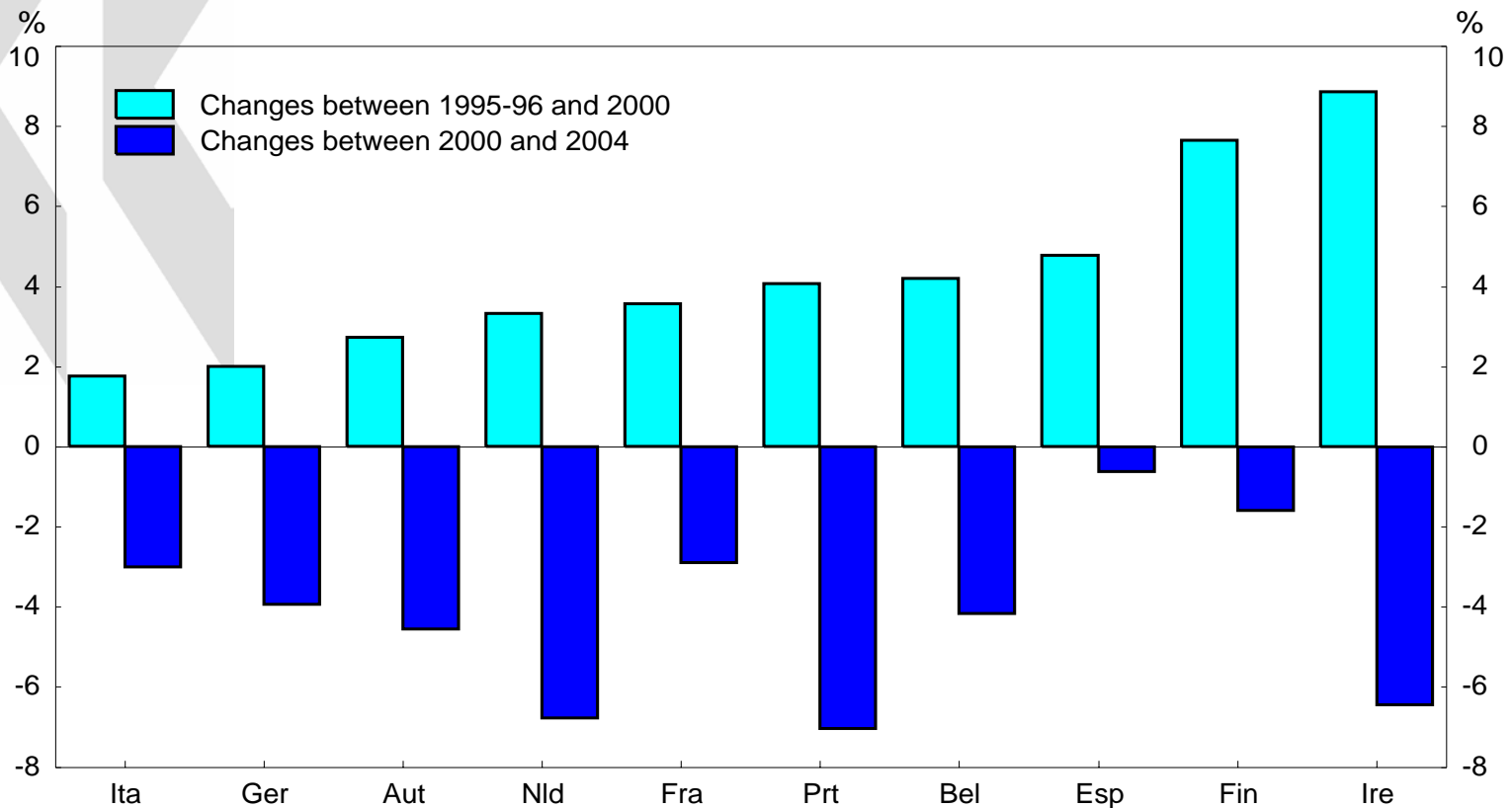
- 1) A “core versus periphery” model: much can be explained by the asymmetric shock of euro-creation *per se*
- 2) But there are also country-specific puzzles
- 3) ... And more recently

Chart III. Changes in output gaps for euro-area countries: 1995-96 to 2000



Source: OECD, Analytical database.

Chart IV. Changes in output gaps for euro-area countries: 1995-96 to 2000 and from 2000 to 2004



Source: OECD, Analytical database.

III. Explaining divergence (continued)

B. The analytical framework

1) A crude typology:

a) Asymmetric shocks

1) country-specific (domestic) shocks

2) external source, but with variable impacts due to country-specific difference in economic structure

b) Differentiated dynamic responses to a given shock:

1) persistent demand shock

2) an interest-rate “shock”: differing transmission mechanisms

2) Heart of this presentation:

- re (a1, 2): little new to offer

- re (b1): a significant result

- re (b2): a worthwhile question mark

IV. The dynamic (domestic) transmission of a demand shock: what matters?

1. The basic mechanisms: interest-rate crowding-out versus competitiveness induced crowding-in:
2. “Large” versus “small” economies
3. Issues for discussion:
 - a) How big is the “real interest rate” effect: contrarian views
 - b) Interest-rate exogeneity?
 - c) Is there an endogenous economic cycle?

