



Business, Management and Economics Research

ISSN(e): 2412-1770, ISSN(p): 2413-855X

Vol. 3, No. 3, pp: 18-25, 2017

URL: <http://arpgweb.com/?ic=journal&journal=8&info=aims>

Assessment of Suitability of Long-Term Financial Instruments for Housing in Latvia

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Abstract: Housing situation in Latvia in general is being characterized by two main features: poor technical condition of multi-apartment houses because the major part of housing stock has been built during Soviet times and for their improvement in long-term large investments are necessary, and the support provided so far in housing provision issues for different social risk groups, for example, young families, large families, students, etc. is insufficient. The purpose of the research is to evaluate suitability of long-term financial instruments for housing implemented in Latvia from 2000 - 2015, to offer new long-term financial instruments for housing for implementation in Latvia and assess suitability potential for their implementation in Latvian conditions. Research methodology: Analytical research method, comparative research method and expert interview method have been applied to carry out the research. Scope of experiment is long term housing financial instruments. Conclusions: The results of the research show that that it would be required to introduce various new long-term financial instruments for housing with which the more private investment could be attracted, while improving availability of housing for different social risk groups.

Keywords: Housing; Long-term financial instruments; Housing policy; Latvia.

1. Introduction

Housing situation in Latvia in general is being characterized by poor technical condition of multi-apartment houses because the major part of housing stock has been built during Soviet times and for their improvement in long-term large investments are necessary, and the support provided so far in housing provision issues for different social risk groups, for example, young families, large families, students, etc. is insufficient.

However, the problems have not yet reached results improving the general housing situation, because there are required significant investments in the long term (Henilane, 2015a). For solving the problem the government of Latvia should have to look for new ways to attract the investments and to implement new financial instruments for long term in housing sector.

There is limited number of researches in the housing sector in Latvia in general. However the topical researches have been done by different authors (Vitola, 2010); (Zubkovs and Geipele, 2011); (Ruza, 2012); (Geipele *et al.*, 2012); (Sidelska, 2015); (Geipele, 2014); (Ikjevleva, 2014); (Plavina and Geipele, 2014); (Henilane, 2015a), (Henilane, 2015b); (Henilane, 2015c); (Henilane, 2016a), (Henilane, 2016b).

The purposes of the research is to evaluate suitability of long-term financial instruments for housing implemented in Latvia from 2000 - 2015, to offer new long-term financial instruments for housing for implementation in Latvia and assess suitability potential for their implementation in Latvian conditions.

Scope of investigation is housing financial instruments.

In conclusion are made proposals for the government of Latvia in context with the development of new financial instruments.

2. Methodology

Analytical research method, comparative research method and expert interview method have been applied to carry out the research.

In order to assess suitability of currently implemented long-term financing instruments for housing in Latvian conditions and potential of new instruments' implementation the author has developed *Experts' survey for general suitability assessment of existing and new instruments in Latvian conditions*, and has conducted survey of experts

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from February to March 2016, where 24 experts were participated. Taking into account the specificity of survey questions, in the survey there were invited to participate experts qualified in housing finance, including issues of public housing policy development, financial policy and investment attraction, representing the state, local governments and financial institutions sector (see Table 1).

Table-1. General assessment of efficiency of long-term financing instruments for housing in Latvia: Technical information of the survey February – March 2016

Experts who participated in the survey, of which:	24
Experts in state sector	13
Experts in local governments' sector	5
Experts in financial institutions	6
Method of conducting survey	Expert interviews (electronically and verbally)
Time of conducting survey	02.02.2016-02.03.2016

Experts assessed suitability of currently implemented and new long-term financing instruments for housing by the assessment scale:

- 0 – Instrument cannot be applied in Latvia
- 1 – Instrument can be applied in Latvia a little bit
- 2 – Instrument can be applied in Latvia
- 3 – Instrument is efficient in Latvian conditions

Taking into account that in Latvia the common interpretation for the concept “*long-term financing instruments for housing*” is missing in order to avoid of the risk that existing and new instruments included in the survey are understood ambiguously from experts' side the author provides explanation in the experts' survey that “*long-term financing for housing is provision of funding in long-term for purchase, construction, renovation of housing, for other energy efficiency measures, repairs*”, as well as provides short information regarding each of existing and new instruments.

