

## Country Paper Lithuania

### I. Macroeconomic Characteristics

As it was presented in the Memorandum of Economic Policies of the Government and Bank of Lithuania for the period July 1, 2001-December 31, 2002, **during the past eighteen months, Lithuania has made significant progress in restoring macroeconomic stability**, following severe disruptions in 1998-99 in the wake of the Russian financial crisis. Decisive steps were undertaken with the support of a stand-by arrangement with the IMF, treated as precautionary, including the reduction of the general government fiscal deficit from 8.5 percent of GDP in 1999 to 2.8 percent in 2000, with a deficit of 1.4 percent of GDP planned for 2001. Exports grew by more than 25 percent in 2000, strongly outpacing the recovery of imports, so that the current account deficit declined from 11.2 percent of GDP in 1999 to 6.0 percent in 2000. Growth resumed in 2000, with real GDP increasing by 3.3 percent, as compared with a decline of 3.9 percent in 1999, and inflation remained subdued, with the average consumer price index (CPI) increasing by 1 percent on an annual basis. All of these positive developments boosted confidence in the Lithuanian economy and its currency board arrangement (CBA), allowing for continued access to international capital markets at increasingly favorable rates. (Table 1)

Table 1

Main economic indicators in 1994-2001

	1994	1995	1996	1997	1998	1999	2000	2001 <sup>1)</sup>
Gross domestic product at current prices, mill. litas	16904	24103	31569	38340	42990	42655	45148	47958
as compared to previous year at constant prices of 1995 growth, drop (-),%	-9.8	3.3	4.7	7.3	5.1	-3.9	3.8	5.9
GDP in private sector, %	60	65	68	70	70	70	72	
Population, beginning of year, thous. <sup>2)</sup>	3671.3	3643.0	3615.2	3588.0	3562.3	3536.4	3512.1	3487.0
Natural increase, thous.	-4.1	-4.1	-3.8	-3.3	-3.7	-3.6	-4.8	-8.9
Net migration, thous. <sup>2)</sup>	-22.5	-22.8	-22.4	-21.4	-21.0	-20.3	-20.3	-2.6
Employed, thous.	1675.0	1643.6	1659.0	1669.2	1656.1	1647.5	1586.0	1521.8
in public sector, %	39	36	35	33	32	32	31	30
in private sector, %	61	64	65	67	68	68	69	70
Unemployed, thous. <sup>3)</sup>	65.7	109.0	124.5	104.5	113.7	148.7	204.9	223.5
Unemployment rate, % <sup>3)</sup>	3.8	6.1	7.1	5.9	6.4	8.4	11.5	12.5
Number of unemployed having received unemployment benefit, thous. <sup>3)</sup>	18.2	34.1	35.6	21.9	19.4	24.7	32.3	31.6
Average gross wages and salaries of employees, LTL	325	481	618	778	930	987	971	991
Indices of real wages and salaries of employees in national economy (previous year = 100)	114.2	103.5	103.3	113.4	112.8	104.9	94.9	100.6
Base earnings, LTL	-	71	85	95	104	105	105	105
Average retirement pension (non-working pensioners), LTL	113	151	192	243	288	310	313	318

Inflation (compared to December of the previous year), %	45.1	35.7	13.1	8.4	2.4	0.3	1.4	2.0
Construction cost indices (previous year = 100)	184.0	125.4	116.8	109.8	105.5	102.2	100.9	99.5
Construction cost indices (December of previous year = 100)	146.6	119.9	112.5	107.7	104.2	99.6	103.0	97.8
Volume of own-account work carried out by construction enterprises and partnerships at current prices, mill. LTL	1754	2209	2282	2860	3489	3262	2641	

<sup>1)</sup> Provisional data.

<sup>2)</sup> Data a revised according to provisional results of 6 April 2001 Population Census.

3 475.6 thous. population - as of January 1, 2002.

<sup>3)</sup> Data provided by the National Labour Exchange.

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**Substantial progress was made during 2000 and the first half of 2001 in implementing structural reforms, essential to an efficiently functioning market economy**, with the support of a Structural Adjustment Loan (SAL) from the World Bank. Particularly important steps included: an initiation of the pension reform and strengthening of the finances of the state Social Insurance Fund (SoDra); significant fiscal structural reforms, including passage of the Organic Budget Law and steps to set up a Reserve Stabilization Fund (RSF) for the investment of privatization proceeds; important reforms of the Treasury system; a strengthening of the finances of Lithuanian Power (LPC) and Lithuanian Gas (LG) in advance of their future privatization; a rationalization of agricultural subsidies and support programs; passage of new bankruptcy and company restructuring laws, as well as amendments to the labor code to render the labor market more flexible; and a major breakthrough in privatization efforts, with the sale of an additional 25 percent stake in Lithuanian Telecoms via a public offering in June 2000, and of the Savings Bank and the Lithuanian Shipping Company (LISCO) in the first half of 2001 to major foreign investors via competitive tenders. At the same time, trade was liberalized further, with the accession to the WTO ratified in April 2001, while major progress towards European Union (EU) accession was registered.

**In spite of this progress, some areas of weakness remain.** Registered unemployment increased from 10.0 percent at end-1999 to 12.1 percent in June 2001, and social safety nets need to be reinforced. Further improvements to the business environment and greater labor market flexibility are needed, in order to promote higher rates of growth, domestic and foreign investment, output, and employment creation. In fact, investment slumped from 26.5 percent of GDP in 1997 to just over 20 percent of GDP in 2000, and credit growth was sluggish during much of 2000. Insufficient progress was made in restructuring the electricity and gas sectors, leading to delays in privatization. Expenditure arrears of the central government, which amounted to LTL 440 million at end-1999, were reduced to LTL 19 million by end-March 2001, but not fully eliminated as targeted under the previous stand-by arrangement, while municipal arrears increased. Improvements in health and education are needed, and the finances of municipalities and the Health Insurance Fund (HIF) should be strengthened.

## Macroeconomic Outlook

**The macroeconomic outlook for 2001-02 envisages a continued recovery of growth, low inflation, and the maintenance of the external current account deficit at a sustainable level.** Economic growth is projected to accelerate from about 3.6 percent in 2001 to 4.7 percent in 2002, underpinned by a recovery of domestic demand and continued good export performance. Average inflation is projected at around 1 percent in 2001 and 3 percent in 2002. The external current account deficit is projected to widen slightly to 6.7 percent of GDP in 2001, reflecting the pick-up of domestic demand from 2001, and to start to narrow again in 2002, due to sustained export growth, enhanced productivity, a more business-oriented regulatory environment and a deepening of structural reforms. Foreign direct investment is projected to increase significantly in 2001-02, as several major privatization projects are to be completed during these years. Access to capital markets on favorable terms is expected to continue, and external debt ratios would remain stable.

**Over the medium term, macroeconomic policies will aim at boosting real growth rates to about 5-6 percent a year, maintaining inflation at around 2-3 percent, consistent with faster productivity growth than in trading partners, and gradually reducing the external current account deficit to below 6 percent of GDP by 2005.** This projected path would be underpinned by further fiscal consolidation, reaching a balanced budget position (excluding the cost of the pension reform) at the time of EU accession, assumed to occur in 2004, as well as further improvement in Lithuania's external competitiveness, brought about by structural reforms. A sizable share of EU-related investment would be financed by EU transfers, and about half of the external current account deficit would be financed by FDI inflows, contributing to a gradual reduction of external indebtedness and a strengthening of Lithuania's external position.

## Population

**As of 6 April 2001 the population of the Republic of Lithuania totalled 3 483 972 usual resident population, of which 2 332 098 in urban areas and 1 151 874 in rural areas. Specific weight of Lithuanians made up 83.5 per cent; Roman Catholics accounted for 79 per cent of Lithuania's population**

Statistics Lithuania finished processing the 2001 Total Population and Housing Census data, on which basis the database was formed enabling to release final census results.

The number and composition of urban and rural population based on the data of the last Population censuses are presented in Table 2.

**Table 2**

### Changes in the Number of Population and its Distribution

Census year	Number of population			Population, %		Population density per sq. km
	total	urban	rural	urban	rural	
1989	3 674 802	2 486 832	1 187 970	67.7	32.3	56.6
2001	3 483 972	2 332 098	1 151 874	66.9	33.1	53.4

The number of population between the Population census conducted in 1989 and that in 2001 contracted by 190.8 thous.: the natural increase from 1989 till 6 April 2001 totalled 33.7 thous. (births accounted for 546.1 thous., deaths made up 512.4 thous.), negative net migration equalled 224.5 thous. The number of Lithuania's population in 1966 exceeded three millions and continued to grow till 1992. Later, due to migration and natural decrease, the number of population started contracting. The number of population as compared with 1989 declined by 5 per cent.

The specific weight of Lithuania's urban and rural population equalled the level of 1970. The bulk of urban population (68.5 per cent) was observed in 1991. Urban population has displayed a down-

warding trend since 1992; while the number rural population has been rising. Comparing the data of the latest Population census with those of 1989 one can see the number of the population falling by 155 thous. and the number of rural population declining by 36 thous. The changes were influenced by the shifted migration directions. The main migration direction “from country to town” showed the different trend: the level of urban population emigrating to foreign countries augmented, while certain share of population moved for living to rural areas. However, the specific weight of urban and rural population remained stable.

Over the twelve years the number of population in all biggest cities decreased: the most notable fall was observed in the Kaunas town, the opposite situation was in the Panevezys town (Table 3). However, concentration of urban population in the biggest cities has not shown significant changes: according to the results of the latest censuses, 59 per cent of urban population fell per five biggest cities.

**Table 3**

**The Number of Population in the Biggest Cities**

	2001	1989	Changes in the number of population against 1989, %
Vilnius	542 287	576 747	-6
Kaunas	378 943	418 087	-9
Klaipeda	192 954	202 929	-5
Siauliai	133 883	145 629	-8
Panevezys	119 749	126 483	-5

**Table 4**

**Changes in the Number of Population by Sex**

Census year	Number of population			Specific weight in total number of population, %	
	total	males	Females	males	females
1989	3 674 802	1 738 953	1 935 849	47.3	52.7
2001	3 483 972	1 629 148	1 854 824	46.8	53.2

Population structure by sex showed the most distinct disbalance after the Second World War. Later women’s ratio against men slightly improved, while since 1993 it started worsening again. In 1989 the number of females per 1000 males equalled 1113, whereas that in 2001 totalled 1139.

### **Monetary Household Income**

*Average monetary household income makes up about 901 to 1,000 litas per month.* In order to evaluate the level of household income and the composition of income, households were divided into deciles (see Table 5). *The levels of household monetary income differ considerably by income groups.* Monetary income of ten percent of the poorest households totals 251 to 300 litas, while that of ten percent of the richest households ranges between 3,001 and 5,000 litas, so it is ten times higher. Monetary income of households in the first decile comprises about 30 percent of the average income, while that in the tenth decile is more than three times higher than the average.

