



OECD Economics Department Working Papers No. 682

Adjusting Housing Policies
in Slovakia in Light of Euro
Adoption

Felix Hübner

<https://dx.doi.org/10.1787/226173687724>

Unclassified

ECO/WKP(2009)23



Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

06-Mar-2009

English - Or. English

ECONOMICS DEPARTMENT

ECO/WKP(2009)23
Unclassified

ADJUSTING HOUSING POLICIES IN SLOVAKIA IN LIGHT OF EURO ADOPTION

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by **Felix Hüfner**

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ABSTRACT/RÉSUMÉ

Adjusting housing policies in Slovakia in light of euro adoption

House prices have risen strongly in past years, helped by rising incomes and declining interest rates. At the same time, construction of new dwellings has remained fairly muted and has only recently shown signs of picking up. A characteristic feature of the Slovak housing market, and a consequence of the privatization programme initiated in the early 1990s, is the virtual absence of a private rental market. As euro membership will most likely go along with easier financial conditions and also entails limited availability of national policy tools, current housing policies will have to be adjusted. The challenges are to avoid overheating of the housing market in the medium term, in part by making supply more reactive to demand, and to phase out the hurdles that are currently impeding the private rental market, which would facilitate labour mobility.

This Working Paper relates to the 2009 *OECD Economic Survey of the Slovak Republic* (www.oecd.org/eco/surveys/slovakia).

Keywords: housing; rental market; mortgage loans; house prices; Slovak Republic; housing policy
JEL classification: J61; H31; H21

* * * * *

Ajuster la politique du logement en Slovaquie dans le contexte de l'adoption de l'euro

Les prix des logements ont fortement augmenté ces dernières années avec la hausse des revenus et la baisse des taux d'intérêt. En revanche, la construction de logements neufs est restée assez léthargique et n'a montré que récemment des signes d'accélération. L'une des caractéristiques du marché du logement en République slovaque, conséquence du programme de privatisation engagé au début des années 90, est la quasi-inexistence d'un marché locatif privé. Puisque la participation à la zone euro se traduira très probablement par un assouplissement des conditions financières tout en limitant les instruments d'action nationaux, il faudra modifier la politique actuelle du logement. L'enjeu sera d'éviter une surchauffe du marché du logement à moyen terme, notamment en agissant pour que l'offre réagisse davantage à la demande, et d'éliminer les obstacles actuels à un marché locatif privé, ce qui faciliterait la mobilité des travailleurs.

Ce Document de travail se rapporte à l'*Étude économique de l'OCDE de la République slovaque 2009* (www.oecd.org/eco/etudes/slovaquie).

Mots clés : logement ; marché de la location; prêts hypothécaires ; prix des logements ; République slovaque ; politique du logement

Classification JEL : J61; H31; H21

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ADJUSTING HOUSING POLICIES IN SLOVAKIA IN LIGHT OF EURO ADOPTION

By Felix Hüfner¹

The housing market has been booming

House prices and outstanding mortgage loans have been growing fast...

House prices in the Slovak Republic have seen phenomenal growth since 2002, the first year for which official statistics are available. In the past couple of years, prices in real terms have risen significantly faster than in most other OECD countries (Figure 1). Between 2002 and the second quarter of 2008, nominal prices rose 2.6 times. Even though the global housing cycle has turned, Slovak house prices continued to rise until the second quarter of 2008, although prices have started to decline slightly in the third quarter. However, house price growth has been quite divergent across the country. While the Bratislava region registered annual average increases of 21% since 2005, prices rose by 32% on average in Trenčín and by 14% in Trnava.¹ In general, the regions which benefitted most from inward FDI flows tended to have the largest price increases.

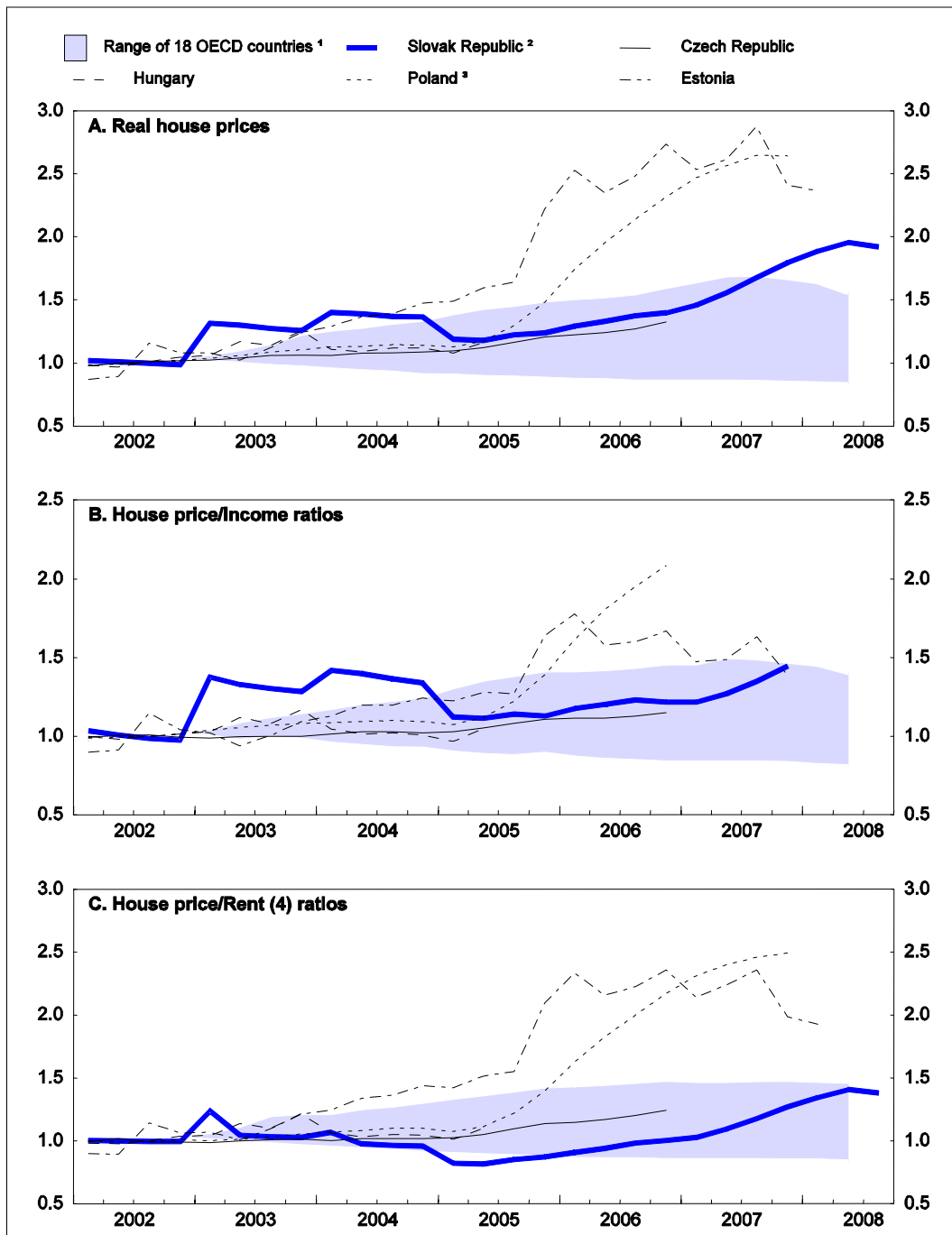
Given that price data are available for only a short time period, it is difficult to analyse if houses are correctly valued. Relating the level of house prices to GDP *per capita* (in PPP) over time, the National Bank of Slovakia finds that prices are now somewhat higher than could be explained by such a relationship (NBS, 2008). Another possibility is to look at developments in the ratios of house prices to rents and income, respectively, in comparison to other OECD countries. According to these ratios, house price valuations have risen more in the Slovak Republic since 2002 than in other OECD countries, in particular since 2007 (Figure 1).² In some other CEE countries, which -- similar to the Slovak Republic -- have experienced rapid financial development (the broad increase in the availability of credit) and therefore rising affordability, house price valuation have also increased dynamically.