Chart 5. Simulated effects of a sustained demand shock – France and Ireland

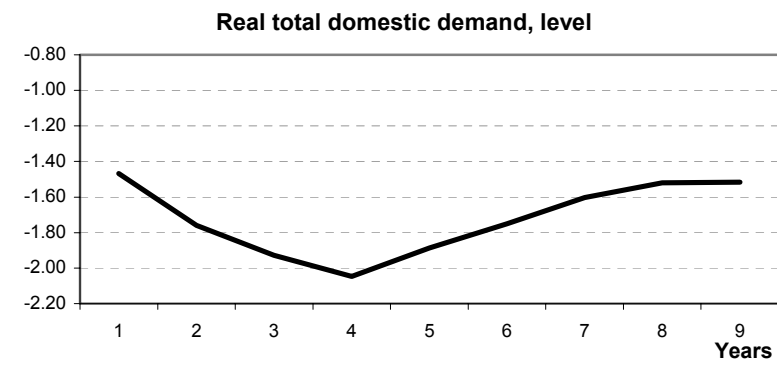
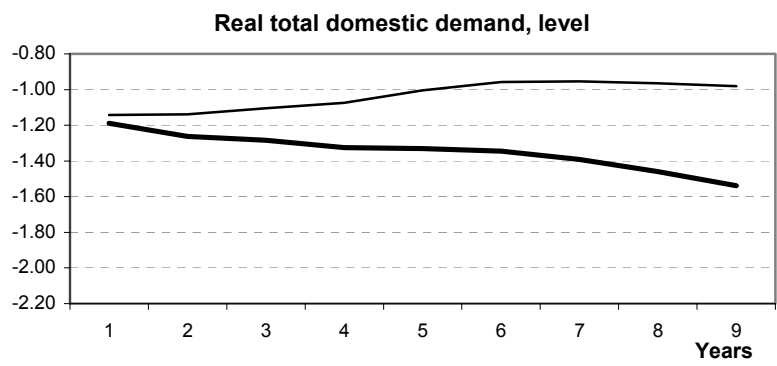
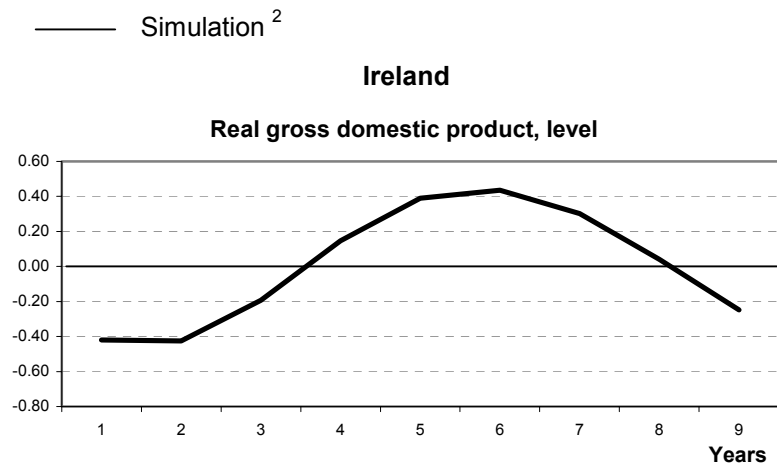
