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THE EFFECT OF HOUSE PRICES ON GROWTH

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Hypothesis

During the last decade, disparities of growth rates have been widening between the "Anglo-Scandinavian" countries and the Euro area. A hypothesis to explain these growth differentials is the development of house prices and their effect on consumption. In the period 1995 to 2005, the development of house prices may be considered as a major determinant of growth differentials in the European Union.

Development of house prices

Residential property prices in the Euro area have been dynamic over the last decade, but the pattern has differed strongly across countries. High demand for houses has been fuelled by the decline in interest rates which accompanied the introduction of the single currency.

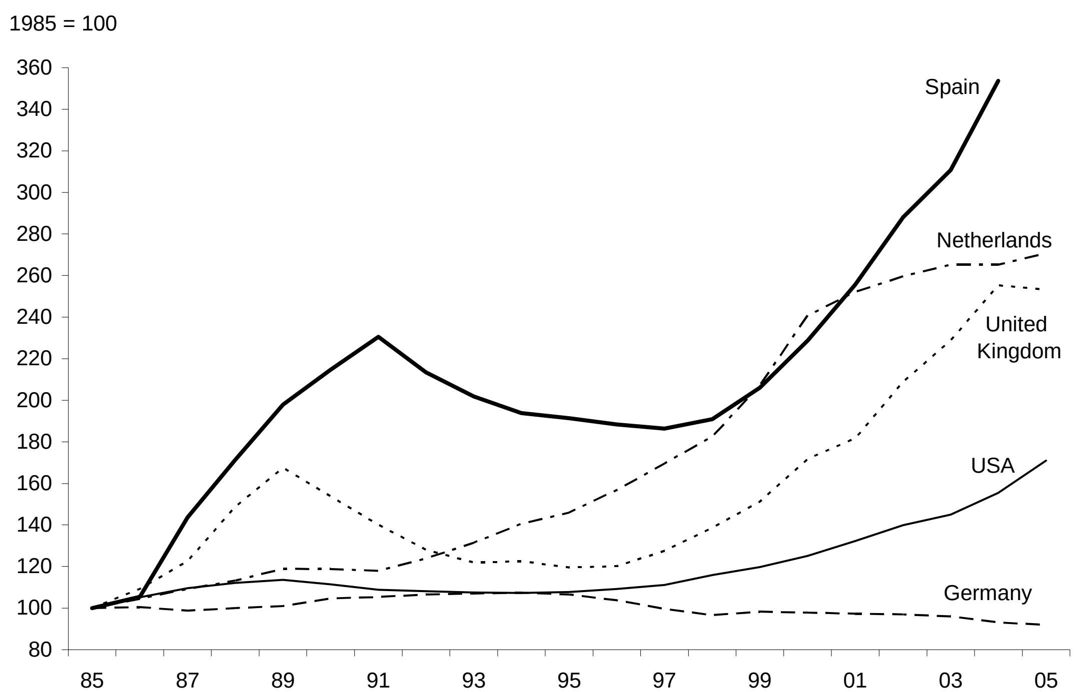
In the UK, Ireland, Netherlands, Spain and the Scandinavian countries real house prices have soared since 1995. In most countries of continental Europe, on the other hand, house prices remained flat. Between 1995 and 2005, real house prices rose by almost 10 percent p.a. in Ireland, somewhat less in the United Kingdom, Spain and the Netherlands. In Germany and Austria real house prices even declined.

It is widely assumed that in many countries house prices are now higher than one would expect from underlying economic factors (ECB 2006). In the United Kingdom they are about 20 percent higher than can be explained by the interaction of supply and demand (Wealy 2006).

Rising house prices do not create wealth; they only transfer resources from first-time-buyers to present house owners. Thus they impose a burden on future generations (similar to budget deficits).

House prices are determined not only by "real" demand and supply. In the last decades, as a consequence of deregulation and liberalisation, houses became increasingly objects of speculation. Thus, house prices tend to overshoot just as share prices or exchange rates.