Econometric estimates based on regional price data suggest that house price growth for Slovakia as a whole can partly be explained by higher household incomes, lower real interest rates and a lack of supply (Annex A1).³ These estimates suggest that actual house prices grew stronger than can be explained by these fundamentals (Figure 2, panel A).⁴ This holds in particular for the period ahead of EU accession in 2004. While decreasing real interest rates supported house prices mainly in 2003 and 2004, more recently rising incomes have become the determining factor, along with continued lack of supply (Figure 2, panel B). Overall, the demand for real estate significantly exceeds the supply side as construction has lagged behind and the dwelling stock is low compared with other countries.

1. Senior economist in the Economics Department. This paper was originally prepared as Chapter 4 for the OECD's 2009 Economic Survey of the Slovak Republic published under the responsibility of the Economic and Development Review Committee. The author is grateful for the valuable comments received on earlier drafts of this text from Andrew Dean, Robert Ford, Isabell Koske and Andreas Wörgötter, as well as for discussions with officials from the Slovak government. Special thanks go to Béatrice Guérard of the OECD Economics Department for statistical assistance.

Figure 1. Real house prices

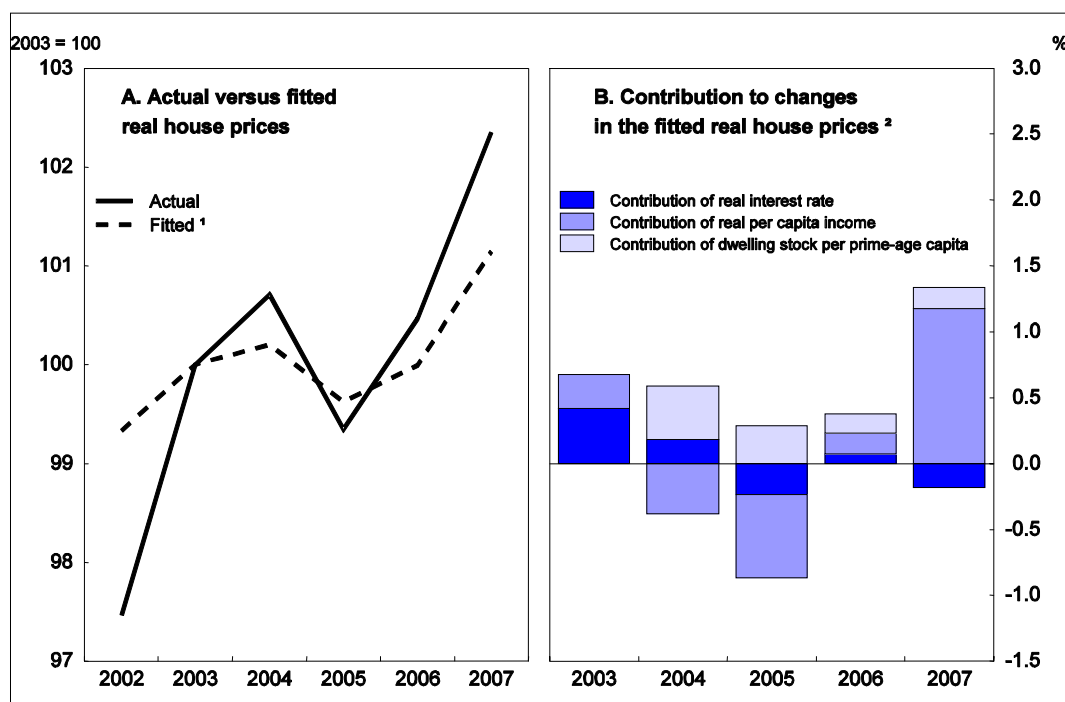
2002 = 1



1. Includes Australia, Canada, Denmark, Finland, France, Germany (up to 2007Q4), Ireland, Italy, Japan, Korea, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, United Kingdom and United States.
2. Slovakia: Annual house prices from 2002 to 2004, converted by taking the annual average in every quarter.
3. Poland: Annual house price index is derived from the average of the regional increase in residential property prices in the largest cities on the primary and secondary markets (as published in the Financial Stability Report of the National Bank of Poland). Then quarterly data are interpolated from these annual figures.
4. CPI rent except for Czech Republic where CPI housing has been taken.

Source: OECD Economic Outlook database; National Bank of Slovakia; National Bank of Poland; and BIS.

Figure 2. The impact of fundamentals on real house prices 2002-07



1. Fitted house prices in logs according to the model estimated in Annex A1, using specification (2).
2. Graph shows each component's contribution to changes in the fitted house price over time in log differences.

Source: OECD calculations based on Statistics Slovakia and OECD Economic Outlook database data.

... and euro entry is likely to add fuel

Regardless of whether current house prices are fairly valued or not, the important issue going forward is that euro adoption will likely lead to additional demand pressure. This relates foremost to the effect of lower real interest rates on house prices. At least three factors come into play. *First*, during the catch-up phase over the next several years, inflation rates will be higher and real interest rates lower than in the euro area, raising the danger of overinvestment. *Second*, as the Slovak Republic joins the larger euro capital markets, increased financial integration is likely to lead to a downward adjustment of retail interest rates. In particular, conditions for mortgage loans with a longer initial fixed interest rate period will benefit from this (Box 1). *Third*, risk premia embedded in interest rates will be lower. In addition to these interest rate effects, continuing financial market development will make credit, including mortgages, more available.

Box 1. Financial integration effects on retail interest rates

Experience from existing euro area member countries shows that euro adoption enhances and accelerates financial integration between countries (ECB, 2003; Baltzer *et al.*, 2008), not least as the removal of exchange rate risk is beneficial to the cross-border provision of financial services. As financial markets become better integrated, economies of scale can be realised and the supply of funds for investment opportunities is increased as banks and non-financial companies can tap the large and more liquid euro capital markets. Greater integration raises price transparency and lowers transaction costs, which should foster more cross-border activities, increase competition in the national markets and result in a more efficient allocation of capital as well as a reduction in the cost of capital. With perfect integration, identical financial products should have the same price across countries.

In this regard, Slovak retail banking markets will become more integrated with those of the other euro area countries and over the longer term, retail interest rates for loans (to both households and non-financial companies) should converge towards the lower euro area level and interest rates for deposits may rise towards the higher euro area level.¹ Indeed, econometric evidence suggests that the convergence process is already underway (Hüfner and Koske, 2008). The convergence potential is largest for household consumption and mortgage loans, while conditions for loans to non-financial companies are already much closer to the prevailing euro area levels. In particular for mortgage loans with longer initial interest rate fixation period, Slovak customers still pay significantly more than euro area customers (Table 1). Differences are smaller for floating rate mortgages and initial interest rate fixation up to one year.

Experience from other euro area member countries suggests that the adjustment process can take several years. In the case of Greece, for example, mortgage rates with medium initial interest rate fixation period reached the euro area average level only in 2007, six years after joining the euro area.

Table 1. Differences in mortgage interest rates for new loans, 2008

Initial interest rate fixation period	%		
	Slovak Republic	Euro area average	Difference
Up to 1 year	6.08	5.49	0.59
Over 1 and up to 5 years	6.17	5.13	1.04
Over 5 and up to 10 years	8.49	5.11	3.38
Over 10 years	8.58	5.21	3.37

Note: Interest rates are averages over the period January-October 2008.

Source: ECB and National Bank of Slovakia.