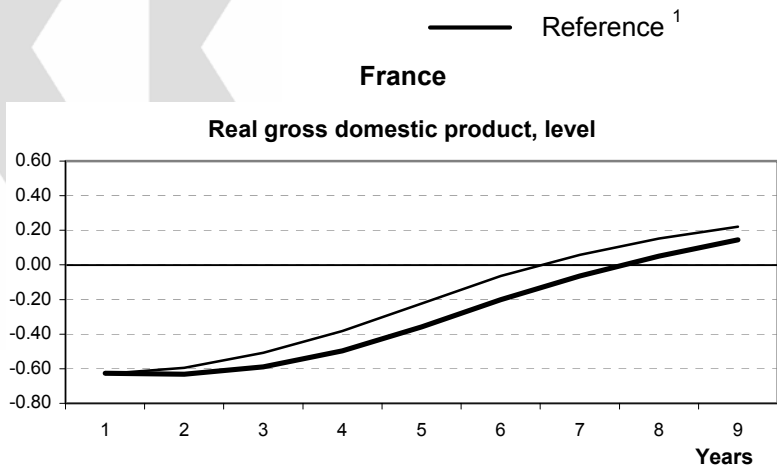
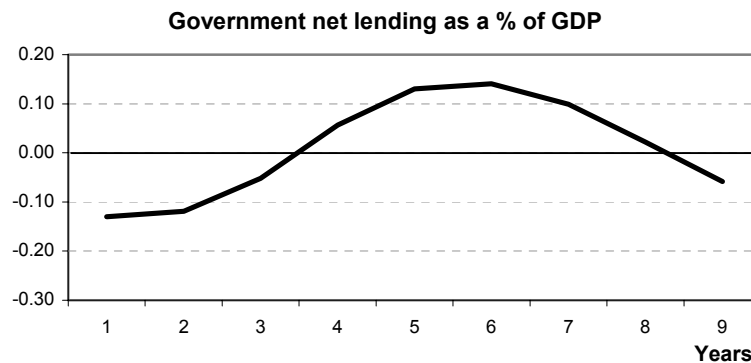
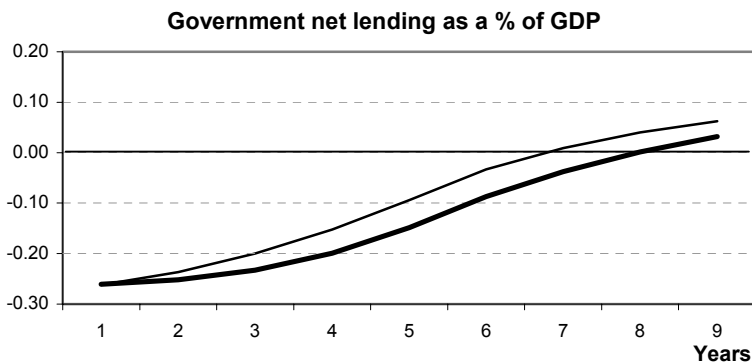
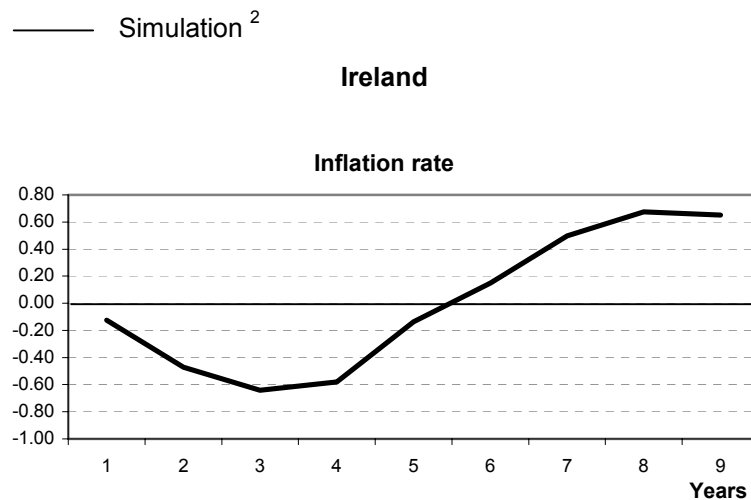
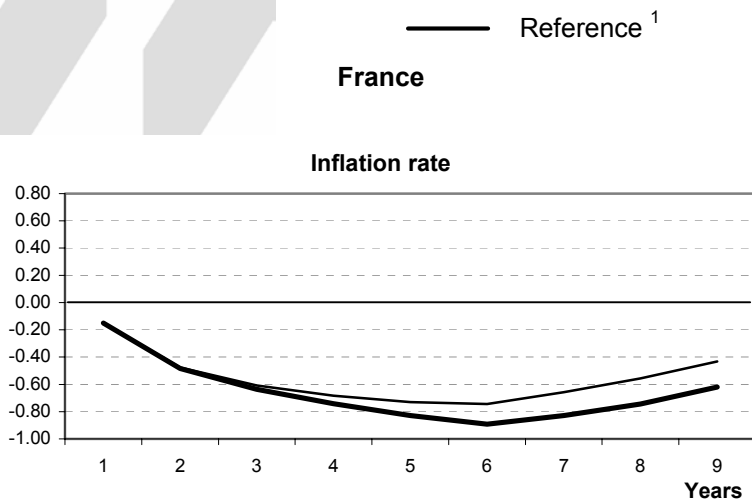


