Annex

The Administration's Responses to Members' Requests Raised at the Meeting of the Bills Committee on <u>Housing (Amendment) Bill 2007 on 9 February 2007</u>

(1) ADJUSTMENT IN PUBLIC RENTAL HOUSING (PRH) RENTS

(a) Breakdown by year on the accumulative changes in public rental housing (PRH) rent since 1997 if rent adjustment were to be introduced in accordance with movements in the following indicators –

(i) Consumer Price Index;
(ii) the 10% median rent-to-income ratio (MRIR) cap; and
(iii) the proposed income-based index tracking the movement in PRH tenants' household income.

(b) In addition to item (a), the information should cover the implication of rent increase waivers and rent remission implemented by the Housing Authority (HA) during the period.

The cumulative difference between the rental revenue received by the HA since 1997 and the revenue received if PRH rent were adjusted according to the movement of the concerned indicators is set out below (please refer to Appendix I for details) –

Type of Indicator	**Cumulative difference between the rental revenue received by the HA and that received if rent were to be adjusted by the changes in different indicators from 1997 to 2006 (HK$ Billion)**		**Cumulative difference taking into account the one-month rent remission in December 2001 (HK$ Billion)**	
	Scenario A	Scenario B	Scenario A	Scenario B
CPI(A)	- 11.69	- 0.01	- 12.51	- 0.83
Income Index	- 13.53	- 0.87	- 14.35	- 1.69
MRIR	+ 11.3	+ 11.3	+ 10.48	+ 10.48

Notes :
Scenario A – assuming the first rent review / adjustment took place in 1997.

Scenario B – assuming the rent-adjustment mechanism was introduced in 1997 and the first rent review / adjustment took place in 1999.

"-" denotes that the HA's rental revenue is less than the amount received if rent were adjusted based on the changes in CPI(A), income index or MRIR."+"denotes that the HA's rental revenue is greater than the amount received if rent were adjusted based on the changes in CPI(A), income index or MRIR.

(c) Details for working out the proposed 11.6% across-the-board reduction in PRH rent, including factors taken into account and details of the calculation.

2. To enable the proposed income-based rent adjustment mechanism to operate fairly and effectively, it is necessary to identify a rent level that is considered appropriate and acceptable to the community to form a new starting point upon which the new mechanism should operate. To ensure coherence and consistency, the new rent level should be determined with reference to the proposed income index. Given that the rent of the largest proportion of the existing PRH units and that of newly completed units were last reviewed in 1997, the HA has proposed to adjust the existing PRH rent according to the extent of changes in the income index since 1997. The proposed 11.6% across-the-board rent reduction has therefore been worked out based on the cumulative changes in the income index between 1997 (when the HA last adjusted PRH rent) and March 2006 (the latest income data available at the time we drafted the Report on Review of Domestic Rent Policy). The set of income index used in the calculation of the proposed rent reduction is set out below –

	1996	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006 (up to Mar.)**
Re-scaled series of income index	**100.0**	**107.2**	**110.2**	**105.1**	**105.0**	**105.5**	**98.7**	**93.3**	**93.2**	**93.7**	**94.8**

Change in income index between 1997 and 2006 (up to March)

$$= \frac{94.8 - 107.2}{107.2} \times 100\%$$

$$= -11.6\% \quad \text{(rent reduction recommended by the HA)}$$

3. The step-by-step calculation is set out at **Appendix II.** After the rent reduction of 11.6%, more than 50% of PRH households would have a monthly rent less than HK$ 1,200 and nearly 90% of PRH households would pay a monthly rent less than HK$ 2,000. According to an opinion survey we conducted in December 2006, 80% of the respondents considered the rent reduction of 11.6% "appropriate" or "too much". Amongst the PRH resident respondents, some 71% of them also considered the rent reduction "appropriate" or "too high".

(2) RENT ADJUSTMENT MECHANISM

(a) Feasibility of reducing PRH rents first before putting in place the proposed rent adjustment mechanism prescribed in the Bill.

4. The 11.6% rent reduction has been proposed with a view to providing a new rental starting point upon which the new rent adjustment mechanism could operate effectively and fairly. Apart from identifying a new rent level, another equally important prerequisite for the new mechanism to function effectively and fairly is that PRH rent must be allowed to move both downwards or upwards according to the movement in PRH tenants' household income. However, the current statutory 10% Median Rent-to-Income Ratio (MRIR) cap will prevent any upward adjustment in PRH rent even if there is an increase in PRH tenants' household income once the MRIR has exceeded 10%, regardless of the extraneous factors accounting for the surge in the MRIR. Unless the 10% MRIR cap is removed, the proposed income-based rent adjustment mechanism cannot function effectively to adjust rent downwards or upwards according to changes in PRH tenants' household income. As the proposed 11.6% rent reduction would incur a very substantial revenue loss by HA of $1.41 billion annually, it would be highly imprudent for the HA to introduce this rent reduction without having secured an effective legal and administrative framework to enable both downward and upward rent adjustments according to PRH tenants' household income.

5. To address the strong demands and expectations among some of the PRH tenants who have been urging the HA to introduce rent relief measures pending completion of the legislative process, the HA has decided to grant a one-off rent remission for the month of February 2007 to all PRH tenants, except for those who are paying additional rent.

(b) The existing Housing Ordinance (HO) (Cap. 283) already allows adjustment of rents both upward and downward. The 10% MRIR cap is to restrain rent increases to ensure PRH rents are within the affordability of tenants. Section 17 of the HO already provides that HA may remit PRH rents. As such, it would be unnecessary to amend the HO to put in place the proposed rent adjustment mechanism. The Administration should explain the feasibility of implementing the proposed rent adjustment mechanism without amending the HO. It should also provide concrete examples to justify its view that the 10% MRIR provisions are not conducive to the long term sustainability of PRH development.

6. The proposed rent reduction of 11.6% cannot be introduced under section 17 of the HO as it is a "variation of rent" rather than a "remission" of rent. However, the Court of Final Appeal (CFA) has clearly ruled that the 10% MRIR cap is not a statutory definition of affordability and that the words "any determination of variation of rent" in section 16(1A) of the HO, and hence the 10% MRIR cap, applies only to any decision by the HA to increase rent and does not extend to a decision to reduce rent.

7. However, as noted in para. 4 above, as long as the statutory 10% MRIR cap is still in place, the proposed income based rent adjustment mechanism can only be applied to reduce rent but not to increase rent. The reason is that the upsurge in the MRIR, which reached 14.3% as at the third quarter of 2006, has been brought about by a host of external factors other than changes in the income of PRH households and the rent they pay. As most of these extraneous factors contributing to the surge in the MRIR are unlikely to go away, the MRIR will continue to exceed the 10% ceiling and may continue to go up in the foreseeable future, even if PRH tenants' individual household income increases. These extraneous factors include –

(a) a huge surge in the proportion of small and elderly households living in PRH who usually have lower income than large households. Small households comprising one or two persons now account for 35% of the total number of PRH households, whereas elderly households constitute 14.4%, up from 20.9% and 9.7% respectively in 1996;

(b) major improvement in the HA's space allocation standard. The average living space per person increased substantially from 9.3 m^2 Internal Floor Area (IFA) in 1996 to 12 m^2 IFA as at present;

(c) a sharp rise in the number of Comprehensive Social Security Assistance (CSSA) recipients who tend to have higher "rent-to-income" ratios but their income from social security allowance already includes a rent allowance element. CSSA recipients now account for some 20% of the PRH households, up from 8.7% in 1996; and

(d) replacement of old estates by new ones. Between 1996/97 and 2005/06, some 109 200 old PRH units were demolished and replaced by 224 100 new units which are more spacious and with better facilities.