*The youngest households, consisting of persons under age 30, self-employed households, households without children or with one child under age 16 as well as households living in large cities receive the highest monetary income. The lowest income was reported by households consisting of persons aged 60 and over, pensioners, disables individuals and other persons unable to work, jobless persons, households with three or more children under age 16 and rural households.*

**Table 5**

Monetary income (average <sup>1</sup> )	Monetary household income after tax in deciles									
	I	II	III	IV	V	VI	VII	VIII	IX	X
Total income	251-300	451-500	601-700	801-900	901-1,000	1,001-1,250	1,251-1,500	1,751-2,000	2,001-2,500	3,001 - 5,000
Labour income (wages)	Up to 50	151-200	351-400	351-400	451-500	801-900	901-1,000	1,251-1,500	1,751-2,000	2,001 - 2,500
Non-wage labour income	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	101-150
Income from ownership	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50
Pensions and benefits	201-250	201-250	201-250	251-300	201-250	51-100	51-100	51-100	101-150	Up to 50
Other income	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	Up to 50	51-100

It is important to note that, *in comparing the level of household income by regions, the biggest differences are observed from the eight decile and upwards*. Households living in the Vilnius, Kaunas and Marijampole regions and representing the eight decile receive from 2,001 to 2,500 litas of monetary income per month, while those in other regions reported from 1,3001 to 1,450 litas.

## II. Housing sector Overview

After proclaiming its independence from the Soviet Union, Lithuanians focussed on the restitution of Lithuania as a state which occurred on March 11, 1990. The newly formed Government of Lithuania introduced economic reforms to facilitate the transition from a planned economy to a market-driven economy. As a result, the country's housing sector underwent mass privatization of public housing in the early '90s<sup>2</sup>. Prior to 1990, the majority of the housing stock (i.e. over 70 per cent) was under the tenure of public ownership administered by the state. After 1994, private ownership accounted for 87 per cent of the housing stock. Furthermore, the Government restructured many legal, financial and institutional entities to create an infrastructure that would support the housing sector.

As the Government of Lithuania continues its pursuit of adopting economic reforms to facilitate the transition to a market-driven economy, the country's housing sector continues to evolve. New organisations are being created to meet the needs of developing housing markets such private real estate companies, mortgage brokers, the State Land Cadastre and Register, the Central Mortgage Office, etc.

<sup>1</sup> The table presents average income indicators. The average indicators are calculated on the basis of survey respondents' codified answers, which makes it possible to present them in intervals. Given that the average indicators are used, the decile figures increase in unequal increments. The average and the median are the same.

<sup>2</sup> Housing and its Environment in Lithuania, National Report for the UN Conference on Human Settlements HABITAT II, Vilnius 1998

## Housing Supply Availability

### Dwelling Type:

According to Statistics Lithuania, at the end of 2001 the country's housing stock consisted of 1,291,727 dwelling units. The majority of dwellings, 57.1 per cent (i.e. 738,176 units) are found in private multi-family structures (3 and more dwellings units per buildings) while 37.3 per cent of dwellings, 481,548 units, are in private single-family structures (i.e. 1-2 dwelling units per building). The remaining 5.5 per cent of the housing stock is split between legal entities (i.e. housing co-operatives) with 40,360 units and public housing with 31,643 units, representing 3.1 per cent and 2.4 per cent respectively (see Figure 1). Note that former housing co-operatives and enterprises/organizations are legal (juridical) persons. Co-operatives do not exist any more; homeowners associations are replacing them.

The number of dwellings found in each of Lithuania's ten counties varies. Two counties have the dominant supply of dwellings, the county of Vilnius with 326,637 units and the county of Kaunas with 259,367 units; these two areas possess 45.4 per cent of the national dwelling stock.

When examining the housing choice available in Lithuania's seven major municipalities, on average 80.8 per cent of dwellings are found in private multi-family structures. Private single-family structures account for only 10.8 per cent of the dwelling supply in the seven major municipalities characterized by a strong concentration of dwellings in private multi-family structures.

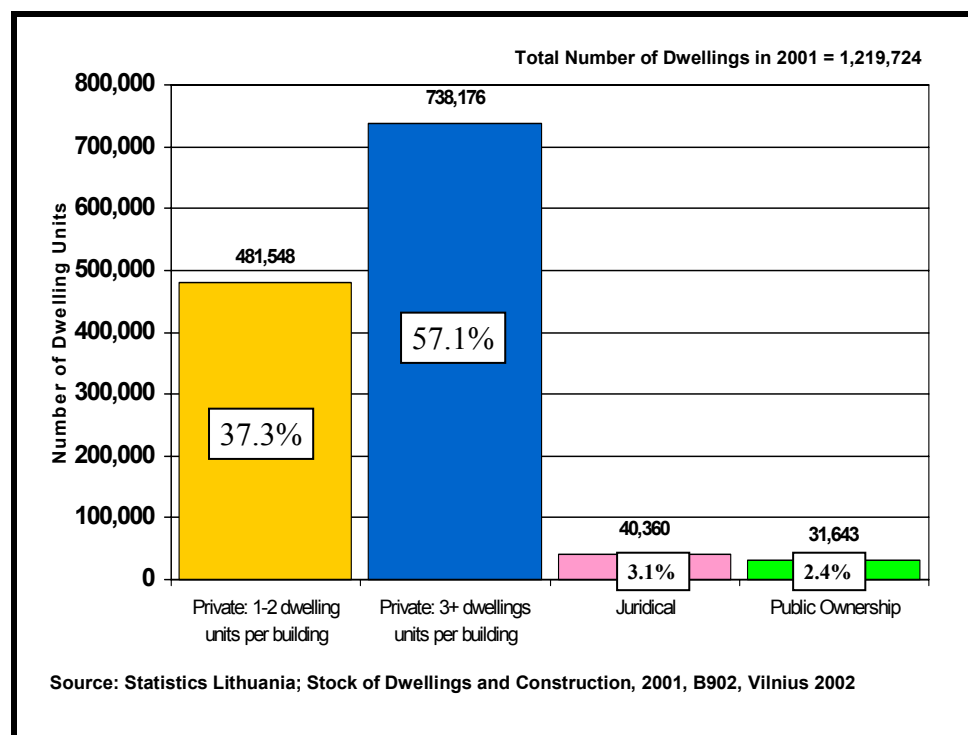


Figure 1

## New Home Market

Since 1990, the number of newly completed residential dwellings has progressively declined. Over the span of twelve years, the number of new dwellings completed has dropped from 22,100 dwelling units in 1990 to 3,785 dwelling units in 2001 (see Table 6). Most of the decrease in residential construction activity is due to a drop in multi-family construction (see Figure 2). In 2001, residential construction activity fell by 13.3 per cent, both single-family construction and multi-family construction recorded drops in activity, by 6.8 per cent and 18.5 per cent respectively when compared to 2000 (see Figures 3). In addition, the composition of residential construction between single-family buildings and multi-family buildings has changed substantially from 10:90 in 1990 to 48:52 in 2001.

**Table 6**

Residential Construction, 1991 - 2001, (Dwellings Completed)												
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*
1-2 dwelling buildings	2,300	1,200	1,700	1,400	1,800	2,232	2,343	2,386	1,890	1,674	1,930	1,798
3 + dwelling buildings	19,800	14,100	11,000	6,800	5,100	3,368	3,281	3,176	2,286	2,690	2,437	1,987
All residential dwellings	22,100	15,300	12,700	8,200	6,900	5,600	5,624	5,562	4,176	4,364	4,367	3,785
(Distribution of dwellings completed for specific year)												
1-2 dwelling buildings	10.4%	7.8%	13.4%	17.1%	26.1%	39.9%	41.7%	42.9%	45.3%	38.4%	44.2%	47.5%
3 + dwelling buildings	89.6%	92.2%	86.6%	82.9%	73.9%	60.1%	58.3%	57.1%	54.7%	61.6%	55.8%	52.5%
Growth Rate (Yr/Yr change)												
1-2 dwelling buildings		-47.8%	41.7%	-17.6%	28.6%	24.0%	5.0%	1.8%	-20.8%	-11.4%	15.3%	-6.8%
3 + dwelling buildings		-28.8%	-22.0%	-38.2%	-25.0%	-34.0%	-2.6%	-3.2%	-28.0%	17.7%	-9.4%	18.5%
All residential dwellings		-30.8%	-17.0%	-35.4%	-15.9%	-18.8%	0.4%	-1.1%	-24.9%	4.5%	0.1%	13.3%
Source: Statistics Lithuania, Statistical Yearbook of Lithuania 2001; * Statistics Lithuania; Stock of Dwellings and Construction, 2001, B902, Vilnius 2002												

An indicator that helps describe the rate of new home construction over time is the number of new dwellings completed per thousand inhabitants. In 2001, there were 3,785 new dwellings completed giving a rate of 1.09 new dwellings completed per 1000 inhabitants (see Table 7). Since 1990, the rate of new construction has progressively fallen from 5.96 new dwellings completed per thousand inhabitants to its lowest level of 1.09 in 2001. This decrease in residential construction is attributed to a drop in state-sponsored construction. The Private sector construction has not compensated for the sharp decrease in government-sponsored construction .

**Table 7**

New Home Construction (in Dwellings Completed)							
	1995	1996	1997	1998	1999	2000	2001 *
All Building Types	5600	5624	5562	4176	4364	4463	3785
1-2 dwelling buildings	2232	2343	2389	1890	1674	1904	1798
3+ dwelling buildings	3368	3281	3173	2160	2580	2559	1987
Per 1000 inhabitants	1.54	1.55	1.55	1.17	1.23	1.27	1.09
Average floor space per dwelling, m <sup>2</sup>							
All Building Types	101	112.2	109.2	119.8	120.7	113.5	101.8
1-2 dwelling buildings	160	180	166	172	174.6	168.6	142.3
3+ dwelling buildings	62	64	66	77	87.6	72.5	65.2

**Source:** Statistics Lithuania, Statistical Yearbook of Lithuania 2001; \* Statistics Lithuania; Stock of Dwellings and Construction, 2001, B902, Vilnius 2002

According to the Lithuanian Builders Association, there are approximately 700 operational building companies in Lithuania, 130 builders are registered with the Association. There is a large amount of available capacity in the industry to respond to an increase in demand for residential construction. For example, the Lithuanian Builders Association estimates that the building industry could build 20,000 dwelling units a year.