Chart 5. Simulated effects of a sustained demand shock – France and Ireland (continued)



IV. The dynamic (domestic) transmission of a demand shock: what matters (continued)

4. What determines differential adjustment?

a) Role of wage/price flexibility

- theory and evidence
- implications

b) Integration effects dominate the results:

- policy implications

c) Role for fiscal policy: automatic stabilizers and active stabilization:

- Stabilizers slow adjustment, but reduce the present value costs of demand shocks
- Activism is probably not helpful, though uncertainty remains

Chart 6. Adjustment dynamics when only trade integration matters

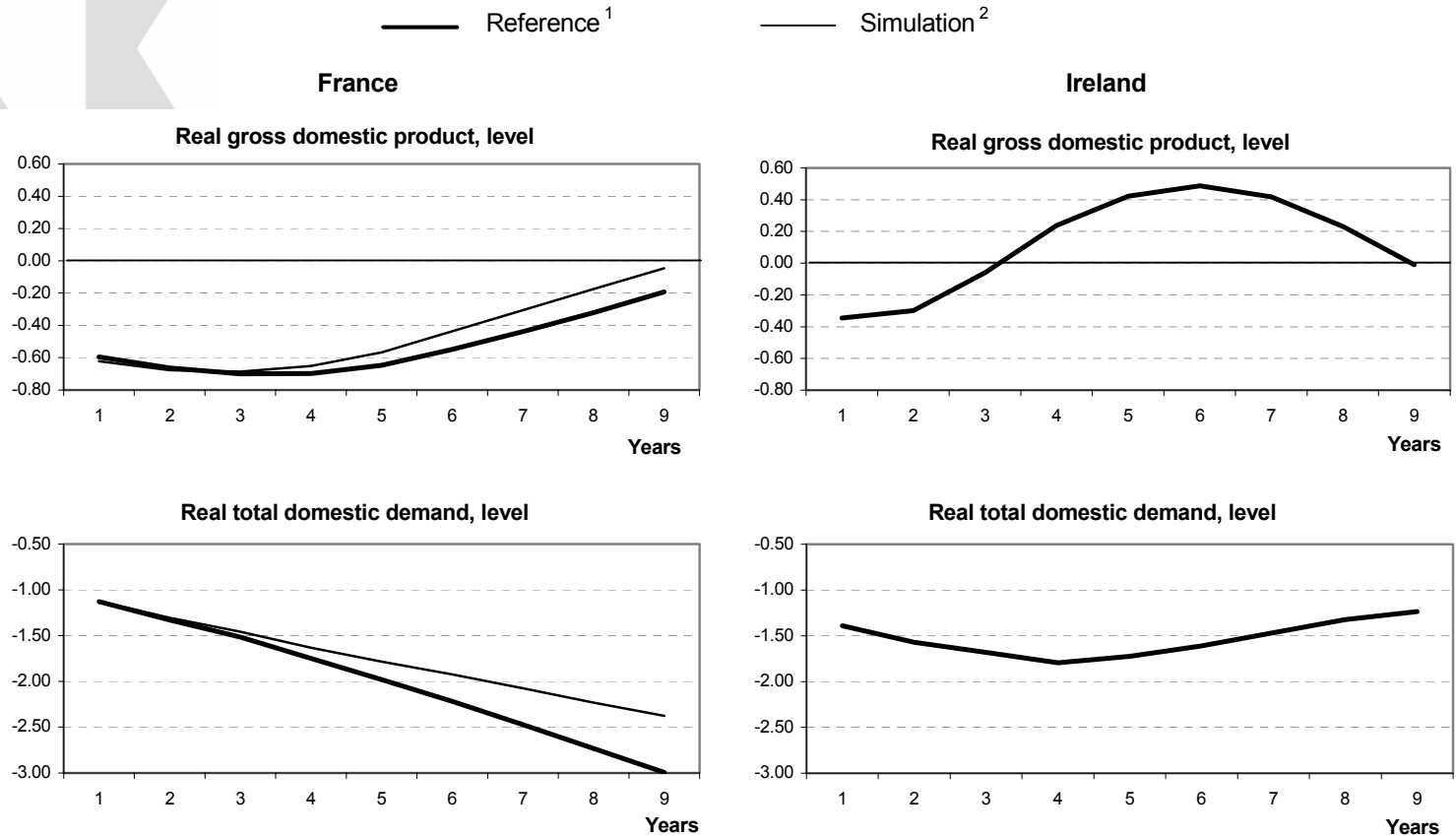
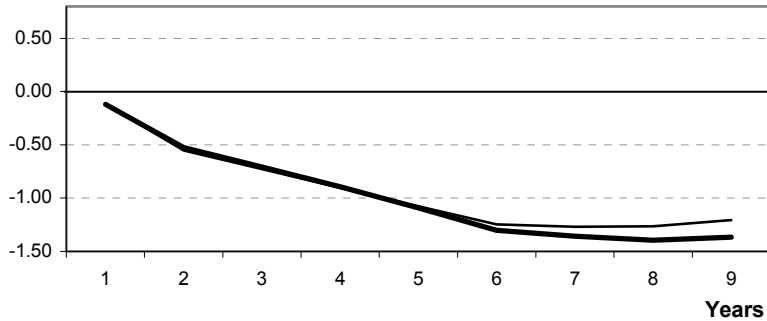


Chart 6. Adjustment dynamics when only trade integration matters (continued)