Summarising assessments of 24 experts regarding suitability of long-term financing instruments for housing in Latvian conditions the author through use of program Excel performed calculations by determining various indicators: including indicators of arithmetic mean, mode and arithmetic mean standard deviation.

3. Results

3.1. Distribution of Long-Term Financial Instruments for Housing

The author on the basis of personal work experience in field of housing policy in the Ministry of Environmental Protection and Regional Development and in the Ministry of Economics has gathered nine various long-term financing instruments for housing have been implemented in Latvia during time period from 2000 – 2015 (Henilane, 2015a;2016b) (see Table 2).

The author on the basis of new instruments identified in EC research, 2015, whose implementation potential is evaluated as prospective among EU member states, has identified eight new instruments for housing that would be applicable to Latvian conditions and give the description of each of them in Table 2.

Table-2. Distribution of instruments for housing conducting expert survey regarding their suitability in Latvia

Financial instrument	Description of financing instruments
Instruments implemented from 2000-2015	
Dedicated Credit Lines	Financing instrument that can provide lower credit interest rates, better loan repayment terms and other favourable conditions for housing credits issued by commercial banks (In Latvia it was implemented within framework of stage II of MAKP ¹ (Ministru kabineta informatīvais ziņojums, 2008); it is applied in Germany (KfW), Estonia (Kredex)).
Credit Guarantees	Instruments that share credit risk among guarantee provider and commercial bank to ensure that specific risk target groups have access to credits (in Latvia is used in combination with special credit lines).
Public Subsidies (Grants)	Public financing, granted to special target groups when taking housing credit at specific conditions (in Latvia is used in combination with special credit lines).
Special Credit Line and Credit Guarantees	Special credit lines and credit guarantees. (In Latvia LGA ² has granted credit guarantees within framework of EU funds 2007-2013, DMS activity ³ (Ministru

¹ MAKP II – Housing development crediting programme (stage II).

² LGA – Limited Liability Company “Latvian Guaranty Agency”.

(combined instrument)	kabineta noteikumi Nr. 284, 2013). ALTUM ⁴ grants guarantees to young families within framework of Housing guarantee programme (Ministru kabineta noteikumi Nr. 443, 2014).
Special Credit Line and Public Subsidies (combined instrument)	Special credit line and public subsidies (grants) (In Latvia there are used EU funds 2007-2013 in implementation of DMS activity).
Special Credit Line, Public Subsidies and Credit Guarantees (combined instrument)	Special credit line, public subsidies (grants) and credit guarantees (In Latvia it is planned to use EU funds 2014-2020 in implementation of Housing insulation programme (Ministru kabineta noteikumi Nr. 160, 2016).
Real property tax credit instrument for social groups	Real property tax credits for specific target groups (for example, in Latvia local governments may apply tax credit on land and apartment to disadvantaged and poor residents, large families, depending on the number of children in the family, etc.).
Municipality ESCO contracts	Contracts between housing owners and ESCO regarding provision of professional energy services including also provision of energy saving (ESCO may provide also funding). Contracts that are funded from municipality resources (for example, in Latvia is performed by municipality Ltd. "Rīgas namu pārvaldnieks").
Private ESCO contracts	Contracts between housing owners and ESCO regarding provision of professional energy services including also provision of energy saving (ESCO may provide also funding). Contracts that are funded from the legal entity's resources (for example, in Latvia – Ltd. "Renesco").
New instruments	
Real estate tax relief instrument for complex renovation	Real estate tax relief for housing owners after housing renovation and implementation of other energy efficiency measures, mainly directed to complex renovation of housing.
Progressive housing crediting instrument for young families	State of local government finances a part from remaining housing credit for young families depending on the number of children in the family (for ex., along with birth of each next child the state or local government finance larger part of remaining housing credit).
Rent relief for social group housing	Local governments finance a part from rent in local government buildings for students, young families and large families (for ex., in Denmark students receive 15 % discount from rent if the student is unemployed or with small income (Kā ietaupīt dzīvojot Dānijā, 2016).
On-Bill instrument Repayment	Local government completely or partially finance separate measures related with housing improvement (for ex., improvement of environment, replacement of separate engineering communications).
Energy Efficiency Investment Funds	Special investments funds which are made up of public and private funds for funding energy efficiency projects in order to achieve a certain energy savings.
Green Bonds	Proceeds from bond sales are diverted to "green projects" or projects that ensure goals of renewable energy, energy-efficiency, environmental protection (for ex., a real estate developer (businessman) create eco-village of residential houses by issuing "green bonds" and obtained proceeds are invested in construction and development of the village. JSC Latvenergo in middle of 2015 issued green bonds and proceeds obtained from sale of bonds are planned to be invested in the reconstruction of hydroelectric power stations, protection of white storks and fish resources (Latvenergo emitē septiņu gadu zaļās obligācijas, 2016).
Housing instruments- self-financing individual funding	Individual funding, i.e., the person collects funds from residents or companies for a particular purpose (for ex., for replacement of windows in apartments, where large families are living; for restoration of residential houses, which are cultural and historical objects.).
Housing instruments- self-financing crowdfunding	Crowdfunding, i.e., through Internet are collected funds for a particular purpose (for ex., for installation of solar collectors in residential homes.).