8. While the Court of Final Appeal has already ruled that the HA is not under a statutory duty to review and revise rent to ensure that the 10% MRIR is not exceeded, if we were to reduce rent to bring the present MRIR of 14.3% to 10%, a rent reduction of about 30% would be required. This extent of rent reduction is neither reasonable nor affordable by the HA and the community as a whole.

9. Without amending the HO to remove the 10% MRIR cap, adjusting PRH rent according to the changes in the proposed income index is permissible only if it leads to a rent reduction. Rent adjustment leading to a rent increase is practically not permissible even if there is an increase in PRH tenants' household income. Hence, the existing 10% MRIR cap will prevent reasonable and effective operation of the proposed income based adjustment mechanism.

10. We have demonstrated the fallacy of using median income as an indicator for rent adjustment purposes by a number of hypothetical examples set out at *Appendix I to Annex C* of the Report on the Review of Domestic Rent Policy. The relevant extracts from the Report are at **Appendix III**.

(c) With continued prudent financial management, HA will be able to balance its income and expenditure thus enabling sustainable development of PRH in the long run. HA should work out productivity enhancement targets to achieve savings in operating costs. The Administration should explain why given the current financial position of HA, it cannot maintain sustainability in its finance in the long run.

11. To maintain an average waiting time for PRH at around three years, the HA needs to build on average some 72 000 new PRH units over the next five years, incurring an average construction cost of around $6 billion per annum. The recurrent investment income and the HA's cash reserve (which includes, inter alia, one-off proceeds from listing of the Link REIT and sale of the surplus HOS units) should be able to provide the HA with the necessary capital to sustain this PRH construction programme.

12. However, the proceeds from the listing of Link REIT and sale of surplus HOS flats are one-off in nature and are needed to generate recurrent investment income. It is neither appropriate nor feasible, from a sustainability point of view to use these proceeds to fund the recurrent expenditure of managing and maintaining the PRH estates or the capital expenditure of PRH construction. Indeed, section 4(4) of the HO obliges the HA to direct its policy to ensure that the revenue from its estates "shall be sufficient to meet its recurrent expenditure on its estates". It should also be noted that the cost structure of the HA is subject to such external factors as movement in the general price level and wages which are beyond the HA's control. It is therefore necessary to put in place a rational mechanism to enable the HA to adjust PRH rent suitably in tandem with tenants' household income, which is closely related to their affordability and general performance of the economy. In this connection, we believe the proposed income-based rent adjustment mechanism could strike a balance between the need to ensure that PRH rent is affordable to tenants and that the HA's rental revenue would not fall too much behind the recurrent costs of managing and maintaining the PRH estates which are also related to the general performance of the economy.

13. The HA has been pursuing a continuous and vigorous process of streamlining its operation and enhancing its productivity. To name a few examples, the HA's staff establishment has been radically scaled back by over 40% from 15 000 in 1997/98 to 8 700 in 2006/07. The construction cost of new PRH projects has been cut down by some 7% following the adoption of the "Functional and Cost-effective" design approach.

(d) In connection with item (c), the Administration is requested to provide information on HA's investment income and rental operating account in the past ten years and their projections in the next five years.

(e) In relation to item (d), the information on HA's rental operating account should cover summary explanation on the itemized breakdown including salaries and depreciations.

14. Please refer to **Appendix IV** for details.

(f) The feasibility of introducing a statutory rent increase cap under the new rent adjustment mechanism to ensure PRH rents would be affordable to tenants. In this connection, the Administration is requested to provide details on relief measures for needy tenants, including possible measures to address needs of tenants who fall marginally outside the Rent Assistance Scheme.

15. Section 16(A)(4) of the Housing (Amendment) Bill 2007 (the Bill) requires the HA to adjust PRH rent strictly in accordance with the rate of increase or decrease in the income index of PRH tenants. In other words, the extent of any increase in PRH rent under the new mechanism cannot possibly exceed the extent of increase in PRH tenants' household income as reflected in the income index. This provision therefore has in effect placed a de facto cap on the extent of rent increase in any future rent adjustment.

16. For individual tenants who cannot afford paying normal PRH rent due to financial hardship, extra help is provided under the Government's CSSA and the HA's Rent Assistance Scheme (RAS). Recipients of CSSA and RAS together account for some 22% of the total number of PRH households.

17. For CSSA households, their rent allowance provided by the Government is adequate to cover the full amount of rent payable in most cases. As regards RAS recipients, they are entitled to a rent reduction of 25% or 50%. Currently, there are seven different income thresholds below which tenants could apply for RAS. For instance, tenants with rent-to-income ratios (RIRs) exceeding 20% and 25% would have their rent reduced by 25% and 50% respectively. For those whose RIRs fall below 20%, they may still be eligible for RAS if their household income is below 60% of the Waiting List income limits. Details of the eligibility criteria are at **Appendix V**. We believe the current eligibility criteria for RAS are broad enough to cater to the needs of various households facing different degree of financial hardship.

(g) The feasibility of implementing the proposed rent reduction for PRH estates with retrospective effect to the date when the Bill was introduced in the Legislative Council on 31 January 2007, or from 1 January 2007.

18. The existing HO does not contain any provision that expressly restricts HA's power to reduce rent retrospectively. The HA agreed to introduce rent reduction of 11.6% upon the passage of the Amendment Bill.

(h) The purposes for and operation of excluding rent adjustments paid by "well-off tenants" and tenants eligible for the Rent Assistance Scheme from the application of the proposed new rent adjustment mechanism are unclear. The drafting of the new subsection 16A(3) under clause 4 should be improved to properly reflect the policy intent.

19. Section 16A of the Bill introduces new provisions governing the frequency and extent to which the HA shall adjust PRH rent. In brief, the new provisions requires the HA, amongst other things, to –

(a) review the "relevant rent" payable by a residential tenant at a two-year cycle (section 16A(1)); and

(b) adjust the "relevant rent" according to the rate of increase or decrease of the income index (section 16A(4)).

20. Under the Housing Subsidy Policy and Policy on Safeguarding Rational Allocation of Public Housing Resources, "well-off tenants" are required to pay higher rent[1]. On the other hand, low-income tenants who are unable to afford paying normal rent can apply for a rent reduction of 25% or 50% under the RAS if their household income are lower than certain limits determined by the HA[2].

21. Once a tenant is caught under the "well-off tenants" policy or eligible for RAS, his/her rent will have to be increased or decreased immediately by an amount as determined by the relevant policies. Likewise, if the income or asset of the concerned tenant falls below or above the respective thresholds, his/her rent will have to be re-adjusted immediately back to the "normal" level. Both the timing and extent of rent adjustment, or re-adjustment, under the "well-off tenants" policy and RAS are determined administratively under the relevant policies of the HA, and should not be subject to the rent review cycle or rent adjustment mechanism prescribed in section 16A of the Bill. Section 16A(3) is therefore introduced to exempt the application of section 16A to –

(a) an adjustment of a residential tenant's rent where he/she becomes a "well-off tenant", and also the corresponding re-adjustment when he/she is no longer a "well-off tenant"; and

(b) an adjustment of a residential tenant's rent where he/she is eligible for rent reduction under the RAS; and also the corresponding re-adjustment when he/she is no longer eligible for the RAS.