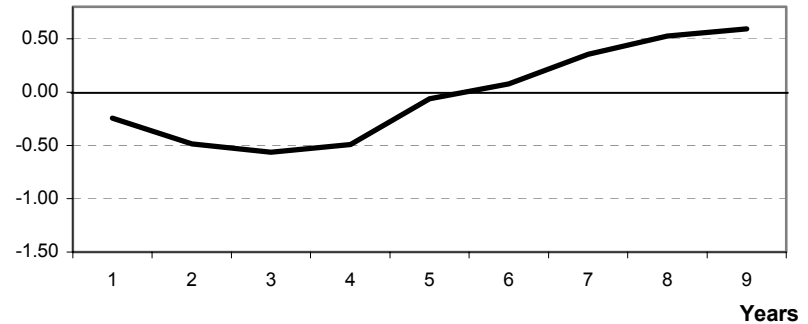
— Reference¹

— Simulation²

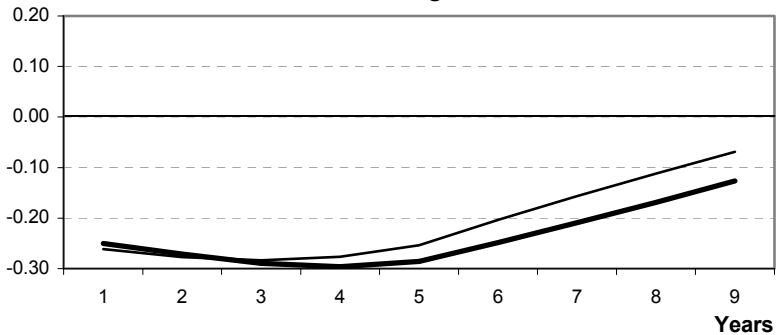
Inflation rate



Inflation rate



Government net lending as a % of GDP



Government net lending as a % of GDP

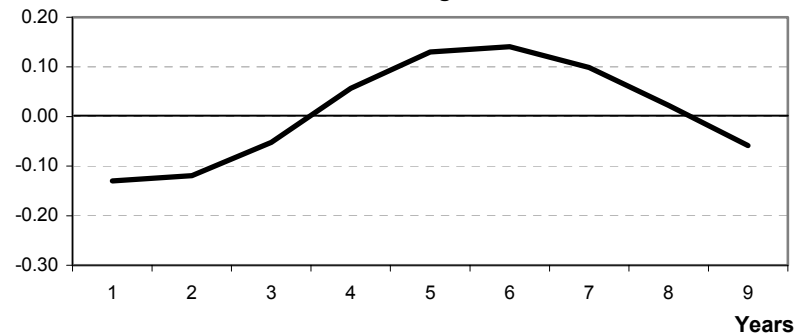


Chart 7. Fiscal multipliers: how model-specific?

	QUEST		NIGEM	OECD
	Revenue	Expenditure	Expenditure	Expenditure
Austria	0.1	0.5	0.6	0.4
Belgium	0.1	0.5	0.5	0.5
Finland	0.3	0.4	0.7	0.9
France	0.1	0.5	1.1	0.6
Germany	0.2	0.4	1.6	1.2
Greece	0.1	0.5	--	--
Ireland	0.1	0.4	0.5	0.3
Italy	0.1	0.5	0.8	0.9
Netherlands	0.1	0.4	0.9	0.6
Portugal	0.0	0.7	0.6	0.6
Spain	0.1	0.5	1.1	0.4

Source: EC (2001) and Barrell and Pina (2000).

V. Differential transmission mechanisms of monetary policy within the euro area: is this an “endogenous” source of cyclical divergence?

- 1) The exchange-rate channel: how diverse are the economic impacts of a given change in the euro/dollar parity?
- 2) The domestic-demand channel: a closer look at housing markets and housing finance

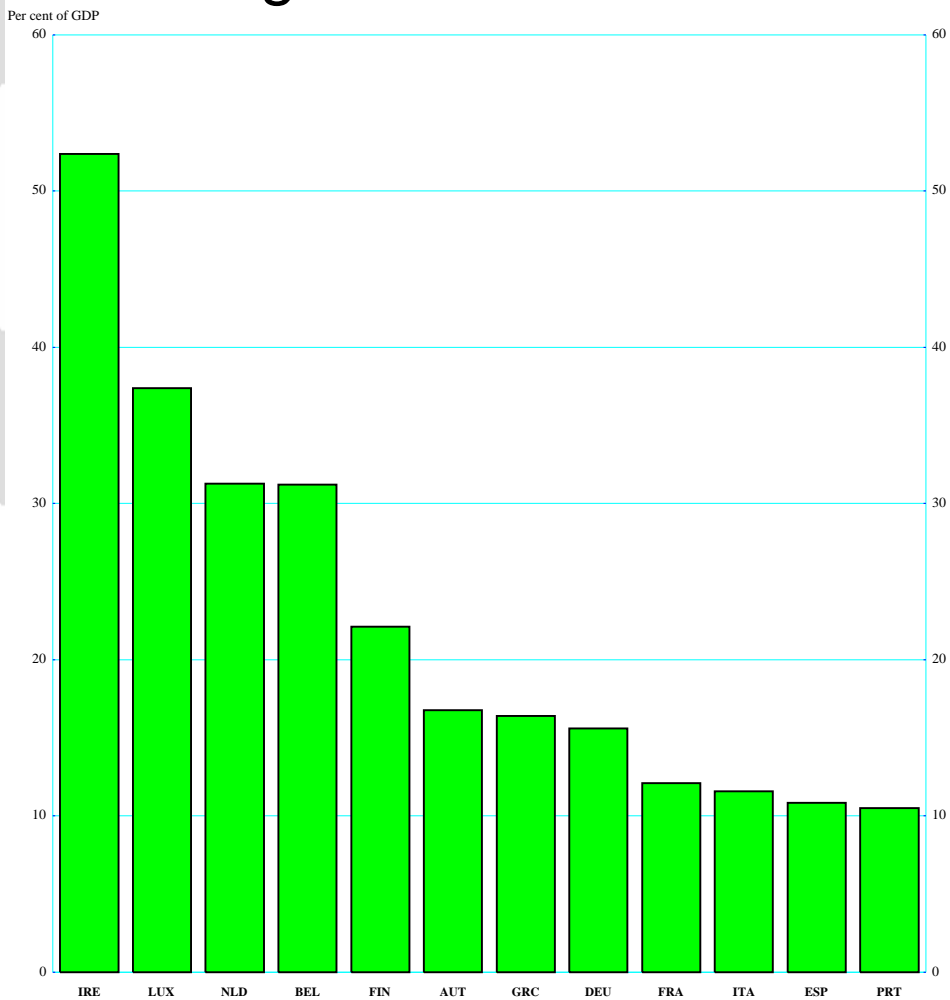
Chart 8. Changes in effective exchange rates for a 10 per cent depreciation of the euro



Note: Based on the 1999 trade weights from OECD database, which includes the 30 OECD member countries and 12 non-member countries.