Source: developed by the author for conducting expert survey for suitability assessment of instruments in Latvian conditions

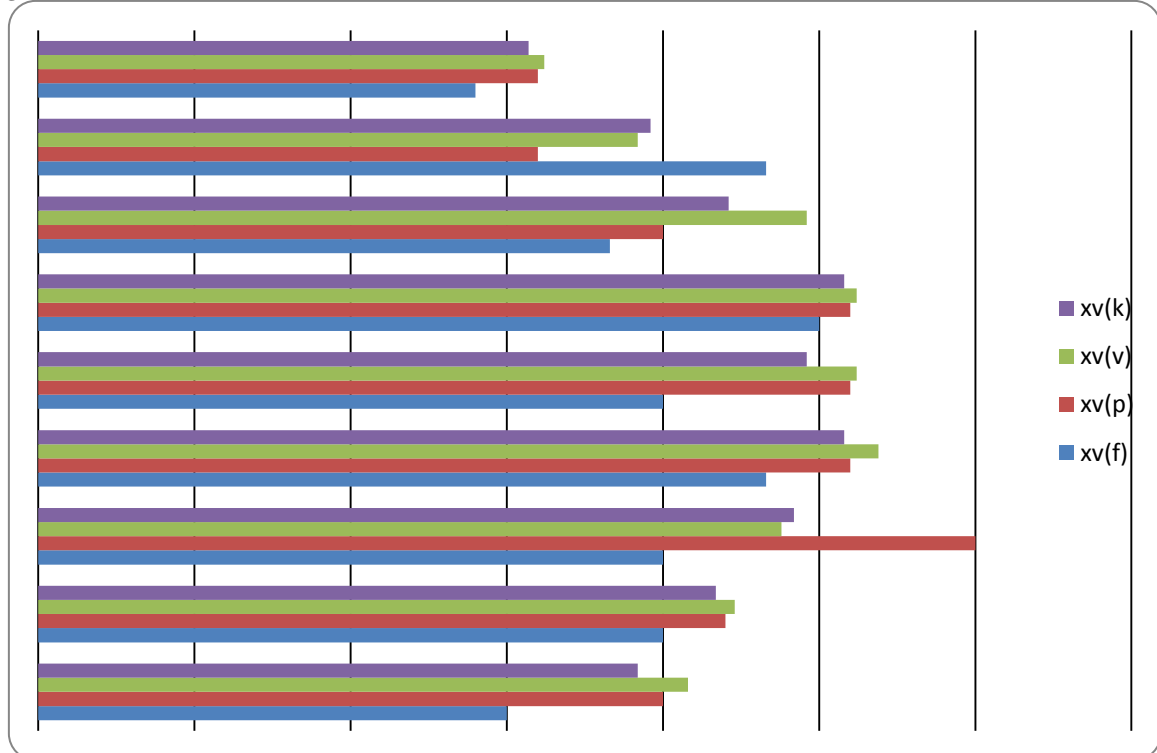
³ DMS activity – Activity 3.4.4.1 "Improvement of Heat Insulation of Multi-apartment Residential Buildings" of the supplementation of the Operational programme "Infrastructure and services".

⁴ ALTUM – State-owned joint stock company "Latvian Development Finance Institution ALTUM".

3.2. General Assessment of Long-Term Financing Instruments for Housing

In Figure 1 the author has summarised obtained arithmetic mean values from assessment results of experts' survey *Experts' survey for suitability assessment of instruments* regarding suitability assessment of instruments implemented in Latvia.