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1 Tenants who have resided in PRH for ten years or more are required to declare household income at a biennial cycle. Households with income exceeding two times the Waiting List income limits have to pay 1.5 times net rent plus rates. Those with income exceeding three times the Waiting List income limits, or who choose not to declare income, have to pay double net rent plus rates. For those tenants paying double net rent plus rates, they are required to declare their assets at the next cycle of declaration if they wish to continue to live in PRH. Households with income exceeding three times the Waiting List income limits and net asset value exceeding the prescribed asset limits (currently set at 84 times of the Waiting List income limits), or those households who choose not to declare their assets, are required to vacate their flats. These households may apply for a licence to remain in their PRH units for a period of not more than one year, during which a licence fee equivalent to market rent will be levied.

2 Details of the eligibility criteria of RAS are set out at **Appendix V**.

22. That said, under the existing "well-off tenant" policy and RAS, the extent of the additional rent to be charged (apart from those paying market rent) and the extent of rent reduction to be granted are determined with reference to the "relevant rent" payable by other PRH tenants. Any adjustment to the "relevant rent" according to the new mechanism under section 16A(4) will affect the calculation of the amount of additional rent or reduced rent to be paid by "well-off tenants" or tenants eligible for RAS.

23. We believe section 16A(3) of the Bill as currently drafted has clearly reflected the policy intent of excluding the application of the new rent adjustment mechanism to "well-off tenants" who are required to pay additional rent and to RAS recipients who are eligible for rent reduction. The above arrangements are in line with those under the relevant provisions in the existing Ordinance being amended.

(i) To facilitate smooth implementation of the new rent adjustment mechanism and instill PRH tenants' confidence in the mechanism, the Administration should organize suitable publicity programmes to explain the operation of the new mechanism and promote tenants' awareness. It should also consider commencing the Amendment Ordinance one year after its enactment.

24. Before finalizing the proposal for introducing an income-based rent adjustment mechanism, the HA has undertaken very extensive consultation with stakeholders, including attending over 100 forums and meetings involving local residents, housing concern groups and District Councils. We will organize further publicity programmes to promote tenants' understanding on the proposed rent adjustment mechanism upon passage of the Bill.

25. Member's suggestion regarding the commencement date of the Amendment Ordinance is noted.

Housing Department
March 2007

Appendix I

Assessment of the Cumulative Differences
in HA's Rental Revenue from 1997 to 2006
<u>if PRH Rent were to be Adjusted According to Various Indicators</u>

<u>Key Assumptions</u>

(a) PRH rent is reviewed under a two-year cycle.

(b) Scenario A assumes that the first rent review / adjustment took place in January 1997. Scenario B assumes that the rent adjustment mechanism took effect in January 1997 and the first rent review / adjustment took place in January 1999 (i.e. two years after the introduction of the rent adjustment mechanism).

(c) For Scenario A, the first rent review took place in January 1997 and rent was adjusted according to the changes in the relevant indicators between January – December 1994 and January – December 1996). The second review took place in January 1999 and so forth. For Scenario B, the first rent review took place in January 1999 and rent was adjusted according to the changes in the relevant indicators between January – December 1996 and January – December 1998. The second review took place in January 2001 and so forth.

(d) The rent adjustment so assessed in the 1997 review was effective from January 1997 onwards. The rent adjustment so assessed in the 1999 review was effective from January 1999 onwards and so forth.

(e) For the MRIR indicator, the MRIR as at the fourth quarter of 1996 is taken for assessing the extent of rent adjustment required in the 1997 review. The MRIR as at the fourth quarter of 1998 is taken for assessing the extent of rent adjustment required in the 1999 review and so forth.

(f) The amount of rental revenue received by the HA annually is estimated by multiplying the average PRH rent by the number of households in PRH as at the beginning of the year in which rent adjustment took place. We have to calculate the estimated annual rent received, instead of using the amount of rent actually received and recorded in the accounts book. This is because we need to work out the estimated rents received per year using the various indicators to adjust rent during the period from 1997 to 2006 on the basis of some working assumptions. For the sake of data consistency, both the statistics on the amount of rent received with or without using the various indicators to adjust rent should be estimated on the same basis.

(g) The assessment has taken into account the impact of addition of new PRH flats and demolition of old PRH flats.

(h) HA's rental loss as a result of the one-month rent remission granted in December 2001 was equivalent to about $0.82 billion.

<u>Assessment under Scenario A</u>

(i) Consumer Price Index

- The CPI(A) data from 1994 to 2004 used in the rent review under Scenario A are as follows –

Table 1

Reference period	CPI(A)
Jan 1994 – Dec 1994	90.8
Jan 1996 – Dec 1996	104.6
Jan 1998 – Dec 1998	113.5
Jan 2000 – Dec 2000	106.6
Jan 2002 – Dec 2002	101.4
Jan 2004 – Dec 2004	99.3

- The rate of change in the CPI(A) between 1994 and 1996 would be used as the reference for adjusting PRH rent in the review conducted in January 1997. Since a two-year rent review cycle is adopted, the rate of rent adjustment assessed in the review conducted in January 1997 would apply to the rent charged in 1997 and 1998. Hence, the estimated amount of rent receivable would be the same in 1997 and 1998. The same concept applies to subsequent reviews and rent adjustments.

- The rate of rent adjustment according to changes in CPI(A) in each rent review is set out below –

Table 2

Rent review	Rate of rent adjustment (= change in CPI(A) over the preceding two years)	Years in which the rate of rent adjustment applied
January 1997	15.2%	1997 – 1998
January 1999	8.5%	1999 – 2000
January 2001	-6.1%	2001 – 2002
January 2003	-4.9%	2003 – 2004
January 2005	-2.1%	2005 - 2006

- The cumulative difference in HA's rental revenue if PRH rent were adjusted according to the movement in CPI(A) is set out below –

Table 3

Year	Estimated rental revenue received per year (HK$ Billion) (a)	Estimated rental revenue received per year assuming that PRH rent were adjusted by changes in CPI(A) (HK$ Billion) (b)	Difference (HK$ Billion) (c)=(a)-(b)
1997	8.64	9.95	-1.31
1998	8.64	9.95	-1.31
1999	9.02	10.90	-1.88
2000	9.02	10.90	-1.88
2001	9.21	10.46	-1.25
2002	9.21	10.46	-1.25
2003	10.23	11.04	-0.82
2004	10.23	11.04	-0.82
2005	11.09	11.73	-0.64
2006	11.09	11.73	-0.64
Cumulative difference**			**-11.69**
Cumulative difference** after deducting the one-month rent remission HA granted to PRH tenants in December 2001, which was equivalent to about $0.82 billion.			**-12.51**

Notes: (1) Totals may not add up due to rounding.

(2) The assessment has taken into account the impact of addition of new PRH flats and demolition of old PRH flats. Hence, the rental revenue cannot be derived directly from the rate of rent adjustment shown in table 2 above and the "Rents received" shown in this table.