Source: OECD.

Chart 9. The weight of extra euro-area trade in GDP



Source: OECD.

V. Differential transmission mechanisms (continued)

B. The Housing and House-finance channel


1) General idea: when comparing the United Kingdom, the United States and Australia to the larger euro-area countries, there is an incapable sense that monetary policy is simply much more powerful in the former than the latter. The housing channel plays a double role:

- Impact of interest rates on residential construction activity (United States/Australia)
- Impact of housing prices on consumer demand due to induced wealth effects and liquidity effects via home-equity withdrawal.

.../...

V. Differential transmission mechanisms (continued)

- 2) Within the euro area, various indicators suggest that the housing channel may be relatively more important in some smaller countries – especially the Netherlands, but also Ireland, Finland and Spain – than in “core Europe”
- 3) But the more one looks at it, the more complex the linkages appear. OECD work, still inconclusive, focuses on trying to explain the structural determinants of house-price movements and their differential impact (via wealth effects) on consumer demand. We are well short of understanding the interaction of such structural influences with monetary conditions so as to be able to quantify properly a “housing channel”, and how it is affected by structural policy.



4) In this context, I want to provide a summary of three, incomplete sets of evidence bearing on the following points:

- a) What is the cyclical sensitivity of house prices relative to an overall price index?
- b) More generally, what determines the relative volatility of “real” house-prices movements?
- c) What are the inter-country differences in the propensity to consume out of changes in housing wealth; and what factors might explain such differences?

Chart 10. The sensitivity of house prices to the business cycle differs a lot across countries; but the differences are not easy to explain – perhaps for good reason

Timing of maximum correlation

Output gap
contemporaneous or
lagged > 1 year

Output gap lagged
1-2 years

Output gap lagged
3-4 years

Intensity of correlation

Strong

Denmark, Finland
Ireland, United Kingdom

Spain

Average

Japan

Canada, France, Sweden

Australia, Germany,
Switzerland

Weak

New Zealand

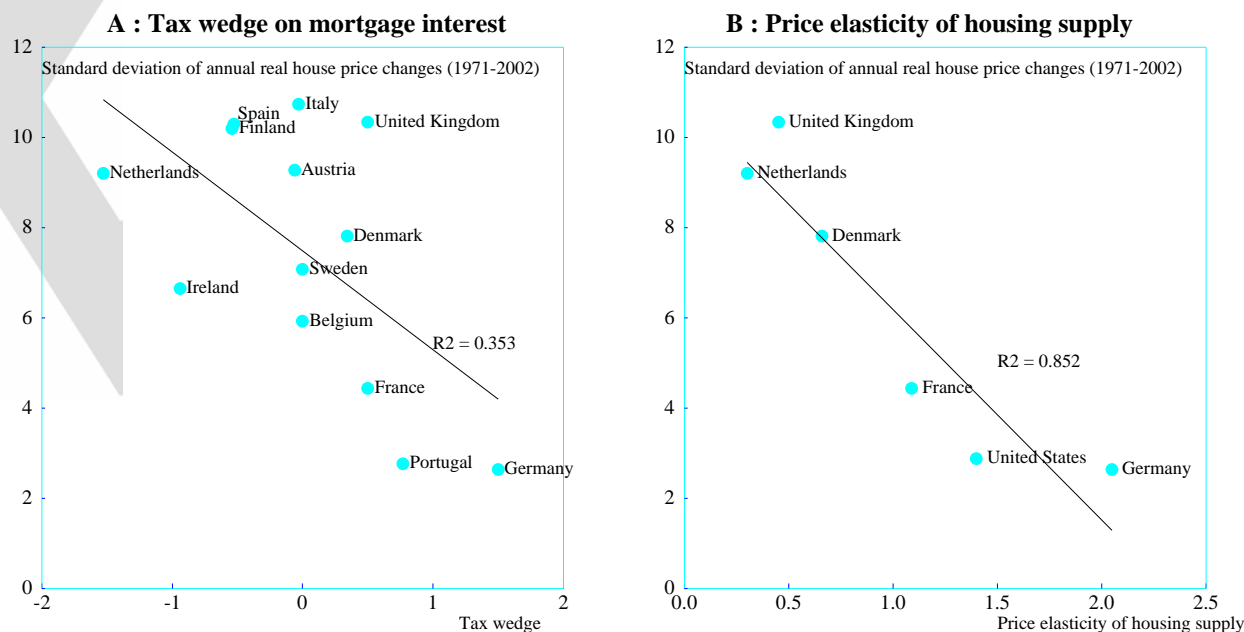
Norway, United States

Belgium, Italy,
Netherlands

Note: Correlations are between de-trended real-house price levels and the output gap. They are calculated for the period 1970-2002, based on semi-annual data. Countries are ranked according to the value of the maximum of correlations and of the lags at which these are found. The intensity of correlation is indicated as strong if the maximum correlation coefficient is above .65 if between .50 and .65 weak if below .50.

Source: OECD.