Figure-1. General suitability assessment of long-term financing instruments for housing in Latvia, implemented in Latvia during 2000-2015



Source: Developed by the author from assessments of experts in experts' survey regarding suitability assessment of general instruments in Latvia

Notes:

- xv (k) – arithmetic mean from assessments of all experts
- xv (v) - arithmetic mean from assessments of state institution experts
- xv (p) – arithmetic mean from assessments of local government experts
- xv (f) - arithmetic mean from assessments of financial institution experts

By analysing obtained arithmetic mean values for each instrument implemented up to this it can be seen that three of so-called combined instruments have the biggest values in accordance with total assessment of experts: *Special Credit Lines and Credit Guarantees*, *Special Credit Lines and Public Subsidies (Grants)*; *Special Credit Lines, Public Subsidies and Credit Guarantees*, as well as *Real Property Credit Tax Instrument for Social Groups*, showing that these instruments may be efficiently used even in Latvian conditions. Experts consider *Dedicated Credit Lines* as less usable instrument that has been implemented up to this, and by author's opinion it can be explained by the fact that efficient functioning of this instrument needs additional support from state's or local government's side.

Also state institution experts have similar opinion that combines instruments are ones of the most often used and most efficient instruments in Latvia, by highlighting also importance of *Public subsidies*. But *-Dedicates Credit Lines* – are the instrument which is less useable.

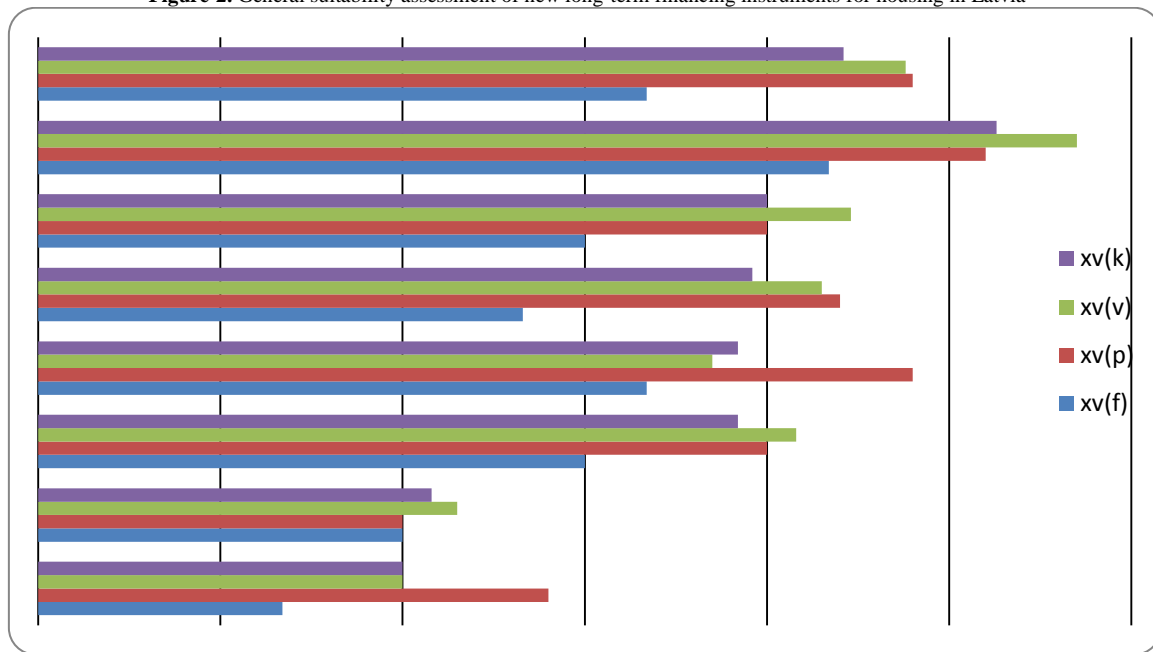
Among local government experts there is consensus that the most efficient and useable instrument from instruments that have been implemented up to this is *Real Property Tax Credit Instrument for Social Groups*. Local government experts also consider combined instruments as efficient and useable ones. The least usable ones are *Dedicated Credit Lines*, and - *Credit Guarantees*.

The majority of financial experts consider *Special Credit Lines and Credit Guarantees* as the most usable one from instruments that are currently implemented in Latvia, but *Dedicated Credit Lines* – as the least useable.