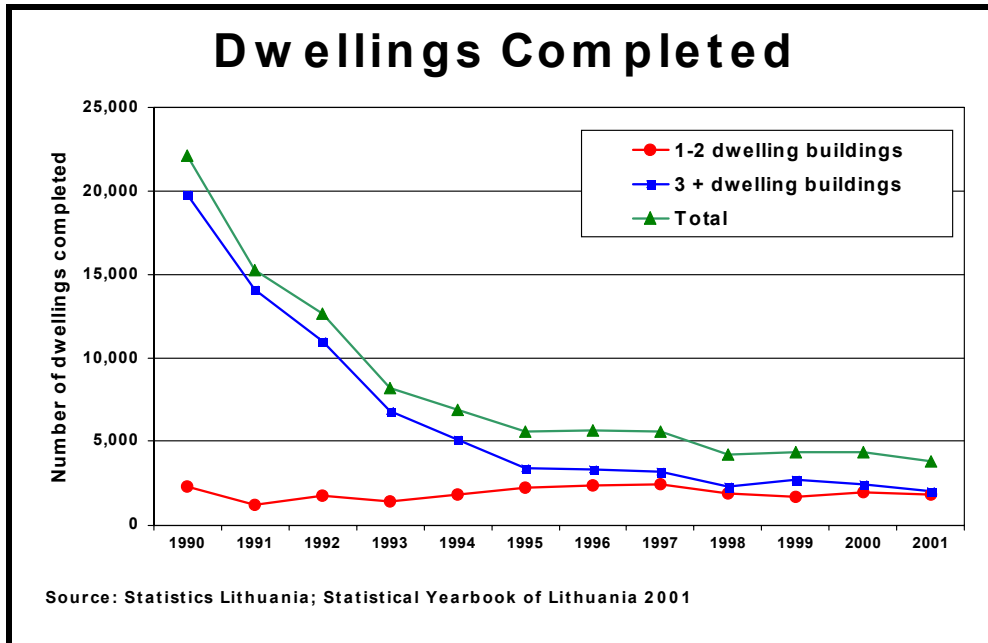


Figure2

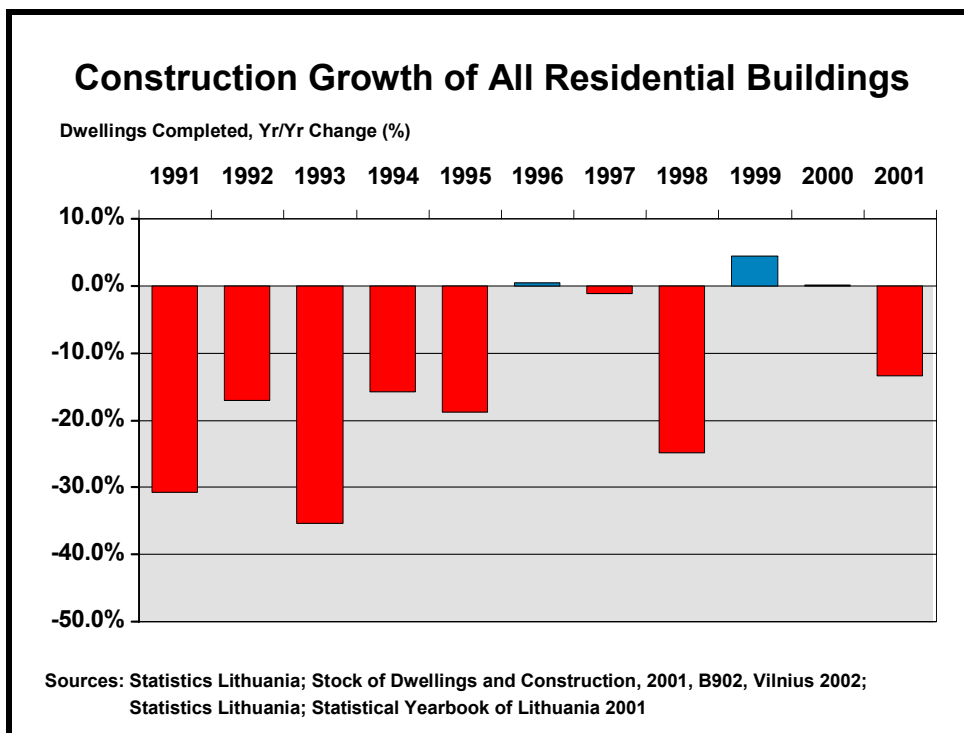


Figure 3

The size of new dwelling completed has varied over the years. For example, in 1995, the average size of a dwelling completed in new multi-family building was 62 m<sup>2</sup> while the average size of a dwelling completed in a 1-2 family structure was 160 m<sup>2</sup>. In 2001, the average size of a dwelling completed in new multi-family building was 65.2 m<sup>2</sup> while the average size of a dwelling completed in a 1-2 family structure was 142.3 m<sup>2</sup>. The average size of new dwellings completed was the biggest in 1999, with

174.6 m<sup>2</sup> for dwellings in multi-family structure and 87.6 m<sup>2</sup> for dwellings in 1-2 family structures. In general, the size of newly completed dwellings in multi-family structures is 30 per cent bigger than its counterpart found in the existing housing stock, 65 m<sup>2</sup> compared to 50 m<sup>2</sup>. Furthermore, the size of newly completed dwelling of 1-2 family structures is 73 per cent bigger than the average, 142 m<sup>2</sup> compared to 82 m<sup>2</sup>.

Although information on prices is difficult to obtain for many regions of Lithuania, data provided by Ober Haus Real Estate Company reveals that the price of new homes vary substantially depending on their location, finishing and size. For example, in 2001, a new house of 120 m<sup>2</sup> with no finishing would sell for approximately 384,000 litas in the City Centre of Vilnius, 336,000 litas in one of Vilnius prestigious suburbs, 312,000 litas in the City of Klaipeda, and 96,000 litas in the City of Kaunas. On the other hand, a new house of 200 m<sup>2</sup> with complete finishing would sell for approximately 800,000 litas in the City Centre of Vilnius, 720,000 litas in one of Vilnius prestigious suburbs, 720,000 litas in the City of Klaipeda, 640,000 litas in the City Centre of Kaunas, and 360,000 litas in the suburbs of Kaunas (see Table 8).

**Table 8**

Sample Resale Prices of Houses in Lithuania, 2002 (in Litass)						
	New (120-200 m <sup>2</sup> )		Renovated (120- 180 m <sup>2</sup> )		Unrenovated (120-180 m <sup>2</sup> )	
	Min.	Max.	Min.	Max.	Min.	Max.
Vilnius City Center, Old Town	384,089	799,668	384,089	719,702	191,838	431,945
Vilnius Prestigious Suburbs (Naujamiestis, Antakainis, Zverynas)	336,026	720,254	311,995	648,229	144,189	359,851
Kaunas City Center, Old Town	96,126	640,149	--	--	--	--
Kaunas Suburbs	60,079	359,782	--	--	--	--
Klaipeda Suburbs	311,995	720,254	263,932	576,134	167,806	395,898

Source: Ober Haus Real Estate Company, July 2002

### **Land Development for Residential Use**

In the existing databases of Land Services, there is no distinction between raw and serviced land. It is not known how many square meters of land are available for residential construction, just general areas are identified. In general, the development of land for residential construction, also known as 'state owned land', is at the disposal of ten counties, which can transfer the land rights to the municipalities for their own use (e.g. development of business centers, municipal housing and etc). Land can be transferred in three ways: firstly, by a specialized decree by the Government to give the usage rights to the Municipalities to fulfill their functions. The land can than be bought by private developers from the state only through auctions. Secondly, developers buy land from private persons, whose ownership rights have been restituted, as part of the land reform. This is a popular choice for developers. It is noteworthy to mention that the restituted land is usually considered to be for agricultural use, and it is up to the Land Service and the Municipality to change its status. Thirdly, the Municipality has a General Plan. Upon completion of the purchase transaction, the buyer prepares a detailed plan, which is integrated into the

General Plan. The application is submitted to the Municipality using defined procedures. This process takes six months and is considered costly<sup>3</sup>.

According to Vilnius City Municipality, the responsibility for residential land infrastructure lies with the municipalities. However, it is the developer, builder, and owner that finance the infrastructure. The cost of developing the infrastructure is normally included in the price of dwellings. This practice would explain the higher prices in the center of Vilnius due to the heritage and preservation regulations that make it costly to develop in some areas<sup>4</sup>. In addition, when rural land is turned into residential land lots, it is up to the developer/builder to prepare new plans, incorporate them into Territorial Development Plans and develop the areas. Territorial Development Plans exist in Vilnius, Klaipeda, partly in Kaunas, Panevezys and some other smaller municipalities.

## **Current Housing Demand**

### **High level of home-ownership and small proportion of renters**

Lithuania has one of the highest levels of housing ownership compared to countries in both Europe and North America. The private sector owns 97,6 % of the housing stock compared to 2.4 % ownership by the public sector (social housing), the latter mainly owned and operated by municipalities. In the private sector, a small proportion of the housing stock (3.1%) is owned by legal entities, which can be either profit or non-profit organizations such as housing cooperatives.

According to Statistics Lithuania, 87% of households live in a dwelling they own, which could define them as home-owners: 8% live in dwellings owned by friends or relatives, and 3 % rent from a private person. The final 3% live in buildings that are either state or organization owned. It means that private person could own more than one dwelling and rent one of them. Similarly, since the Free Market Institute's Household Study 2002 shows that 82.6% of households live in dwelling which belong to them. All the other households could be considered as renters; of these, 10.5% live in a dwelling owned by other natural persons, 1.7 % rent from an enterprise or a legal enterprise, and 3.8 % rent from the State or municipality. A small group does not know who owns their current living place.

According to these facts, homeowners represent between 82.6 % to 87 % of all households in Lithuania. Renters are divided among those in social housing (3% to 3.8 %), those sharing a dwelling with friends or relatives, or renting from a private person (8 % to 10.5%). This last group appears more like an informal rental market.

In addition, homeownership is lower for young generations (60.4%), households with one child (77%), households living in main cities (79.4%), unmarried households (77.6%) and wage earners (79.4%).