(3) ** For the estimated rental revenue under the CPI(A) scenario, the additional rental revenue accrued from the rent increase implemented in April 1997, which involved about 22,000 PRH units, has been discounted in the above analysis. The relevant revenue so discounted for the period from April 1997 to December 1998, which was reflected in the "cumulative difference", is in the order of $0.12 billion.

(4) "–" denotes that the HA's rental revenue is less than the amount received if rent were adjusted according to changes in CPI(A), income index or MRIR since 1997.

"+" denotes that the HA's rent revenue is greater than the amount received if rent were adjusted according to changes in CPI(A), income index or MRIR since 1997.

(ii) Income Index

- The income indices from 1994 to 2004 used in the rent reviews under Scenario A are as follows –

Table 1

Reference period	Income index
Jan 1994 – Dec 1994	86.1
Jan 1996 – Dec 1996	100.0
Jan 1998 – Dec 1998	110.2
Jan 2000 – Dec 2000	105.0
Jan 2002 – Dec 2002	98.7
Jan 2004 – Dec 2004	93.2

- The rate of change in the income index between 1994 and 1996 would be used as the reference for adjusting PRH rent in the review conducted in January 1997. Since a two-year rent review cycle is adopted, the rate of rent adjustment assessed in the review conducted in January 1997 would apply to the rent charged in 1997 and 1998. Hence, the estimated amount of rent receivable would be the same in 1997 and 1998. The same concept applies to subsequent reviews and rent adjustments.

- The rate of rent adjustment according to the changes in the income index in each rent review is set out below –

Table 2

Rent review	Rate of rent adjustment (=change in income index over the preceding two years)	Years in which the rate of rent adjustment applied
January 1997	16.1%	1997 – 1998
January 1999	10.2%	1999 – 2000
January 2001	-4.7%	2001 – 2002
January 2003	-6.0%	2003 – 2004
January 2005	-5.5%	2005 – 2006

- The cumulative difference in HA's rental revenue if PRH rent were adjusted according to the movement in income index is set out below –

Table 3

Year	**Estimated rental revenue received per year (HK$ Billion) (a)**	**Estimated rental revenue received per year assuming that PRH rent were adjusted by changes in the income index (HK$ Billion) (b)**	**Difference (HK$ Billion) (c)=(a)-(b)**
1997	8.64	10.03	-1.39
1998	8.64	10.03	-1.39
1999	9.02	11.16	-2.15
2000	9.02	11.16	-2.15
2001	9.21	10.87	-1.66
2002	9.21	10.87	-1.66
2003	10.23	11.34	-1.11
2004	10.23	11.34	-1.11
2005	11.09	11.62	-0.52
2006	11.09	11.62	-0.52
Total difference**			**-13.53**
Total difference** after taking into account the one-month rent remission HA granted to PRH tenants in 2001, which is equivalent to about 0.82 billion of rental income.			**-14.35**

Notes: (1) Totals may not add up due to rounding.

(2) The assessment has taken into account the impact of addition of new PRH flats and demolition of old PRH flats. Hence, the rental revenue cannot be derived directly from the rate of rent adjustment shown in table 2 above and the "Rents received" shown in this table.

(3) ** For the estimated rental revenue under the income index scenario, the additional rental revenue accrued from the rent increase implemented in April 1997, which involved about 22,000 PRH units, has been discounted in the above analysis. The relevant revenue so discounted for the period from April 1997 to December 1998, which was reflected in the "cumulative difference", is in the order of $0.12 billion.

(4) "–" denotes that the HA's rental revenue is less than the amount received if rent were adjusted according to changes in CPI(A), income index or MRIR since 1997.
"+" denotes that the HA's rent revenue is greater than the amount received if rent were adjusted according to changes in CPI(A), income index or MRIR since 1997.

(iii) Median Rent-to-Income Ratio (MRIR)

- The MRIRs from 1996 to 2004 used in the rent reviews under Scenario A are as follows –

Table 1

Reference period	MRIR (%)
4Q 1996	8.9
4Q 1998	8.6
4Q 2000	10.3
4Q 2002	12.1
4Q 2004	14.7

- The 10% MRIR cap is assumed to be observed every time a rent review was conducted starting from 1997. The MRIR as at the fourth quarter of 1996 is adopted in the rent review conducted in January 1997. If the MRIR did not exceed 10%, it is assumed that no rent adjustment would be introduced. Should the MRIR be in excess of 10%, the rent reduction needed to bring it down to 10% is calculated and applied to the rent of PRH in 1997 and 1998 (since a two-year rent review cycle is assumed in this analysis). Hence, the estimated amount of rent receivable would be the same in 1997 and 1998. The same concept applies to subsequent reviews and rent adjustments.

- The rate of rent adjustment having regard to the MRIR cap over 1997 – 2006 is set out below –

Table 2

Rent review	Rate of rent adjustment (=rate of change in rent required to bring the MRIR down to 10%)	Years in which the rate of rent adjustment applied
January 1997	0%	1997 – 1998
January 1999	0%	1999 – 2000
January 2001	-2.9%	2001 – 2002
January 2003	-17.4%	2003 – 2004
January 2005	-32.0%	2005 – 2006

- It should be noted that the Court of Final Appeal has ruled that the 10% MRIR cap is applicable only when the HA decides to increase PRH rent. The calculation of the cumulative changes in PRH rent according to the 10% MRIR cap is therefore hypothetical since the HA is not required under the law to reduce PRH rent to bring the MRIR down to 10%. The hypothetical results are set out below –

Table 3

Year	Estimated rental revenue received per year (HK$ Billion) (a)	Estimated rental revenue received per year assuming that PRH rent were adjusted so that the the MRIR stayed at 10% or below(HK$ Billion) (b)	Difference (HK$ Billion) (c)=(a)-(b)
1997	8.64	8.64	0
1998	8.64	8.64	0
1999	9.02	9.02	0
2000	9.02	9.02	0
2001	9.21	8.94	0.27
2002	9.21	8.94	0.27
2003	10.23	8.45	1.77
2004	10.23	8.45	1.77
2005	11.09	7.55	3.55
2006	11.09	7.55	3.55
Total difference**			**+11.30**
Total difference** after taking into account the one-month rent remission HA granted to PRH tenants in 2001, which is equivalent to about 0.82 billion of rental income.			**+10.48**

Notes: (1) Totals may not add up due to rounding.

(2) The assessment has taken into account the impact of addition of new PRH flats and demolition of old PRH flats. Hence, the rental revenue cannot be derived directly from the rate of rent adjustment shown in table 2 above and the "Rents received" shown in this table.

(3) ** For the estimated rental revenue under the MRIR scenario, the additional rental revenue accrued from the rent increase implemented in April 1997, which involved about 22,000 PRH units, has been discounted in the above analysis. The relevant revenue so discounted for the period from April 1997 to December 1998, which was reflected in the "cumulative difference", is in the order of $0.12 billion.

(4) "–" denotes that the HA's rental revenue is less than the amount received if rent were adjusted according to changes in CPI(A), income index or MRIR since 1997.

"+" denotes that the HA's rental revenue is greater than the amount received if rent were adjusted according to changes in CPI(A), income index or MRIR since 1997.

