

The Government of the Hong Kong
Special Administrative Region

**Final Report – Consultancy
Study on the Financial
Implications on Mandatory
Provident Fund and Civil
Service Provident Fund
Expenditures**

February 2018



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Section 1: Introduction

1.1 Background

The Government of the Hong Kong Special Administrative Region (“Government”) currently offers retirement benefits to civil servants through the Mandatory Provident Fund Scheme (“MPF”) or the Civil Service Provident Fund Scheme (“CSPF”). Under the current arrangement, the normal retirement age (“NRA”) of civil servants depends on their first appoint date and job grade. For civil servants first appointed between 1 June 2000 and 31 May 2015 inclusive, the NRA is age 55 for disciplined services grades in general, age 57 for certain prescribed disciplined ranks, and age 60 for all civilian grades. For civil servants first appointed on or after 1 June 2015, the NRA is age 60 for all disciplined services grades and age 65 for all civilian grades. These ages are collectively referred hereinafter as the “Current NRA”.

As mentioned in the Chief Executive’s 2017 Policy Address, the Government has proposed to allow certain civil servants who were first appointed between 1 June 2000 and 31 May 2015 inclusive (“Eligible Civil Servants”) to choose to retire at age 60 (for disciplined services grades) or age 65 (for civilian grades), referred hereinafter as the “Extended NRA”. The Government acting through the Civil Service Bureau (“CSB”) has appointed Towers Watson Hong Kong Limited (“Willis Towers Watson” or “we”) to conduct a consultancy study to perform an actuarial analysis on the financial implications on the MPF and CSPF expenditures should the proposed retirement extension option be granted.

1.2 Scope of Study

The scope of this study is to:

- Assess the projected Government’s expenditures in respect of the civil servants covered by the MPF and CSPF based on the Current NRA;
- Assess the projected Government’s expenditures in respect of the civil servants covered by the MPF and CSPF in the event that the Eligible Civil Servants are allowed to opt to retire at the Extended NRA, based on:
 - a. Three assumed across-the-board take-up rates: 50%, 75% and 100%;
 - b. Option period (i.e. the specified period within which the civil servants should elect the option to retire at the Extended NRA): 1 year; and
 - c. The Eligible Civil Servants who have opted to retire at the Extended NRA would continue to have the current CSPF contribution rates schedule (“Current Scale”).
- Assess the projected Government’s expenditures in respect of the civil servants covered by the MPF and CSPF in the event that the Eligible Civil Servants are allowed to opt to retire at the Extended NRA, based on:
 - a. Three assumed across-the-board take-up rates: 50%, 75% and 100%;
 - b. Three option periods: 1 year, 2 years and 5 years; and
 - c. The Eligible Civil Servants who have opted to retire at the Extended NRA would have to migrate to the CSPF contribution rates schedule applicable to civil servants first appointed on or after 1 June 2015 (“New Scale”) immediately.

Section 2: Membership Data

2.1 Membership Data

This study was conducted based on the membership data of civil servants under the Old Pension Scheme (“OPS”), New Pension Scheme (“NPS”), MPF and CSPF as at 31 August 2017 provided by CSB. There were 168,144 serving civil servants included in this study.

For the purposes of this study, Independent Commission Against Corruption (“ICAC”) officers, judges and judicial officers, locally engaged staff working in Hong Kong Economic and Trade Offices, civil servants under the Hospital Authority Management Pay Scale (Variation), Training Pay Scale, and standalone ranks with small workforce are excluded. Such data exclusion is not expected to have a material impact on the projection results of this study.

2.2 Reliance on Data

Our study is based on the membership data as at 31 August 2017 provided to us by CSB and takes no account of subsequent developments after that date. In preparing this study, we have relied upon the membership data provided to us as being complete and accurate. Although we have checked the data for reasonableness as appropriate based on the purposes of this study, an audit of the data provided was not performed.

Section 3: Actuarial Model

3.1 Introduction to Actuarial Model

In order to assess the financial implications on the Government's expenditures on the MPF and CSPF, we have developed an actuarial model that consists of three components, namely the headcount projection, the salary projection and the Government's expenditures projection. The general methodology adopted in our model has been discussed with and agreed by CSB.

Below is a high-level summary of our actuarial model. A summary of the assumptions adopted in this study are set out in Appendix A.