In accordance with total assessment of experts from new instruments for housing the *Progressive Housing Support Instrument for Young families* has the biggest arithmetic mean value showing that above instrument should be viewed as efficient in Latvian conditions, as well as that it is the most efficient long-term financing instrument for housing from existing and new ones. Experts believe that *Housing Self-financing instrument/ crowdfunding and housing self-financing instrument/ individual funding instrument* can be used less which according to the author's opinion is because our society in general has not reached the financial and moral level of development in order to be able to provide financial support for housing sectors/risk groups, and instead of this the people provides more support in emergency situations, relating with rescue of other person's life and improvement of health in difficult situations, and also they provide support to the poor people.

State institution, local institution and financial experts have similar opinion, and also they consider that *Progressive Housing Support Instrument for Young Families* is very appropriate for Latvian conditions. The least efficient instrument in accordance with their opinion is *Housing Self-financing instrument/ crowdfunding* (see figure 2).

Figure-2. General suitability assessment of new long-term financing instruments for housing in Latvia



Source: Developed by the author from assessments of experts in experts’ survey regarding suitability assessment of general instruments in Latvia

Notes:

- xv (k) – arithmetic mean from assessments of all experts
- xv (v) - arithmetic mean from assessments of state institution experts
- xv (p) – arithmetic mean from assessments of local government experts
- xv (f) - arithmetic mean from assessments of financial institution experts

Analysing indicators obtained from expert assessments regarding mode values (see Table 3), it should be concluded that experts’ assessments are similar to assessments of corresponding experts regarding values of arithmetic mean because the mode characterises mean values of assessments only in different perspective.

Table-3.Mode values for assessment of suitability of long-term financial instruments for housing assessments in Latvia

Long-term financial instruments for housing	Mode values			
	of all experts assessments	of state institution experts assessments	of local government experts assessments	of financial institution experts assessments
Instruments implemented from 2000-2015				
Dedicated Credit Lines	2	2	1	2
Credit Guarantees	2	2	1	2
(Public Subsidies (Grants))	2	2	1; 3	2
Special Credit Line and Credit Guarantees (combined instrument)	3	3	3	2; 3
Special Credit Line and Public Subsidies (combined instrument)	3	3	3	2
Special Credit Line, Public Subsidies and Credit Guarantees (combined instrument)	3	3	3	3
Real property tax credit instrument for social groups	3	3	2; 3	2
Municipality ESCO contracts	2	2	2; 3	2
Private ESCO contracts	2	2	2; 3	1; 2
New instruments				
Real estate tax relief instrument for complex renovation	3	3	2	1; 3
Progressive housing crediting support instrument for young	3	3	3	2

families				
Rent relief for social group housing	2	2	2	1; 2
On-Bill Repayment instrument	2	2	2; 3	1
Energy Efficiency Investment Funds	2	2	2; 3	1
Green Bonds	2	2	2	2
Housing self-financing instruments- individual funding	1	1	1	1
Housing self-financing instruments- crowdfunding	1	1	1	1

Source: Developed by the author from assessments of experts in experts' survey regarding suitability assessment of general instruments in Latvia

By determining arithmetic mean standard deviation of long-term financing instruments implemented from 2000-2015 (see Table 4) it can be seen that from total assessment of experts the biggest values has instruments: *Private ESCO Contracts, Special Credit Lines and Public Subsidies (grants), Real Property Tax Credit for Social Groups*, while from the new long-term financing instruments for housing – *Real Estate Tax relief instrument for Complex Renovation and Rent Relief for Social Groups*, what means that experts' opinion is radically different.

The smallest difference between these indicators in the total assessment of experts regarding long-term financial instruments for housing that are implemented from 2000-2015 for *Credit Guarantees*, while regarding new long-term financial instruments for housing – for *Self-financing Instrument for housing/ individual funding* showing that opinion among experts is similar. Arithmetic mean standard deviation of all expert assessments.