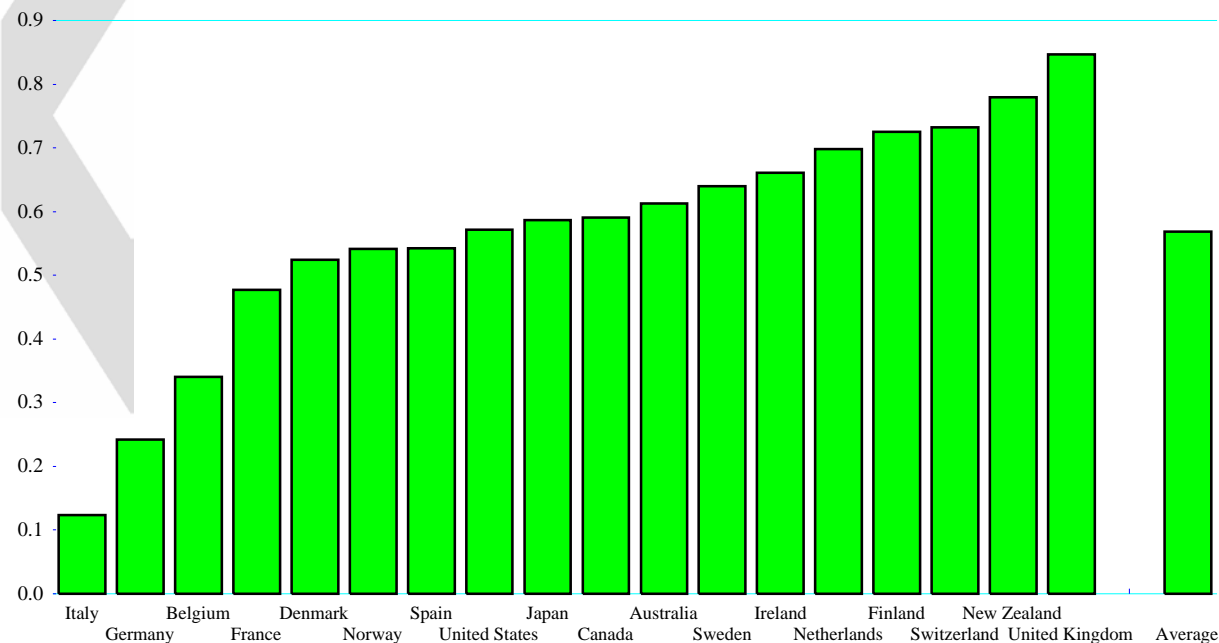
Chart 11. Real house price variability and selected explanatory variables



Note : The tax wedge is defined as the difference between the after-tax and the pre-tax real interest rate on mortgage loans. It is defined to also incorporate the effect of property taxes. Thus, a low or negative tax wedge indicates a more favourable tax treatment of mortgage interest.

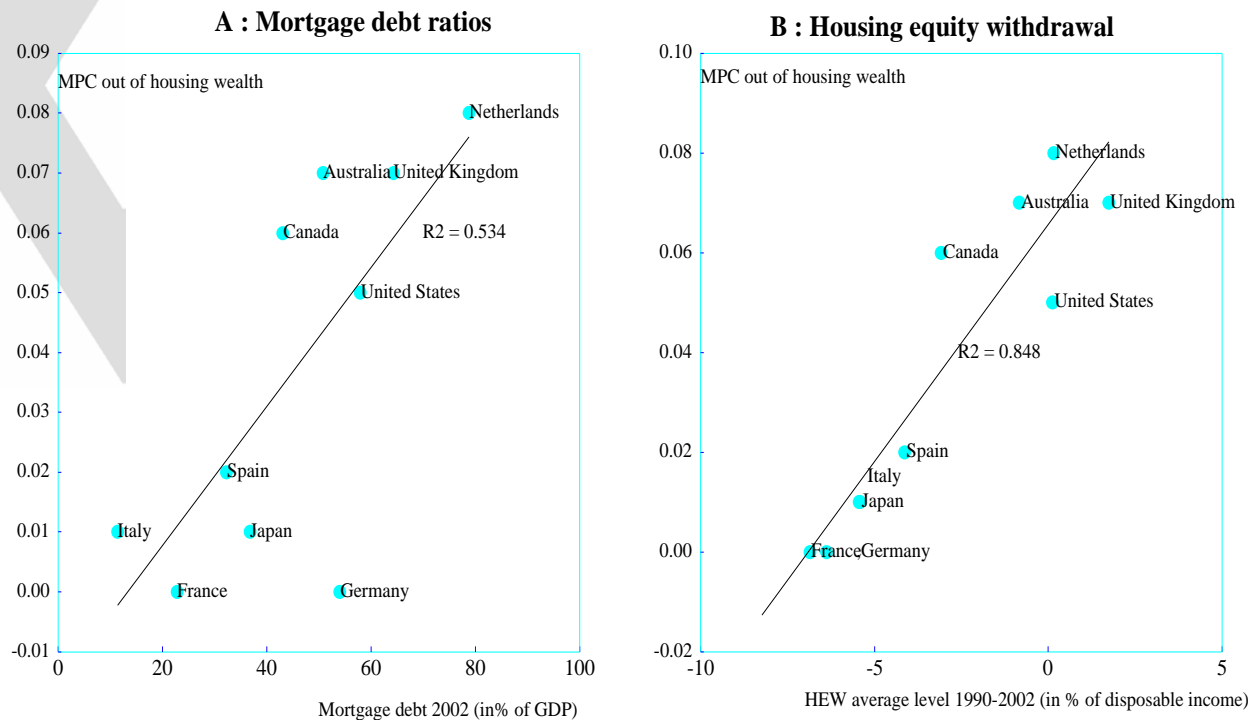
Sources : Real house prices: BIS; Tax wedge on mortgage interest is from Van den Noord, 2004; Price elasticities of housing supply is estimated by Swank, Kakes and Tieman, 2002.

