



1. Introduction

1.1 In Hong Kong, as many as 226 000 public housing flats built by the Housing Authority ("HA") have a rather long building age of over 35 years,¹ comprising 192 000 public rental housing ("PRH") flats in 62 estates and 34 000 subsidized sale housing ("SSH") flats in 27 estates.² In face of frequent complaints lodged by residents over weaker building structure and dilapidated conditions of these aged flats, there is advocacy to expedite their renewal, particularly for PRH flats, either in the form of (a) refurbishment or (b) outright demolition for redevelopment.³ While the Government recognizes that redevelopment "may increase PRH supply over the long term" by erecting higher-density buildings, it is facing an acute shortage of PRH flats to rehouse displaced residents in the short to medium term.⁴ As such, the Government now relies heavily on refurbishment in the overall renewal policy, as reiterated in its latest progress report of the Long-term Housing Strategy ("LTHS") announced at end-2019.⁵ Nonetheless, the Audit Commission has identified a couple of service gaps in refurbishment, especially maintenance quality.⁶

1.2 At the request of Hon KWOK Wai-keung, the Research Office has undertaken a study on public housing renewal in selected places, amidst scant

¹ Buildings in Hong Kong with reinforced concrete structures are designed to have a serviceable life of around 50 years. Yet other factors like building design, site and maintenance conditions also affect lifespan of a building. HA regularly publishes statistics on the number of aged flats with reference to the threshold of 35 years. See Development Bureau (2010) and GovHK (2016).

² HA is the largest provider of public housing in Hong Kong, taking up an overwhelming share of 96% of the stock of both PRH flats and SSH flats (within which 24% and 10% aged over 35 years). For the rest of 4%, it is provided by the Hong Kong Housing Society ("HKHS"). For a better focus, this study concentrates on the renewal policy of PRH flats and SSH flats managed by HA only.

³ By and large, housing renewal includes (a) refurbishment (i.e. maintain and repair existing flats) and (b) redevelopment (i.e. demolish the existing flats for building new ones).

⁴ For instance, a recent study estimates that redevelopment of 19 aged PRH estates could triple the supply of PRH flats from 65 900 units to 200 900 units on-site after completion of the decade-long process. Yet HA needs to spare a significant part of existing limited supply to rehouse the affected tenants beforehand. See 香港經濟民生聯盟 (2019年).

⁵ Transport and Housing Bureau (1998, 2014 and 2019).

⁶ Audit Commission (2016).

publicly available information on global practice.⁷ Singapore and London are selected for further study because (a) some 24% of London population and 79% of Singaporean population live in public housing, broadly comparable to that of 45%⁸ in Hong Kong; and (b) both cities have launched renewal policies on public housing over the past two decades. Moreover, as public housing is skewed more towards SSH flats in Singapore and to PRH flats in London, they offer complementary perspectives on renewal policies in the two housing segments. This information note begins with a review of recent renewal policy taken by HA in local public housing, covering both refurbishment and redevelopment of PRH and SSH flats. It will then switch to the renewal policies on PRH flats in London, followed by those on SSH flats in Singapore.

2. Recent renewal policy on public housing in Hong Kong

2.1 In 2019, there is a stock of 793 000 PRH flats and 336 000 SSH flats built by HA in Hong Kong, housing 28% and 15% of local population respectively. Yet public housing has experienced rapid ageing over the past two decades, along with a sharp reduction in completions of new flats upon a repositioning of Government's housing policy in 2002 after the outbreak of the Asian Financial Crisis.⁹ Reflecting this ageing trend, the proportion of PRH flats aged over 35 years quadrupled from 6% in 2009 to 24% in 2019 (**Figure 1**). Within this total, 143 500 flats in 33 estates built during 1952-1979 even aged 40-67 years. Likewise, the share of SSH flats aged over 35 years surged from nil in 2009 to 10% in 2019.¹⁰ Many residents complained about safety risks and poor living conditions in these aged estates, such as (a) weakening structural safety; (b) water seepage; (c) concrete spalling; and (d) old-fashioned design and minimal supporting facilities. Looking ahead, this ageing trend is expected to accelerate in the next decade, as a large

⁷ A quick literature review shows that few countries have attempted renewal of public housing in a significant manner, partly because the scale of public housing is rather limited all over the world. Also, public housing in many places is not old enough for renewal.

⁸ This figure also includes people living in public housing units managed by HKHS.

⁹ The repositioning of housing policy in 2002 aimed to restore the imbalance in local property market partly through reducing the supply of public housing. Consequently, the average annual number of PRH flats completed during 2009-2018 was only 13 400 flats only, down by 42% over that of 23 000 flats during 1999-2008. Meanwhile, construction of SSH flats was put on hold for over a decade.

¹⁰ The number of flats in aged estates is estimated based on Estate Locator in the webpage of HA, as advised by Housing Department. See Housing Authority (2019).

number of flats built during 1984-1993 (representing 18% of PRH stock and 53% of SSH stock) will mature into the 35-year threshold by 2028.

Figure 1 — Age distribution of PRH and SSH flats^(a) built by HA, 2009-2019

	2009	2014	2019
1. Total number of PRH flats ('000)	694	744	793
- Flats aged over 35 years ('000)	40 (5.8%) ^(b)	68 (9.1%)	192 (24.2%)
- Flats aged 26-35 years ('000)	165 (23.8%)	210 (28.2%)	145 (18.3%)
- Flats aged 25 years and below ('000)	489 (70.5%)	466 (62.6%)	456 (57.5%)
2. Total number of SSH flats ('000)	324	324	336
- Flats aged over 35 years ('000)	Nil	Nil	34 (10.1%)
- Flats aged 26-35 years ('000)	34 (10.5%)	91 (28.1%)	179 (53.3%)
- Flats aged 25 years and below ('000)	290 (89.5%)	233 (71.9%)	123 (36.6%)

Notes: (a) SSH flats Include Home Ownership Scheme, Private Sector Participation Scheme, Middle Income Housing Scheme and Green Form Subsidised Home Ownership Scheme led by HA.