Graph 1: Real house prices



Concerns about the boom in house prices

Housing is the dominant component of wealth for the typical household, particularly in countries with a high share of residential property. Houses are, however, risky assets with volatile prices.

Central bankers around the world have viewed the run-up in house prices cautiously. The ECB (2006) regards house prices explicitly as an important determinant of monetary policy. Soaring house prices have permitted consumer spending to outstrip income growth, and the increase in house prices has contributed to imbalances in the current account. The dynamism of house prices has been accompanied by a strong increase in house loans. Above all, there is a risk of a burst of the house price bubble in some countries - similarly to the early 1990s. Homeowners face substantial risk of lower prices that could stay low for some time.

In the early 1990s, the sharp increase in interest rates contributed to the burst of the house price bubble in Japan, the UK and some Scandinavian countries after rapid deregulation had fuelled house prices. Did we learn from that?

Causes of the house price boom in the US and many European countries

House prices, like any market prices, are determined by supply and demand. In the last decade, demand for houses was supported by unusually low interest rates. They increased, in particular, the affordability of higher-priced housing. In Spain and Ireland, real long-term interest rates have been very low (about 2%) as a consequence of EMU membership. In low-inflation countries like Germany and Austria, real long-term interest rates have been relatively high (almost 4%).

In some countries, particularly in the United Kingdom, house supply has been extremely weak in the last decade and has underpinned the boom in house prices. Regulations on land are the major factor in restricting the supply of houses. They favour present house-owners at the cost of future generations.

Table 1: House prices, GDP growth and interest rates

	Real GDP		Real house prices	Real long-term interest rates
	Percentage changes from previous year, p.a.			Percent p.a.
	ø 1985/1995	ø 1995/2005	ø 1995/2005	ø 1995/2005
Ireland	+ 4,7	+ 7,3	+ 9,5	2,0
Spain	+ 3,0	+ 3,6	+ 7,1	2,3
Finland	+ 1,1	+ 3,5	+ 5,0	3,5
USA	+ 2,9	+ 3,3	+ 4,7	2,7
United Kingdom	+ 2,5	+ 2,8	+ 7,8	4,0
Sweden	+ 1,6	+ 2,7	+ 5,5	3,9
Netherlands	+ 2,7	+ 2,3	+ 6,4	2,4
France	+ 2,0	+ 2,2	+ 5,8	3,2
Austria	+ 2,6	+ 2,2	– 1,6	3,3
Denmark	+ 1,8	+ 2,1	+ 3,9	3,2
Belgium	+ 2,3	+ 2,1	+ 3,3	3,1
Switzerland	+ 1,5	+ 1,5	– 0,4	2,4
Germany	+ 2,3	+ 1,4	– 1,5	3,4
Italy	+ 2,2	+ 1,3	+ 2,2	3,0
Japan	+ 3,1	+ 1,2	– 3,2	1,7

Source: Bank for International Settlements, Eurostat, OECD

Market-based and bank-based countries

The IMF distinguishes between market-based and bank-based financial market systems. In market-dominated systems (e.g. USA, UK) there are liquid and transparent markets also for real assets. House prices are more volatile than in bank-dominated countries (e.g. Germany). Typical features of the mortgage markets in European countries are given in table 2. The shares of fixed and flexible mortgage rates as well as the usual mortgage terms vary significantly across euro area countries.

Market-based countries do not only have more volatile house prices, the reaction of demand to house price changes is also much faster than in bank-based countries (i.e. the core of the Euro area). According to calculations by the IMF (2004), the long-run reaction of private consumption to a 1 percent increase in house prices is 0,040 in market-based countries and 0,015 in bank-based countries.

The last decade was characterised by a "marketisation" of housing finance. Housing markets marched toward perfect capital markets and came closer to the image of neoclassical capital theory. Securitized housing loans are now traded on markets like commodities, resulting in a liquid market. Variable-rate mortgages and interest-only loans became more popular in a number of countries. The duration of mortgages was extended (to 30 years and more).