3.2 Summary of Actuarial Model

3.2.1 Headcount Projection

Based on the current workforce, we project the membership on a year-on-year basis over the "Projection Period" (see Section 3.3 for more details) based on the demographic assumptions, the linkage of career progression (i.e. "Career Ladders"), and the appropriate NRA under different scenarios, as discussed with and agreed by CSB.

Civil servants are expected to retire when they reach their respective NRA. The vacancy will be filled by a civil servant at the rank immediately below it within the same Career Ladder. Eventually, there will be vacancies at the lowest rank and the vacancies will be filled by new recruits.

3.2.2 Salary Projection

The salary of a civil servant is assumed to increase according to the "point" progression along the applicable pay scale, subject to annual pay adjustments as set out in Appendix A. The pay point will be capped at the maximum point of the respective rank unless the civil servant is promoted.

3.2.3 Government's Expenditures Projection

The last component of our model is the calculation of total annual Government's expenditures on the MPF and CSPF, based on the projected headcount and salary. The total annual Government's expenditures on the MPF and CSPF is the sum of individual annual contributions by the Government for each civil servant calculated based on his or her individual profile.

Apart from the extension of NRA for the Eligible Civil Servants and potential migration of CSPF contribution rates schedule, we do not make allowances for any other possible changes of the MPF, CSPF or Government policies in the related areas throughout the Projection Period.

3.3 Projection Period

Our projection is conducted on a year-on-year basis over a projection period of 40 years, from year 2017 to year 2057 (the "Projection Period").

A 40-year horizon is chosen because the vast majority of Eligible Civil Servants are expected to have retired by the end of this period. This period will enable us to capture the financial implications of the extension of NRA on the MPF and CSPF expenditures under different scenarios.

3.4 Annual Contribution Amount

For each year within the Projection Period, we determine the "Annual Contribution Amount", which is the projected annual Government's contributions to the MPF and CSPF, based on the actuarial model and actuarial assumptions adopted for this study.

3.5 Annual Contribution Rate

For each year within the Projection Period, we determine the "Annual Contribution Rate", which is the Annual Contribution Amount divided by the total projected annual basic salaries of the civil servants covered under the MPF and CSPF.

3.6 Average Contribution Rate

"Average Contribution Rate" is defined as the average of the Annual Contribution Rates over the Projection Period (i.e. from year 2017 to year 2057). The Average Contribution Rate is used to compare the Government's expenditures among different scenarios for a period that is long enough to smooth out short-term fluctuations.

3.7 Total Additional Contributions

"Total Additional Contributions" is defined as the difference of the sum of the Annual Contribution Amounts between a particular scenario and the Baseline (see Section 4.1 for more details) over the Projection Period.

3.8 Limitations of Analysis

The analysis contained in this report involves actuarial calculations based on long-term assumptions about future events. The assumptions made in this study about future financial and demographic conditions are not intended to imply, nor should they be interpreted as conveying, any form of predictions, guarantees or assurance by us. Future events and actual experience may vary from the assumptions used, and therefore the actual outcome in the future may deviate from those indicated in this report. While we believe the assumptions used in this study serve as a reasonable basis for the purposes of this study, CSB must be aware of the uncertainties and potential risks involved in any course of action.

Section 4: Financial Implications of Extension of Normal Retirement Age with Current Scale

4.1 Scenarios for Extension of Normal Retirement Age

Using the actuarial model and actuarial assumptions adopted for this study, we have projected the Annual Contribution Rates and Annual Contribution Amounts under the Baseline which assumes no retirement extension option is granted, and three scenarios that assume certain Eligible Civil Servants will opt to extend the NRA according to three assumed across-the-board take-up rates. The CSPF Current Scale will continue to apply after the NRA has been extended.

- **Baseline** : No retirement extension
- **Scenario 1** : 50% of Eligible Civil Servants opt for Extended NRA
- **Scenario 2** : 75% of Eligible Civil Servants opt for Extended NRA
- **Scenario 3** : 100% of Eligible Civil Servants opt for Extended NRA

4.2 Financial Implications under Different Scenarios

The following table summarises the Average Contribution Rates and the Total Additional Contributions under Baseline and Scenarios 1 – 3.