Assessment under Scenario B

(i) Consumer price index

- The CPI(A) data from 1996 to 2004 used in the rent reviews under Scenario B are as follows –

Table 1

Reference period	CPI(A)
Jan 1996 – Dec 1996	104.6
Jan 1998 – Dec 1998	113.5
Jan 2000 – Dec 2000	106.6
Jan 2002 – Dec 2002	101.4
Jan 2004 – Dec 2004	99.3

- The rate of change in the CPI(A) between 1996 and 1998 would be used as the reference for adjusting PRH rent in the review conducted in January 1999. Since a two-year rent review cycle is adopted, the rate of rent adjustment assessed in the review conducted in January 1999 would apply to the rent charged in 1999 and 2000. Hence, the estimated amount of rent receivable would be the same in 1999 and 2000. The same concept applies to subsequent reviews and rent adjustments.

- The rate of rent adjustment according to changes in CPI(A) in each rent review is set out below –

Table 2

Rent Review	Rate of rent adjustment (= change in CPI(A) over the preceding two years)	Years in which the rate of rent adjustment applied
January 1999	8.5%	1999 – 2000
January 2001	-6.1%	2001 – 2002
January 2003	-4.9%	2003 – 2004
January 2005	-2.1%	2005 – 2006

- The cumulative difference in the HA's rental revenue if PRH rent were adjusted according to the movement in CPI(A) is set out below –

Table 3

Year	Estimated rental revenue received per year (HK$ Billion) (a)	Estimated rental revenue received per year assuming that PRH rent were adjusted by changes in CPI(A) (HK$ Billion) (b)	Difference (HK$ Billion) (c)=(a)-(b)
1999	9.02	9.78	-0.77
2000	9.02	9.78	-0.77
2001	9.21	9.39	-0.18
2002	9.21	9.39	-0.18
2003	10.23	9.91	0.31
2004	10.23	9.91	0.31
2005	11.09	10.53	0.56
2006	11.09	10.53	0.56
Cumulative difference**			**-0.01**
Cumulative difference** after deducting the one-month rent remission HA granted to PRH tenants in December 2001, which was equivalent to about $0.82 billion.			**-0.83**

Notes: (1) Totals may not add up due to rounding.

(2) The assessment has taken into account the impact of addition of new PRH flats and demolition of old PRH flats. Hence, the rental revenue cannot be derived directly from the rate of rent adjustment shown in table 2 above and the "Rents received" shown in this table.

(3) ** For the estimated rental revenue under the CPI(A) scenario, the additional rental revenue accrued from the rent increase implemented in April 1997, which involved about 22,000 PRH units, has been discounted in the above analysis. The relevant revenue so discounted for the period from April 1997 to December 1998, which was reflected in the "cumulative difference", is in the order of $0.12 billion.

(4) "–" denotes that the HA's rental revenue is less than the amount received if rent were adjusted according to changes in CPI(A), income index or MRIR since 1997.

"+" denotes that the HA's rent revenue is greater than the amount received if rent were adjusted according to changes in CPI(A), income index or MRIR since 1997.

(ii) Income Index

- The income indices from 1996 to 2004 used in the rent reviews under Scenario B are as follows –

Table 1

Reference period	Income index
Jan 1996 – Dec 1996	100.0
Jan 1998 – Dec 1998	110.2
Jan 2000 – Dec 2000	105.0
Jan 2002 – Dec 2002	98.7
Jan 2004 – Dec 2004	93.2

- The rate of change in the income index between 1996 and 1998 would be used as the reference for adjusting PRH rent in the review conducted in January 1999. Since a two-year rent review cycle is adopted, the rate of rent adjustment assessed in the review conducted in January 1999 would apply to the rent charged in 1999 and 2000. Hence, the estimated amount of rent receivable would be the same in 1999 and 2000. The same concept applies to subsequent reviews and rent adjustments.

- The rate of rent adjustment according to the changes in the income index in each rent review is set out below –

Table 2

Rent review	Rate of rent adjustment (=change in income index over the preceding two years)	Years in which the rate of rent adjustment applied
January 1999	10.2%	1999 – 2000
January 2001	-4.7%	2001 – 2002
January 2003	-6.0%	2003 – 2004
January 2005	-5.5%	2005 – 2006

- The cumulative difference in the HA's rental revenue if PRH rent were adjusted according to the movement in income index is set out below –

Table 3

Year	Estimated rental revenue received per year (HK$ Billion) (a)	Estimated rental revenue received per year assuming that PRH rent were adjusted by changes in the income index (HK$ Billion) (b)	Difference (HK$ Billion) (c)=(a)-(b)
1999	9.02	9.94	-0.92
2000	9.02	9.94	-0.92
2001	9.21	9.67	-0.46
2002	9.21	9.67	-0.46
2003	10.23	10.09	0.13
2004	10.23	10.09	0.13
2005	11.09	10.34	0.75
2006	11.09	10.34	0.75
Total difference**			**-0.87**
Total difference** after taking into account the one-month rent remission HA granted to PRH tenants in 2001, which is equivalent to about 0.82 billion of rental income.			**-1.69**

Notes: (1) Totals may not add up due to rounding.

(2) The assessment has taken into account the impact of addition of new PRH flats and demolition of old PRH flats. Hence, the rental revenue

cannot be derived directly from the rate of rent adjustment shown in table 2 above and the "Rents received" shown in this table.

(3) ** For the estimated rental revenue under the income index scenario, the additional rental revenue accrued from the rent increase implemented in April 1997, which involved about 22,000 PRH units, has been discounted in the above analysis. The relevant revenue so discounted for the period from April 1997 to December 1998, which was reflected in the "cumulative difference", is in the order of $0.12 billion.

(4) "–" denotes that the HA's rental revenue is less than the amount received if rent were adjusted according to changes in CPI(A), income index or MRIR since 1997.

"+" denotes that the HA's rent revenue is greater than the amount received if rent were adjusted according to changes in CPI(A), income index or MRIR since 1997.

(iii) Median Rent-to-Income Ratio (MRIR)

- The MRIRs from 1998 to 2004 used in the rent reviews under Scenario B are as follows –

Table 1

Reference period	MRIR (%)
4Q 1998	8.6
4Q 2000	10.3
4Q 2002	12.1
4Q 2004	14.7

- The 10% MRIR cap is assumed to be observed every time a rent review was conducted starting from 1999. The MRIR as at the fourth quarter of 1998 is adopted in the rent review conducted in January 1999. If the MRIR did not exceed 10%, no rent reduction would be required. Should the MRIR be in excess of 10%, the rent reduction needed to bring it down to 10% is calculated and applied to the rent of PRH in 1999 and 2000 (since a two-year rent review cycle is assumed in this analysis). Hence, the estimated amount of rent receivable would be the same in 1999 and 2000. The same concept applies to subsequent reviews and rent adjustments.

- The rate of rent adjustment having regard to the MRIR cap over 1997 – 2006 is set out below –

Table 2

Rent review	Rate of rent adjustment (=rate of change in rent required to bring the MRIR down to 10%)	Years in which the rate of rent adjustment applied
January 1999	0%	1999 – 2000
January 2001	-2.9%	2001 – 2002
January 2003	-17.4%	2003 – 2004
January 2005	-32.0%	2005 – 2006

- It should be noted that the Court of Final Appeal has ruled that the 10% MRIR cap would only be relevant when the HA decides to increase PRH rent. The calculation of the cumulative changes in PRH rent according to the 10% MRIR cap only hypothetical since the HA is not required under the law to reduce PRH to bring the MRIR down to 10%. The hypothetical results are set out below –

Table 3

Year	Estimated rental revenue received per year (HK$ Billion) (a)	Estimated rental revenue received per year assuming that the PRH rent were adjusted so that the MRIR stayed at 10% or below (HK$ Billion) (b)	Difference (HK$ Billion) (c)=(a)-(b)
1999	9.02	9.02	0
2000	9.02	9.02	0
2001	9.21	8.94	0.27
2002	9.21	8.94	0.27
2003	10.23	8.45	1.77
2004	10.23	8.45	1.77
2005	11.09	7.55	3.55
2006	11.09	7.55	3.55
Total difference**			**+11.30**
Total difference** after taking into account the one-month rent remission HA granted to PRH tenants in 2001, which is equivalent to about 0.82 billion of rental income.			**+10.48**

Notes: (1) Totals may not add up due to rounding.