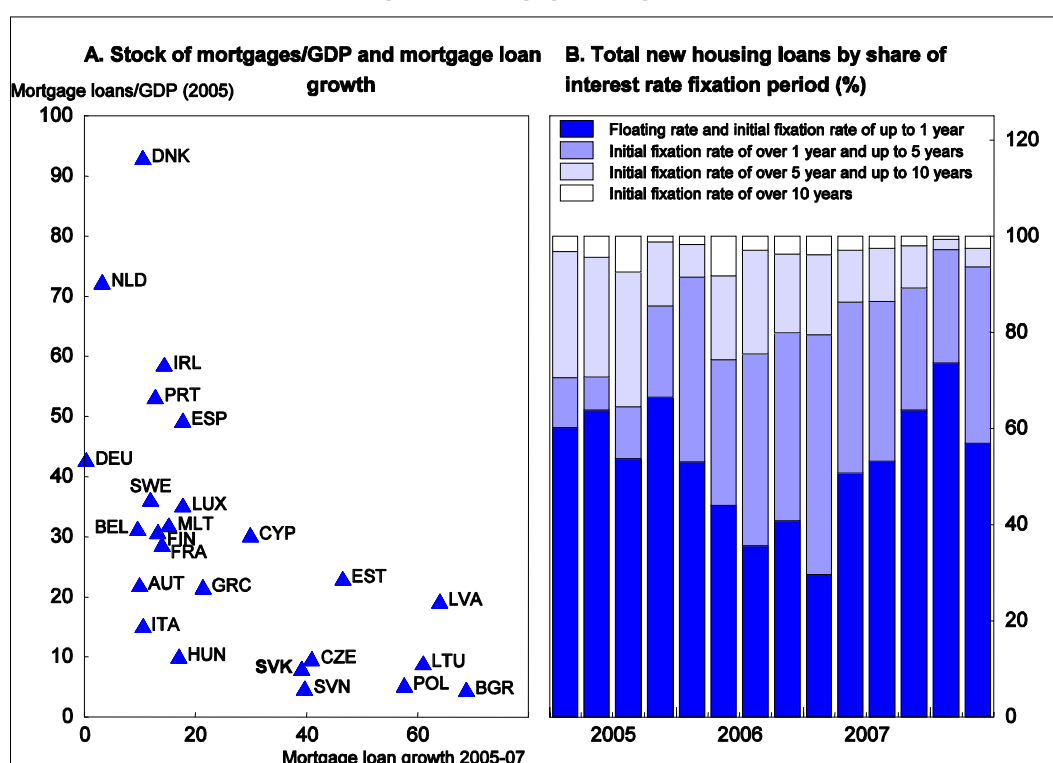
1. It should be noted, however, that retail markets are still rather fragmented and far from perfectly integrated in the euro area as retail interest rate differentials remain substantial (ECB, 2008a).

Although the impact of the global financial crisis may limit the real interest rate effect of euro area entry in the short run, the driving forces identified above will remain in place in the medium to long run. Against this background, an important challenge is to avoid overheating of the housing market, which could lead to a boom-bust cycle. On the demand side, it will be important to watch closely the financial risks associated with the development in household indebtedness, and reduce the subsidization of owner-occupied housing implicit in the tax and benefit system. On the supply side, construction needs to be made more responsive to price signals. A longer term challenge is to support the build-up of a functioning rental market. This would raise mobility between renting and owning, thereby helping to deal with house price fluctuations, and raise regional mobility so as to help reduce regional dispersion in unemployment and more efficiently reallocate labour.

Watch developments in household indebtedness closely

Household indebtedness is rising fast, primarily reflecting the growth in mortgage loans. The average annual growth rate in the stock of outstanding housing loans was around 40% between October 2006 and October 2008, compared with 6% in the euro area. On the one hand, such significant growth is a common feature of financial development in catch-up countries, which start with a lower stock of loans but tend to exhibit higher growth rates (Figure 3, panel A). The mortgage debt/GDP ratio is currently only 11% in the Slovak Republic, significantly below the euro area average of around 40%. Moreover, compared with other European countries with similar indebtedness, Slovakian loan growth rates do not seem to be excessive (Égert *et al.*, 2006). On the other hand, as in other catch-up countries, the brisk speed of credit growth

Figure 3. Mortgage loan growth



Source: ECB and National Bank of Slovakia.

during the catch-up phase raises concerns as underwriting standards may deteriorate and rising indebtedness renders some households more vulnerable to credit conditions, income shocks and house price fluctuations. Research shows that credit booms are often associated with sharply rising asset prices and falling prices when the boom ends (Mendoza and Terrones, 2008). Ireland, Portugal and Spain are examples of euro area countries that experienced such a cycle. Differentiating systematically between a credit boom and a catch-up-induced rise in indebtedness is complicated, not least due to the lack of historical evidence of credit cycles for most transition economies.⁵

Along with rising indebtedness, the share of interest expenses in household disposable income has more than doubled from 0.45% in 2002 to almost 1% in 2006 (Beka, 2007). This is still below the average debt service burden of 3.25% of disposable income in the euro area (ECB, 2008b). However, the trend needs to be watched carefully as sharp increases always entail the danger that individual households overstretch their debt burden. In particular, the aggregate data conceal an uneven distribution of debt across household income categories. Typically, the young and lower income groups are those that tend to exhibit the highest debt burden. In addition, the interest burden is becoming more volatile because the share of

variable interest mortgages is rising significantly. While in 2004, loans with an initial fixed interest rate of between 5 and 10 years made up the biggest part of new loans, by 2005 more than half of all loans carried a floating rate or an initial fixed interest rate period of less than one year (Figure 3, panel B). In this respect, it should be noted that the share of outstanding variable rate loans in the euro area is estimated to be around 25% (ECB, 2008b), most likely lower than in the Slovak Republic (where no official information about the stock of outstanding loans, broken down by interest rate fixation period is available) given the tendency towards new floating rate loans over the past years.

While the situation should be watched closely, several factors limit somewhat the dangers to financial stability. *First*, innovative mortgage products, such as interest only loans, have not played an important role so far, limiting the danger that some households have taken up higher mortgages than they can afford.⁶ *Second*, in contrast to some other EU accession countries, borrowing in foreign currency (other than euro) is almost absent in the Slovak Republic.⁷ *Third*, mortgage equity withdrawal is not prevalent, so households cannot borrow against inflated house prices for consumption purposes. Overall, risks to financial stability remain contained, according to the National Bank of Slovakia (NBS). Its stress tests of banking sector stability indicate that the banking system could withstand a house price decline of 50%, as average loan-to-value (LTV) ratios on the stock of outstanding loans were fairly low (also due to the increase in prices). However, the NBS also points out that the average LTV ratio is rising and sometimes loan amounts even exceed the value of the collateral (Lintner and Rychtárik, 2007).

Options for regulatory interventions are limited

Financial stability risks, in particular related to household borrowing, should thus be monitored carefully. The set of measures available to the authorities to limit borrowing is limited, though. Financial conditions are set by the European Central Bank. In addition, within the EU the scope for regulatory action is limited because the Slovak banking system is almost fully foreign owned and banks therefore may circumvent national regulation. In particular, they could choose to switch from subsidiaries, which are supervised by the Slovak Republic, to branches, which are supervised by their home country.⁸ At the same time, evidence for such regulatory arbitrage is limited, possibly reflecting the fact that such a transformation is costly and subsidiaries benefit from the low Slovak corporate tax rates. This suggests that Slovak supervisors have some room to manoeuvre, which they should use.