Table 2: Features of mortgage markets

	Real house prices ø1995/2005 [1]	Share of property[2] 2003	Mortgage loans 2002 [3]	Usual mortgage term [3]	Predominant type of interest payment[1]	Market or bank-based financial system	
	percent p.a	percent	percent of GDP	years	BIS	IMF[2]	Levine[3]
Ireland	+ 9,5	76,92	36,5	20	flexible	market	bank
United Kingdom	+ 7,8	70,00	64,3	25	flexible	market	market
Netherlands	+ 6,4	53,00	78,8	30	fixed	market	market
Spain	+ 7,1	82,90	32,2	15	flexible	bank	market
Denmark		51,00	74,3	30	fixed	bank	market
Sweden	+ 5,5	61,00	40,4	< 30	flexible	market	market
Finland	+ 5,0	58,00	31,8	15-18	flexible	bank	bank
France	+ 5,8	56,22	22,8	15	fixed	bank	bank
Italy	+ 2,2	80,00	11,4	15	mixed	bank	bank
Germany	– 1,5	43,60	54,0	25	fixed	bank	bank
Austria	– 1,6	56,00	27,0	25	fixed	bank	bank

Source: *Marterbauer – Walterskirchen* (2005)
[1] Bank for International Settlements. [2] *IMF* (2004). [3] *Demirgüc-Kunt – Levine* (2001)

The role of refinancing

In countries with flexible interest rates (e.g. the United Kingdom) private households benefited directly from falling interest rates after 1995. When mortgage interest rates are predominantly fixed - as in the United States and many Euro area countries - refinancing is necessary to reduce interest payments for old loans.

During the 1990s and early 2000s, many American home owners refinanced their properties - sometimes more than once - as interest rates dropped to record lows. Thus, they were able to lower their monthly payment often dramatically. Above that, they "cashed out" some of the equity in their home. When they refinanced, they got a new loan for a higher amount than they owed to the old loan.

Household sector borrowing has grown radically in many countries. The precarious position of households (e.g. in the US) stems largely from loose lending standards and cash-out refinancing.

In the Euro area refinancing seems to be restricted by high transaction costs and institutional factors. On the other hand, the risks of rising interest rates and falling house prices are much lower in the Euro area.

The effect of house prices on private consumption

Many economists suggested that house price changes have significant effects on aggregate consumption (Al-Eyd et al., 2005). Recent developments in housing help to explain trends in consumption, particularly in the UK, Spain, some Scandinavian countries and in recent years also in France. Aggregate consumption in Germany and Austria may have been held back by developments in house prices. Financial liberalisation was slower in Germany and Austria than in the rest of the Euro area.

The effects of house prices are particularly high in those countries in which mortgage financing and refinancing are easily accessible, the share of real property is high and transaction costs are low. If there are no credit constraints, as in a liberalised financial system, housing wealth will affect private consumption.

An explanation for the correlation between house prices and consumption is that a house is an asset that can be used as collateral in a loan. An increase in house prices allows borrowing-constrained homeowners an increase in consumption or at least smoothes consumption over the life cycle. In a period of low interest rates, relaxed borrowing constraints are most effective. During the last decades, mortgages became increasingly the instrument for consumer borrowing in countries with market-based financial systems.

There is large positive effect of house prices on consumption for the cohort of house owners (quite often older people) and hardly any effect for renters (mainly young households). Aggregate consumption becomes more responsive to house price changes as the share of homeowners increases and older homeowners become an increasing fraction of the population (Campbell/Coco 2006).

Rising home prices and low interest rates have fuelled the surge in mortgage borrowing and enabled consumers to spend at high rates relative to their income. The savings rates of private households declined dramatically in the United States, Great Britain, Spain and some Scandinavian countries (see graph 3). Low interest rates have counterbalanced the growth in debt and acted to dampen the growth in the household debt-service burden.