(b) Figures in brackets are the percentage share of the respective stocks of PRH flats and SSH flats built by HA. Percentage may not add up to 100% due to rounding.

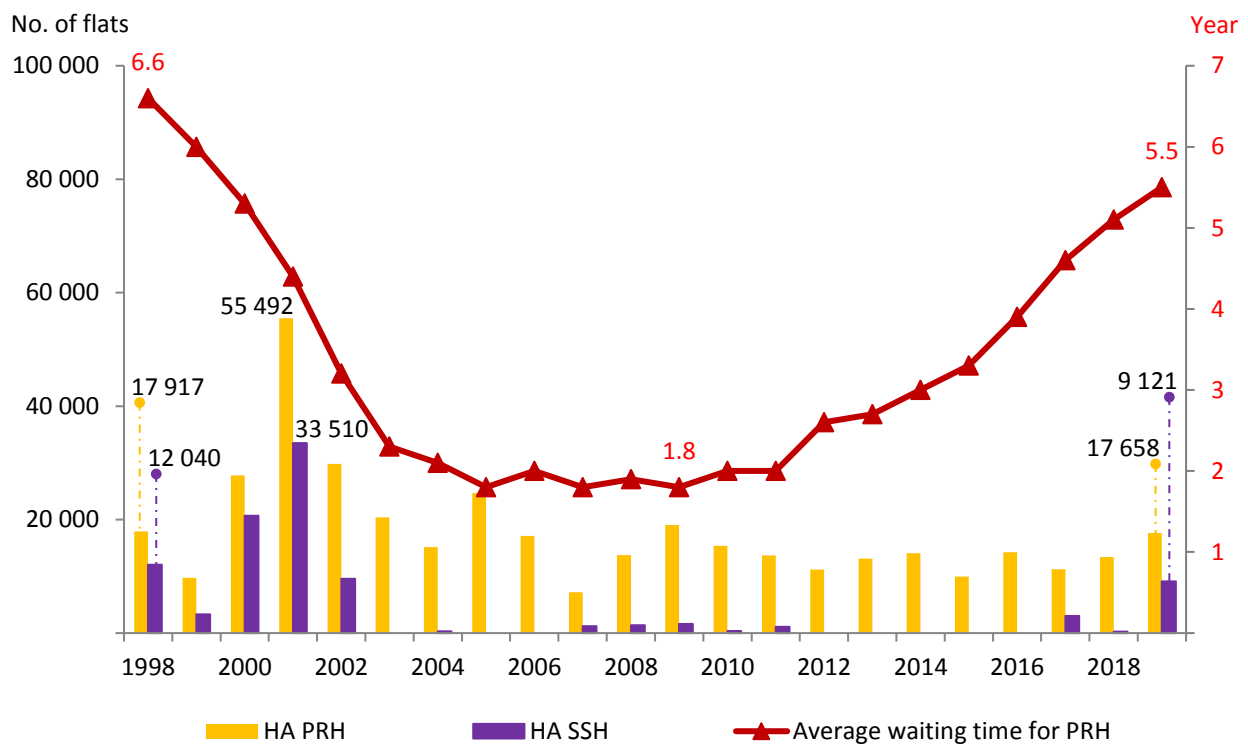
Sources: Census and Statistics Department and Housing Authority.

2.2 On **overall renewal policy**, the Government used to rely heavily on redevelopment of obsolete PRH flats in the late 1980s, resulting in colossal demolition of 244 000 PRH flats during 1988-2010 under the Comprehensive Redevelopment Programme ("CRP").¹¹ These redeveloped flats represented some 42% of the PRH stock at end-1988. Nevertheless, there has been a ***policy shift in renewal policy from redevelopment to refurbishment*** afterwards, due in part to tight supply of PRH flats in the last fifteen years (**Figure 2**). If the newly built PRH flats were used to rehouse displaced residents, it would crowd out flats available for allocation to general PRH applicants in the short term. As a matter of fact, the average waiting time ("AWT") of these applicants has already tripled from 1.8 years in 2009 to 5.5 years in 2019. Aggravating the situation was the existing policy to rehouse affected families in the vicinity of the redeveloped sites, reducing

¹¹ CRP was announced in 1988, demolishing 566 blocks of 57 estates built before 1973 on the grounds of (a) severe structural problems of these buildings; and (b) lack of self-contained facilities such as private lavatory and sufficient living space in these units. CRP was massive in scale, straddling more than two decades from 1988 to 2010 and rehousing 630 000 residents in newer and more modern estates. See Audit Commission (2014).

flexibility of redevelopment. As such, despite strong public demand for redevelopment to increase long-term supply of PRH flats by erecting higher-density buildings and to improve living conditions of affected tenants in aged estates, the Government reiterates its policy stance that redevelopment will be conducted "selectively on an estate-by-estate basis" in the latest LTHS announced in December 2014.¹²

Figure 2 — Annual supply of public housing and AWT of PRH applicants, 1998-2019



Sources: Census and Statistics Department and Housing Authority.

2.3 More specifically on **PRH refurbishment policy**, annual maintenance expenditure on all PRH flats (irrespective of age) incurred by HA has risen by a cumulative 64% over the past decade to HK\$3.5 billion in 2019, representing about 14.5% of the overall annual expenditure of HA (**Figure 3**). Focussing on those PRH flats in aged estates, HA aims to lengthen their lifespan whenever it is cost-effective, on the back of the following three major schemes:

¹² Transport and Housing Bureau (1998 and 2014).