Table-4. Assessment of arithmetic mean standard deviation

Long-term financial instruments for housing	Arithmetic mean standard deviation of all expert assessments
Instruments implemented from 2000-2015	
Dedicated Credit Lines	0,71
Credit Guarantees	0,61
(Public Subsidies (Grants))	0,76
Special Credit Line and Credit Guarantees (combined instrument)	0,70
Special Credit Line and Public Subsidies (combined instrument)	0,87
Special Credit Line, Public Subsidies and Credit Guarantees (combined instrument)	0,76
Real property tax credit instrument for social groups	0,81
Municipality ESCO contracts	0,69
Private ESCO contracts	0,91
New instruments	
Real estate tax relief instrument for complex renovation	1,00
Progressive housing crediting support instrument for young families	0,63
Rent relief for social group housing	0,82
On-Bill Repayment instrument	0,73
Energy Efficiency Investment Funds	0,64
Green Bonds	0,70
Housing self-financing instruments- individual funding	0,57
Housing self-financing instruments- crowdfunding	0,76

4. Conclusions and Discussion

1. When assessing long-term financing instruments for housing and their suitability for Latvia in general without separate analysis of benefits that may arise from instrument implementation, as well as potential costs of their implementation in accordance with assessment of all experts combined instruments were the most suitable instruments for Latvian conditions that were implemented from 2000-2015: *Special Credit Lines and Credit Guarantees, Special Credit Lines and Public Subsidies (grants); Special Credit Lines, Public Subsidies and Credit Guarantees*, as well as *Real Property Credit Tax instrument for social groups*. Also experts in state and financial institution fields have similar opinion. The exception is assessment of local government experts regarding *Real Property Tax Credit for Social Groups*, because all of these areas experts had assessed this instrument with maximum number of points as the instrument that is very applicable for Latvian conditions. Assessment of local

government experts can be explained by the fact that local governments perform administration and application of the real property tax credit, and they are well aware of the nature of this instrument and, consequently, they have a deeper knowledge about the efficiency of instrument's potential in Latvia.

Dedicated Credit Lines were assessed as the least suitable instrument in Latvia by the experts in all fields, and it can be explained by the fact that this instrument may not work properly without additional support from public sector, for example, state guarantees, public subsidies, etc.

2. When assessing long-term financing instruments for housing and their suitability in Latvia in general, the most efficient new instrument that could be applied in Latvian conditions is *Progressive Housing Support Instrument for Young Families*. According to expert assessments (values of arithmetic mean) this instrument should be assessed as the most efficient instrument in Latvia in category of existing instruments and also of new instruments. Also, *Real Estate Tax Relief Instrument for Complex Renovation* is viewed as one of the most appropriate instruments for Latvia, while it should be noted that opinion of experts, especially financial institution experts, on this issue differ, and this instrument has the biggest standard deviation value in category of new instruments.

Regarding category of new instruments it should be emphasized also *On-Bill Repayment instrument, Green Bonds* and *Energy efficiency investment funds*, which gained similar assessment in total assessment of experts regarding their suitability to Latvian conditions. Local government experts assess *Energy Efficiency Investment funds* as applicable to Latvian conditions that can be explained by the fact that local governments have knowledge in implementation of funds, taking into account that such funds can be established also at local governments.

The least applicable instruments for Latvian conditions are *housing self-financing instrument/ individual funding* and *housing self-financing instrument/ crowdfunding*.

3. The most important reasons for differences in experts' opinion about long-term financing instruments for housing, i.e., there are bigger standard deviations, are lack of expert knowledge in field of financing instruments for housing by taking into account the narrow specifics of the field, especially it has to be referred to new instruments, as well as different understanding about one or other instruments, taking into account the specifics of each expert (public sector, local government sector and financial institutions sector) and specifics of professional scope (for example, expert in environmental protection field, expert in housing field, expert in finances, etc.).

Taking into account the above mentioned, in order to gain more accurate assessment of experts, especially regarding new instruments, the author suggests the following proposals:

1. It is necessary to carry out in-depth interviews with experts on the instruments, in particular the new instruments, on which expert's opinion is radically different, including to assess the potential benefits and costs;

2. It should be developed the program for experts to introduce instruments, in particular the new ones, in more detailed manner, for example, by organizing a conference, a seminar, "brainstorming" about possible instruments, as well as to prepare more detailed information (information report) on the instruments by providing opportunity for experts to get more familiar with it; to organize the experience exchange trip to see and assess examples of good practice in other EU countries or the like.

3. State institutions in cooperation with local governments and private sector should introduce new long-term financing instruments for housing in Latvia, with the help of which it would be possible to attract more private investment, while improving availability of housing for social risk groups.

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