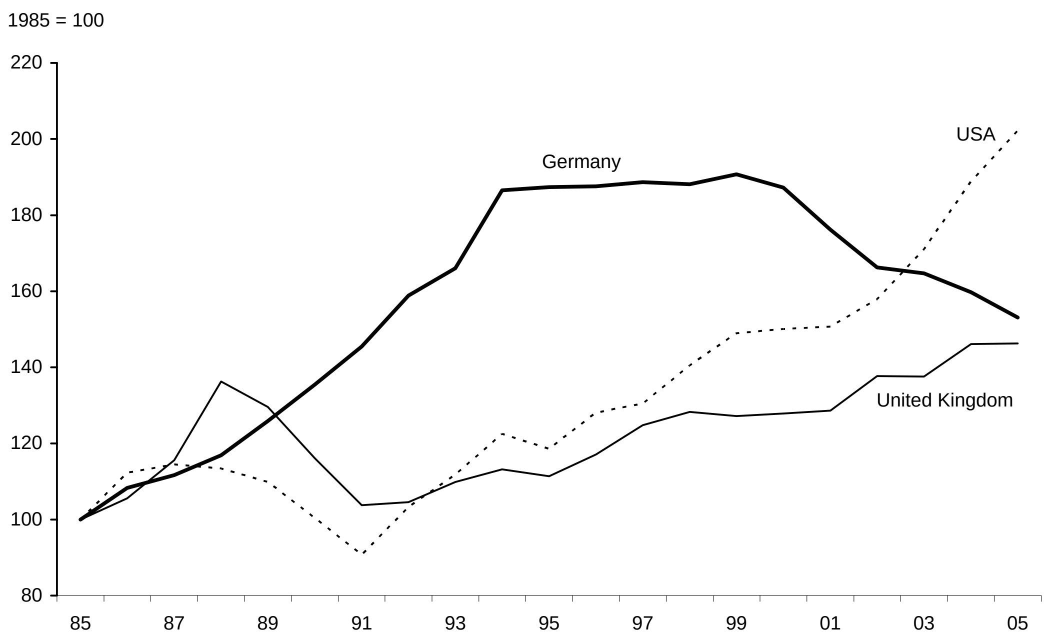
These trends in house prices, household indebtedness and saving ratios are not sustainable. Household spending relative to income cannot grow indefinitely.

House prices and residential building

On the one hand, increasing demand for houses will raise house prices. Housing demand is influenced by current and expected demographic developments (migration flows), residential property prices, household income and financial indicators (interest rates, availability of mortgage finance etc.). But on the other hand, soaring house prices may fuel speculative demand. Higher prices expected in the future may raise supply and demand today.

There is a close relation between house prices and residential building (see table 3 and Altissimo et al. 2005). In all countries in which real house prices boomed private investment in housing increased strongly - with the exception of the United Kingdom and the Netherlands (probably due to supply constraints in metropolitan areas). In Germany and Austria house prices as well as investment in housing declined in the period 1995-2005.

Graph 2: Real private investment in housing



Are house prices a consequence or a cause of economic growth?

It is quite likely that economic growth will affect real house prices. But where did higher growth in the United Kingdom and the Scandinavian countries come from?

Growth differentials are usually explained by supply factors: research and development, education, price competitiveness, flexible labour markets, deregulation etc. With this type of long-term reasoning, it is hard to explain why higher competitiveness through structural reforms and long-run supply factors in the 1995-2005 period fuelled mainly housing and consumption in the Anglo-Scandinavian countries (relative to the core of the Euro area) - not exports and investment. Moreover, it is difficult to explain the sharp decline in the savings rate of private households in most of these countries without considering real wealth effects.

The Keynesian answer on growth differentials is: More expansionary monetary and fiscal policies in the Anglo-Scandinavian countries were the main reason. This may be true for recent years, but not for the whole period 1995-2005. Thus, both answers are not fully convincing for the medium term.

The boom in house prices gives us a quite good explanation of the stylized facts. They can explain the strong increase in consumption and housing as well as the decline in savings rates in most of the Anglo-Scandinavian countries.