(2) The assessment has taken into account the impact of addition of new PRH flats and demolition of old PRH flats. Hence, the rental revenue cannot be derived directly from the rate of rent adjustment shown in table 2 above and the "Rents received" shown in this table.

(3) ** For the estimated rental revenue under the MRIR scenario, the additional rental revenue accrued from the rent increase implemented in April 1997, which involved about 22,000 PRH units, has been discounted in the above analysis. The relevant revenue so discounted for the period from April 1997 to December 1998, which was reflected in the "cumulative difference", is in the order of $0.12 billion.

(4) "–" denotes that the HA's rental revenue is less than the amount received if rent were adjusted according to changes in CPI(A), income index or MRIR since 1997.

"+" denotes that the HA's rental revenue is greater than the amount received if rent were adjusted according to changes in CPI(A), income index or MRIR since 1997.

Appendix II

Detailed Calculation of the Proposed Across-the-Board Rent Reduction of 11.6%

A. Key Assumptions

(a) PRH rent would be adjusted to form a new starting point with reference to the changes in the income index between 1997 (the last time the HA adjusted PRH rent) and mid-2006 (at the time the Report on Review of Domestic Rent Policy was drafted).

(b) In line with the methodology for calculating the income index, we have to discount the impact of the changes in household size distribution over time. In this respect, the income index values between 1997 and 2006 would be worked out assuming that rent reviews are carried out at two-year intervals.

(c) The income index for the whole year of 2006 was not available in mid-2006. Hence, the income index up to March 2006, which embraces the latest income data available at that time, was adopted for the purpose of (b).

(d) By virtue of assumptions (b) and (c), it is assumed that rent reviews were conducted in March 2006 and the end of 2004, 2002, 2000 and 1998.

(e) The household size distribution is updated every two years in accordance with the two-year rent review cycle set out in (d) above. For the purpose of compiling the income index of 2006 (up to March), the household size pattern of 2004 (i.e. the first period for a rent review in 2006) is adopted. The respective first period corresponding to the rent reviews in 2004, 2002, 2000 and 1998 should be 2002, 2000, 1998 and 1996 (hence the income index of 1996 has to be calculated as well).

B. Calculation of the Income Index for 1996 to 2006 (up to March)

It is assumed that rent reviews had been conducted in end 1998, 2000, 2002, 2004 and mid-2006.

Annual Income Index for the Rent Review in 1998

We have to compile the income index values for 1996, 1997 and 1998 using the household size distribution in 1996 for the rent review in 1998.

Household Size	Household size distribution in 1996	Mean Income ($)		
		1996	1997	1998
1p	0.09	4,117	4,222	5,227
2p	0.14	8,611	9,165	10,043
3p	0.20	13,578	14,578	15,112
4p	0.29	16,269	17,422	17,972
5p+	0.28	21,288	22,901	22,825
Weighted mean household income ($)		14,977	16,050	16,509
Income Index		**100.0**	**107.2**	**110.2**

$$\text{Income index for 1997} = \frac{16{,}050}{14{,}977} \times 100.0 = 107.2$$

$$\text{Income index for 1998} = \frac{16{,}509}{14{,}977} \times 100.0 = 110.2$$

Annual Income Index for the Rent Review in 2000

We have to compile the income index values for 1998, 1999 and 2000 using the household size distribution in 1998 for the rent review in 2000.

Household Size	Household size distribution in 1998	Mean Income ($)		
		1998	1999	2000
1p	0.10	5,227	4,842	4,816
2p	0.15	10,043	9,481	9,412
3p	0.20	15,112	14,208	14,287
4p	0.28	17,972	17,392	17,539
5p+	0.26	22,825	21,767	21,539
Weighted mean household income ($)		16,176	15,428	15,413
Income Index		**100.0**	**95.4**	**95.3**

$$\text{Income index for 1999} = \frac{15{,}428}{16{,}176} \times 100.0 = 95.4$$

$$\text{Income index for 2000} = \frac{15{,}413}{16{,}176} \times 100.0 = 95.3$$

Annual Income Index for the Rent Review in 2002

We have to compile the income Index values for 2000, 2001 and 2002 using the household size distribution in 2000 for the rent review in 2002.

Household Size	**Household size distribution in 2000**	**Mean Income ($)**		
		2000	2001	2002
1p	0.11	4,816	4,989	4,575
2p	0.16	9,412	9,525	8,895
3p	0.21	14,287	14,417	13,742
4p	0.28	17,539	17,630	16,598
5p+	0.24	21,539	21,428	19,755
Weighted mean household income ($)		15,102	15,166	14,190
Income Index		**100.0**	**100.4**	**94.0**

$$\text{Income index for 2001} = \frac{15{,}166}{15{,}102} \times 100.0 = 100.4$$

$$\text{Income index for 2002} = \frac{14{,}190}{15{,}102} \times 100.0 = 94.0$$

Annual Income Index for the Rent Review in 2004

We have to compile the income index values for 2002, 2003 and 2004 using the household size distribution in 2002 for the rent review in 2004.

Household Size	Household size distribution in 2002	Mean Income ($)		
		2002	2003	2004
1p	0.13	4,575	4,498	4,560
2p	0.18	8,895	8,630	8,455
3p	0.22	13,742	12,800	13,107
4p	0.28	16,598	15,519	15,583
5p+	0.19	19,755	18,831	18,434
Weighted mean household income ($)		13,603	12,861	12,848
Income Index		**100.0**	**94.5**	**94.5**

$$\text{Income index for 2003} = \frac{12{,}861}{13{,}603} \times 100.0 = 94.5$$

$$\text{Income index for 2004} = \frac{12{,}848}{13{,}603} \times 100.0 = 94.5$$

Annual Income Index for the Rent Review in 2006 (March)

We have to compile the income Index values for 2004, 2005 and Apr 05 - Mar 06[1] using the household size distribution in 2004 for the rent review in 2006 (March).

[1] The income index compiled for the purpose of a rent review should cover a 12-month reference period for the sake of eliminating the potential seasonal fluctuation in household income, which may render the assessment of the rate of change of the income index between two reference periods statistically unsound. In line with this principle, the income index of 2006 (up to March) refers to the 12-month period from April 2005 to March 2006.