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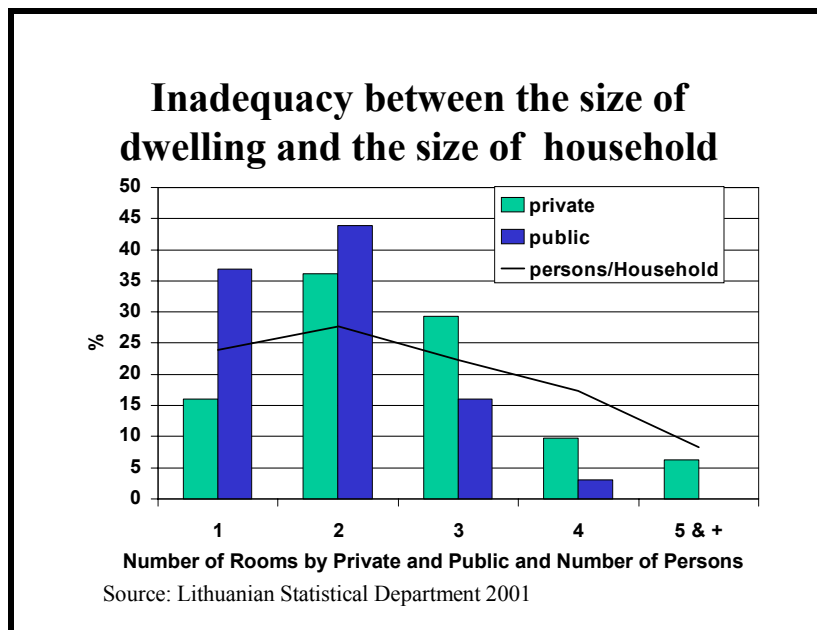
<sup>3</sup> Housing Urban Development Foundation, Asta Paskeviciene, October 2002

<sup>4</sup> Housing Urban Development Foundation, Asta Paskeviciene, October 2002

**Table 9. Homeowner and Renters**

Statistics Lithuania		Free-Market Institute		Assumption
Form of ownership	%	Whose ownership is your dwelling	%	
Private ownership of the household	87	Ownership of your household	82.6	Home-ownership
State, organization ownership	3	State ownership	3.8	Rental social housing
n.a	n.a	Ownership of an enterprise, institution, organization or other legal entity	1.7	Private rental
Ownership of friends and relatives	8	Ownership of other natural persons	10.5	Informal private rental
Rented by private person	3	n.a	n.a	Private rental
Other	0	Other	1.4	Don't know

**Inadequacy between the size of the dwelling and the size of the household**



**Figure 4**

Lithuania’s current housing stock offers primarily one to two room dwellings (54.3%). Lithuanian households are composed on average of 2.6 persons (2001). The distribution of households shows that the current housing choice is limited for households of three persons and more. The shortage is more evident for households of more than 4 persons: only 16 % of dwellings have 4 rooms compared to 26 % of the households that are composed of 4 persons and more.

The Free Market Institute’s Household Study shows more inadequacy between current housing choice and housing needs: 52% of households with 3 persons live in

small dwelling (2 rooms and less) and 40 % of households with 4 persons live in the same conditions.

In general, most wage earners and persons of non-defined socio-economic status live in small dwellings. As suspected, about 15 % of households who are in the highest two income deciles live in dwellings with 5 rooms and more. In rural areas, households could access larger dwellings: 33.6% live in 4 rooms and more. A high percentage (41.4%) of young households (age up to 30 years old) live in a one-room dwelling: this could be explained by marital status (not married households have the highest rate in one room: 33.3%), being a student (the higher the education, the higher the percentage living in one room: 26.6%). However, this does not seem to be linked to income distribution. The percentage of households living in one room is nearly the same for each income decile, and even a little higher for high-end income.

### **Estimation of housing demand**

Housing demand based on housing needs will vary according to the household or person's life cycle. On a first level approach, individual housing needs depend mainly on the age of the person, their family situation, and the number of persons (single, married, with children or without children, living with parents).

A higher level of aggregation defines the total housing demand with three different components: pent-up demand, potential housing demand and effective demand. Pent-up demand is demand from households who are waiting to get into the market: to buy or to rent. Potential demand is based on the household formation; in other words, it is based on population growth and the probability of forming a household by age group. The effective demand may be lower than the potential demand as it is constrained by affordability and consumer preferences. Potential demand (basic needs) becomes effective demand in the absence of barriers to the housing sector, which can be the level of income and saving for a down payment, housing costs (price or rent, interest rate, transactions costs), financial tools (underwriting criteria), and labour market perspectives.

Overcrowding or doubling-up dwelling explain pent-up demand

**Pent-up demand is the demand that had not been satisfied in the past. It could be estimated based on the number of households or families waiting to rent or to buy a dwelling when they have an opportunity. Due to some economic circumstances, those households or families have been living in housing conditions not suiting their needs or their aspirations. And, in some cases, some households or families are sharing a dwelling with close relatives or friends, or even renting a room from a private person.**

For that reason, pent-up demand could include households who applied for a soft loan to buy a house or to rent a municipal dwelling. To apply for the housing program, those households must live in poor conditions, namely, in less than 10 m<sup>2</sup> per person. According to the Ministry of Environment's 2002 waiting list, 88 771 households were waiting for a soft loan and 18 730 households were waiting to rent a dwelling from municipality. In 2001, the housing program did not keep pace with the demand;

only 3 % of applicants received a loan or rented a municipality flat. In brief, about 100 000 new dwellings were needed in 2002.

**Table 10**

<b>Number of families waiting for state support in dwelling acquisition or rent</b>		
Year	Families waiting for state support for a soft loan	Families waiting for state support to rent public dwellings from municipalities
1995	78727	14608
1996	80849	14110
1997	82146	14005
1998	90001	14259
1999	89813	15159
2000	88180	16274
2001	87764	17141
2002	87771	18730

*Source: National Report on Sustainable Development Implementation, 2002*

**Table 11**

<b>Number of families receiving state support in dwelling acquisition or rent</b>		
Year	Families receiving state support for a soft loan	Families receiving state support to rent public dwellings from municipalities
1999	1162	1078
2000	351	685
2001	2526	901

*Source: National Report on Sustainable Development Implementation, 2002*

Another measure of pent-up demand could come from the indicator for overcrowding or doubling up: households<sup>5</sup> who share a dwelling with another household. In most countries, one household occupies one dwelling. According to the latest Census data for population, an estimation of 1.339989 million households live in 1.291727 million dwellings - the ratio of household per dwelling being 1.04<sup>6</sup>. That means 4% of the total households share a dwelling with another household. Consequently, to fill the gap and to obtain a standard of one household per dwelling, 48 262 new dwellings are needed.

The Free Market Institute's Household Study shows a higher ratio for doubling up: 9.4%. The probability of sharing a dwelling is higher in rural areas (13.1%) than in the five main municipalities in Lithuania. This could be explained by two factors: fewer dwellings are available in rural areas but they have more rooms than in urban

<sup>5</sup> Household: is an association of people tied with relationship or other personal bonds who have common budget, have meals together and are accommodated in one housing unit. On person may also comprise a household.

<sup>6</sup> Estimated based on the latest publication of Statistics Lithuania on population 2001. The ratio has been revised down.

centres, thereby increasing the possibility of sharing. From a different perspective, the doubling-up indicator could be overestimated due to confusion between what is a household and what is a family. For instance, 16.5 % of households with three generations in the family declared that they are living with another household. It is unlikely that a three generation household could accommodate another household. As reported, rural families are more inclined to have grandparents, parents and children under the same roof; this statement confirms the higher doubling up ratio in rural areas. So it makes sense to say that the doubling up is over-estimated to some degree due to how respondents understand the definition of household.

However crowding could be illustrated by number of person by room (1.06) and by person per m<sup>2</sup> (22 m<sup>2</sup>/per capita). Those indicators are higher than indicators for most European countries. In conclusion, the pent-up demand of 100 000 units comes mainly from households needing to improve their housing conditions in terms of living floor space and especially the number of rooms in a dwelling, rather than a shortage in the number of dwellings.

### Potential housing demand

Potential housing demand is mainly dependent on the demographic profile of a country. Factors like the rate of growth of the population and age structure play an important role in determining the demand for housing in the medium and long term. Since 1994, there has been a slow decrease in the population of Lithuania due to mortality exceeding the birth rates in the country (See Figure5). The average number of children per women has been decreasing, so much so that it is slightly below the level required for a sustainable population. The fertility rates have declined considerably during the last decade – from 2.02 in 1990 to 1.28 in 2000.<sup>7</sup>

Another factor affecting the increase in population is migration. Lithuania experienced a high level of out-migration since its Independence. The trend has decreased, but still is more important than immigration due to a competitive job market in neighbouring countries.

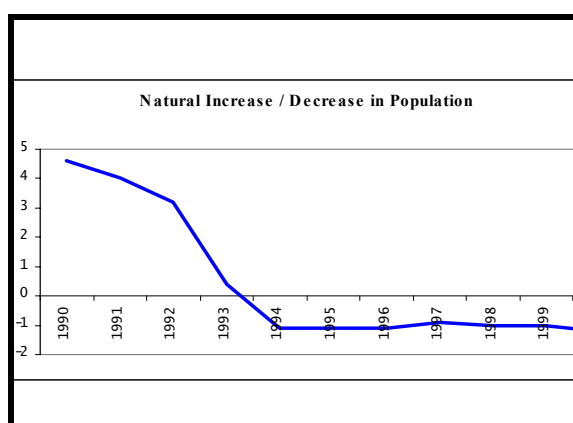


Figure 5

<sup>7</sup> 'Progress for All: Common Country Assessment for Lithuania', United Nations, September 2001.

## **Savings**

Savings is the amount of money left after expenditures and investments, and could constitute a source of funding for future expenditure. Savings, in some part, are motivated by the type of society as well. In consumption societies they tend to be lower as goods and services are bought, allowing for lower levels of cash in hand, whereas in savings societies people tend to have more cash on hand because of the liquid nature of the asset and in order to provide support in future uncertainties. In Lithuania the level of savings has been increasing but it has not been followed by an increase in investments<sup>8</sup>, which means that people are no longer foregoing current consumption for future. The current household situation - wherein 54% of the households are living on the edge of subsistence and only 24% are able to save some money - calls for a waiting period for housing finance, since housing is a long-term investment and a considerable amount of savings have to be made.

Apart from the various factors listed above, the overall economic conditions in the country tend to have influence on the decision making process of an individual. While the above factors are more micro in nature, others like political stability, gross domestic product, a sound financial system and standard of living are more macro in nature. The migration pattern of Lithuania shows that about 70% of the people leaving the country are those who are or could be a part of the active labour force as they are in the age bracket of 15-59 years. To some extent this is compensated by the fact that 50% of the people coming into the country are from the same age bracket. Residents of a country facing any level of uncertainty in the future in any respect are likely to behave in a very different manner than those who are not. The approach to a concept or an idea also varies with the socio-economic environment.

Lithuania is in its formative phases of the developmental process. The people in the country are doing better but are still struggling with basic issues of employment and income. The prioritization of needs is presently more towards current than future consumption.

### **Saving and borrowing to improve housing conditions**

When it comes to saving for housing improvement, 38 % of those surveyed answered positively, and this percentage is the same across age groups to 59 years old. Households in which the head is 60 years old are less likely to save for improving housing conditions. Household with 3 and more children are in the same situation (15 %). The correlation of saving power and income deciles is evident: 52 % of the highest income deciles saved for home improvement compared to 21 % in the lowest income deciles.

Borrowing for home improvement is not yet a common behaviour among Lithuanian households. Overall only 7% of all the respondents have ever taken a housing loan from a bank. The higher the education of the households, if they have lived in major municipalities or in places with more than 200 000 inhabitants, and earn more than 2000 Lt, the more likely it is that they have had a loan or currently are taking a loan; this is approximately 11%. The main sources for their financing are: their own savings

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<sup>8</sup> 'A Survey of the Lithuanian Economy', Rinkos Institutas, 2001-02



(51 %), loans from the work place (2.6%), friends and relatives (11.3%), and leasing (0.8 %).