Cross-country regressions (Marterbauer-Walterskirchen) show that, in the period 1995-2003, the effect of house prices on growth differentials between countries was even more important than that of investment in machinery and equipment. The theoretical axiom that medium-term growth rates are exclusively supply-side determined should thus be questioned. The duration of the cycle in residential building may be 15 years and more.

In the long run, however, there is no significant effect of house prices on GDP growth, since periods of booming prices are usually followed by sharp price falls. In the United States and other countries there is no long-term upward trend in real home prices (Shiller 2006).

Table 3: Components of demand

	GDP	Private consumption	Private investment in housing	Exports	Investment in machinery and equipment
	ø 1995/2005				
	Percentage changes from previous year, p.a., volume				
Ireland	+ 7,3	+ 5,9	+ 10,1	+ 11,0	+ 9,1
Spain	+ 3,6	+ 3,8	+ 9,1	+ 6,4	+ 6,6
Finland	+ 3,5	+ 3,1	+ 5,6	+ 6,8	+ 2,4
USA	+ 3,3	+ 3,8	+ 5,4	+ 4,4	+ 7,1
United Kingdom	+ 2,8	+ 3,5	+ 2,5	+ 4,6	+ 2,6
Sweden	+ 2,7	+ 2,3	+ 6,4	+ 6,5	+ 4,6
Netherlands	+ 2,3	+ 2,1	+ 1,5	+ 5,3	+ 3,1
France	+ 2,2	+ 2,3	+ 1,4	+ 4,9	+ 4,7
Austria	+ 2,2	+ 1,6	– 2,6	+ 6,6	+ 3,1
Denmark	+ 2,1	+ 1,7	+ 4,6	+ 5,2	+ 4,6
Belgium	+ 2,1	+ 1,7	+ 1,8	+ 4,2	+ 4,1
Switzerland	+ 1,5	+ 1,5	– 0,2	+ 4,9	+ 2,8
Germany	+ 1,4	+ 1,1	– 2,1	+ 7,3	+ 3,3
Italy	+ 1,3	+ 1,8	+ 1,6	+ 1,9	+ 2,5
Japan	+ 1,2	+ 0,9	– 2,9	+ 5,7	+ 2,1