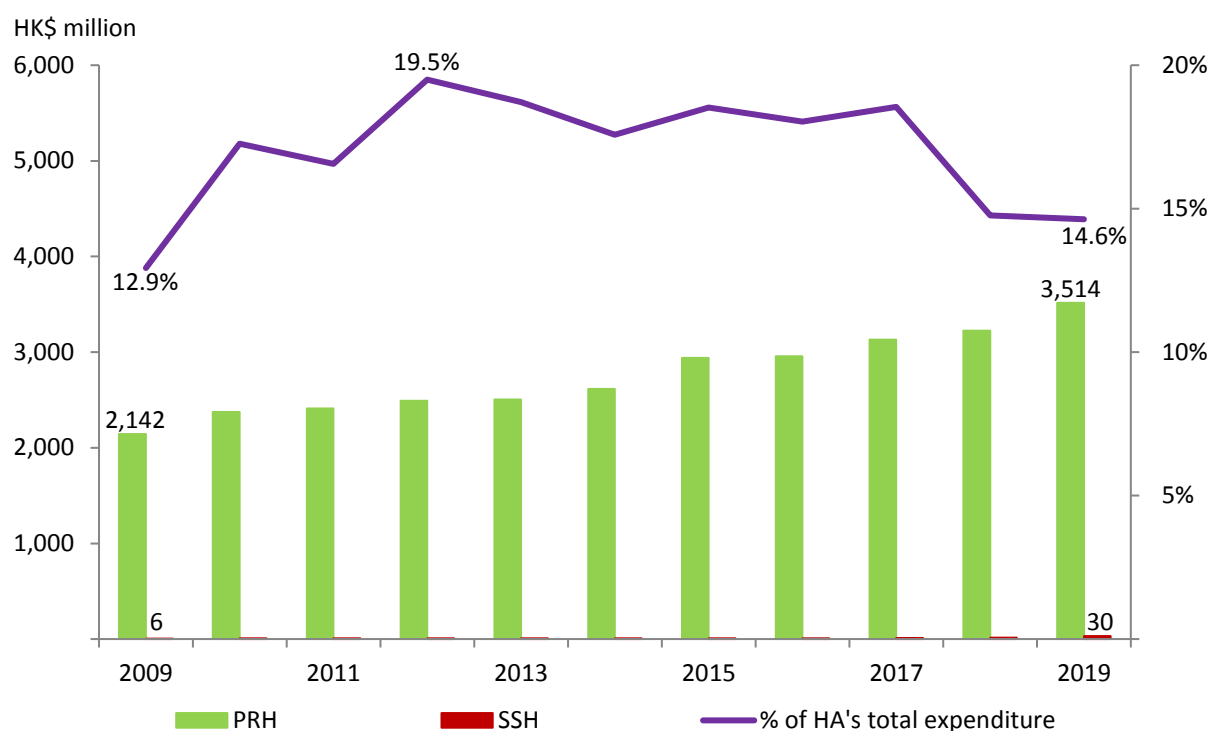
- (a) **Comprehensive Structural Investigation Programme ("CSIP")** was launched in 2005, assessing the structural conditions and cost-effectiveness of repair works of selected aged PRH estates (approaching or exceeding age of 40 years) in a 15-year cycle and arranging structural strengthening works if necessary. The estates included in the schedule of the investigations are mainly based on (i) their latest conditions and (ii) age of buildings, with flexibility allowed for redevelopment if aggravated building conditions are revealed from routine maintenance. For the 42 aged estates covered in the first cycle of CSIP during 2005-2018, all of them are considered to be structurally safe. It is believed that repair works in 40 aged estates can be sustained for 15 more years, with no urgency for redevelopment.¹³ For the other two estates (i.e. So Uk Estate and Tung Tau Estate), they were beyond repair and were considered more cost-effective for redevelopment, which is underway right now. For the second cycle of the CSIP during 2018-2032, a total of 71 aged PRH estates (i.e. pre-1993 estates, including those in the first cycle) are targeted for examination;
- (b) **Total Maintenance Scheme ("TMS")** was rolled out in 2006, providing proactive in-flat inspections and wear-and-tear repairs (e.g. concrete spalling, water seepage and drainage) for flats in PRH estates aged 10 years and above in a five-year rolling cycle, with higher priority accorded to older estates. HA bears all the cost in TMS. During 2006-2016, TMS has been cumulatively conducted for 763 000 flats, with a total maintenance cost of HK\$1.6 billion or average cost of HK\$2,150 per flat;¹⁴ and
- (c) All PRH tenants irrespective of the age of their flats can ask the Housing Department ("HD") for minor repairs in their flats under the **Responsive In-flat Maintenance Services ("RIMS")** launched in 2008 which was also fully funded by HA. During 2011-2016, HD spent a total of HK\$1.8 billion on RIMS, with an average cost of HK\$498 per unit.¹⁵

¹³ Audit Commission had conducted an investigation on the average repair cost of 14 of these 40 aged estates under CSIP in 2016. Total repair cost of HK\$355 million was spent on 52 700 flats in these 14 aged estates, with an average cost of HK\$6,700 per flat. See Audit Commission (2016).

¹⁴ Audit Commission (2016).

¹⁵ Audit Commission (2016).

Figure 3 — Annual maintenance expenditure for PRH flats and SSH flats of HA



Source: Housing Authority.

2.4 On refurbishment policy of SSH flats, HA has been offering **Structural Safety Guarantee ("SSG")** to buyers of SSH flats for a duration of 10 years since 2000, guaranteeing overall "structural stability and integrity of the building" and "undertaking all structural repairs". However, SSH owners need to bear all the refurbishment cost themselves upon the expiry of the guarantee period, similar to other private property owners in Hong Kong. As such, although annual maintenance expenditure on SSH of HA has quintupled during 2009-2019 to HK\$30 million, it represents less than 0.8% of the respective PRH maintenance (Figure 3 above).

2.5 Turning to **PRH redevelopment policy**, HA laid down four principles under the "Refined Policy for Redevelopment of Aged Public Rental Housing Estates" in 2011, including (a) structural conditions of buildings; (b) cost-effectiveness of repair works; (c) availability of suitable rehousing resources in the vicinity of redeveloped estates; and (d) build-back potential upon redevelopment.¹⁶ Amongst the 22 non-divested aged PRH estates aged 34-61 years identified by HA with build-back potential in 2013, only 7 000 units in three estates (including Wah Fu (I) and (II) Estate and

¹⁶ GovHK (2019).

