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# Current Situation of Household Income as a Factor, Having Impact on Mortgage Lending in Mongolia

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**Abstract.** Amount of household income is the most important factor for housing loan. The article studies mortgage lending in Ulaanbaatar in 2007–2009, the factor, having great impact on the current economy of Mongolia, carries out the comparative analysis of capital's medium and low income households and presents methods, which will help to solve these problems.

**Keywords:** household income; loan interest; mortgage loan.

**Introduction**. Population of Mongolia reached 2,750,500 million in 2010 and 40 % of it lives in Ulaanbaatar. 41 % of capital's population lives in apartments and 59 % in ni ger (Mongolian traditional dwelling) districts while 35000 rural people move to UB annually UB of which 80 % settles in ger districts.

It is a good idea to change ger districts for apartment districts. But there is less opportunity to afford apartments for ger district dwellers. Thus employment should be increased for household income generation [1].

In 2009 average cash income of a household of Ulaanbaatar was 499,2 thousand MNT, compared with 2008 it increased by 20 % or 83 thousand MNT, and average person per household was 4,2.

Table 1

**Average expense and income of a household in UB. /per month/**

|         | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   | 2006   | 2007   | 2008   | 2009     |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| Income  | 115739 | 150361 | 165276 | 184608 | 167763 | 176050 | 218645 | 284987 | 416015 | 499218   |
| Expense | 118635 | 150361 | 191039 | 171203 | 178722 | 203794 | 273070 | 318147 | 454822 | 500304.2 |

Source: Bulletin of National Statistic office

Households spend 85 % of their income on their primary needs such as food, clothing, and transportation and the rest of it is spent on necessary social and cultural service.

Table 2
## Medium income household expenditures of Ulaanbaatar and rural areas income %

| № | | Ulaanbaatar | Rural area | average |
|---|---|---|---|---|
| 1 | food | 33,4 | 26,9 | 30,1 |
| 2 | Clothing | 23,7 | 41,8 | 32,8 |
| 3 | transportation | 9,4 | 14,9 | 12,1 |
| 5 | Social and cultural service (events) health and others | 5,6 | 2,5 | 4,1 |
| 5 | Housing | 15,9 | 5,5 | 10,7 |
| 6 | Communication | 12,0 | 8,4 | 10,2 |
| | Total | 100,0 | 100,0 | 100,0 |

Source: Bulletin of National Statistic office

Mongolia's average household's income level does not meet mortgage loan requirement. The government should consider raising the income of household [2]. As well as to explore possible options for the other developing and developed countries where this problem has been solved [3–5].

Materials and methods. The study was done targeting Ulaanbaatar's loan holders using related documents of commercial banks, central statistical committee, Mongolian mortgage corporation and newspapers, magazines, data from ADB.

There is a formula by Russian Scholars T. Ovsyannikova, D. Prauzin [6] on relations between household savings, loan interest norm of financial products, apartment price, payment term.

$$T = log_{i+1}\left(\frac{C*S}{(D-P)*N} * i + 1\right) \text{(1)} \quad \begin{cases} T = log_{(1+i)} \frac{s}{s-iP} \\ s - iP > 0 \end{cases} \text{(2)}$$

Where: D- household annual average income, N – number of household members, C- $1 \text{м}^2$ average price per square meter, S – apartment size, T – term (duration) for mortgage loan, i- monthly loan interest.

The formula shows (2) how the fixed payment mortgage term's relevance with family accumulation and loan interest. This formulation is different from the World Bank calculation method but result is same. This formulation's fraction is larger than zero.

S-iP>O This displays family accumulation must be higher than s>iP apartment loan interest.

s>iP Family accumulation or income level is defining the highest point of loan interest depending on the apartment price.

Discussion. Let us estimate people's possibilities for mortgage loan depending on household income table 3.

The estimation was done how a citizen A does monthly redemption of loan under the most flexible condition of Mongolian, mortgage loan issuing commercial banks. Here in: Below-mentioned result showed up today's banks' 20 years as the longest term, that year's possible minimum loan interest is 1.26–1.54 %, advance payment is 30 %, and remaining 70 % will be direct financing.

Table 3
## Possibilities for mortgage loan depending on household income

| Household income, mortgage size | 2007 | 2008 | 2009 |
|---|---|---|---|
| Average cash income of a house hold ₮ | 284,981 | 416,015 | 499,218 |
| Average cash expenses of household ₮ | 318,147 | 454,822 | 500,304 |

| Difference between household income and expenses ₮ | -33,166 | -38,807 | -1,086 |
|---|---|---|---|
| amount of mortgage loan redemption per month ₮ | 71,245 | 104,004 | 124,805 |
| inflation level( rate) % | 9,6 | 28,0 | 13,5 |
| Average monthly mortgage loan interest % | 1,26 | 1,52 | 1,54 |
| Average price for 2 room apartment ₮ | 36,875,000 | 54,250,000 | 49,200,000 |
| Sum after subtraction of advance payment 30% or amount of mortgage loan | 25,812,500 | 37,795,000 | 34,440,444 |
| Monthly loan redemption under 20 year duration, the longest term of the current commercial banks ₮ | 341,800 | 589,000 | 544,800 |

Result. It is possible that there might be a slight difference with reports of household income and expense information on Ulaanbaatar's average household, but on the other hand it is considerable to view that the households use other additional sources while the household income does not meet living demands. Because it is seen that it is impossible to make capital accumulation while the expense exceeds the income and 85 % of their income is spent on primary needs like food and transportation.

Also it is obvious from the analysis that there is no possibility to get mortgage loan for these three years with income exceeding expense. It is seen that even if a household wants to pay the mortgage loan by its full income, then the income still insufficient to pay its loan monthly. But today buying apartment with salary not to waste any tugrik from the income and pay a debt, but it is obvious that citizen A's household income is insufficient to pay a mortgage loan with interest.

Thus it is necessary for the country to increase apartment sales and most important to increase household real income in the medium and future term plans.

**Conclusions.** Legal opportunities became clear by the mortgage law, issued in the autumn of 2009. The government should work to increase the people's household income and the state participation should be improved at policy making level. As a result there will be people's household increased income, higher housing demands, increased mortgage loan, opportunities for people to live comfortably in apartments bought by mortgage loan.

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The reasons of misbalance of average income households of UB possibly be in one hand targeted people of the survey gave improper, general information on their income and expense and on the other hand it could be that the households use additional source to meet their living needs. Thus it is estimated that UB's household's average income level can not meet mortgage loan criteria as well as it is not able to pay the loan even if the living needs are excluded.

The following measures are necessary to be taken in order to make the housing loan affordable for medium and low income households:

➢ To increase salary and pension for low income householders but increase should not be a reason for inflation.

➢ To decrease bank interest rate and seek ways to prolong it.

➢ The government should give grant to support low and medium income householders.

➢ The government should support construction companies via decreasing taxation to decrease apartment price.

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**Доходы домашних хозяйств как факторы влияющие на современное состояние ипотечного кредитования в Монголии**

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**Аннотация.** Сумма доходов населения является важнейшим фактором для жилищного кредита. Исследование ипотечного кредитования, в значительной степени влияет фактор современной экономики Монголии Улан-Баторе сделали ориентации в периоды 2007–2009 годы. Анализ доходов средних и низких домохозяйств был проведен сравнительным методом и представлены возможности решения проблем.
**Ключевые слова:** доходы домашних хозяйств; проценты по кредиту; ипотечный кредит.