Scenario	NRA	Contribution rates schedule	Option period	Take-up rate	Average Contribution Rate	Total Additional Contributions (HK\$ million)
Baseline	Current NRA	Current Scale	N/A	N/A	17.1%	N/A
Scenario 1	Extended NRA	Current Scale	1 year	50%	17.4%	15,044
Scenario 2	Extended NRA	Current Scale	1 year	75%	17.5%	22,123
Scenario 3	Extended NRA	Current Scale	1 year	100%	17.6%	29,134

The graphical illustrations of the projected Annual Contribution Rates and Annual Contribution Amounts over the Projection Period under Baseline and Scenarios 1 to 3 are presented in Appendix B and Appendix C respectively, and the specimen projection results of the Government's MPF and CSPF contributions are presented in Appendix D.

4.3 Observations and Comments

4.3.1 Impact of Eligible Civil Servants Opt for Extended NRA

Compared with Baseline, the Average Contribution Rates increase by 0.3% to 0.5% when the Eligible Civil Servants opt for extension of NRA (Scenarios 1 to 3).

The key reason is that contribution rates schedule of CSPF is progressive, meaning the contribution rates increase according to years of service rendered by the Eligible Civil Servants. The extension of NRA allows those Eligible Civil Servants who have opted for the Extended NRA to enjoy a longer period with higher contribution rates under the Current Scale.

Also, a higher take-up rate will increase the number of the Eligible Civil Servants with Extended NRA, and therefore will further increase the Average Contribution Rate. The corresponding Total Additional Contributions range from HK\$15.0 billion to HK\$29.1 billion under the three take-up rates.

4.3.2 Comparison Against the Overall Financial Commitment of the Government

As specified by the Government, its overall financial commitment in providing retirement benefits to civil servants is expected to be within 18.0%. However, in Section 4.2, the Average Contribution Rates are in the range of 17.1% to 17.6%, which are lower than the overall financial commitment. This is because the membership profile in early years is not yet mature (i.e. no civil servants are eligible for the highest contribution rate of 25.0% until year 2030 under the Current Scale). It is expected that the Average Contribution Rate would gradually approach towards 18.0% if a longer Projection Period was considered. Direct comparison between the Average Contribution Rates in this study and the overall financial commitment may not be appropriate.

Section 5: Financial Implications of Extension of Normal Retirement Age with Migration to New Scale

5.1 Migration Arrangement for Extension of Normal Retirement Age

Given the increase in the Average Contribution Rates, CSB wishes to consider options such that its financial commitment in providing retirement benefits to civil servants would remain at similar level irrespective of whether the Eligible Civil Servants would opt to extend the NRA or not. It is proposed that the Eligible Civil Servants who opt to extend the NRA should have their CSPF contribution rates schedule migrated from the Current Scale to the New Scale.

As part of the migration arrangement, CSB will offer the Eligible Civil Servants with an option period for them to indicate their choices. We have discussed and agreed with CSB to consider 3 option periods of 1 year, 2 years and 5 years, and to assume that the Eligible Civil Servants who opt to extend the NRA will immediately migrate to the CSPF New Scale in our model although we understand that in reality there could be a short lead time for the migration to take place for administration processing.

Hence, 9 additional scenarios (3 option periods and each with 3 take-up rates) are further considered in this study.

5.2 Financial Implications under Different Scenarios

The following table presents the Average Contribution Rates and Total Additional Contributions of the additional 9 scenarios (Scenarios 4 to 12), together with Baseline and Scenarios 1 to 3 (which have been shown in Section 4).

Scenario	NRA	Contribution rates schedule	Option period	Take-up rate	Average Contribution Rate	Total Additional Contributions (HK\$ million)
Baseline	Current NRA	Current Scale	N/A	N/A	17.1%	N/A
Scenario 1	Extended NRA	Current Scale	1 year	50%	17.4%	15,044
Scenario 2	Extended NRA	Current Scale	1 year	75%	17.5%	22,123
Scenario 3	Extended NRA	Current Scale	1 year	100%	17.6%	29,134
Scenario 4	Extended NRA	New Scale	1 year	50%	17.1%	3,083
Scenario 5	Extended NRA	New Scale	1 year	75%	17.1%	4,436
Scenario 6	Extended NRA	New Scale	1 year	100%	17.1%	5,840
Scenario 7	Extended NRA	New Scale	2 years	50%	17.1%	3,107
Scenario 8	Extended NRA	New Scale	2 years	75%	17.1%	4,473
Scenario 9	Extended NRA	New Scale	2 years	100%	17.1%	5,890
Scenario 10	Extended NRA	New Scale	5 years	50%	17.1%	3,287
Scenario 11	Extended NRA	New Scale	5 years	75%	17.1%	4,743
Scenario 12	Extended NRA	New Scale	5 years	100%	17.1%	6,250

The graphical illustrations of the projected Annual Contribution Rates and Annual Contribution Amounts over the Projection Period under Baseline and Scenarios 1 to 12 are presented in Appendix B and Appendix C respectively, and the detailed projection results of the Government's MPF and CSPF contributions are presented in Appendix D.