Chart 12. Correlations of private consumption growth and real house-price changes



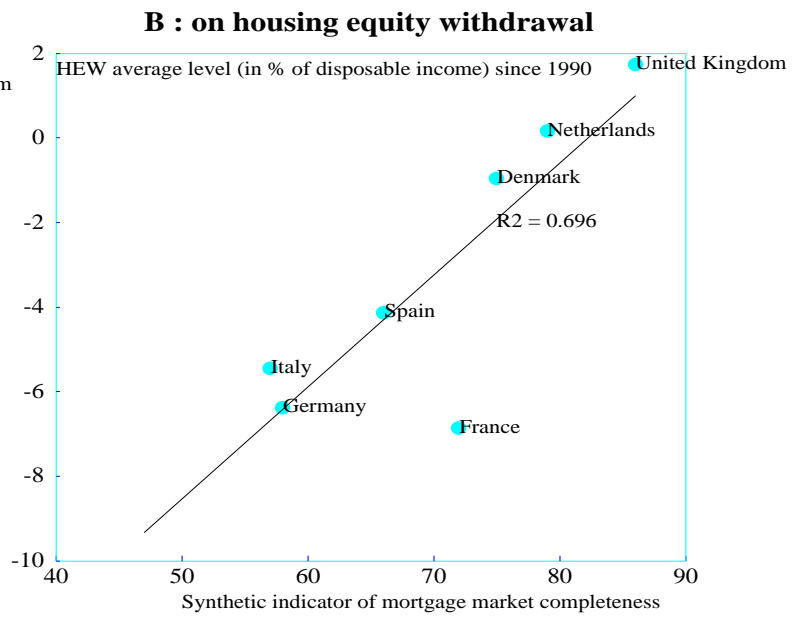
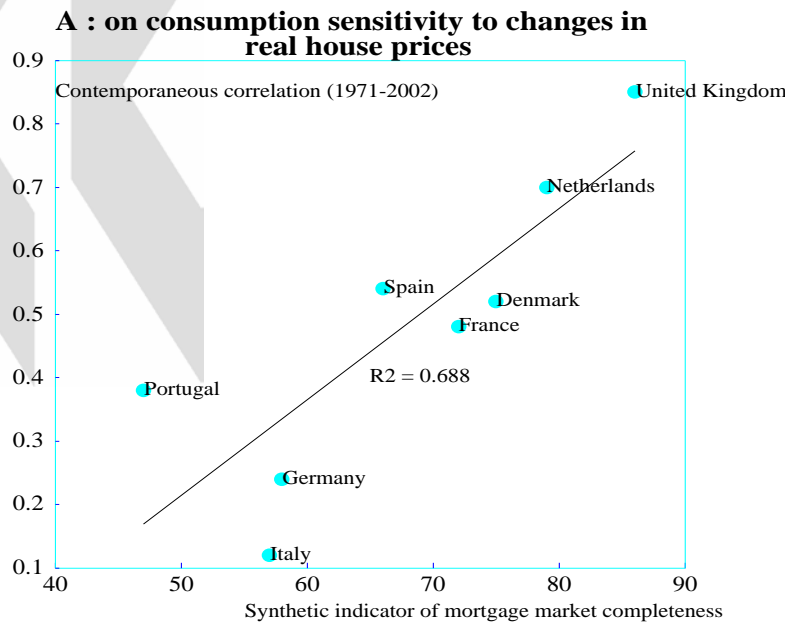
Notes: Contemporaneous correlation coefficients, calculated from annual data, 1971 to 2002.
House prices are deflated using the private consumption deflator.
Source : BIS, OECD.

Chart 13. Importance of leverage and housing-equity withdrawal in explaining the MPC out of housing wealth



Sources : United States Federal Reserve Board, Japanese Annual National Account , United Kingdom Office for National Statistics, Bank of Canada, Bank of France, Statistics Canada, The Nederlandsche Bank, Bank of Spain, European Central Bank, Reserve Bank of Australia, OECD.

Chart 14. Effects of Mortgage-market completeness on MPC and on HEW



Note: The synthetic indicator of mortgage market completeness is presented in Annex Table 3. (for additional information see Mercer, Oliver, Wyman, 2003). For Portugal, the contemporaneous correlation between consumption and real house price change is calculated over the period 1989-2001, due to limited data availability.

Sources : United States Federal Reserve Board, Japanese Annual National Account , United Kingdom Office for National Statistics, Bank of Canada, Bank of France, Statistics Canada, The Netherlandsche Bank, Bank of Spain, European Central Bank, Reserve Bank of Australia, OECD.