Household Size	**Household size distribution in 2004**	**Mean Income ($)**		
		2004	2005	2006 (up to March)
1p	0.14	4,560	4,618	4,636
2p	0.20	8,455	8,673	8,737
3p	0.23	13,107	13,009	13,177
4p	0.26	15,583	15,631	15,814
5p+	0.17	18,434	18,583	18,886
Weighted mean household income ($)		12,535	12,601	12,754
Income Index		**100.0**	**100.5**	**101.7**

$$\text{Income index for 2005} = \frac{12{,}601}{12{,}535} \times 100.0 = 100.5$$

$$\text{Income index for 2006 (up to March)} = \frac{12{,}754}{12{,}535} \times 100.0 = 101.7$$

C. The income index for various rent reviews in 1998-2006 as calculated in the above tables are set out below.

	Income index used for rent review in				
Year	1998	2000	2002	2004	2006
2006 (up to March)					101.7
2005					100.5
2004				94.5	100.0
2003				94.5	
2002			94.0	100.0	
2001			100.4		
2000		95.3	100.0		
1999		95.4			
1998	110.2	100.0			
1997	107.2				
1996	100.0				

D. Construction of the Re-scaled Series of the Income Index

A pair of annual income index values will be required for each round of rent review for the purpose of calculating the change in PRH tenants' household income during the two-year period corresponding to a rent review cycle. The income index values under different rounds of rent review can be linked up together to form a series and can be made comparable with one another. This can be achieved by using a statistical re-scaling process known as splicing method by specifying a particular period as the base year of the index series. For example, the pair of income index values used in the rent review in *1998* set out in section C above are 100.0 (income index for 1996) and 110.2 (income index for 1998), and those for the rent review in *2000* are 100.0 (income index for 1998) and 95.3 (income index for 2000). The income index values for *1996, 1998 and 2000* can be linked up to form a time series by the following methodology.

The respective income index values for the rent review in *1998* and in *2000* are as follows –

Rent review cycle in 1998	Income index for 1996 : 100.0
	Income index for 1998 : 110.2
Rent review cycle in 2000	Income index for 1998 : 100.0
	Income index for 2000 : 95.3

We specify 1996 as the base year and assign a value of 100 to its income index. The overlapping period is *1998* where there are two values of the index, i.e., 110.2 and 100.0. As the index for *1996*, being the base year, is fixed at 100, the index for *1998* should be 110.2. The index for *2000* is 95.3 if the index for *1998* is 100.0. Since the index for *1998* is 110.2, the index for *2000* should be 'converted' to the index series by using a conversion factor of 1.102 (derived from the ratio of the two values of the income index for *1998* mentioned above (i.e. 110.2/100.0)). Hence, the income index for *2000* can be re-scaled by multiplying it by the conversion factor of 1.102, i.e. 95.3 x 1.102 = 105.0.

The re-scaled series of income index with the base year set at *1996* with a value of 100 is summarized in the following table -

Re-scaled series of income index

	Income Index		
	1996	1998	2000
Pair of income index values for the rent review cycle in 1998	100.0	110.2	
Pair of income index values for the rent review cycle in 2000		100.0	95.3
Conversion factor to be applied to the index in 2000 is 110.2 / 100.0 = 1.102			
Rescaled series of income index (index for 1996 = 100)	100.0	110.2	105.0

Similarly, the index values for the rent review cycle in subsequent periods can be linked up with the index series using the same methodology.

E. Re-scaled Annual Income Index Series for 1996-2006

Using the method detailed in Section D above, the rescaled income index series can be worked out as follows -

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006 (up to Mar.)
Re-scaled series of income index	**100.0**	**107.2**	**110.2**	**105.1**	**105.0**	**105.5**	**98.7**	**93.3**	**93.2**	**93.7**	**94.8**

F. Change in Income Index between 1997 and 2006 (up to March)

$$= \frac{94.8 - 107.2}{107.2} \times 100\%$$

$$= -11.6\%$$ (rent reduction recommended by the HA)

Compilation and Operation of the Proposed Income Index

Why Changes in Household Size Distribution Should be Discounted?

1. Movement in the overall household income of PRH tenants is attributable to, inter alia, two main factors –

   (a) changes in individual households' income; and

   (b) changes in the distribution of household size.

2. Income of small households is usually lower than that of large households[22]. 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.

3. The following hypothetical examples illustrate how the median or average income of PRH households is affected by changes in household size distribution –

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

Period (1)				Period (2)			
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		1	1-person (36.4%)	4,000	
2		5,000		2		5,000	
3		5,500	5,000	3		5,000	
4	2-person (27.3%)	6,500		4		5,500	5,000
5		7,500		5	2-person (36.4%)	6,500	
6		8,000	7,500	6		7,500	
7	3-person or above (45.5%)	8,500		7		7,500	
8		9,000		8		8,000	7,500
9		9,500		9	3-person or above (27.3%)	8,500	
10		10,000		10		9,500	
11		11,000	9,500	11		11,000	9,500
Median household income ($)			8,000	Median household income ($)			7,500

[22] *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.*

4. 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)*

Period (1)				Period (2)			
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		1	1-person (36.4%)	4,300	
2		5,000		2		5,300	
3		5,500	5,000	3		5,300	
4	2-person (27.3%)	6,500		4		5,800	5,300
5		7,500		5	2-person (36.4%)	6,800	
6		8,000	7,500	6		7,800	
7	3-person or above (45.5%)	8,500		7		7,800	
8		9,000		8		8,300	7,800
9		9,500		9	3-person or above (27.3%)	8,800	
10		10,000		10		9,800	
11		11,000	9,500	11		11,300	9,800
Median household income ($)			8,000	Median household income ($)			7,800

5. 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)*

Period (1)				Period (2)			
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		1	1-person (36.4%)	4,300	
2		5,000		2		5,300	
3		5,500	4,833	3		5,300	
4	2-person (27.3%)	6,500		4		5,800	5,175
5		7,500		5	2-person (36.4%)	6,800	
6		8,000	7,333	6		7,800	
7	3-person or above (45.5%)	8,500		7		7,800	
8		9,000		8		8,300	7,675
9		9,500		9	3-person or above (27.3%)	8,800	
10		10,000		10		9,800	
11		11,000	9,600	11		11,300	9,967
Average household income ($)			7,689	Average household income ($)			7,398

6. 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.

7. 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.

HONG KONG HOUSING AUTHORITY

Rental Housing Operating Account

	Actual 1996/97	Actual 1997/98	Actual 1998/99	Actual 1999/2000	Actual 2000/01	Actual 2001/02	Actual 2002/03	Actual 2003/04	Actual 2004/05	Actual 2005/06	Revised Budget 2006/07	Approved Budget 2007/08	Forecast 2008/09	Forecast 2009/10	Forecast 2010/11
	$M	$M	$M	$M	$M	$M	$M	$M	$M	$M	$M	$M	$M	$M	$M
TOTAL INCOME	**8,939.0**	**9,582.6**	**9,226.6**	**9,390.7**	**9,540.2**	**8,909.5**	**9,748.0**	**10,671.5**	**11,242.4**	**11,762.4**	**11,025.7**	**11,182.5**	**10,945.0**	**11,320.5**	**11,567.6**
EXPENDITURE															
Personal Emoluments	2,518.2	2,593.1	2,838.7	2,472.9	2,383.1	2,316.6	2,056.8	2,004.2	1,768.1	1,838.1	1,952.6	1,990.5	2,009.7	2,027.0	2,052.9
Government Rent & Rates	1,493.2	1,568.2	1,145.9	1,177.9	1,339.5	982.8	379.2	850.3	1,032.4	1,079.8	1,171.3	1,166.9	1,201.4	1,214.7	1,237.1
Depreciation	1,389.9	1,615.4	1,741.7	2,190.8	2,432.7	2,557.7	2,718.8	2,872.9	3,007.6	3,117.9	3,112.8	3,195.6	3,473.8	3,629.8	3,736.6
Other Expenditure	4,197.8	5,496.2	5,479.4	4,908.4	5,198.3	5,498.2	5,421.6	5,029.3	4,827.6	5,267.0	5,962.3	6,140.8	6,337.9	6,584.0	6,754.6
TOTAL EXPENDITURE	**9,599.1**	**11,272.9**	**11,205.7**	**10,750.0**	**11,353.6**	**11,355.3**	**10,576.4**	**10,756.7**	**10,635.7**	**11,302.8**	**12,199.0**	**12,493.8**	**13,022.8**	**13,455.5**	**13,781.2**
Operating Surplus/(Deficit)	**(660.1)**	**(1,690.3)**	**(1,979.1)**	**(1,359.3)**	**(1,813.4)**	**(2,445.8)**	**(828.4)**	**(85.2)**	**606.7**	**459.6**	**(1,173.3)**	**(1,311.3)**	**(2,077.8)**	**(2,135.0)**	**(2,213.6)**