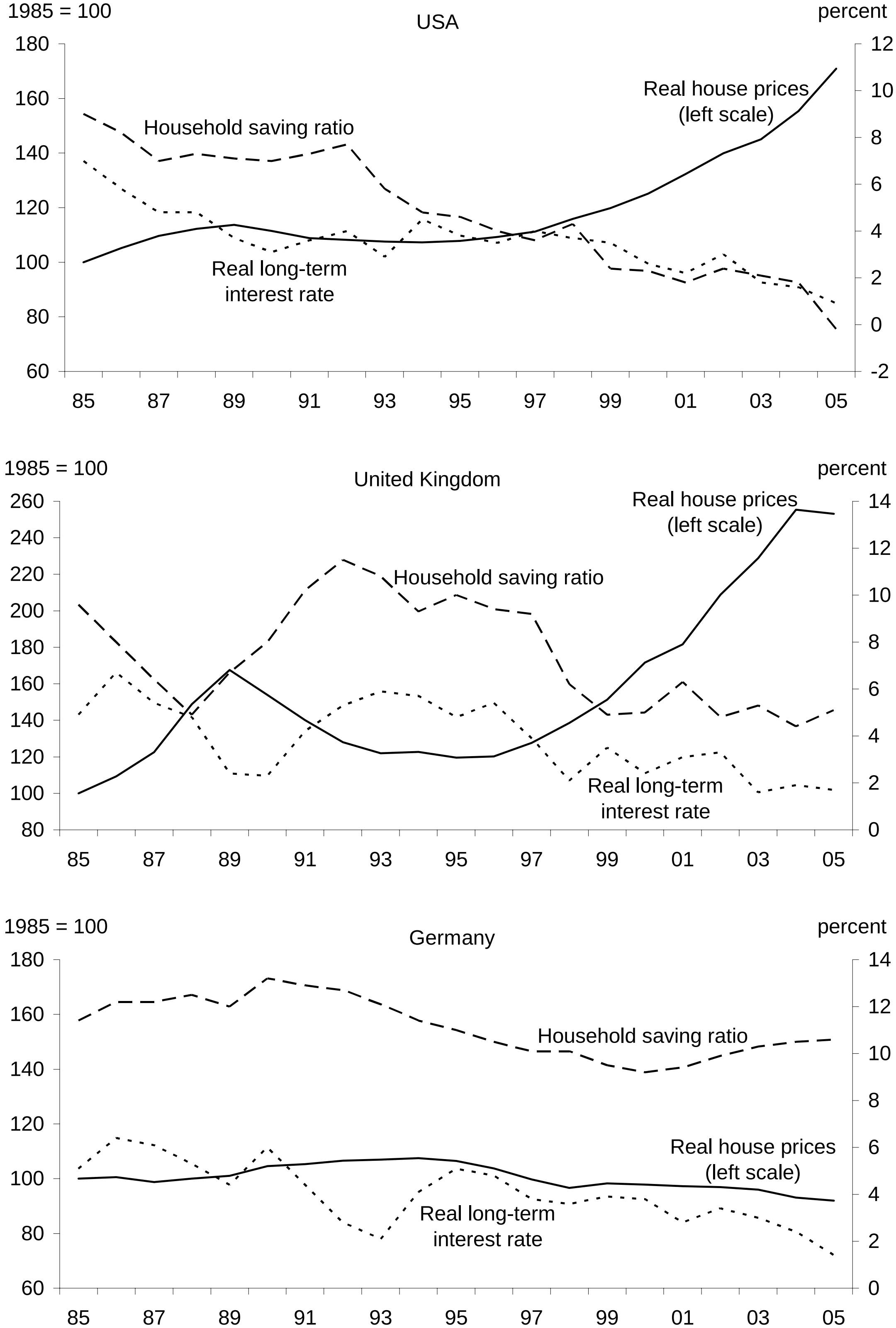
Source: Eurostat

Moreover, in the period 1985-95 - before the house price boom - growth differentials between Euro area countries were rather small (see table 1).

The conclusion of an IMF study (2004) on the causes of the boom in house prices was:

- a reduction of interest rates by 1 percentage point leads to an increase of real house prices by 1%
- a rise in income by 1 percentage point results in an increase of real house prices by 1,1%
- an acceleration of population growth by ¼ percentage points drives up real house prices by 1%.

Graph 3: Interest rates, house prices and saving ratios



Source: Bank for international Settlements, OECD

The IMF concluded: “It appears that countries with predominantly fixed mortgages have better behaved house prices and fewer negative spillovers on their economies.” (IMF 2004, p.13)

The OECD (Catte et aL 2004), on the other hand, recommends a deregulation of mortgage markets since this strengthens the wealth effects of rising house prices on private consumption and the effectiveness of monetary policy.

Summary

The differences in growth rates between EU countries in the period 1995-2005 can be attributed largely to the responsiveness of consumption and residential building to house price and interest rate changes. Rising real house prices in the UK, Ireland, the Scandinavian countries and Spain accelerated residential building and stimulated private consumption through wealth effects. Using cross-country analysis, an increase of house prices by 1 percent raised GDP growth by 0,15 percentage points.

Mortgage borrowing has grown radically in these countries, and the savings ratios have declined.

In continental Europe the stimulus of soaring house prices was lacking in the 1995-2005 period, with the exception of France and the Netherlands. But in this respect the outlook seems to be brighter for continental Europe. In countries with high house prices there is a substantial risk of falling prices in the future with negative effects on consumption and residential building.

In the long run - including periods with falling house prices - there is no clear evidence that house prices affect economic growth.

In market-based financial systems such as in Great Britain or Northern Europe, reactions to house prices and interest rate changes are clearly stronger than in bank-based systems such as in continental Europe.

Despite the success achieved on a medium term basis by many countries with flexible real estate markets and market-based financial systems, a long-term growth strategy should not be based on these instruments, for soaring property prices tend to be followed by a downturn.

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