Mei Tung Estate) have concrete redevelopment schedule by 2019 (**Figure 4**).¹⁷ For the rest of 58 900 units in the other 19 aged estates, they were considered "structurally sound", requiring only repair works for continued occupancy. To a considerable extent, slowing redevelopment is attributable to persistent shortage of PRH flats. For those tenants affected by redevelopment, HA offers two major options, either (a) rehousing PRH flats nearby or in other districts; or (b) priority to purchase SSH flat at their own cost. A community service team will be set up to provide support to tenants in rehousing.¹⁸

Figure 4 — 22 non-divested aged PRH estates aged 40-67 years in 2019

Estate	Completion year of the earliest block	Number of aged flats
Model Housing	1952	700
Sai Wan	1958	600
Ma Tau Wai	1962	2 100
Wo Lok	1962	1 900
Choi Hung	1962	7 400
Fuk Loi	1963	3 100
Wah Fu (I)⁽¹⁾	1967	4 800
Wah Fu (II)⁽¹⁾	1970	4 300
Ping Shek	1970	4 600
Mei Tung⁽¹⁾	1974	700
Kwai Shing West	1975	5 300
Lai King	1975	4 200
Lei Muk Shue (II)	1975	3 400
Hing Wah (II)	1976	3 600
Lai Yiu	1976	2 800
Nam Shan	1977	2 800
Cheung Ching	1977	4 900
Yue Wan	1977	2 200
Choi Wan (II)	1978	2 900
Fu Shan	1978	1 600
Cheung Shan	1978	1 600
Shek Kip Mei	1979	3 200

Note: (1) Most flats in these three estates are earmarked for redevelopment, while the rest of 19 estates are refurbished for continued occupancy.

Source: Housing Authority.

¹⁷ During 2009-2018, altogether only 12 100 public housing units (comprising both HA and HKHS flats) were demolished, averaging at only 1 210 per year. Looking ahead, demolition is expected to average at 2 400 units per annum during 2020-2029. They are small when compared with the respective demolition figure of 244 000 flats under CRP during 1988-2010. See Transport and Housing Bureau (2019).

¹⁸ Housing Authority (2014).

2.6 As regards **redevelopment policy with respect to SSH estates**, HA so far has not announced any plan to do so, probably because their building age is still considered to be young at this stage on the one hand, and most of them are currently managed by Owners Corporations on the other.

2.7 The **major issues of concerns** about the public housing renewal are summarized below. **First** on refurbishment, there are continuing concerns from residents over structural safety of aged PRH estates (e.g. concrete spalling), in spite of the above renewal policy.¹⁹ **Secondly** on redevelopment, there is persistent advocacy to expedite redevelopment in order to make full use of the under-utilized sites to shorten AWT for PRH flats in the longer term.²⁰ **Thirdly** on rehousing residents affected by redevelopment in the same districts, the Audit Commission noted that the policy tended to "severely hinder the HD in terms of housing allocation" and hinder "optimising the use of land and resources", restraining flexibility in implementation of future redevelopment projects.²¹ **Lastly** on ageing SSH flats, there are emerging suggestions to formulate a dedicated renewal policy, as one-tenth of the stock is approaching the age of 40 years.²²

3. Renewal policy on public housing in London

3.1 In London, there were about 812 000 units in public housing provided either by Local Councils ("LC") or private registered providers ("PRP") in 2018, representing 23% overall housing stock in the city.²³ While this is quite large by European standard, the proportion of households living in public housing has declined steadily from a high of 35% in 1981 to 23% in 2018, partly because of rising aspiration for flat ownership in London since the early 1990s (**Figure 5**). Most importantly, public housing in London is largely for leasing to needy families at "affordable rent" or "social rent".²⁴ For those tenants buying PRH flats under

¹⁹ 蘋果日報 (2018 年) and 東方日報 (2019 年).

²⁰ 香港經濟民生聯盟 (2019 年)。

²¹ Audit Commission (2014).

²² 太陽報 (2012 年)。

²³ In England, public housing is formally called "social housing". Apart from LC, PRP (mostly housing associations for non-profit making purpose) registered with the government can also be social landlords providing PRH flats. See Regulator of Social Housing (2019).

²⁴ "Affordable rent" refers to the social housing rented to tenants at below 80% of market rent, while the respective discount for "social rent" is even larger to meet the needs of low-income families. See Ministry of Housing, Communities and Local Government (2019).

the "Right to buy" Scheme launched in 1980, the respective flats are not counted as public housing anymore, while the buyers are "responsible for all the costs of maintaining...[their] home, including routine repairs, major structural repairs, and improvements to it".²⁵ As the public housing predominantly appears in the form of PRH in London, this section focuses on the PRH renewal policy.

3.2 Based on very limited information on the overall **age profile of public housing in London**, it is estimated that those social flats completed before 1965 (with an age of at least 50 years) represented about 45% of the stock of public housing there in 2016, while another 31% aged 30-50 years. In view of rising maintenance cost, poor building quality, deteriorating living conditions and growing crime rate in the community, there is strong pressure for renewal of public housing in London.

Figure 5 — Age distribution of public housing in London, 2008-2016^(a)

	2008	2013	2016
1. Number of public flats in London ('000)	793	812	812
- Flats built before 1965 ('000)	-	393 (48.4%) ^(b)	369 (45.4%)
- Flats built during 1965-1990 ('000)	-	263 (32.4%)	250 (30.8%)
- Flats built after 1990 ('000)	-	156 (19.2%)	193 (23.8%)

Notes: (a) Figures in 2016 are the latest figures available.

(b) Figures in brackets are percentage of total public flats in London.

Sources: Ministry of Housing, Communities and Local Government and Greater London Authority.

3.3 On the **overall renewal policy**, the Housing Act was amended in the United Kingdom ("UK") in 1988, transferring a significant part of stock of public housing from LC to PRP by phases due to funding shortage faced by LC under the Conservative government led by the then-Prime Minister Margaret Thatcher.²⁶ Conceivably, PRP are financially more flexible and viable to pursue public housing renewal under public-private partnership model.