One particular regulatory option is to lower the LTV ratio for mortgage loans that are refinanced by mortgage bonds. Currently, to qualify as a mortgage loan, the loan amount has to be lower than 70% of the collateral and this LTV ratio is set by the NBS under the Banking Act. While banks can grant loans for a higher LTV than 70%, such loans cannot be refinanced through a covered mortgage bond (and are thus called *other housing loans* instead of *mortgage loans*).⁹

Moreover, strong cross-border cooperation with foreign supervisors should be ensured. This is important given that there is evidence that foreign-owned banks in the new member states tend to take on more credit risk than domestically owned banks, even though these risks seem to be in line with the strength of their parent banks (Fabrizio *et al.*, 2006).¹⁰

Redesign housing taxation and subsidization

Currently, the fiscal treatment of housing is geared heavily towards supporting owner-occupation. Subsidization remains substantial, real estate taxes are low and capital gains on housing are tax-free for residents after two years. Preferential treatment of real estate investment relative to other assets introduces distortions in capital allocation. A tax system with generous incentives for homeownership not only fosters a higher level of house prices (given the low responsiveness of housing supply to demand, but may also result in higher volatility of house prices (Van den Noord, 2003). Current policies will thus have to be

adjusted to minimize misallocations of capital, not only in light of the demand - push that low real interest rates will inevitably have on house prices, but also to foster the rental market.

Housing subsidies should be lowered...

Subsidization of housing initially gets capitalized into higher house prices. Three main forms of subsidization exist: a premium for deposits in home savings bank accounts, mortgage loan interest subsidies for young people and loans granted by the *State Fund for Housing Development* at favourable rates (with the latter two being means-tested) (Box 2). The extent of support does not seem to be excessive, at 0.25% of GDP, and has been falling. Still, there seems to be a case for phasing it out.

Box 2. Forms of housing subsidization in the Slovak Republic

Premium for deposits in home savings bank accounts

For all deposits in home savings bank accounts the government pays a certain percentage share (determined annually; in 2008 it was 12.5%) of the annual deposit as a bonus up to a maximum of SKK 2 000 (€ 66) for a given calendar year. The home savings banks allow customers to accumulate funds during the savings process and -- upon achievement of the target savings sum – they become entitled to a building loan at advantageous terms (similar to the German model of *Bausparkassen*). The loan can be used for any housing-related purposes (acquisition, construction, renovation, etc.). The bonus has been introduced in 1992 and is granted to natural persons or apartment owner societies.

Mortgage loan interest subsidy for young people

Reduced interest mortgages are available for persons under 35 years who earn up to 1.3 times the national average monthly salary of currently SKK 23 676 (€ 786). The state interest rate subsidy is applied to mortgages of up to SKK 1.5 million (€ 49 791) and the volume of the loan must not exceed 70% of the value of the property used as collateral. The reduction in the interest rate amounts to 2.5-3 percentage points (1-1.5 pp from the bank and 1.5 pp from the State). They are valid for a period of 5 years.

State Fund for Housing Development

The *State Fund for Housing Development* (SFHD) was introduced in 1996 to improve the then unsatisfactory situation in housing finance. It grants loans at favourable interest rates to natural persons that are both citizen and permanent resident of the Slovak Republic aged above 18. The support takes the form of a subsidized loan up to 80% of the procurement price, not exceeding SKK 8 000 (€ 265) per square metre. It is charged at a 6% interest rate with a duration of up to 20 years (amount and conditions are differentiated depending on the purpose). Financing from the fund is also available for public housing. In 2007 half of the loans were granted to towns and municipalities for the construction of rented apartments. Loans granted to apartment owner communities and households for reconstruction and improvement of residential houses each accounted for around a quarter of total loans.

Table 2. State budget allocations for housing support (in million SKK)

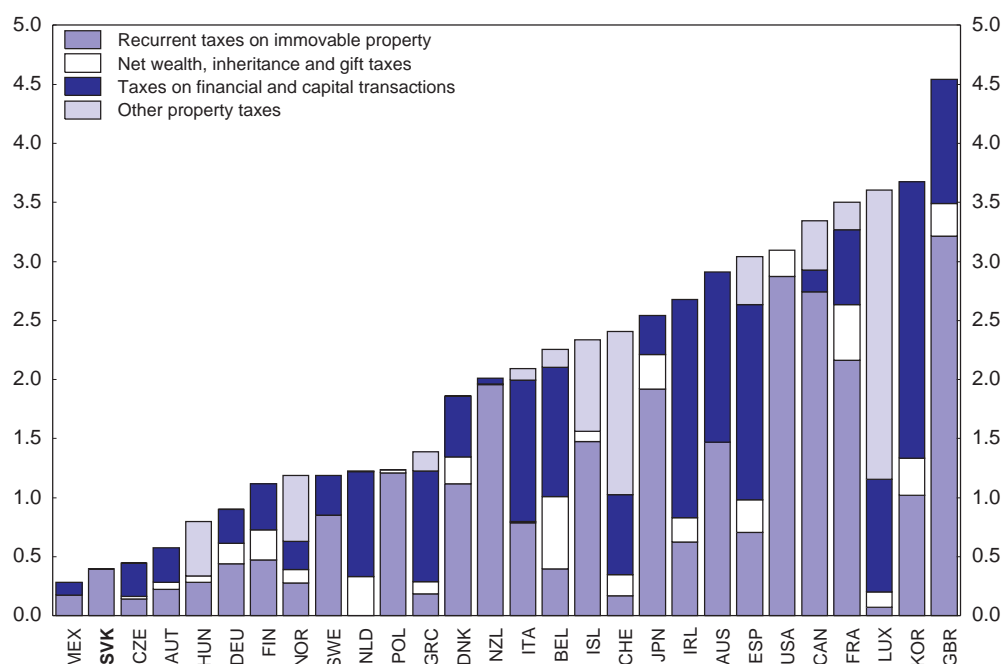
	2005	2006	2007
Mortgage loan interest subsidy	639	613	570
Home savings bank bonus	1 726	925	1 150
State Housing Development Fund	2 815	3 118	2 650
	5 180	4 656	4 370
	(0.35% of GDP)	(0.28% of GDP)	(0.24% of GDP)

Note: The allocation of the *State Housing Development Fund* relates to the amount of loans granted in 2007.

1. The natural person receiving the loan must obtain its own regular income from business activities or from a dependent activity.

... and real estate taxation increased

At around ½ per cent of GDP in 2007, revenues from property taxation are among the lowest in the OECD (Figure 4). As there is no wealth, inheritance or gift tax, and no real estate transfer tax, the real estate tax is the only tax levied on property. It is levied by local authorities and is divided into land tax, tax on buildings and tax on apartments. In contrast to many other OECD countries, however, mortgage interest payments are not tax-deductible. The land tax is levied at a rate of 0.25% of the tax base and the tax on

Figure 4. Property tax revenues% of GDP, 2007 ¹

1. 2006 for Australia, Belgium, Greece, Mexico and Poland.

Source: OECD, Revenue Statistics, 2008 edition.

buildings and apartments amounts to SKK 1 per square metre. However, municipalities have the right to increase or decrease tax rates on the basis of local conditions within a municipality or set various rates for individual types of land plots or individual cadastral areas. The only binding limit is that the highest tax rate cannot exceed the lowest rate by more than a factor of 20 in case of the land tax and a factor of 40 in case of the building or apartment tax. No information is available regarding the tax rates applied across municipalities. Of total real estate tax revenues, the building tax accounts for over two-thirds and the land tax for around one-quarter; revenues from the apartment tax are minuscule.

The tax base for the land tax is a fixed value per square metre, independent of the market value, and is laid out in the Local Tax Act. It was first fixed in 1992 and adjusted once in 2004 (when it was increased by a factor of 3). Generally, the value increases with the size of the town, with Bratislava having the highest value of SKK 1 800 (60) per square metre, which is only around 3% of the current price per square metre. Even in the Nitra region, which has the lowest market prices, the tax base does not reach 10% of the current market value. With a statutory tax rate of 0.25%, the current effective tax rate in the Bratislava region is thus lower than 0.01% of the market price.