5.3 Observations and Comments

5.3.1 New Scale

Compared with Scenarios 1 to 3 under the Current Scale, the Average Contribution Rates under the migration to the New Scale (Scenarios 4 to 12) decrease and return to the Baseline level of 17.1%. Despite the similar Average Contribution Rates of 17.1%, there are Total Additional Contributions needed by the Government, ranging from HK\$3.1 billion and HK\$6.3 billion, but are significantly lower than those under Scenarios 1 to 3 if no migration.

5.3.2 Take-up rates

As observed from Scenarios 4 to 6, Scenarios 7 to 9 and Scenarios 10 to 12, the take-up rates do not have a material financial impact on the Average Contribution Rates if there is migration arrangement. Although the impact on the Average Contribution Rate is immaterial, the Total Additional Contributions needed by the Government are still higher for higher take-up rates – for example, the difference in the Total Additional Contributions for 50% and 100% take-up rates ranges from HK\$2.8 billion to HK\$3.0 billion under the New Scale.

5.3.3 Option Periods

The option period affects the timing of when the Eligible Civil Servants who opt to extend the NRA and migrate to the New Scale. Therefore, it only affects the Government's contributions in the first few years and has a minimal impact on the Average Contribution Rates and Total Additional Contributions as revealed by the differences amongst Scenarios 4, 7 and 10, Scenarios 5, 8 and 11, and Scenarios 6, 9 and 12. For example, an increase of the option period from 1 year to 5 years would incur an increase of Total Additional Contributions by a range between HK\$0.2 billion and HK\$0.4 billion under the New Scale.

Section 6: Conclusions

- 6.1** Without any retirement extension option (i.e. Baseline), the Average Contribution Rate is 17.1%.
- 6.2** The Average Contribution Rates will increase by 0.3% to 0.5% upon granting an option to the Eligible Civil Servants to extend the NRA, while keeping the CSPF contribution rates schedule at the Current Scale (i.e. Scenarios 1 - 3). This attracts additional contributions from the Government over the Projection Period by HK\$15.0 billion to HK\$29.1 billion when compared with Baseline.
- 6.3** With migration to the New Scale for those Eligible Civil Servants who take the retirement extension option, the Average Contribution Rates return to the Baseline level of 17.1%. However, the Government is expected to pay additional contributions of HK\$3.1 billion to HK\$6.3 billion over the Projection Period when compared with Baseline.
- 6.4** Higher take-up rate means more Eligible Civil Servants will elect to extend the NRA, and it is expected to increase the Government's contributions by a range between HK\$2.8 billion and HK\$3.0 billion if the take-up rate increases from 50% to 100% under the New Scale, even though the Average Contribution Rate is expected to remain broadly at 17.1%.
- 6.5** Although the option period has a minimal impact on the Average Contribution Rate, a short term financial impact is expected. An increase of the option period from 1 year to 5 years would incur an increase in the Government's contributions between HK\$0.2 billion and HK\$0.4 billion under the New Scale.

Appendix A: Summary of Actuarial Assumptions

The assumptions adopted in this study are summarized below:

Financial Assumptions	
Pay scale structure at the commencement of projection	The pay scale structure effective 1 April 2017, and assume it remains unchanged throughout the Projection Period.
Annual pay adjustment	3.0% p.a.
MPF Relevant Income	Same as basic salary without consideration of any allowances, overtime pay or other fringe benefits etc.
Maximum MPF Relevant Income at the commencement of projection	HK\$30,000 per month
Rate of increase of Maximum MPF Relevant Income	3.0% p.a.
General point increase	All Civil Servants except Directorate Ranks Officers: increase by one point for each additional year of service Directorate Ranks Officers: increase by one point for each additional 2 years of service
Demographic Assumptions	
Retirement	Civil Servants are assumed to retire once they attain their respective NRA. The NRA is assumed to remain unchanged throughout the Projection Period, apart from the Eligible Civil Servants who have opted to retire at the Extended NRA as per different scenarios.
Wastage other than retirement	Nil
Projected headcount	The headcount in each rank remains unchanged throughout the Projection Period.
Promotion	Any vacancy will be filled by civil servants at the rank immediately below. The selection criteria for promotion are prioritized as follows: 1. Highest Pay point 2. Longest years of service 3. Oldest If the above promotion criteria result in multiple existing civil servant candidates, it is assumed the promotion will be performed randomly.