Note:

Income

1 The overall increasing trend of rental income from 1996-97 to 2005-06 was mainly due to additional income from new rental stock coming on stream. The sudden income drop in 2001-02 was due to the rent waiver in December 2001.

2 The forecast income drop in 2006/07 is due to the one-month rent holiday in February 2007. The proposed rent reduction of 11.6% is assumed to take effect from September 2007 onwards.

Expenditure

3 The total expenditure for 1996-97 to 2005-06 has been maintained at a stable level of around $11Bn. It was mainly due to i) decrease in personal emoluments resulting from downsizing and civil service pay reduction; and ii) efficiency measures taken in both maintenance and improvement programmes and day-to-day estate management, despite increase in depreciation attributable to new housing stock. Lower Government rent and rates in 2001/02 to 2003/04 was due to rates concession for 2002 and 2nd quarter of 2003/04.

4 The total expenditure from 2005-06 to 2010-11 is expected to increase at around 4% per annum, i.e. from $11.3Bn to $13.8Bn. The increase is mainly due to increase in depreciation and other expenditure. The former is attributable to new housing stock coming on stream. The latter is due to implementation of the Total Maintenance Scheme and other measures to improve estate facilities such as providing barrier-free living environment for the disabled, visually impaired and the aged. In addition, we have also factored in a 2% annual inflation adjustment to the operational expenses and additional expenses attributable to new rental stock.

5 Other expenditure covers maintenance and improvement expenditure, property management charges (including water, electricity, security and cleansing charges), etc.

6 Nil salary adjustment for both civil service staff and HA contract staff has been assumed from 2007/08 to 2010/11.

7 Depreciation is calculated to write off the cost of an item of property, plant and equipment, less its estimated residual value, if any, using the straight-line basis over its estimated useful life. The expected useful lives of buildings (including site formation, and integral plant and equipment) range from 10 years (for low-rise prefabricated interim housing blocks) to 40 years (Post 31 March 1987 estates). The expected useful life of computer equipment, electronic equipment and motor vehicles is 5 years.

Net Investment Return

	Actual 1996/97	Actual 1997/98	Actual 1998/99	Actual 1999/00	Actual 2000/01	Actual 2001/02	Actual 2002/03	Actual 2003/04	Actual 2004/05	Actual 2005/06	Revised Budget 2006/07	Approved Budget 2007/08	Forecast 2008/09	Forecast 2009/10	Forecast 2010/11
	$M	$M	$M	$M	$M	$M	$M	$M	$M	$M	$M	$M	$M	$M	$M
Net investment return	1,747.6	2,257.7	3,014.1	1,744.5	1,204.6	1,300.5	1,236.5	590.1	237.0	1,030.8	2,581.8	3,291.2	3,315.0	3,690.7	3,860.2

Note:

Over the past ten years Hong Kong money market interest rate as illustrated by the 3-month deposit rate dropped from over 7% in 1997/98 to below 1% in 2003/04 and 2004/05, before rising to the current level of around 4%. At the same time HA's fund siz dropped from over $35Bn in 1998/99 to below $15Bn in 2004/05 before increasing to around $50Bn after the listing of the LINK REIT in end 2005. The higher investment return assumed for the budget/forecast period reflects the HA's new investment strateg with diversification of 45% of its fund into global bond since July 2006 and assuming further allocation of 25% to global equity in early 2007/08. The review of investment strategy is one of the HA's initiatives to utilize its available resources to maintain t long term sustainability of its public housing programme, and aims at enhancing return through diversification without increasing the overall level of ris

Appendix V

<u>Income Eligibility Criteria under RAS</u>

Income Limits / Household Size	1 Person Household	2 Person Household	3 Person Household	4 Person Household	5 Person Household	6 Person Household	7 Person Household	8 Person Household	9 Person Household	10 Person or above Household
For a 50% rent reduction for non-elderly households										
1)	Rent-to-income ratio (RIR) exceeds 25%; **<u>OR</u>**									
2) Household income falls below 50% of the respective Waiting List Income Limit (WLIL) irrespective of RIR; **<u>OR</u>**	Income < $3,400	Income <$ 5,150	Income < $6,050	Income <$7,300	Income <$8,150	Income <$9,050	Income <$9,850	Income <$10,650	Income <$11,200	Income <$11,950
3) Household income lies between 50% and 60% of the respective WLIL and RIR exceeding 15%	Income between $3,400 - $4,080, and RIR > 15%	Income between $5,150 - $6,180, and RIR > 15%	Income between $6,050 - $7,260, and RIR > 15%	Income between $7,300 - $8,760, and RIR > 15%	Income between $8,150 - $9,780, and RIR > 15%	Income between $9,050 - $10,860, and RIR > 15%	Income between $9,850 - $11,820, and RIR > 15%	Income between $10,650 - $12,780, and RIR > 15%	Income between $11,200 - $13,440, and RIR > 15%	Income between $11,950 - $14,340, and RIR > 15%

Income Limits / Household Size	1 Person Household	2 Person Household	3 Person Household	4 Person Household	5 Person Household	6 Person Household	7 Person Household	8 Person Household	9 Person Household	10 Person or above Household
For a 25% rent reduction for non-elderly households										
1)	RIR exceeds 20% but not exceeding 25%; **OR**									
2) Household income falls below 60% but not lower than 50% of the respective WLIL irrespective of RIR	Income ≧$3,400 and <$4,080	Income ≧$5,150 and <$6,180	Income ≧$6,050 and <$7,260	Income ≧$7,300 and <$8,760	Income ≧$8,150 and <$9,780	Income ≧$9,050 and <$10,860	Income ≧$9,850 and <$11,820	Income ≧$10,650 and <$12,780	Income ≧$11,200 and <$13,440	Income ≧$11,950 and <$14,340
For a 50% rent reduction for elderly households (i.e. households with members all aged 60 or above)										
1)	RIR exceeds 20%; **OR**									
2) Household income falls below 60% of the respective WLIL irrespective of RIR;	Income <$4,080	Income <$6,180	Income <$7,260	Income <$8,760	Income <$9,780	Income <$10,860	Income <$11,820	Income <$12,780	Income <$13,440	Income <$14,340