Despite this low level of experience with bank loans, attitudes seems to be changing: 19 % of households mentioned that they intend to take a bank loan if they intend to improve their dwelling conditions. It is more evident for younger generation households (33%), for household of three members (31%), for wage earners, employers and farmers (about 22 to 25 %), for household with higher education (26 %) , for household of two generations (23%), living in average size of municipalities (31%), living in main cities (26 %), and for those with higher-income (30 %).

### **Mortgage Demand**

Lithuania's mortgage activity in is still at the beginning of the cycle. The residential mortgage division of banks, the Mortgage Insurance Company and the Central Mortgage Office have really been operating since 1997, 1998 and 1999.

**Table 12 Number of residential sales**

	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Flats	39238	30294	23814	26637
<b>1-2 Family Houses *</b>	10697	10478	9072	7398
<i>Source: State Land, Cadastre and Register</i>				
<i>* Category includes individual houses, summer houses and farms</i>				

Mortgage demand is influenced by interest rates, underwriting criteria and is mostly derived from the total transactions. In Lithuania, about 20 % of buyers get a loan from banks which can insure high-risk loans (high ratio loan to value). The Mortgage Insurance Company is in charge of insuring soft loans (government program of interest rebate). In 2002, due to the fact that it is at the end of the program, it has a high rate of activity (35 %), and the rest are commercial loans (with a loan to value ratio of 80 to 90 %). According to information, in October 2002 the Mortgage Insurance Company insured approximately 20% to 23 % of the entire commercial residential mortgage market. Underwriting criteria for commercial loans uses an effort of debt ratio of 40 % of disposable income, plus another criteria for income left for living subsistence for every family member: for instance with a down payment of 10 %, after paying the mortgage payment, the first person of the family must be left with 1000 Lt, and 350 Lt for each additional person of the family.

According to information collected, the average age of borrowers is 29 years old, the average loan for Lithuania is 65 000 Lts and higher for Vilnius (88 000Lt), and both soft loans and commercial loans have an average value of 100 000 Lts for Vilnius and 75 000 Lts for other places. Housing could be affordable for some households because the calculation of disposable income is the sum of all incomes of household members (husband and wife, children, grand-parents).

Insurance premiums vary depending on the loan to value ratio, to existing or new dwellings, and if a premium is added to the loan. The rate of the premium decreased

in 2002 and will continue to decrease in 2003. This will encourage more bank loans and facilitate the use of financing to leverage housing activity. An even more important factor that may stimulate housing consumption and financing is the new program for residential mortgage interest tax deductibility in 2003.

As seen above, few households use loans from banks to buy a house. The vast majority of households use their own savings, loans from work places and more frequently loans from relatives and friends. Therefore, mortgage demand is low, 7 000 loans, about 20 % of the total transactions of 35 000. This trend may be higher in the near future if awareness of housing opportunities and financing tools increases among consumers. In brief, mortgage demand<sup>9</sup> represents a potential of 7 000 loans a year for a total of 455 million Lt per year. However, two key variables will influence the volume of loans: housing market activity and changing attitudes of consumers.

### **Social assistance programs**

Lithuania has had two important means-tested benefits, the Social Benefit and the Utility Compensation. They are both designed to assure that a low-income household has access to a minimum amount of funding for ordinary consumption. The Social Benefit (SB) provides a cash payment to those with family incomes per person less than a state-set minimum. The Utility Compensation (UC) pays all of the heating and water costs above some income based contribution and below a normative maximum based on family size and location.

In 2001, there were about 116,000 individuals in families which benefited from the Social Benefit. All in these families plus another 3454,000 individuals benefited from the UC. The number of such additional (non-SB) recipients increased over 100% from 2000 to 2001, because many families with average incomes found that they are also eligible for it.

These two benefits have not been integrated nor have housing expenses other than utilities been integrated into the benefit equation. However, extensive work has been done on developing such an integrated package. In fact, proposals to integrate all basic living costs, utility costs and housing maintenance costs into one means-tested benefit have been formulated since at least 1997.

So far, however, budget limitations as well as traditional distinctions between housing sector issues and social welfare issues have prevented it. In addition, it is commonly felt that, not only do many or even most people hide some income from the tax authorities, but that many of those who have no official employment are engaged in off-the-books activities. On the other hand, there is a pressing need to provide some sort of means-tested subsidy to the costs of energy-saving renovations of buildings.

The government has introduced recently a draft law that would place the two programs under the same law and make some small changes to the existing programs. One key change is that the applicant would have to account for the family's assets. There would be normatives for the size of the housing unit and the value of the other assets, and the applicant would be ineligible if the normatives are exceeded. For

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<sup>9</sup> Lithuanian Housing Strategy Program, Contemplated Programs Project, Douglas Diamond, 2002

example, the draft law provides a ceiling of 50 sq. meters for 1 person and 15 sq. meters for each additional household member. Movable property is limited to 30 times the SSI, or LTL 4,050 currently.

Another important change is the granting of the Social Benefit to those who have been unemployed for more than 12 months, as long as they are registered and available for work, including public works programs.

A final change is to pay only 80% of the gap between the per person household income and the SSI for each child. This is the first incorporation into the program of the fact that household expense needs do not rise equally with additional family members.<sup>10</sup>

### **Soft Loan Program**

As in all other transition countries, there was an effort to continue some form of state assistance to those in the queue for housing. The first and most costly response to this was a program called the Bustas program. The Bustas program was initiated early on in the transition period, in 1992. From 1992 to 1997, it was financed out of an extra-budgetary source, the so-called General Support Fund for Dwelling Construction or Acquisition. This Fund held about LTL 350 million. In the version since 1997, the maximum amount of aggregate lending in each year has had a (high) limit and the actual subsidies are being taken annually out of the state budget.

Between 1992 and 1997, most of these funds (78%) were used for loans for the completion of co-operative projects that were already scheduled as of 1992. The remainder was made available for the construction or acquisition of private houses.<sup>11</sup> Since 1998, the main objective of the Bustas program is state support of acquiring a residential house or apartment, either owner occupied or a municipal rental.

Persons eligible for state support under the Bustas program (other than for the co-ops before 1998) are listed on waiting lists in the municipalities to which they belong. There are three waiting lists:

- 1) The general waiting list for everybody who has less floor space than the general norm of 10 square meters per family member, or who has living premises which do not comply with appropriate technical and sanitary norms.
- 2) Waiting list for the needy (including invalids, disabled, retired, etc.)
- 3) Waiting list for young families (each spouse not over 35 years of age, or singles with young children) who do not own a flat.

The waiting lists (including ranking of persons) are maintained by municipalities. Each year, municipalities update the list from 1 January to 15 February. This aspect is important, because there are households who would be eligible, but who do not apply during this window.

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<sup>10</sup> This step can be taken further. There is much evidence, and common observation, that family costs are not proportional to family size.

<sup>11</sup> In total, about 4000 soft-loans were financed between 1992 and 1997.

For support in the form of a subsidized loan, one must comply with defined criteria regarding a limited amount of floor space per person. However, in practice, this is a limit only on the amount of the loan that is subsidized, and additional space can be financed in other ways, including an additional loan at a commercial rate. Notably the amount of space allowed under the rental option is substantially less than under the purchase option and thus the purchase option is generally more popular (despite the low rents).

For needy persons (according to a definition in the law; category 2 above), the rate on the loan may be 0%, and, in some cases, the repayment shall exclude up to 10-20% of the disbursed principle (apparently meaning that the state will pay off this proportion of the loan amount at time of origination). However, given the low incomes and distressed economic circumstances of such households, they tend to not be eligible for market-based credit and need to wait for access to a low-rent municipal flat.

The operation of the soft loan (as it is known) portion of the Bustas program has changed significantly over time. From 1992 to 1997, it was operated solely through the state-owned banks, the Savings Bank and the Agricultural Bank, with the funding itself coming from the Bustas fund at a 0.0% rate, and loans made for 25 years at a fixed margin of 5.0%. By their nature as state banks, there was not much focus on the underwriting process and on the ultimate concern about avoiding defaults. It appears that originally the state was guaranteeing only a portion of these loans, but, in the privatization process, the government has taken on the full credit risks.

The first significant shift came when the initial funding for the Bustas program was used up in 1997. Now the Government had to fund its subsidy scheme by coaxing the banks into funding and making the "soft loans" themselves. This led to a tender being requested for such lending, with the bank providing the funds and the state providing the interest rate differential. Two commercial banks (Vilniaus Bank and the State Savings Bank) offered to take on this task on a limited amount of funding and on certain terms set by each bank.

These two banks had already inaugurated a small amount of mortgage lending on a normal commercial basis in 1997 and 1996 respectively. But the Bustas scheme was focused on people who had been on the waiting lists for a long time. Thus, those granted eligibility by their municipality had been on the waiting list the longest and were not always of a situation that would make them an attractive commercial risk.

In July 2001, the program was expanded to the Agriculture Bank and the new Finnish bank, Sampo.

The nature of the subsidy on the soft loan has also changed. As noted, before 1998, the rate on the loan was 5.0% and the funding came at 0.0% from the state. From 1998 through 2000, the subsidized rate remained at 5%, and the state paid the difference down to that rate from the rate asked by the bank (12% in 1998). In 2001, the program was not operable until July, and, with bank rates dropping below 8%, the subsidy was recast as a 6% reduction from the market rate asked by the bank. However, rates dropped even further so that this net rate was almost 0.0% or less, especially for loans in forex. In 2002, the subsidy was recast again to be 5% for loans in litas and 3% for loans in foreign exchange.

Since 1998, these subsidies applied only to half the period of the loan, with a maximum of 10 years. The presumption is that, after that time, the income of the borrower would be sufficient to bear the market rate.

In the early years of the Bustas program, the amount of the loan was limited to 80% of the appraised value. When the banks took over full risk exposure, this maximum dropped to 70%. But this situation changed significantly with the establishment in 2001 of the mortgage insurance scheme permitting lending up to 95% of the cost of the home (for a fee). The very low downpayment permitted under this scheme combined with the low interest rate under the Bustas program meant that anyone with any significant earnings capacity could access a sufficient loan for acquiring a home, even without much available cash. In addition, the state picked up the full cost of the mortgage insurance provided by the state-sponsored mortgage insurance company for those eligible for the Bustas program.<sup>12</sup>

A final very significant modification of the Bustas program came in the spring of 2002. It seems that previously being on a list of eligible households was not sufficient to access the program. Because there was an official limit on the amount of soft loans each year (although never reached), subsidies were granted according to the priority on the list. This meant that (1) people on the list could not simply apply for a soft loan and (2) most of those actually officially offered the subsidy had been on the list for a long time. They were generally older and often with poor incomes. These groups were generally not good borrowers, compared with the younger families who were on the list because they simply had not acquired a house yet.

In February 2002, the procedures were changed to permit anyone on the lists to go to their municipality and ask for an eligibility letter, without waiting for the municipality to call their number.<sup>13</sup> This has created an influx of younger families with good incomes seeking mortgages, and made the banks more interested in making such loans.

