

香港特別行政區政府
The Government of the Hong Kong Special Administrative Region

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房屋及規劃地政局

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20 October 2006

Clerk to LegCo Panel on Housing
Legislative Council Secretariat
Legislative Council Building
8 Jackson Road
Central
Hong Kong
(Attn: Ms Connie Szeto)

Dear Ms Szeto,

**Legislative Council Panel on Housing
Special Meeting on 26 September 2006**

Thank you for your letter of 27 September 2006.

Details of the operation of the proposed income-based rent adjustment mechanism are set out at **Annex**. The proposed mechanism, if adopted, would be used to guide the adjustments of the rent of public rental housing (PRH) in general. For individual tenants who cannot afford paying normal rent, effective safety nets are provided under the Rent Assistance Scheme (RAS) and Comprehensive Social Security Assistance (CSSA) operated respectively by the Housing Authority (HA) and Government. In recent years, the HA has twice enhanced the RAS which now provides for 25% to 50% rent reduction to households with rent-to-income ratios exceeding 20% or with income below 60% of the Waiting List Income Limits. Recipients of rent assistance and CSSA together account for some 22% of the total number of PRH households.

As regards the initial recommendations of the Ad Hoc Committee on Review of Domestic Rent Policy, these have already been attached to the paper on "Review of Domestic Rent Policy" submitted to the Panel for the meeting on 26 September.

I should be grateful if you would relay the above information to Members of the Panel on Housing.

Yours sincerely,

(Carlson K. S. Chan)
for Secretary for Housing, Planning and Lands

c.c. AA/SHPL

Compilation and Operation of the Proposed Income Index

Income-based Rent Adjustment Mechanism

- The proposed income index is essentially an income-based rent adjustment mechanism which seeks to track the movement in the household income of PRH tenants for determining the extent of rent adjustments.

Why Changes in Household Size Distribution Should be Discounted?

- Movement in the overall household income of PRH tenants is attributable to, inter alia, two main factors –
 - (a) changes in individual household's income; and
 - (b) changes in the distribution of household size.
- Income of small households is usually lower than that of large households¹. Even if the income of individual households remains unchanged, the overall household income of all the PRH tenants (either measured in terms of median or average income) may drop simply due to a surge in the number of small households.
- The following hypothetical examples illustrate how the median or average income of PRH households is affected by changes in household size distribution –

¹ As at the first quarter of 2006, the average household income of PRH tenants was \$4 685 for 1-person households; \$8 892 for 2-person households; \$13 564 for 3-person households; \$16 124 for 4-person households and \$19 383 for 5-person or above households.

- **Example A** : *Effects of Changes in Household Size Distribution on Median Household Income (assuming no change in the income of individual households)*

<u>Period (1)</u>				<u>Period (2)</u>			
Household Number	Household Size	Household Income (\$)	Median Household Income by Household Size (\$)	Household Number	Household Size	Household Income (\$)	Median Household Income by Household Size (\$)
1	1-person (27.3%)	4,000	5,000	1	1-person (36.4%)	4,000	5,000
2		5,000		2		5,000	
3		5,500		3		5,000	
4	2-person (27.3%)	6,500	7,500	4	2-person (36.4%)	5,500	7,500
5		7,500		5		6,500	
6		8,000		6		7,500	
7	3-person or above (45.5%)	8,500	9,500	7	3-person or above (27.3%)	7,500	9,500
8		9,000		8		8,000	
9		9,500		9		8,500	
10		10,000		10		9,500	
11		11,000		11		11,000	
Median household income (\$)			8,000	Median household income (\$)			7,500

- As can be seen from the above table, the median household income drops from \$8,000 in Period 1 to \$7,500 in Period 2 even though there is no change in the income of individual households. The decline in the median household income is primarily due to an increase in the number of 1-person and 2-person households in Period 2 rather than a drop in the income of individual households.

- **Example B** : *Effects of Changes in Household Size Distribution on Median Household Income (assuming an increase of \$300 in the monthly income of all households)*

<u>Period (1)</u>				<u>Period (2)</u>			
Household Number	Household Size	Household Income (\$)	Median Household Income by Household Size (\$)	Household Number	Household Size	Household Income (\$)	Median Household Income by Household Size (\$)
1	1-person	4,000	5,000	1	1-person	4,300	5,300
2	(27.3%)	5,000		2	(36.4%)	5,300	
3		5,500		3		5,300	
4	2-person	6,500	7,500	4		5,800	7,800
5	(27.3%)	7,500		5	2-person	6,800	
6		8,000		6	(36.4%)	7,800	
7	3-person	8,500	9,500	7		7,800	7,800
8	or above	9,000		8		8,300	
9	(45.5%)	9,500		9	3-person	8,800	
10		10,000	9,500	10	or above	9,800	9,800
11		11,000		11	(27.3%)	11,300	
Median household income (\$)			8,000	Median household income (\$)			7,800

- Notwithstanding an increase in the income of individual households, the median household income still registers a downward adjustment from \$8,000 in Period 1 to \$7,800 in Period 2. Again, this is mainly due to an upsurge in the number of small households over the same period.