²⁵ Under the "Right to Buy" Scheme, social tenants can buy their rented flats at subsidized price. Such flats will not be managed by the local councils anymore.

²⁶ Under the Thatcher government in the late 1980s, provision of social housing by LC was substantially tightened, as LC was prohibited to use local taxes to subsidize social housing and to channel grants for constructing new flats. By contrast, PRP had a larger degree of funding flexibility, such as seeking bank loans.

While scattered national regeneration schemes were launched in some deprived areas of London since 1988, the progress was lacklustre. In response, the UK government launched the massive refurbishment under the Decent Home Programme ("DHP") in 2000 on the one hand, and attempted to expedite redevelopment under the "Estate Regeneration Programme" ("ERP") in 2014 on the other. Similar to Hong Kong, redevelopment of social housing was conducted on a limited scale in London, with a total of 47 800 public housing flats in 187 estates redeveloped during 1997-2017, representing only 6% of the public housing stock in 2017.²⁷

3.4 More specifically on **refurbishment policy**, it was accorded higher priority in renewal in England after publication of a green paper aiming at improving living conditions and promoting social cohesion of those residents in aged housing.²⁸ The decade-long DHP was thus launched across England in 2000. While the total cost of refurbishing 1.4 million older PRH flats in England was £40 billion (HK\$400 billion) during 2001-2011, the relevant cost breakdown for London is not available.²⁹ A follow-up DHP was then launched in 2011, aiming to refurbish those older flats yet to be finished or covered in the previous DHP. By and large, DHP displays the following salient features:

- (a) **Establishing statutory "decent homes standard" across England:** DHP in 2000 had established a statutory decency standards for all public housing flats, which still hold by now. Updated in 2006, these standards include (i) a minimum standard of health and security for housing; (ii) a reasonable state of repair conditions; (iii) reasonably modern amenities (e.g. replacement of kitchen aged 20 years and bathroom aged 30 years); and (iv) a reasonable degree of thermal comfort.³⁰ Refurbishment could exceed the statutory standards in some cases, in accordance with the wishes

²⁷ London Tenants Federation (2017).

²⁸ The Green Paper "Quality and Choice: A Decent Home for All" published in 2000 had four priorities, including (a) bringing existing stock up to the decent homes standard; (b) redeveloping those areas experiencing challenging housing conditions; (c) increasing new public housing; and (d) improving housing services. See House of Commons (2010).

²⁹ DHP was extended to cover vulnerable households in private accommodation in England in 2002. It aimed to make all public housing and 70% of vulnerable households in private housing up to the decency standard by 2010. Yet only 80% of public housing in London could meet the standard by 2010, due to longer time for delivery and resource constraints. See House of Commons (2010) and National Audit Office (2010).

³⁰ Whilst the decency standard is a low standard for assurance of basic conditions for public flats, most local housing associations were reported to adopt higher standards for improvements at their own cost.

of tenants and the limits of available resources. Overall satisfaction rate (with grading of "Good" or "Excellent") in those DHP conducted by LC was 70% during 2006-2009, and 52% for those DHP conducted by PRP. Moreover, the number of non-decent homes unable to meet the statutory standard in London fell sharply by 87% to 41 800 units during 2001-2018;

- (b) **A ceiling on repair cost paid by residents:** Under DHP, although LC and PRP are responsible for funding the major repair works, residents need to share a certain proportion of repair cost and future maintenance cost.³¹ LC usually set up arms-length management company for implementation of enhanced housing maintenance, or else they transfer their stock of social housing to PRP for the stated objectives.³² In 2014, the UK government introduced a 5-year ceiling on repair payment (amounting to £15,000 (HK\$150,000) per flat in London). The cap ensures social landlords did not impose "unreasonable charges" for repairs to residents,³³ and
- (c) **Post-DHP long-term maintenance planning:** LC estates with DHP completed were required to establish a 30-year business plan for maintaining the decent homes standard in the longer term.³⁴

3.5 Turning to **redevelopment policy**, the UK government formulated the Estate Regeneration National Strategy ("national strategy") in December 2016 to expedite redevelopment of aged public estates. This was meant to address social unrest of the deprived communities living there, after the outbreak of London riot in August 2011 and a parliamentary inquiry on estate renewal in November 2011.³⁵ Also contributed were the potential of these aged public estates to increase supply of public housing upon redevelopment.³⁶ Yet this national strategy provides only a conceptual guideline to local

³¹ The average cost of DHP per flat in London was £7,872 (HK\$78,720) in 2017.

³² National Audit Office (2010).

³³ Dunton (2015).

³⁴ House of Commons (2010).

³⁵ Deprived communities living in aged public estates were alleged to be one of the contributory factors of the outbreak of riots in London and other parts of England during 6-11 August 2011. The riots led to five deaths and at least 16 injuries. See The Guardian (2011) and House of Commons (2011).

³⁶ According to a study initiated by the government in 2016, up to 360 000 extra flats could be created in London by redeveloping public estates to a higher density. See Savills (2016).

governments on how to pursue estate regeneration, with limited implementation details. The UK government was committed to providing altogether £550 million (HK\$5.5 billion) of loan funding in the ERP for facilitating project capitalization during 2014-2022.³⁷ On the back of this national strategy, the London government formulates its own redevelopment policies, as summarized below:

- (a) **Regeneration guideline in London:** In February 2018, the Mayor of London published the "Good Practice Guide to Estate Regeneration", providing elaborate guidelines in a number of areas (e.g. flat designs, engagement of local community and compensation and rehousing package) governing planning and procedures of redevelopment of public housing in London;³⁸
- (b) **Maintaining affordability for existing residents:** The earlier regeneration projects in the 1980s and 1990s gave rise to the "gentrification" concerns, as the existing grass-roots residents could not afford the rents of newly redeveloped estates and were priced out by better-off residents.³⁹ In response, the London Housing Strategy ("LHS") published also by the Mayor of London in May 2018 was committed to replacing public housing units on a like-for-like basis on the redeveloped site. This means that PRH flats must be replaced with flats based on the same rent levels and size, or re-provide a different mix of flats on that particular estate taking account of the wishes of residents concerned;⁴⁰
- (c) **Greater transparency in redevelopment and better community engagement:** In the earlier redevelopment projects in the 1990s, there were allegations that the developers or social landlords did not respect the wishes of residents, resulting in involuntary relocation or inadequate compensation. To address this, all

³⁷ The loan funding was made available for over 100 estates across England in 2017. Since 2016, some £65 million (HK\$650 million) was allocated to London. See GovUK (2014).