The low rate and the determination of the tax base of the property tax are problematic in several respects. *First*, by taxing immobile assets at a low rate, more distortive taxes on mobile sources need to be higher, all else equal. *Second*, the set-up of the tax may fuel house price booms. As the tax base does not follow market values, the effective tax rate declines as house prices increase, perhaps exacerbating cycles. It would be better to base the land tax on market valuations, which could be determined by using prices observed in real estate transactions, taking for example those collected by the National Association of Estate Offices of Slovakia (NARKS) on a regional basis.¹¹ To account for errors in estimating the correct price, only say 80% of the market price could be taken as the tax base (a similar system is in place in

Sweden). A *third* problem is that the current real estate taxation is below a neutral level *vis-à-vis* the taxation of other assets, thereby distorting capital allocation decisions.¹²

Given these considerations, the real estate tax rate should be raised to a neutral level and should be based on market values. While for neutrality reasons, capital gains on owner-occupied housing should also be taxed, implementation of such a tax is not straightforward as it could lead to lock-in effects, thus reducing labour mobility (Box 3).

Of course, such a rise in real estate taxes would incur significant additional expenditures for households. Their tax payments would increase in line with rising house prices and some would find themselves liquidity constrained as their cash flow situation remained unchanged and “you cannot eat bricks and mortar”. However, this is not a valid argument against a real estate tax as it concerns more a liquidity than a solvency issue. When house prices go up in one area, all homeowners become richer, including those who remain resident in their house. They become richer as the difference between the value of the house and their remaining mortgage debt (the so-called mortgage equity) on the house becomes larger. This allows them to borrow against the higher value of their house and mortgage finance their tax liability.

Box 3. Capital gains taxation of owner-occupied housing across OECD countries

In the Slovak Republic capital gains on housing are generally taxed at the time of realization within income taxation at the 19% flat tax rate. There is an important tax exemption, however, for capital gains incurred by owners who had their permanent residence in the apartment or house for at least two years immediately prior to the sale, except if it was used for business purposes. In general, exempting capital gains from taxation gives rise to tax distortions favouring capital gains assets. In the Slovak case, investments in owner-occupied housing are thus favoured over investments in financial assets (whose capital gains are taxed).

While it would be preferable to abolish such a distortion, designing an appropriate tax on capital gains on owner-occupied housing at the time of realization is not straightforward, as the main problem of such a tax is that it could lead to lock-in effects. For example, owners could be encouraged to hold on to their residence for a longer period than they would in the absence of this tax.¹ This would result in an inefficient use of the housing stock and would represent an obstacle to mobility. This is why the practice of exempting an owner's principal residence from capital gains taxation is quite wide spread and in fact the majority of OECD countries exempt capital gains on a primary residence under certain conditions, although the practical implementation of the exemption differs across countries (OECD, 2006). Several countries fully exempt personal residences occupied by the owner from capital gains taxation, except if the home is used for income-producing purposes (e.g. France, Italy, Greece, New Zealand). Spain exempts the capital gains from taxation if the owner is 65 years of age or older. Some countries have tests requiring that the taxpayer owned and resided in the home for a certain period of time in order to be exempted from taxation. These minimum periods of residence range from 1 year (e.g. Norway) up to 5 years (e.g. Poland). Other countries provide tax deferral relief by allowing the rolling over of the tax liability in case the gains are reinvested in a residence within a certain time (e.g., Sweden, Spain, and Hungary). In the case of Sweden, only two thirds of the capital gain is taxed. The only two OECD countries that tax capital gains without exemption are Japan and the US. However, in the Japanese case the applied tax rate declines with the holding period. The US grants exemption amounts of USD 250 000 (USD 500 000 for married persons filing a joint tax return) if the residence is owned and occupied by the taxpayer for more than two years over the prior five years.

1. Similarly, taxation of capital gains on a realization basis can also encourage the selling of loss-making assets to obtain tax relief on loss deductions.

Make construction more responsive to demand

In addition to reducing excess demand for housing, a flexible housing supply response helps to dampen house price cycles. In the Slovak Republic, it is noteworthy that the stock of housing is lower than

in most other comparable countries (Table 3), which is a consequence of the plunge in housing construction during the transition period when state subsidies for large-scale panel construction were abolished. The construction of new dwellings per 1 000 inhabitants dropped from 9.1 in 1980 to 1.2 in 1996 — a steeper decline than in many other transition economies. Partly as a response, the government set out in 1995 a *Concept of State Housing Policy* which shifted the responsibility to procure housing to the citizen, with the state and municipalities being responsible for ensuring suitable conditions (UNECE, 1999).

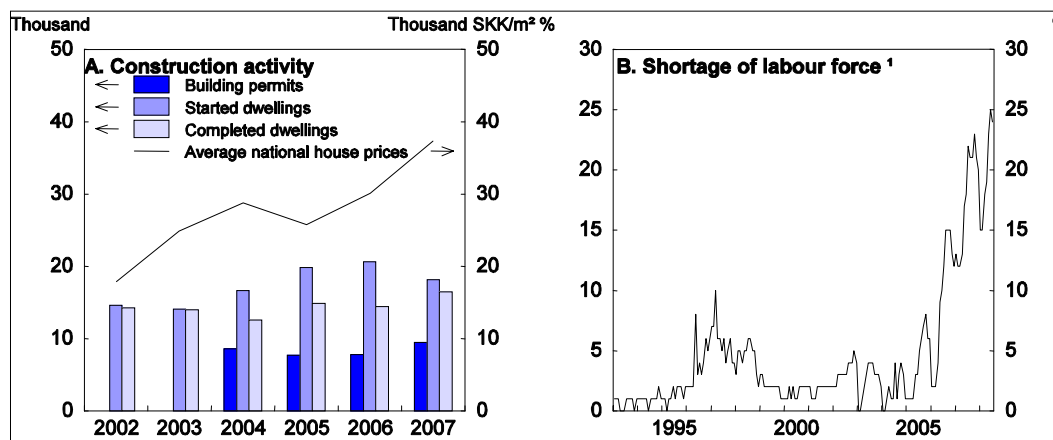
Table 3. Housing supply across countries

	Dwellings per 1 000 inhabitants	Year	Dwellings completed per 1 000 inhabitants	Year	Average number of persons per occupied dwelling	Year
Slovak Republic	361	2006	3.1	2007	3.2	2004
Poland	314	2002	2.8	2004	3.1	2004
Czech Republic	438	2005	3.2	2004	na	
Hungary	423	2005	4.3	2004	2.5	2004
Slovenia	408	2004	3.5	2004	2.4	2004
Germany	477	2004	3.4	2004	2.2	2005
France	513	2005	6.0	2004	2.3	2004
Ireland	400	2003	19.0	2004	2.9	2004
Austria	421	2004	5.2	2002	2.4	2004
Belgium	409	2004	4.4	2004	2.0	2004
Netherlands	422	2004	4.0	2004	2.4	2004
Sweden	486	2004	3.3	2004	2.1	2004

Source: Housing Statistics in the European Union 2005/06, Statistics Slovakia.

Even though construction activity has picked up since then, it has remained surprisingly low despite the steep increases in house prices and the widespread availability of housing finance. The number of completed dwellings per 1 000 inhabitants rose from 2.7 in 2006 to 3.1 in 2007 and thus still remains at the lower end of construction activity in most countries (in 2004; Table 3). In line with this observation is that there is no sign of a construction boom. The share of employees working in the construction sector has barely increased from 5% in 2002 to just below 6% in 2006. However, the number of building permits rose by a substantial 16% in 2007, suggesting that construction of new dwellings will rise soon, although with a long time lag (Figure 5, panel A). At the same time, the construction sector seems to have already reached its capacity limits with the increase in construction in 2007 (Figure 5, panel B). The share of building companies reporting that a lack of labour is limiting their activity has risen to 25% in mid-2008 from almost zero in 2006. This could explain why the number of house starts declined in 2007. There is evidence that building costs are quite high which could be a sign of lack of competition.¹³ Thus, the competition authorities should investigate constraints on competition and possible infringements of law in the construction sector to guard against anti-competitive behaviour, as recommended in previous *Surveys* (OECD, 2005a).