Thus, under current conditions, every young family without ownership of a flat is eligible for a loan at an effective rate of 2% or less (although some cities have already used up their official allocation). The low rate can apply for a loan of up to 95% of the cost of a home, but if the home is larger or more expensive than the program norms (currently the case for about one-third of the soft loans), the excess must be financed at the market rate or by cash.

The volume of soft loans has grown significantly recently. In 2000, when the effective rate was still 5% but the program was not fully funded, there were only 350 soft loans made. In 2001, there were 2,520 soft loans granted. In 2002, this may expand to 3-4,000 loans, especially since access to the deep subsidy will end this year.

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<sup>12</sup> This state support was cut to half the insurance premium as of July 2001.

<sup>13</sup> This step seems to be perceived differently by different people. It appears that the system was not supposed to work the way it had been, but with the mindset of municipalities, who had run such waiting lists for many years, this barrier was real. Moreover, in practice, lists were not regularly updated and notices would go out to a large group of people at the top of the list, many of whom had resolved their housing situation long ago. They would get a period of time to act and then another group of notices would go out, and so on. Thus, the switch to ignoring order on the list was significant.

The current interest subsidy is scheduled to end as of 31 December 2002, for the stated reason that it is too expensive, to be replaced with a program of deductibility of mortgage interest for tax purposes. It is not clear yet how exactly this deduction will be applied and whether in fact it will be less expensive or mostly just hidden off the budget. This depends on whether similar restrictions apply as to who gets the deduction or if it becomes available to all mortgage borrowers. However, it is viewed as a substitute subsidy, worth about 1.5-2.0%, for those who are currently eligible for the soft loans.

### **The Soft Insurance Subsidy**

The second significant government intervention, and, broadly speaking, a subsidy, was the creation of the Lithuanian Mortgage Insurance Company (LMIC). The decision was made in 1998, the company was organized in 1999, and the first loan insured in July 2000. It appears that this was decided independently by the government, without outside sponsorship, but perhaps partly based on the suggestions by observers from countries where governments sponsor such insurance. With the private banks becoming heavily involved with the soft loan program starting in 1998, they had an incentive to shift risk to the government and presumably were very supportive of this step.

The LMIC is fully government-owned, but it is expected to operate on commercial principles. In fact, the incoming Vice Minister of Finance in 2001 required that the official guarantee of the government be withdrawn, so that today the full reliance of lenders is placed on the technical reserves of the company.<sup>14</sup>

Initially, the insurance provided 100% recovery of principal, but no interest, late fees or penalties. In 2002, this coverage was cut back to 25% of principal, plus 4 months of interest arrears and the cost of property insurance, appraisal, and the borrowed portion of their insurance premium. The maximum premium in 2001 (for 100% coverage) was 7.78% for a 95% LTV loan. This was reduced to only 4.34% in 2002 for the lower coverage (see above).<sup>15</sup>

Notably, this premium can be borrowed from the lenders.<sup>16</sup> But it partly pays for itself through a discount offered by most lenders when insurance is taken. Insurance is mandatory for soft loans, and the state pays for half of the insurance in these cases. The state also pays for half of the insurance premium when the borrower meets the general requirements to be eligible for a soft loan but does not receive a soft loan. This can occur because they did not get on the waiting list for the municipality where the housing is (many want to buy a house in a new municipality, but have no standing

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<sup>14</sup> An odd aspect of the situation is that insured loans, even the ones made when the LMIC was backed by a state guarantee, require the same full capital reserves as uninsured loans. This discourages use of the insurance.

<sup>15</sup> This is a 40% reduction in the premium charged by the LMI, yet it is not clear that the risks borne by the LMIC have dropped much at all. It covers losses fully up to 25% of the initial principal plus 4 months of interest. In most cases, this loss would be more than 60% of the potential loss on a 95% LTV loan.

<sup>16</sup> When the premium is borrowed, the risk rises and the maximum premium rises to 4.56%.

to get on that list) or, prior to 2002, they were not yet allocated access to a soft loan.<sup>17</sup> In addition, more than a quarter of LMIC's volume of business is insuring loans given at commercial rate, presumably when the borrower wants to exceed the normal LTV ratio.

In 2001, its first full year of business, the LMIC insured 2181 mortgages, of which 1554 were soft loans<sup>18</sup> and 627 were on commercial basis. This was about half of all loans made in 2001 (roughly adjusting for the difference between dating procedures for loan approvals, disbursements, and insuring). It is expected that there will be about 4,000 loans insured in 2002. The average size of the insured loan is about LTL 60-70,000.

It is too early to know if the LMIC is a significant subsidy to the mortgage sector. The banks clearly do not treat it in that manner, in the sense that they do not routinely use its services for regular (unsubsidized) loans with LTVs of 80% or less. It is used, as required, by the banks for all of the soft loans (most of which have LTV's of 95% and so would need insurance anyway), but they are willing to accept an LTV up to 85% on a new house without any insurance.

The lack of interest in using insurance in order to take higher LTV loans may reflect the general availability of sufficient downpayment amounts plus the willingness of banks to accept lower downpayments in many cases. The use does not seem to be sensitive to the charge. As noted, in 2002, the cost of insuring a loan with a LTV of 95% fell by 40%, from a one-time premium of 7.41% to 4.34%, and still only about 20% of regular commercial loans use this option (of course, their repayment capacity and the underwriting requirements of the bank are also a limit preventing many borrowers from accessing a LTV higher than 70-80%).<sup>19</sup>

### **Current state of housing finance market**

The situation has developed over the last two years, as the banking sector has been stabilized and in fact absorbed by strong foreign bank groups. This development has meant greater access to foreign funding and lending expertise, and a strong effort by the banks to establish market share. But it seems that some banks were already far along in developing loan products, based on experience developed since 1998 in making loans under the soft loan program and also a rising number of loans on commercial basis.

### **Rates, Lending Volumes, and Market Conditions**

Data compiled by the Lithuanian Mortgage Insurance Company (LMI) indicates that there were 5,161 mortgage loans made in 2001. This was a large increase over 2000, when it seems that about 3,000 loans were made. Observers expect a further increase

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<sup>17</sup> An additional reason for people not to register was that, in 2001, the soft loan program was not set until July, while registration had to be completed with the municipality by February 15, at which time the availability of soft loans was uncertain.

<sup>18</sup> This is almost 1000 fewer than the number of soft loans "made" in 2001, a difference explained by the large number approved in December but not disbursed until 2002.

<sup>19</sup> One other significant deterrent to the use of the LMIC cover is that their underwriting requirements with respect to repayment capacity are now stricter than general in the market.

in 2002, suggesting a total of perhaps 7,000 CONFIRM . Since the average size of loan is about LTL 80,000 CONFIRM, the volume should be at least LTL about 600 million in 2002. This is about 1.2% of GDP. Clearly, mortgage finance has arrived in Lithuania.

Almost all of these loans were based on a floating market-determined rate of interest, plus some margin that is fixed for the life of the loan. The market reference rate depends on the currency chosen by the borrower (not all banks offer all currencies). It is VILIBOR for litas, EURIBOR for euros, and LIBOR for USD. Most loans had been in foreign currency in earlier years, because the rate was at least 2% lower, but the spread has declined and most loans are being made in litas this year CONFIRM . The borrower also has a choice of term of the rate, from 3 months to 1 year.

With the very low levels in 2002 for these reference rates, plus a decline in the margin over the rates, the effective interest rate on loans have dropped sharply. There is no data just for mortgages, but the Bank of Lithuania does have data on bank loans over 5 years in term. The average such rate, for loans in LTL, dropped from 9.45% in May 2001, to 7.82% in December, and to 5.55% in May 2002. Rates on loans in foreign currencies are even lower.

The usual term of the loan is from 15-25 years, apparently at the choice of the borrower. However, for soft loans (discussed below), the term is almost always 20 years or more, because the subsidy is available for half the life of the loan with a limit of 10 years. It is notable that the maturity on commercial rate mortgages as recently as 1999 was a maximum of 10 years.

### **Underwriting Parameters**

There are minimum underwriting requirements for loans (whether soft loans or at commercial rate) that are to be insured by LMI. Lenders can adopt more stringent requirements. However, in the market for uninsured loans, the underwriting requirements have become more relaxed under competitive pressures.

For insured loans (about half the market in 2001), the minimum downpayment is 5%. However, the cost of the mortgage insurance, which is fully paid upfront, can be added into the loan, as long as it does not exceed 100%. Last year, this cost could be as high as 7.41%. This year, because of reduced coverage, the maximum charge is 4.34%, so the total loan amount will never exceed 100% in any case.

For uninsured loans, banks had been unwilling to go above 70% of the appraised value of the house. This has been relaxed to 80% in the current competitive market, probably in response to the fact that, as rates fell, the number of people who could qualify to borrow more than 70% rose rapidly.

For LMI, the loan amount to any individual is primarily limited by the person's income and how much of it is permitted to be applied to loan repayment. The general rule is that the loan repayment (not including costs such as property or life insurance) can be up to 40% of net income. However, this applies only if the amount remaining after the loan repayment exceeds what are viewed as minimum costs of living. Specifically, for a family of two adults, the minimum costs are LTL 500 per adult.



For children, there is an addition to such minimum of LTL 375. Thus, if a family of 2 adults and 1 child has net earnings of only LTL 2,000 a month, the maximum repayment is only 500 LTL, or 25% of net income.

It seems that some private lenders are more liberal with respect to this minimum required remaining income.

At an interest rate of 6% and a term of 20 years, a burden ratio of 40% will permit a family to borrow 4.6 times their annual income. It can be argued that most families in Lithuania (and in Central Europe) are looking to acquire a house costing about 4-6 times their annual income. Thus, under current conditions, this underwriting limit would permit obtaining a loan of anywhere from 77%-95% of the cost of the house. This is a very high level of affordability.

The major caveat to this conclusion is that it assumes that the full amount of this income is from reliable, regular sources and is verifiable. People with significant amounts of income from sources that do not meet these conditions will find their loan capacity reduced (although they may have more cash available for application to the purchase as a result).

Other requirements include insurance on the property and on the life of the borrower(s). Apparently, this is an area of potential profit for the lender (and hidden cost to the borrower) since some lenders have captive insurance entities providing these coverages.

The market conditions on both supply and demand sides have also been strongly influenced by the higher rates of economic growth experienced since 1999. This has caused increased flows of liquidity into the bank system and improved confidence on the part of potential borrowers. However, there was also a specific supply-side spark that has driven the current expansion of lending. This was the arrival of two Finnish banks in 2001 which were particularly interested in using mortgage lending as a way of getting a foothold in the local market.

These banks, Nordea and Sampo, draw most of their funds directly from the central treasury of the mother bank in Finland (the Nordea bank in Finland is part of the largest banking group in Scandinavia). Thus, they lend primarily in foreign currencies. In addition, they are used to lending at a small margin in Finland, probably less than 2%. Nordea, in particular, seems to have strongly marketed their mortgages on the basis of a low margin (however, they do not participate in the soft loan program). The result has been to accentuate a decline in margins over the reference rate (e.g., LIBOR) which had already started in 2001, with margins declining from 5% in 2000 to a range of 3-4% in 2001 and to 2-3% in the last 6 months.