³⁸ GovUK (2016) and Greater London Authority (2018a).

³⁹ According to a study of the Housing Committee of London Assembly in 2015, some 30 000 flats in 50 estates were regenerated during the past decade. While the total number of flats on the redeveloped sites was almost doubled, there was a net loss of some 8 000 social rented homes, giving rise to the concerns of gentrification. See The Guardian (2014a and 2014b) and London Assembly (2015).

⁴⁰ Greater London Authority (2018b).

developers are required to provide a resident charter at the early stage of discussions on estate redevelopment proposals, setting out clearly their commitments to residents and residents' entitlements.

An independent advisor should also be provided by the landlords to support the residents. For those redevelopment proposals applying for mayoral funding in London, a mandatory resident ballot has been required since July 2018.⁴¹ Those proposals vetoed by residents shall be revised for their approval again to ensure the projects would meet the needs of local community via consultations. The mayor also reserves the right to review these projects at the planning level if necessary;⁴²

- (d) **More rehousing arrangements offered to existing occupants:** All existing social tenants (no matter whether they have lifetime or fixed-term tenancy) are entitled to the option of returning to the redeveloped estates in London, on top of at least two other rehousing options addressing their needs, including (i) flats managed by PRP nearby and flats in other areas, and (ii) allowing the tenants to buy certain stake (25%-75%) of the new rehousing flat; and
- (e) **Multiple financial incentives for public flat owners:** For those occupants who are also flat owners (e.g. buyers under the Right to Buy Scheme) in public housing, social landlords are required to offer them a fair compensation package so that they can either (i) stay in the redeveloped estate or (ii) live nearby. This includes an independent valuation of their property as well as provision of a variety of home purchase options for residents (e.g. early buy-back).

⁴¹ The resident ballot applies to renewal projects that involve the demolition of any public flats and the construction of 150 or more homes in London.

⁴² GovUK (2016) and Greater London Authority (2018a).

3.6 The renewal policies in public housing in London seem to have visible achievement in refurbishment. For instance, the share of public housing units unable to meet the statutory decent homes standard in London plunged from 41% in 2001 to 12% in 2017, after DHP implementation.⁴³ Indeed, both the parliamentary inquiry and national audit on DHP recognized the contribution of DHP on improving living conditions of residents.⁴⁴ For redevelopment of aged public estates, the initiative of enhanced community engagement to address the earlier gentrification concerns is bearing fruit, as seven redevelopment projects in London have passed the resident ballot since July 2018.⁴⁵ As regards the funding gap in redevelopment, there are reports that both the central government and London government are discussing ways to narrow it after the deadly fire at the Grenfell Tower in June 2017.⁴⁶

4. Renewal policy on public housing in Singapore

4.1 In Singapore, as many as 1.03 million households live in public housing units provided by Housing and Development Board ("HDB"), representing 79% of its population. More noteworthy is the pre-dominance of SSH flats in public housing in Singapore, upon strong promotion to boost home ownership since 1960.⁴⁷ Generous financial incentives are offered to eligible families to buy HDB flats, such as (a) providing large discounts to market flat price; (b) allowing buyers to drawdown the Central Provident Fund for home purchase; and (c) offering various grants and loans.⁴⁸ As a result, almost all (94%) of HDB flats in Singapore is SSH flats, with PRH flats playing a minor role.⁴⁹ As such, the HDB renewal policy in this section mainly centres on the segment of SSH flats.

⁴³ Greater London Authority (2019).

⁴⁴ House of Commons (2010) and National Audit Office (2010).

⁴⁵ Mayor of London (2019).

⁴⁶ On 14 June 2017, a fire broke out in the 24-storey Grenfell Tower located in a public estate in West London built in 1967, causing 72 deaths and 70 injuries. This was the worst residential fire in the post-war Britain, prompting public concerns over the building safety of aged public estates. The Mayor of London also instructed demolition/replacement of those old buildings that could not be made safe through improvements.

⁴⁷ Home ownership in Singapore is intended to nurture national identity. Moreover, it could provide economic security to citizens, protecting them from adversity and uncertainties in the labour market. It also acts as retirement insurance at the old age. See Ng (2017).

⁴⁸ Legislative Council Secretariat (2013).

⁴⁹ In Singapore, SSH flats are formally called "Home Ownership Flats".

4.2 On the **age profile of HDB flats in Singapore**, some 548 000 units built before 1986 now ages at least 34 years, taking up 52% of the stock of HDB flats and doubling the corresponding share of only 26% just in 2010 (**Figure 6**). Looking ahead, the proportion of flats aged 35 years and above is expected to rise further to 71% by 2028. Similar to Hong Kong, the **overall renewal policy** in Singapore emphasizes on refurbishment, benefitting owners of over 410 000 obsolete SSH flats since the early 1990s. Yet it also attempts redevelopment if higher-density buildings could be erected on the same sites to house more residents, though the scale of redevelopment is rather limited.

Figure 6 — Age distribution of HDB flats in Singapore, 2010-2017^(a)

	2010	2015	2017
1. Total number of HDB flats ('000)	895	980	1 056
- Flats aged 35 years and above ('000)	228 (25.5%) ^(b)	359 (36.6%)	548 (51.9%)
- Flats aged 25-34 years ('000)	320 (35.8%)	309 (31.5%)	219 (18.6%)
- Flats aged 25 and below ('000)	347 (38.8%)	312 (31.8%)	289 (27.4%)

Notes: (a) Figures for 2017 are the latest statistics available.