Figure 5. Construction activity and labour shortages



1. Percentage of construction companies reporting labour shortages as a limiting factor for their building activity.

Source: Statistical Office of the Slovak Republic; National Bank of Slovakia.

Regulatory procedures that absorb substantial amounts of time, such as land-use planning procedures might explain the lagged supply response (Beka, 2007). The basis for decisions about issuing new land for building at the local level is the urban development plan of a town or municipality. It identifies new residential areas as well as the required transport and technical infrastructure and needs to be approved by the town or municipal council. The binding part of the plan then constitutes a local law. The practical implementation of these regulations, however, is weak. Although the Building Act obliges every town and municipality with more than 2 000 inhabitants to have a town structure plan, only 68% have such an approved plan (Beka, 2007). This opens the door for arbitrariness, compounded by the reported practice of decisions deviating from existing plans. Potential builders might therefore refrain from planning in such an area for fear of a lack of legal security. It is also reported that town structure plans are out of date and do not reflect the needs of inhabitants and investors for new construction plans. For example, the plan for Bratislava had not been updated between 1993 and March 2007, limiting the supply response for the high demand in this area (Beka, 2007). Finally, land ownership is often not well established or is fragmented into lots too small to build on (NBS, 2008).

Taking account of the procedural difficulties of the current Building Act and its implementation, a new Building Act had been prepared under the sponsorship of the Ministry of Construction and Regional Development. Besides a new classification of buildings, the new Act aims to streamline procedures and to reduce the administrative burden on both developers and staff of building authorities, thereby helping to speed up the decision-making process. Currently, however, the new Act is stuck in the legislative process. The authorities should implement the simplified planning process swiftly. Making sure that the supply-side of housing reacts more rapidly and flexibly to the demand situation is important for dealing with the housing shortage and rising prices. Even a small increase in the dwelling stock would restrain house price growth quite significantly (Annex A1).

Reduce impediments for the build-up of a private rental market

The private rental market is almost non-existent

A defining feature of the Slovak housing market is a tenure structure which is very heavily concentrated on owner-occupied dwellings (Table 4). The share of rental dwellings is, at least according to official statistics, very small, and most of it is public social housing provided by municipalities. Although there is an unofficial rental market, no evidence is available about its size. The small rental sector is due to the huge transformations in the tenure structure in the post-communist era. At the beginning of the 1990s, owner-occupied dwellings made up just half of the tenure structure and public rental housing had a large share (Lux, 2006), but in 1991 all state-owned dwellings were transferred to municipal ownership.¹⁴ The privatization programme that started in 1993 allowed tenants in the municipal housing stock to purchase their home under very favourable conditions (right-to-buy legislation).¹⁵ Cooperative housing was also transformed into private ownership from 1992 onwards. In total, around 340 000 rental apartments and 270 000 cooperative apartments were privatized between 1992 and 2006. The changes in the tenure structure were most dramatic in the urban areas. For example, in Bratislava, the share of private dwelling ownership increased from 12% in 1991 to about 70% in 1998 (UNECE, 1999). The right-to-buy legislation is still in effect today, although it applies only to apartments built before 1998.¹⁶

Table 4. Occupied dwelling stock by tenure

	% of total				
	Rental	of which social rental dwellings in %	Owner-occupation	Cooperative	Other
Slovak Republic	5	80	85	7	3
Czech Republic (2001)	29	80	47	17	7
Poland	25	47	57	18	0
Hungary	6	48	93	na	1
Slovenia	9	73	84	na	7
Germany (2002)	55	12 (2005)	45	na	0
France	40	40 (2002)	57	0	3
Italy	19	24 (1989)	73	na	9
Spain	11	na	82	na	7
United Kingdom	31	65 (2001)	69	na	0

Note: Data refer to 2004 unless stated otherwise.

Source: Housing Statistics in the European Union 2005/06.

Significant changes in the tenure stock also occurred in several other transition economies such as Estonia and Hungary. In Poland and the Czech Republic, the process was less drastic as they did not pass a right-to-buy legislation but rather left it to the discretion of each municipality whether and under which conditions to privatize their housing stock (Lux, 2006). As a consequence, the rental housing share in these two countries, at around a quarter, is significantly higher.¹⁷

The lack of a rental market, in particular a private one, is problematic in at least two ways. *First*, rental markets support the regional mobility of labour, which will be very important to deal with the upcoming structural transformation of the economy (OECD, 2007a, 2005a). In this regard, it is noteworthy that regional mobility in the Slovak Republic is one of the lowest among OECD countries, resulting in the

large regional disparity of unemployment rates. In contrast to many other OECD countries, regional mobility in the Slovak Republic is very similar across age groups and between different groups of education attainment, suggesting that a common factor, such as the availability of rental housing or the relatively small stock of housing in general, is hindering mobility.¹⁸ In cross-country studies, owner occupation is found to be an obstacle to geographic labour mobility due to high transaction costs and potential capital losses. Living in social rental housing also reduces the probability to move, compared with living in private rental accommodation (OECD, 2005b). In particular if social housing is heavily subsidized and/or means-testing is only weakly enforced, tenants have a strong incentive to remain in the place as long as possible (lock-in effects). *Second*, a functioning rental market would also help to deal with sustained house price increases. Giving young families the choice to rent or to buy, rather than to effectively force them to buy, potentially reduces some of the demand coming from the prime-age population group.

Decisions about whether to buy or to rent are also influenced by socio-cultural factors that cannot easily be manipulated by policy. Thus, instead of actively supporting the build-up of a private rental segment, policymakers should aim to remove features of regulations or the tax and benefit system that are distorting the individual decisions. An important step in this direction would be the reduction of the fiscal incentives for owner-occupation, as outlined above. Furthermore, the right-to-buy policy should be phased out, or at least sales prices should be raised to market values. Regarding the rental market itself, two aspects warrant a closer look: tenant protection and the regulation of rents in the public sector. Although both are often primarily associated with lowering labour mobility, they may also provide disincentive for supplying new private rental housing.

Tenant protection should be relaxed

Tenant protection is very strong for rental contracts of indefinite period, although such contracts are becoming rarer over time. The tenant must be provided with alternative accommodation if the landlord terminates the contract, even if the landlord is entitled to terminate the lease and even if failure to pay the rent on time or other breaches of the lease agreement are the cause for termination. The tenant is not obliged to vacate until appropriate housing has been secured. These rules do not apply if the rental agreement is for a definite period, which is increasingly the norm. However, before 1989 all rental contracts were for an indefinite duration and it thus seems likely that still a fair share of tenants is protected by this law, in particular since rental contracts can be bequeathed from one generation to the next. As the current tenant protection can contribute to immobility and might also act as a deterrent for private rental supply, the government should consider easing the rules for indefinite contracts.

Scale back the public housing sector and expand housing allowances

Public housing support for low-income households is currently mainly provided through the public rental housing sector rather than through housing allowances. While public housing is open to households earning up to 76% of average wages (AW), only social assistance recipients (*i.e.* persons with incomes below 25% of AW) receive housing allowances.¹⁹ Rents in public housing are regulated and are around three times lower than in the private rental market (OECD, 2005a); in city centres differences are even more marked. Demand for public housing apartments is exceeding the supply as there is evidence of waiting lists for public rental apartments. In contrast, housing allowances play only a marginal role as only 2.1% of the population received them in 2007, fewer than in many other European countries (Table 5).

While a public housing sector certainly has an important function, the current set up in Slovakia could lead to work disincentives and impedes labour mobility. For example, since eligibility depends on income, once a person manages to obtain a public housing apartment his incentive to earn more is reduced for fear

he becomes ineligible (poverty trap). According to the law a person has to leave the apartment if he passes the income level for public housing, in case there is someone in line waiting for it. In practice, however, income controls are weak and households often remain in their apartments after they have surpassed the eligibility criteria (Lux, 2003). This lowers labour mobility and leads to an inefficient allocation of the housing stock as it crowds out private rentals. Even though public housing rental contracts from 2001 onwards are limited to three years with the prolongation depending on eligibility, tenants are often allowed to stay due to the lack of an alternative private rental apartment.