This situation, combined with cyclically low short-term money market rates, has put the interest rate on loans even in litas in the range of 6% or less. These margins and these absolute rates are almost as low as in most advanced Western countries. It is unlikely that either the margin or the reference rates will stay this low permanently. The possibility of a rise in margin and market rates raises concerns about the profitability of the loans to the banks and also the future payment burden on

borrowers. It also means that this high level of affordability will not necessarily remain.

For this reason alone, 2002 should be a very strong year for mortgage lending in Lithuania. But in addition, the terms of the program of soft loans were relaxed in 2002 (although the subsidies were slightly reduced), as was the cost of the mortgage insurance. To top it off, the current plan is to end the current deep subsidy version of soft loan in 2002, and switch to using a tax deduction for mortgage interest as of 2003. Because the subsidy is greater under the soft loan program, it is likely that as many people as possible will try to get a soft loan before the end of the program.

### **Proposed mortgage bond law**

There have been two efforts to start up mortgage bonds in Lithuania. The first was initiated in 1997 by the Danish government and the World Bank, in cooperation with the Ministry of Finance. This first effort was focused on evaluating the situation in Lithuania for meeting the prerequisites for the establishment of a Danish-style mortgage banking system.

This initial effort did not lead to any specific actions. The principle recommendation was that a single Danish-type mortgage bank be set up, with government support, to serve as a central funding agent for all mortgage lending, and operate a retail mortgage lending arm itself. Apparently, the problem was that the government was not convinced that it was necessary or appropriate to start a system based on separate mortgage banking institution.

In any case, the initiative stalled in 1999, and lay dormant until recently, in late 2001. The process was then picked up with an effort to resolve remaining issues in the preparation of the needed legislation, to be followed by further technical assistance in the areas of supervision, evaluation, and other procedural issues. However, the focus is now on supporting the issuance of mortgage bonds by universal banks, not the creation of specialized mortgage banks.

The first component of the EU definition is that there must be a separate statutory basis for the protections that mortgage bonds offer investors. Thus, if the Lithuanian mortgage market is to benefit from this sort of fund-raising technique, a mortgage bond law is required.

First and foremost, Lithuania is at a stage in the evolution of its financial sector where, for the near-term, there probably will be little demand for using the bond issuance mechanism (barring the presence of subsidies). There is a stage in the deepening of the financial sector where the public becomes more comfortable with the safety and reliability of banks and the base of bank deposits grows rapidly as a share of GDP. Lithuania is in that stage, now that its banking sector is better supervised and under the ownership of strong foreign banks. The deposit base grew by 25% in 2001, and is headed for continued growth in 2002.

Probably the fastest growing part of the loan books of banks has been long-term residential mortgages, but the expected issuance of up to LTL 4-500 million in mortgages in 2002 can be funded by the likely rise in the deposit base of about LTL

1.5 billion. It is partly because of this situation that banks have cut their lending margins and more aggressively marketed their mortgage products.

The growth in the domestic deposit base of Lithuania is actually being augmented by inflows from the deposit bases of other countries. The two Finnish entrants into the mortgage market, Sampo and Nordea, use exclusively funds provided from their mother banks. These funds are a mix of deposits and unsecured bond issuances.

This environment will eventually change, both because the growth in the deposit base will slow and because there will arise institutional investors with an appetite for securities such as mortgage bonds. In fact, these two processes will be linked. Although the financial assets of Lithuanians may continue to grow at an overall rapid rate, a greater share of that growth will be in the form of pension assets and investment funds, including investment funds offering close substitutes to bank deposits, i.e., money-market funds.

Looking not too much further ahead, it can be seen that Lithuania will join the Eurozone, and, at that time, the asset and liability base of its financial sector will become even more closely linked to outside markets. Lithuanian assets will have to compete with other euro-denominated assets for a place in the portfolios of Lithuanian-registered (although perhaps foreign-owned) investors. Seekers of funding in Lithuania, including mortgage lenders, will have to compete with Eurozone alternatives.

It is in that context, where there is slower growth in the deposit base and a growing opportunity to seek long-term funding from Lithuanian-based (as well as foreign) institutional investors, that banks and other lenders will have greater interest in funding their activities through the issuance of bonds. And where the potential advantages of having an EU-approved structure for mortgage bonds becomes more valuable.

At such a point, there will be an advantage to having a bond structure that most easily fits within the overall evolution of the banking sector. It should offer an explicit cost of funding that is lower than that attainable through issuance of unsecured bonds, but without much in the way of additional costs of implementation or operational complications. Otherwise, banks will choose instead to issue unsecured bonds, based entirely on their own credit rating.<sup>20</sup>

There is one other circumstance that would be supportive of mortgage bond issuance, sooner than that suggested above. That circumstance is if there is a desire (or subsidy) for use of loans with rates which are fixed for periods longer than one year. Such loans offer an advantage of delaying and possibly avoiding jumps in repayment burden associated with increases in the shorter-term interest rates that are currently used to set rates on most mortgages. The most common term for mortgage bonds is 5 years, and such funding at a fixed rate would permit banks to offer loans also with

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<sup>20</sup> Banks have a natural incentive to issue mortgage bonds if they are not too burdensome, due to the fact that, under the EU directive, such bonds require only a 10% risk weight when held by banks and are also eligible for more liberal limits on holdings by other regulated financial entities such as pension funds and insurance companies.

rates fixed for 5 years.<sup>21</sup> This is not the sort of long-term funding provided by mortgage bonds in Denmark or mortgage securitization in the US. But it can still substantially reduce the volatility of repayments.

Another consideration in designing a mortgage bond law for Lithuania is that the political and legal uncertainties about recovering on defaulted mortgages are not as low as in some other countries using mortgage bonds. In these countries, lenders have successfully survived crises in the housing sector and shown that mortgage loans are very reliable assets. There are three implications of this situation in Lithuania. First, the presumption that mortgage loans will provide a invulnerable basis for full recovery by bondholders in an economic and financial crisis is less certain. This implies the need for greater collateral coverage than normal. Second, the definition of a quality loan may need to be less liberal than in Spain. Third, this is another reason why the reduction in cost of funds achievable through mortgage bonds relative to unsecured bank bonds may not be as great as elsewhere.

It seems desirable for the law in Lithuania to build on the Spanish model, because there is no plan to restrict such bonds to special institutions.<sup>22</sup> The key to that model is that the collateral value of mortgages is the focus of the law.<sup>23</sup> There are two implications of this.

First, the perspective of the law is to define how the requirements for proper cover are to be met. The law does not prescribe the use of the proceeds of the issuance of a mortgage bond. Rather, it prescribes how the bonds must be secured and the characteristics of the mortgage loans that can be used in the cover required for mortgage certificates.

Second, the decision is made to replace mechanisms for "balance" or financial matching of mortgage assets and mortgage liabilities (beyond normal ALM requirements for the bank) with over-collateralization.

In place of complex balancing rules, the Spanish law requires that the certificates issued be not more than 90% of the value of the covering loans. (In practice, since Spanish banks rely on mortgage bonds for only a small part of their overall funding, the actual coverage ratios are much higher.) Secondly, the Spanish law permits the loan to be up to 80% of the appraised value of the property (if it is for housing).

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<sup>21</sup> Of course, such bonds need an investor class which is interested in such medium-term fixed rate debt. Other Central European transition countries have developed such investors and it is likely that Lithuania will also. In addition, such bonds will have to be callable or the loans need to be covered by some sort of prepayment penalty.

<sup>22</sup> The discussion here is based on the Spanish concept of "mortgage certificates" (*cedulas hipotecarias*), not the mortgage bonds. Both are described in the same law (2/1981). The main difference is that the certificates are automatically covered by all of the available mortgage collateral of the issuer. The bonds are secured by specific loans that are pledged. The decisions of banks to use the "certificates" approach rather than the "bonds" reflects the cost of recording the pledging and thus is an example of how, given a flexible law, banks will make the appropriate tradeoffs between greater security (and thus lower cost of funds) versus higher costs of operation.

<sup>23</sup> The specifics, as well as advantages and disadvantages, of this approach are well spelled out in a document prepared by Moody's, "Spanish *Cedulas Hipotecarias* (Mortgage Certificates): Moody's Analytical Approach," April 1999.

It may be advisable that both a lower coverage ratio and a lower lending ratio be specified for mortgage bonds in Lithuania. For example, the lending ceiling per loan could be 70% and the coverage ratio be only 80%. This would assure that there is little chance of a loss in case of foreclosure (better able to withstand a sharp drop in house values), and that there is enough cash flow from the loans to service the mortgage bonds in case of bankruptcy of the issuer.

This conservative approach would also reduce the value of burdensome requirements related to special supervision or additional balancing rules related to matching the financial characteristics of the loans with the bonds (beyond the simple requirements that the average maturity of the bonds not exceed the average maturity of the loans). This extent of over-collateralization should cover most potential weaknesses from more liberal specifications elsewhere.<sup>24</sup>

A major drawback to this approach is that it makes it difficult for an institution such as the Baltic-American Enterprise Fund, which does not operate as a conventional bank, to rely on mortgage bonds for the bulk of their funds. In fact, 20% of the funds would have to come from other sources. These sources could include unsecured bonds. However, it is not clear that this issue is significant, because non-banks are unlikely to survive the competition of the banking sector in mortgage lending in the long-run.

A similar issue, with positives and negatives, is that such a provision may discourage foreign mortgage banks, who might otherwise enter the market without developing other funding. For example, one of the more active issuers of mortgage bonds in the Czech Republic is HypoVereinsbank, which specializes in financing commercial real estate. Such entities would have to tap some other sources of funds, either internally or externally, for a significant part of their funding. (Once Lithuania is in the EU, one source might be to include their Lithuanian loans in the cover for Pfandbriefe issuances under German law.)

The main question is whether there will be, in the future, times when the main commercial banks will want to rely so heavily on mortgage bonds that this overcollateralization will be burdensome. This probably will not be an issue in the near term, and once Lithuania is in the Eurozone, such funding could come from mortgage bonds issued under the laws of other countries that the mother banks of Lithuanian banks operate in.

Such a low loan-to-value (LTV) ratio as 70% could be quite burdensome. It is possible that, when the LTV is greater than 70%, the additional loan amount be originated as a top-up or second lien. However, this involves additional costs both at origination and later in servicing. The small potential benefit of such a requirement does not seem worth these additional costs. Thus, it is recommended that the law

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<sup>24</sup> To some extent, the restrictive rules in Germany and Denmark reflect that fact that the eligible loans are viewed as being very secure, and therefore good collateral, and so the emphasis is on also matching well the characteristics of the bonds. However, such a structure and emphasis is probably less useful in Lithuania. The collateral of mortgages on houses in Lithuania can not be viewed to be as reliable as that in Denmark, no matter what care is taken in formulating evaluations. The foreclosure system is untested in the context of large scale economic crisis, and the risk of political intervention in such circumstances is higher. Thus, it is not clear that a structure of finely tuned coverage and balance ratios, and strictly regulated evaluation procedures, is going to provide the invulnerable security being sought after. A reliance on overcollateralization makes more sense under these circumstances.

make it clear that all eligible loans can be included in the collateral, but the amount in excess of a 70% LTV does not count in the required cover.