(b) Figures in brackets are percentage of total public flats. Percentage may not add up to 100% due to rounding.

Sources: Singapore Department of Statistics and Housing and Development Board.

4.3 More specifically on **refurbishment policy**, HDB launched Home Improvement Programme ("HIP") for the first time in August 2007, aiming to provide structural repairs and in-flat renovation for HDB flats aged about 30 years.⁵⁰ HDB indicates that it will launch advanced HIP in the coming years, targeting to repair those flats aged 60-70 years by 2028. Here are the key features of the updated HIP:

- (a) **Guaranteed refurbishment once every 30 years:** Under HIP, HDB undertakes to upgrade each and every HDB flat twice in its life cycle, with the first at the age of about 30 years and the second at the age of about 60 years;

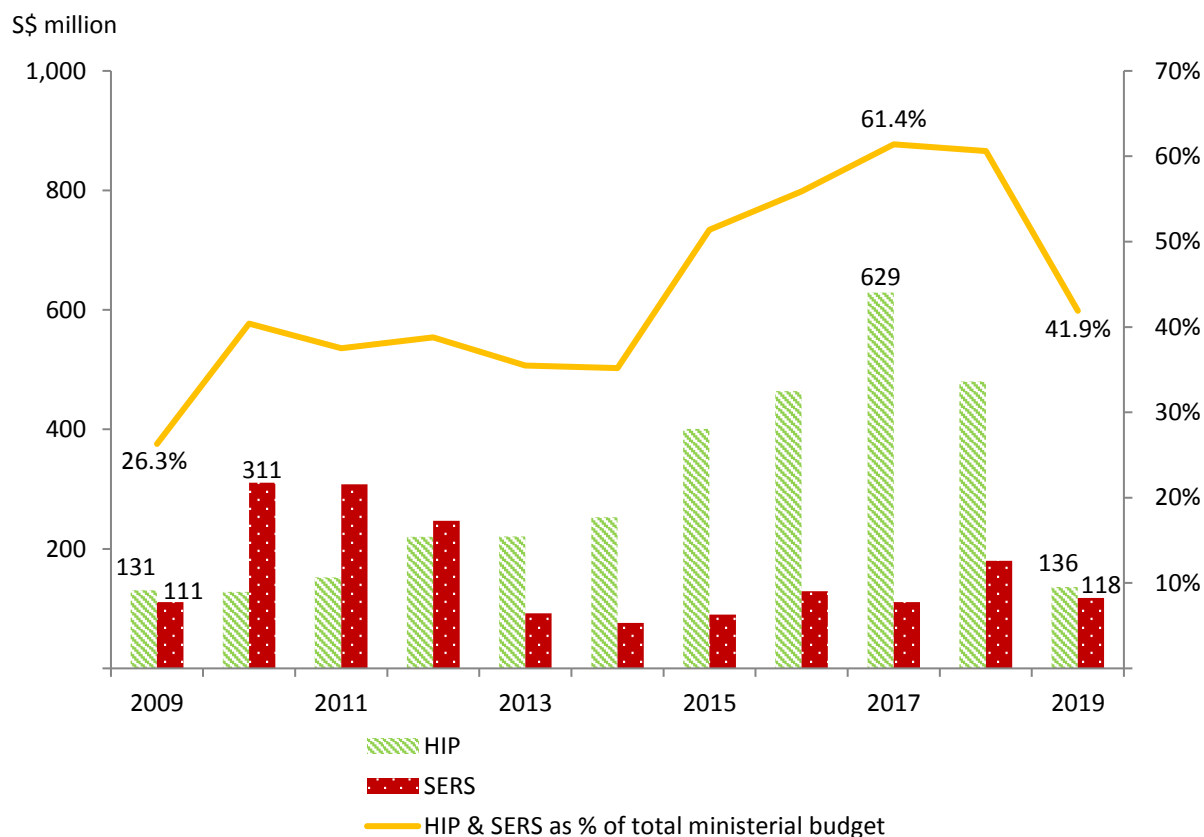
⁵⁰ HIP has replaced the Main Upgrading Programme ("MUP") launched by the then-Prime Minister Goh Chok Tong in 1992 to provide repairs and home improvement to aged HDB flats. Reportedly, some 131 000 households had been benefited from MUP.

- (b) **Two sorts of upgrading:** There are two kinds of HIP upgrading. First and the foremost, the *essential improvements* cover waste pipes, spalling concrete, structural cracks and electrical supply, ensuring that the aged flats are in good conditions. Secondly, the *optimal improvements* offer a number of upgrading options (e.g. new toilet, bathroom, door, metal grille gate and enhancement works for the elderly) to meet the unique needs of the residents;
- (c) **Heavy subsidy:** Unlike SSH flats in Hong Kong, the Singaporean government is financially responsible for repair works of SSH flats in HIP. While all essential improvements are fully funded by HDB, those optional improvements selected by residents are charged on a cost-sharing basis. With a high subsidy rate of 87.5%-95%, each household needs to bear S\$630-S\$1,575 (HK\$3,616-HK\$9,041) of the overall repair cost only, depending on the flat size.⁵¹ During 2009-2019, HIP expenditure incurred by the Ministry of National Development ("MND") averaged at S\$292 million (HK\$1.7 billion) per annum, representing 29% of the ministerial budget (**Figure 7**);
- (d) **Community endorsement:** To gain the approval of the residents of aged public estates affected by HIP, a resident ballot is held before the start of the repair works; and
- (e) **No need to move out during upgrading process:** To minimize disturbance to the residents, all in-flat upgrading works are targeted for completion within 10 working days. Residents can still live in their flats when improvement is underway, as temporary toilets and bathrooms are provided to residents for use at night during the process.⁵²

⁵¹ For elderly residents living in public rental flats, all improvement items are fully funded by the government. Without subsidy, the refurbishment may cost the flat owners up to S\$25,000 (HK\$143,500) per flat. See Parliament of Singapore (2018).