Similar distortions to labour mobility are created by the housing allowance system. *First*, allowances are not differentiated by region, setting serious disincentives for someone to move from a region with low housing costs to a region with high ones, which tend to be where job opportunities emerge. Moreover, the benefits are low and do not take actual housing costs into consideration, as is done in many other OECD countries (Table 5), despite the wide differences in rent levels.²⁰ *Second*, individuals lose eligibility when they take up a job which earns more than the subsistence minimum, as housing allowances are granted through social assistance. In contrast, several other OECD countries maintain housing cost support to low income households regardless of whether they work or not (OECD, 2007b).

Table 5. Housing allowances across OECD countries

	Maximum cash housing benefits in % of AW	Entitlement depends on actual rental cost	Share of households receiving housing allowances
Australia	6	Yes	
Austria	9	Yes	
Czech Republic	6	No	
Denmark	11	Yes	21
Finland	16	Yes	20
France	15	Yes	23
Germany	2	Yes	7
Greece	11		0.6
Iceland	10	Yes	
Ireland	20	Yes	5
Netherlands	8	Yes	14
New Zealand	6	Yes	
Poland	16	Yes	6.4
Slovak Republic	13	No	0.7
Sweden	11	Yes	6.3
United Kingdom	19	Yes	19

Note: Housing allowances are for rented accommodation. The maximum benefit amount relates to an unemployed couple with two children aged under six under the assumption that housing costs are 20% of the gross earnings of an average wage. Data relate to 2005 for the maximum amount of housing allowance and to 2004 for the share of households receiving those allowances (2003 for Slovak Republic, 2002 for Finland and the UK, 2001 for Germany).

Source: OECD (2007), Benefits and Wages.

Taken together, housing support needs to be reformed in order to remove the current disincentives to labour mobility and to make the support more targeted and effective. In particular, public housing provision should be made more targeted and housing allowances should be expanded. This would also help to expand the private segment of the rental market. The government should consider raising public housing rents closer to market levels; at least, tenants who no longer fulfil the eligibility criteria should pay market

rents. To this end, income controls should be better enforced. Such an approach is taken in Poland, for example, where households that live in public housing have to pay a free market rent when their income starts to exceed the ceiling for eligibility (checked every two years; Lux, 2003). Housing allowances should be made available to those who work (but who are poor) and the allowance should reflect local housing costs -- as envisaged within the *Modernization Programme Slovakia 21* – in order to encourage movement to rapidly growing (and high cost) areas of the country.

Box 4. Recommendations for housing policy

Avoid overheating of the housing market

- Continue to carefully monitor financial stability risks, in particular related to household borrowing. Tighten regulation, such as lowering the loan-to-value ratio, if there are indications of an overheating in the housing market. Ensure strong cross-border cooperation with foreign supervisors.

Remove obstacles to the expansion of a private rental market

- End the right-to-buy policy or make it less attractive by adjusting conditions closer to market prices.
- Increase the taxation of real estate by basing it on actual property prices and by raising the tax rate to neutral levels.
- Further reduce the subsidization of owner-occupied housing.
- Consider bringing the rent level in public housing apartments closer to market levels. At the very least, tenants who no longer fulfil the eligibility criteria should pay market rents.
- Consider raising housing allowances, make them more widely available (also to persons in work) and take into account regional differences in housing costs when setting the amounts.
- Consider phasing out the tenant protection for indefinite rental contracts.

Make housing supply more responsive to demand

- The competition authorities should investigate constraints on competition and possible infringements of law in the construction sector to guard against anti-competitive behaviour.
- Swiftly implement the planned new Building Act in order to simplify and speed up the land planning process.

NOTES

1. House prices in Bratislava were standing at around 1 665 /square metre (50 188 SKK/square metre), compared with a price level of 2 550 /square metre in Vienna (UniCredit Group: Residential Real Estate in CEE, May 2008).
2. Note that these series are indexed to be equal in 2003, so only growth rates, not levels, can be compared.
3. Further factors include the rapid growth of loans, various forms of housing support, low housing taxation and the low perception of risk in the housing market (NBS, 2007). In addition, the spending of black money on real estate prior to the euro cash changeover could be a demand factor. Anecdotal evidence suggests that such transactions took place prior to the euro cash changeover in the first-wave countries in 2002.
4. Estimation results should be interpreted with care as they are based on a panel with only a short time series dimension. Also, note that these series are indexed to be equal in 2003, so only growth rates, not levels, can be compared.
5. Mendoza and Terrones (2008) define a credit boom as an episode where credit to the private sector grows by more than during a typical business cycle expansion. They identify a boom if real credit *per capita* deviates by more than 1.75 standard deviations from its long-run trend.
6. However, Beka (2007) reports that products such as mortgages for 120% of the real estate price or the postponement of principal payments over the first years are starting to become available.
7. The share of foreign-currency loans in total household loans in 2005 was over 50% in the Baltic countries and around 25% in Poland and Hungary (Rychtárik and Licák, 2006). These are mostly denominated in EUR, but also in CHF. The motivation is to benefit from interest rate differentials at the cost of exposure to exchange rate fluctuations.
8. Under the single EU banking passport, foreign banks can open up branches in other countries that fall under the regulation of their home country supervisor. Subsidiaries of non-domestic banks, in contrast, are local corporate citizens and therefore subject to local licensing and prudential oversight. This regulatory framework has been in place since the Second Banking Directive in 1993 which dealt with banking market integration and cross-border supervision in the EU. It introduced the home-host principle, where home-country supervisors are responsible for supervising the institutions they licence (including their foreign branches, but not subsidiaries). Some exceptions exist, such as the host country being responsible for liquidity provision and oversight (OECD, 2008).
9. In July 2008, around half of outstanding loans given for housing purposes were *mortgage loans*. *Other housing loans*, which do not fall under the regulation of the Banking Act made up for one-third of outstanding loans and loans provided by building societies made up the rest.
10. Fabrizio *et al.* (2006) find that sounder banks are expanding more rapidly than weaker banks in the Slovak Republic.
11. As it is the land value that typically drives real estate prices, the building and apartment tax could remain at a fixed amount per square metre, possibly indexed to the construction price index.

12. This can be illustrated with a simple example: Consider someone owning and residing in a debt-free house. The house can be interpreted as a durable consumption good which delivers a stream of consumption in the form of housing services to the owner (similar to the rent that he would have to pay in case he were a tenant). If he sold the house and invested the money on the bond market at an interest rate of 5%, he would have to pay income tax of 19% on the interest income. For the net-investment income he would not be able to rent a house delivering similar housing services to the one he sold. Neutrality would require taxing the benefit associated with living in the house at a tax rate that makes the individual indifferent between renting and owning. In principle, such a taxation of imputed rent would need to vary with the interest rate level in capital markets.
13. The ratio of the comparative price level (relative to the EU15 based on PPPs) of the construction sector relative to the price level of total GDP at 1.04 is larger than for the euro area on average in 2006 (0.97).
14. The restitution process that was started in 1990 in order to return property previously nationalized after 1948 to its former owners or their heirs did have little effect on the tenure structure as it affected only a small share of the public housing stock (UNECE, 1999). This might be due to the fact that individual family housing had never been nationalized (in contrast to apartment houses), leaving most of the rural and village families owning their own houses (Faltan and Dodder, 1995).
15. Central legislation defined the general terms of privatizations, leaving municipalities with little influence about the scale and conditions of the sales. The privatization programme stated that the price had to be based on the purchasing price at the time of construction, depreciated by 2% per year, minus 30%. Prices were thus severely depressed, standing at less than 5% of the market value of the dwellings (UNECE, 1999).
16. Apartments built after 1998 can be sold by the municipality only after 30 years.
17. Lux (2006) distinguishes between fast privatisers (Romania, Estonia, Slovak Republic) and slow privatisers (Czech Republic and Poland). Bulgaria is a special case, as homeownership already accounted for 91% of the total housing stock at the start of transition.
18. Cross-country evidence suggests that the probability to move is higher for more educated households. Furthermore, the probability to move tends to decline with age (OECD, 2005b).
19. Access to public housing is granted to persons whose income is lower than three times the living minimum (amounting to 76% of AW), families with one person younger than 35 years and with monthly income lower than three times living the minimum as well as handicapped persons. Eligible for housing allowances, by contrast, are citizens which are in material need, defined as a state in which the income of the citizen or family does not achieve the subsistence minimum of SKK 4 580 (152 or 25% of AW). Thus, eligibility is much stricter than for public housing.
20. The amount of the housing allowance is SKK 1 490 (50 or 8% of AW) for one citizen and SKK 2 350 (78 or 13% of AW) if one citizen and jointly assessed natural persons are involved. The monthly rent for a 3-room rental apartment of lower standard in Bratislava amounts to around SKK 10 000 (332) compared with SKK 2 800 (93) in Prešov.