What about the special supervision that the EU directive requires? There are at least three approaches possible in this regard. In the Czech Republic, there is currently no special supervision, beyond normal banking and securities commission supervision, specifically because of the extra cost involved. Lithuania could take this approach in the short-run and just expect to add some sort special supervision process when meeting the EU directive becomes more pressing.

Alternatively, the law could specify a system of private but state-supervised inspectors. Both Hungary and Slovakia have such systems.<sup>25</sup> Presumably, these private supervisory systems are lower cost than a fully state supervisory function of equal rigor, which is the third alternative. The author does not know what the relative costs of these approaches are

It is notable that Spain has a state-operated supervision process, but one that does not seem to involve the level of scrutiny applied in Germany, Denmark, or the outsourced systems in Hungary and Slovakia. Monthly inspection is made by the Bank of Spain to confirm that the relatively simple rules set by the law are adhered to.

The other area of uncertainty with respect to the operation of a mortgage bond law is that of the process of securing the rights of bondholders in the case of bankruptcy. As noted, the law in Spain relies on the general procedures for pledged assets in the case of bankruptcy. These are considered reliable with respect to securing assets for the repayment of the mortgage bonds, but not necessarily effective at assuring servicing of the mortgage securities during the period of receivership. The laws in Slovakia and the Czech Republic have similar provisions. In contrast, the laws that require that the loans be held by a legally separate entity, such as in Germany and Denmark, provide substantial protection throughout the life of the bonds.

Thus, there appear to be significant variations in this regard. Evaluation of the best approach in Lithuania must rely on a thorough understanding of the current procedures in the case of bank bankruptcy, and how they might need to be strengthened in this situation.

### **Bauspar status in Lithuania**

Recently, an interest in the Bauspar system re-appeared in Lithuania.<sup>26</sup> This renewal comes despite the development of an active market in regular mortgages at rates almost as low as in the BS systems of the early adopters (i.e., the BS loans in the Czech Republic, Hungary, and Slovakia are at 6%) and the offering of mortgage insurance that permits the purchase of a home with relatively little prior savings.<sup>27</sup>

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<sup>25</sup> In Slovakia, a qualified private party, such as a bank or accountancy firm, must certify that the loan quality and overall coverage requirements are met. Their fees reflect both the cost of reviewing the files and the liability that they bear if they make errors in their task.

<sup>26</sup> It appears to have been suggested by a bank seeking new products.

<sup>27</sup> In fact, as discussed below, it is hard to see how a Bauspar system might improve access to housing credit.

A working group was set up in Parliament started with a draft law very similar to that adopted in the Czech Republic. The group has considered various versions of the key parameters, including the rate and maximum size of the annual bonus and the minimum term of the contract. In the version that was eventually registered in the Parliament in July, the law has been modified to set the minimum contract period to only 2 years. However, nothing was done to reduce the size of the premium. As will be discussed below, this change satisfies the complaint that the program can not have any positive effects in less than 5 years, but greatly reduces the size of the loan amounts and probably greatly increases the cost of the program.

The system in practice is quite complex. It involves a long-term contractual relationship between the saver and a specialized bank that does nothing other than such operations. The interest paid on the savings and the rate on the loan, as well as the term of the savings and of the loan, are fixed at the start. The term of the loan is usually somewhat longer than the term of the savings. However, the individual Bausparkasse (BS) has the right to delay the loan if there are not sufficient incoming savings to fund the loan. Because of this, the usual BS contract involves a complicated system for determining the priority of those seeking low-rate loans, depending on the period of the savings, steadiness of the savings and other factors.

Because all of these parameters are fixed at the outset, the attractiveness of the return on the savings or the rate of the loan, relative to market-rate alternatives, is uncertain. Because of that, the inflows into new or existing contracts may fall significantly if market rates on savings rise, and demands for "low-rate" loans may rise or fall according to market-rate alternatives.

Because of the general reluctance of the public to commit to such parameters several years in advance, and to tying up the savings as well, there are no examples in the world of such arrangements being popular in the absence of significant subsidy from the government. Moreover, the institutions themselves strongly lobby for subsidies that are big enough so that (1) savers are very likely to find the return attractive even if market interest rates rise by several percent and (2) borrowers will find the loan attractive even if market rates fall by several percent. Thus, the preference is for deep subsidies, not shallow ones that might cause the system to go out of balance in the future.

What does it mean to "go out of balance?" A simple example, without any interest or subsidies, may provide the basic intuition. If there are 1000 new contracts signed each year, each to save LTL 2500 a year and with a minimum contract term of 5 years, then after 5 years, if everyone has made every savings payment on time and an additional 1000 savers signed contracts each year, there will be LTL 37.5 million in total cash in the BS.<sup>28</sup> But at the end of the 5th year, the first 1000 savers now want to take their money out and also get a loan which is repayable in equal installments over 5 years. Their total savings will now be LTL 12,500 each and their loan amounts will also be LTL 12,500 each. These first 1000 savers will want to withdraw a total of LTL 25 million from the BS. Where will this money come from?

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<sup>28</sup> After 5 years, the first cohort will have saved LTL 12.5 million in total, those in the second cohort LTL 10.0 million, the third cohort LTL 7.5 million, 4th cohort LTL 5.0 million and the 5th or most recent cohort LTL 2.5 million, for a total of LTL 37.5 million.

At the start of the year, the BS has in its hands the accumulated savings of all of the savers, amounting to LTL 37.5 million. It will pay out the LTL 25 million and also receive an additional LTL 12.5 million in savings, for a net outflow of LTL 12.5 million (i.e., it will have only LTL 25 million left). At the start of the next year (7th year since the start), it needs to pay out another LTL 25 million to the next cohort of savers, but it receives another 12.5 million from the savers (including another 1000 new savers) and also gets back 20% of the LTL 12.5 million it loaned out in year 6, i.e., LTL 2.5 million. The net outflow of cash is LTL 10 million, dropping its cash to LTL 15 million.

If this continues for another 3 years, in year 11, the BS will have no cash in its vaults, but it will have LTL 37.5 million in loans outstanding, on which it receives LTL 12.5 million in repayments each year. Each year thereafter, the existing cohorts of savers put in LTL 12.5 million each year, the cohort reaching their 6th year takes out its savings of LTL 12.5 million, and there are LTL 12.5 million in loan repayments to re-lend to this cohort. Since the bank is receiving interest on the loans that is more than the rate it pays on the savings, it potentially may be able to cover its costs and make a profit out of this spread.

**Table 13 A 5-Year Bauspar System in Balance in 2015 (by year of contract)**

<b>Inflows: Savings</b>		<b>Inflows: Loan Repayments</b>	
2015 Contracts	1,000 x 2500 = 2.5 million	2009 Loans	1,000 x 2500 = 2.5 million
2014 Contracts	1,000 x 2500 = 2.5 million	2008 Loans	1,000 x 2500 = 2.5 million
2013 Contracts	1,000 x 2500 = 2.5 million	2007 Loans	1,000 x 2500 = 2.5 million
2012 Contracts	1,000 x 2500 = 2.5 million	2006 Loans	1,000 x 2500 = 2.5 million
2011 Contracts	1,000 x 2500 = 2.5 million	2005 Loans	1,000 x 2500 = 2.5 million
Total Savings in 2015	LTL 12.5 million	Total Loan Repayments in 2015	LTL 12.5 million
<b>Outflows of Savings and Loans for the 2010 Contracts</b>			
Total Savings = 1,000 x 2500/year x 5 years = LTL 12.5 million			
Total Loan Entitlement = 1,000 x 12.500 = LTL 12.5 million			
Total Outflows = LTL 25 million			

However, what if in the 12th year of operation, market interest rates on savings rise to a level higher than the amount paid (including the subsidy) by the BS? BS accounts are still attractive because of the low rate loan that will be available in 5 years, but not as attractive as before, and people may expect that market interest rates on loans will come down in the future. If the net effect is that only 500 savers start contracts in the 12th year, and each existing saver puts in only half as much as before, the net inflows from savers will be only LTL 6.25 million. There will still be the same LTL 12.5 million in repayments from earliest borrowers, so that there will be enough cash to repay the savings of the cohort in their 6th year, but only LTL 6.25 million to lend to them (half of what they have been promised).



This is why every Bauspar system needs a system for determining the priority of participants to getting a loan. And it is why the system will fail to provide loans at all if, for any reason, the supply of new savers drops off sharply. In fact, if the government at any time in the future eliminated the subsidy, there would be no new savers and no low-rate loans available to the savers who started in the last 5 years.

### **The System Proposed for Lithuania**

The proposed Lithuanian Bauspar system can be summarized as follows:

- Main Act:** Registered in the Seimas, expected to be considered in Fall session.
- Regulation:** Ministry of Finance regulates and supervises the payment of premiums; Bank of Lithuania regulates/supervises the BSs, but follows conventional bank regulations, with no additional regulation imposed on liquidity management.
- Yearly Premium Amount:** 20% of savings and interest paid that year, up to LTL 500. Annual optimal savings is LTL 2500, or almost 4 times the average monthly net wage in 2001.
- Minimum Saving Period:** 2 years to get housing contractual loan (presumably at about 5%) if 50% of contracted sum is saved. (Because this provision is likely to be reset at 5 years once the impact of this provision is understood better, both the 2-year and the 5-year models will be analyzed.) Advance loans are available at a higher rate after 2 years (if a 5 year minimum contract). Saving for 2 (5) years required to cash the premium, even if no loan is taken.
- Savings/Loan Differential:** The Bill (as of 4 July) specifies a maximum of a 2.5% difference between the contract interest on savings and the rate on the loan. (This spread is subject to some competitive pressures, and the rate on savings is usually raised if a saver does not take a loan.) The low rates on regular mortgages may cause the lending rates to be set at 4.5%, with savings rates as low as 2.0%.
- Housing Purpose Required?** A "housing purpose" is required to withdraw the premium along with the savings. Loans are available only for housing purposes as demonstrated by invoices.

Other relevant aspects of the system include:

- (1) the interest and premium on savings are exempt from taxation (as are regular savings accounts);

- (2) premiums are paid into the account within one or two months after the end of each calendar year, based on the savings during that calendar year
- (3) a market-rate housing loan can be taken immediately from Bauspar or the parent commercial bank, repayable by a low-rate loan (or advance bridge loan) from the Bauspar after 2 years of savings;
- (4) the parameters of the state premium are embedded in law, and Parliament must act to change them (*very important diversion from legislative tradition*).