⁵² Parliament of Singapore (2016b).

Figure 7 — HDB expenditure on public housing renewal in Singapore, 2009-2019



Source: Ministry of National Development.

4.4 Turning to **redevelopment policy**, the then-Prime Minister Goh Chok Tong launched the Selective En Bloc Redevelopment Scheme ("SERS") in August 1995, targeting those HDB flats with higher redevelopment potential, with reference to their site density, financial viability and available rehousing sites nearby. As discussed above, redevelopment has been highly selective and on a limited scale over the past 25 years, largely confined to those aged estates located on prime sites near subway stations or on highly under-utilized sites.⁵³ Only 40 000 flats on 77 SERS sites had been demolished over the past two decades during 1995-2018, while another four SERS projects are still underway.⁵⁴ The salient features of SERS are briefly summarized as follows:

⁵³ Parliament of Singapore (2016a) and National Library Board (2019).

⁵⁴ CNA (2017).

- (a) **Generous compensation package to residents:** HDB has been offering attractive compensation package to win the support of residents. *First*, the amount of compensation is based on market value of the HDB flats evaluated by an independent panel of professional valuers in the private sector.⁵⁵ *Secondly*, the amount of compensation is more than sufficient for the affected residents to buy a new HDB flat of similar size at subsidized price within the same neighbourhood. *Thirdly*, not only does HDB pay for removal and renovation expenses, it also offers various rehousing benefits to residents (e.g. one-off grant of S\$30,000 (HK\$172,200)) for purchasing the designated HDB flat for replacement, along with waiver of fees and levy or premium concessions).⁵⁶ *Fourthly*, compared with the existing aged HDB flats closer to the expiry of the 99-year lease period in Singapore (and hence suffering from more depreciation in value), affected residents welcome the offer of new replacement flats with fresh 99-year leases.

During 2009-2019, redevelopment expenditure incurred by MND averaged at S\$161 million (HK\$924 million) per annum, representing 16% of the ministerial budget (Figure 7 above);

- (b) **Maintaining local community ties:** SERS tries to maintain close ties of the residents with the local community. For instance, replacement flats offered by HDB are close to their existing accommodation. Moreover, a Joint Selection Scheme has been put in place since 2008, allowing up to six households affected by SERS to book their new replacement flats altogether so that they can continue to live nearby;⁵⁷ and
- (c) **Dedicated team to follow up redevelopment needs:** HDB has set up a dedicated team to assist residents on compensation and rehousing package. It also conducts surveys to gauge the views of residents on the design of and living experiences in their new replacement flats.

⁵⁵ Valuation considers factors such as location, size, storey height, and the extent of renovations.

⁵⁶ If the residents choose to buy private property with the amount of compensation, they can only receive an ex-gratia payment. See Housing and Development Board (2019).

⁵⁷ Parliament of Singapore (2017).

4.5 The above renewal measures seem to help improve the living quality of Singaporean households in aged public estates. **First**, the refurbishment policy of HIP ensures that each HDB flat are well-inspected and repaired on a regular basis about once every thirty years. **Secondly**, the redevelopment policy of SERS is well-received by affected residents. According to resident surveys conducted since 2001, 85%-90% of the affected residents are satisfied with SERS.⁵⁸ Most of them agreed that their community ties were well-maintained and they enjoyed a better living environment upon redevelopment. **Thirdly**, in view of the favourable response to both HIP and SERS, the Singaporean government announced a new renewal initiative in 2018. On top of the aforementioned second round of HIP, the Prime Minister Lee Hsien Loong introduced the Voluntary Early Redevelopment Scheme ("VERS") in August 2018, allowing owners of HDB flats aged 70 years or more to cast vote to decide whether to sell their flats to the government for redevelopment.⁵⁹

5. Observations

5.1 For all three selected places, their renewal policy on public housing is unique in the context of their local circumstances, but refurbishment is often accorded higher policy priority. Redevelopment of aged estates is highly selective and on a case-by-case basis, hinging on factors like (a) redevelopment potentials; (b) availability of replacement flats; and (c) maintaining community ties of displaced residents.

5.2 In **Hong Kong**, public housing is ageing fast, with the proportion of the PRH flats aged above 35 years quadrupling from 6% to 24% during 2009-2019, along with a rise in the corresponding share of SSH flats from 0% to 10%. The major renewal concerns include (a) structural safety of refurbished PRH flats; (b) slowing redevelopment of aged PRH estates due to severe shortage of PRH flats; and (c) the absence of any renewal plan for aged SSH estates after the end of 10-year guarantee period.

⁵⁸ The survey examines (a) residents' level of settlement in new flats; (b) satisfaction for SERS; and (c) impact for community ties.

⁵⁹ VERS will be implemented in the next 20 years. Under VERS, instead of waiting for the expiry of the 99-year leases and depreciation of flat value, residents in old HDB estates not included in SERS could use the proceeds to buy new flats. It is too early to assess the effectiveness of VERS as it was announced for just one year.

5.3 In **London**, public housing is mainly seen in the PRH segment. Its refurbishment policy is characterized by features such as (a) making reference to the statutory "decent homes standard"; and (b) formulating a 30-year business plan to keep up with the standard afterwards. In redevelopment, rehousing and compensation incentives are offered to maintain close community ties of existing residents.

5.4 In **Singapore**, public housing is mainly seen in the SSH segment. Its refurbishment policy is characterized by (a) full funding of an one-off essential repair cost by the government under HIP even 10 years after sale of flats; (b) allowing additional customized improvement at the request of residents on a cost-sharing basis; and (c) undertaking to upgrade each and every HDB flat once every 30 years. In redevelopment, while highly generous compensation package are offered to existing residents, up to six households are allowed to book their new flats together in rehousing in order to maintain local community ties.

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19 February 2020
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