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ANNEX A1

WHAT DRIVES HOUSE PRICES IN THE SLOVAK REPUBLIC?

So far, little quantitative evidence is available on the determinants of house price developments in the Slovak Republic, in contrast to some other CEE countries (Égert and Mihaljek, 2007). One reason for the lack of econometric analysis is that house price data start only in 2002, limiting the possibility for time series analysis on a national basis. However, price data are available on a regional basis, allowing for panel data analysis in order to obtain evidence on the fundamental determinants of house price changes (Meen, 2001; Cameron *et al.*, 2006).

We estimate a variant of the standard model presented in Cameron *et al.* (2006), where real house prices are a function of the relative supply of houses (the dwelling stock *per capita*), disposable income *per capita* and the real interest rate. Further, to capture the importance of first-time buyers in the housing market, we included the prime age (age group 25-44) population group, either as denominator for the dwelling stock or as a share of total population as an additional explanatory variable (Rae and Van den Noord, 2006). The dataset comprises time series for all 8 regions of the Slovak Republic on an annual basis, covering the period 2002 to 2007. House prices are available at quarterly frequency only from 2005 onwards and we convert those into annual frequency using averages. The dwelling stock, household incomes and population are only available until 2006. For the population series, data for 2007 were obtained by linear extrapolation. The dwelling stock series was extrapolated using 2007 data on completed dwellings and disposable income *per capita* was extrapolated using 2007 data on GDP per working age population.

The following baseline specification was estimated:

$$hpr_{r,t} = \alpha_r + \beta_1 irs_t + \beta_2 inc_pop_{r,t-1} + \beta_3 hs_pop_{r,t} + \beta_4 pag_pop_{r,t} + \varepsilon_{r,t}$$

where *hpr* denotes real house prices (nominal prices deflated by consumer prices), *irs* denotes a short-term real interest rate which is equal across regions (deflated with the private consumption deflator; a short term interest rate was used to take account of the high share of new loans with variable interest rate or an initial interest rate fixation period of up to one year), *inc_pop* denotes real *per capita* income (deflated by consumer prices), *hs_pop* denotes the ratio of the number of dwellings over total population and *pag_pop* is defined as the ratio of the prime age population over total population.¹ All variables except the interest rate are in logarithms. The subscripts *r* and *t* refer to the region and the period, respectively.

In subsequent specifications, *hs_pop* and *pag_pop* were replaced with *hs_pag* (or its first lag), which denotes the dwelling stock divided by the prime age population. A Wald test of restricting *hs_pop* to the opposite sign of *pag_pop* did not reject the null hypothesis. This indicates that using both *hs_pop* and *pag_pop* is equivalent to using only *hs_pag* in the estimation. To account for potential endogeneity of the dwelling stock and population, the equations are estimated by two-stage generalized least squares, using lagged variables as instruments for both variables. As some of the variables are non-stationary and cointegration tests provided ambiguous result due to the short time series dimension, the model was estimated both in differences and in levels.

The parameter estimates of the regression in levels and first differences are reported in Table A1.1. All variables show the expected signs. The interest rate semi-elasticity is similar to Rae and Van den Noord (2006), who find a coefficient of around -2 for Ireland using a similar approach (a 1 percentage point decrease in real interest rates raises house prices by 2%). The estimated income elasticities of between 2½ and 3½ are somewhat higher than their finding for Ireland. An increase in the dwelling stock *per capita* is estimated to dampen house prices significantly, though the size of the coefficient varies considerably across specifications.

The coefficients of *irs* and *inc_pop* are highly significant in all three specifications in levels and first differences. As the coefficient of *hs_pag* is highly significant in specifications (2) and (3), these are the preferred specifications. While the results proved to be relatively robust across the different specifications presented in Table A1.1, they should be interpreted with caution due to the short time series dimension; different lag structures, for example, did not produce meaningful parameter estimates.

Table A1. House price regression: Parameter estimates

$hpr_{r,t}$	(1)	(2)	(3)	$\Delta hpr_{r,t}$	(4)	(5)	(6)
irs_t	-1.63*** (0.58)	-1.69*** (0.53)	-3.18*** (0.79)	Δirs_t	-2.21*** (0.54)	-2.06*** (0.19)	-2.38*** (0.84)
$inc_pop_{r,t-1}$	2.73*** (0.48)	2.92*** (0.33)	2.41*** (0.45)	$\Delta inc_pop_{r,t-1}$	3.48*** (0.77)	3.38*** (0.21)	2.79*** (0.36)
$hs_pop_{r,t}$	-17.18 (10.73)			$\Delta hs_pop_{r,t}$	-39.13 (38.09)		
$pag_pop_{r,t}$	18.53** (9.05)			$\Delta pag_pop_{r,t}$	38.29 (30.76)		
$hs_pag_{r,t}$		-22.26*** (5.47)		$\Delta hs_pag_{r,t}$		-34.17*** (5.57)	
$hs_pag_{r,t-1}$			-16.97*** (5.38)	$\Delta hs_pag_{r,t-1}$			-6.76 (10.92)
$adjR^2$	0.86	0.86	0.87	$adjR^2$	0.56	0.59	0.52

Note: Specifications (1), (2), (4) and (5) are estimated by Two-Stage Least Squares using the lagged dwelling stock and the prime-age population as instruments. Specifications (3) and (6) do not use instruments as the dwelling stock enters as a lagged variable. Standard errors are in parentheses and ***, **, * denote significance at the 1%, 5% and 10% level. Significance levels and adj. R² are computed using a seemingly unrelated regression weighting matrix.

NOTE

- House prices are average offer prices in SKK per square metre from the National Bank of Slovakia, which are based on data from the National Association of Real Estate Offices of Slovakia (NARKS). See Cár (2006) for a discussion of the data. Real *per capita* income is based on net money income (NMI; in SKK *per capita* per year, taken from the regional database of Statistics Slovakia. Data are available for the period 2001-06 and 2007 data are obtained by extrapolation using coefficients of a regression of the regional NMI on national GDP/working age population (from the *OECD Economic Outlook Database*). The dwelling stock is the total number of dwellings as of 31 December, taken from the urban and municipal database of Statistics Slovakia. Data are available from 2001-06 and 2007 data are calculated using regional statistics on completed dwelling construction (the yearly difference of the dwelling stock is regressed on the data of completed dwelling construction for each region and the obtained coefficients are used to extrapolate the 2007 dwelling stock from the number of completed dwellings of 2007). The prime-age group is the population between 25 and 44 years and 2007 data were obtained by linear extrapolation.

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