- **Example C : Effects of Changes in Household Size Distribution on Average Household Income (assuming an increase of \$300 in the monthly income of all households)**

<u>Period (1)</u>				<u>Period (2)</u>			
Household Number	Household Size	Household Income (\$)	Average Household Income by Household Size (\$)	Household Number	Household Size	Household Income (\$)	Average Household Income by Household Size (\$)
1	1-person (27.3%)	4,000	4,833	1	1-person (36.4%)	4,300	5,175
2		5,000		2		5,300	
3		5,500		3		5,300	
4	2-person (27.3%)	6,500	7,333	4	2-person (36.4%)	5,800	7,675
5		7,500		5		6,800	
6		8,000		6		7,800	
7	3-person or above (45.5%)	8,500	9,600	7	3-person or above (27.3%)	7,800	9,967
8		9,000		8		8,300	
9		9,500		9		8,800	
10		10,000		10		9,800	
11		11,000		11		11,300	
Average household income (\$)			7,689	Average household income (\$)			7,398

- The potential distortion brought about by an increase in the number of small households would also be felt when assessing the average income of all the households. In spite of a rise in the income of individual households, the average household income drops from \$7,689 in Period 1 to \$7,398 in Period 2.
- The above illustrations clearly show that the movement in both median or average household income could be affected by changes in household size distribution. It does not necessarily stem from any variations in individual households' income. Nor does it imply any changes in tenants' affordability. For rent adjustment purpose, a more objective and fairer income indicator should therefore discount the effects of the changes in household size distribution and embrace only the changes in the household income of the PRH tenants.

Compilation of the Income Index

- To discount the effects of household size distribution and track the “pure income change” of the PRH tenants, the household size distribution of PRH tenants would be kept constant in any one particular rent review cycle for the purpose of assessing the weighted average household income of all PRH tenants, so that only the changes in the income of individual households are reflected in the calculation.
- Based on the household size and income distribution in “Example C” above, the calculation of the respective income indices for Period 1 and Period 2 is set out below –

	Household Distribution (%) (Period (1))	Average Household Income (\$) (Period (1))	Average Household Income (\$) (Period (2))
1-person	27.3%	4,833	5,175
2-person	27.3%	7,333	7,675
3-person or above	45.5%	9,600	9,967
Weighted average household income based on household size distribution in Period (1) (\$)		7,689 (4,833 x 27.3% + 7,333 x 27.3% + 9,600 x 45.5%)	8,043 (5,175 x 27.3% + 7,675 x 27.3% + 9,967 x 45.5%)
Income index (Period (1) as base year)		100.0	104.6

$$\text{Income index for Period (1) (i.e. base year)} : \frac{\$7,689}{\$7,689} \times 100 = 100$$

$$\text{Income index for Period (2) (i.e. current period)} : \frac{\$8,043}{\$7,689} \times 100 = 104.6$$

- The change in the income index between Period 1 and Period 2 can be computed as follows –

$$(104.6 - 100.0) / 100.0 \times 100\% = 4.6\% \quad (\text{change in income index} = \text{pure income effect})$$

- Using the change in the income index as a guide, the rent of all PRH flats would need to be adjusted upwards by 4.6% should a rent review be conducted in Period 2.

Re-basing the Household Size Distribution

- Instead of fixing the household size distribution perpetually at one particular period, we would make reference to the more updated pattern of household size distribution in PRH each time we conduct a rent review. Such regular “re-basing” could strike a balance between the need to exclude the undue impact of changes in household size distribution in assessing the income index within the two-year rent review cycle and the need to make reference to a more updated pattern of household size distribution in PRH for deriving the income index.
- Assuming that another rent review exercise is to be conducted in the next period, i.e. Period 3, the household size distribution in Period 2 would be adopted to compile the respective income indices for both Period 2 and Period 3 as follows –

Income and Household Size Distribution in Period 2 and Period 3

	Period (2)			Period (3)		
Household Number	Household Size	Household Income (\$)	Average Household Income (\$)	Household Size	Household Income (\$)	Average Household Income (\$)
1	1-person (36.4%)	4,300	5,175	1-person (45.5%)	3,800	4,800
2		5,300			4,800	
3		5,300			4,800	
4		5,800			5,300	
5	2-person (36.4%)	6,800	7,675	2-person (36.4%)	5,300	7,175
6		7,800			6,300	
7		7,800			7,300	
8		8,300			7,300	
9	3-person or above (27.3%)	8,800	9,967	3-person or above (18.2%)	7,800	9,550
10		9,800			8,300	
11		11,300			10,800	

Calculation of the Respective Income Indices for Period 2 and Period 3

	Household Distribution (%) (Period (2))	Average Household Income (\$) (Period (2))	Average Household Income (\$) (Period (3))
1-person	36.4%	5,175	4,800
2-person	36.4%	7,675	7,175
3-person or above	27.3%	9,967	9,550
Weighted average household income based on household size distribution in Period (2) (\$)		7,398 (5,175 x 36.4% + 7,675 x 36.4% + 9,967 x 27.3%)	6,966 (4,800 x 36.4% + 7,175 x 36.4% + 9,550 x 27.3%)
Income index (Period (2) as base year)		100.0	94.2

$$\text{Income index for Period (2) (taking Period 2 as base year)} : \frac{\$7,398}{\$7,398} \times 100 = 100$$

$$\text{Income index for Period (3)} : \frac{\$6,966}{\$7,398} \times 100 = 94.2$$

- Compared to Period 2, the income index decreases by 5.8% in Period 3. Using this as a guide, the rent of all PRH flats would need to be adjusted downwards by 5.8% should a rent review be conducted in Period 3.

Collection of Income Data

- In order to obtain more accurate and reliable income data, the Housing Authority (HA) should operate its own system for collecting household income data through a mandatory declaration system. A sample of 1 500 to 2 000 households would be selected each month to furnish the HA with their household income on a mandatory basis.

Computation

- To enhance the impartiality and objectivity of the income index, consideration can be given to engaging an independent party to undertake the computation on behalf of the HA.

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