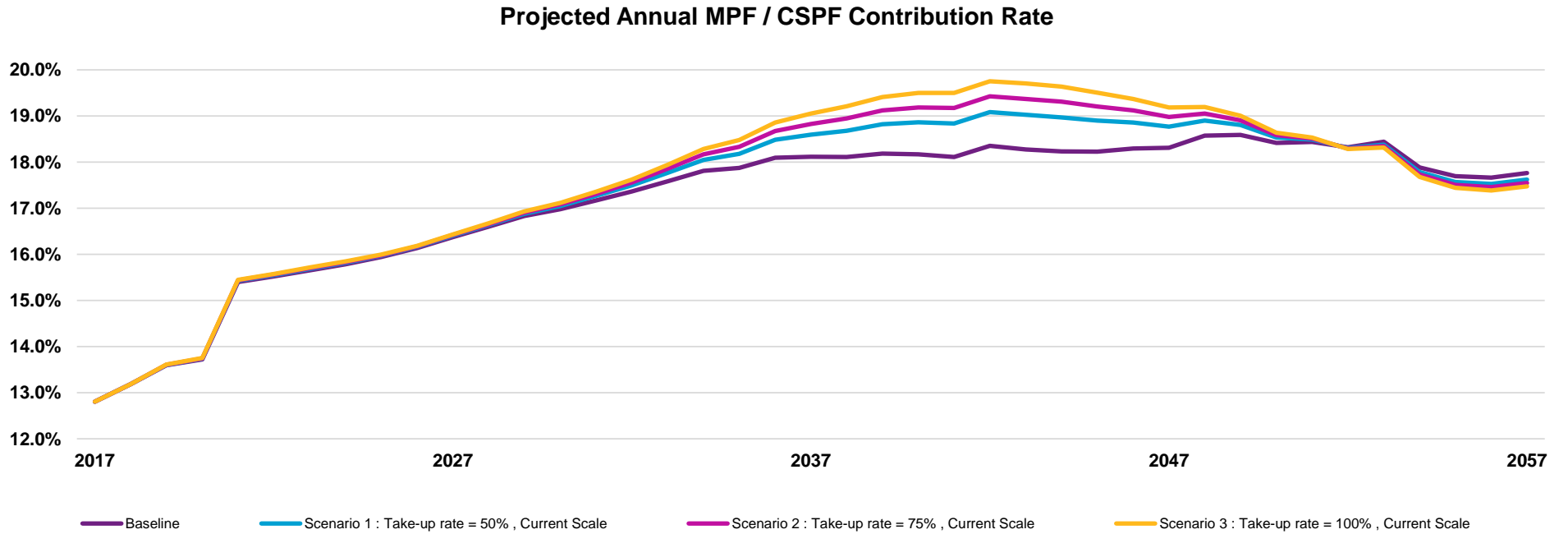
Demographic Assumptions	
Membership profile of new recruits	Entry age and entry pay point for each new recruit profile are the same as those adopted in our previous consultancy study conducted for CSB in 2015, which assessed the financial implications on MPF and CSPF expenditures if the new recruits joined on or after 1 June 2015 would retire at the Extended NRA under the Current or the New Scale.
Transition to the CSPF Scheme	For civil servants who are eligible to enroll into the CSPF, he or she is assumed to be transferred from the MPF to the CSPF after a probation period of 3 years.
Projection Period	40 years, i.e. from year 2017 to year 2057.
Retirement extension option commencement date	The retirement extension option is assumed to be granted at the second year of the Projection Period (i.e. year 2018).
Option period	<p>(a) 1 year; (b) 2 years; and (c) 5 years.</p> <p>Eligible Civil Servants are assumed to submit their choices to the CSB at the end of the defined option period, unless other circumstances warrant special arrangements to be made (e.g. the Civil Servant will reach the Current NRA within the option period).</p>
Migration time	Eligible Civil Servants opt to extend their NRA will be migrated to the New Scale at a specific time (e.g. six months). For the purposes of this study, the migration time is assumed to be nil.
Across-the-board take-up rates	<p>(a) 50%; (b) 75%; and (c) 100%</p>

Appendix B: Graphical Illustrations of Projected Annual Contribution Rates

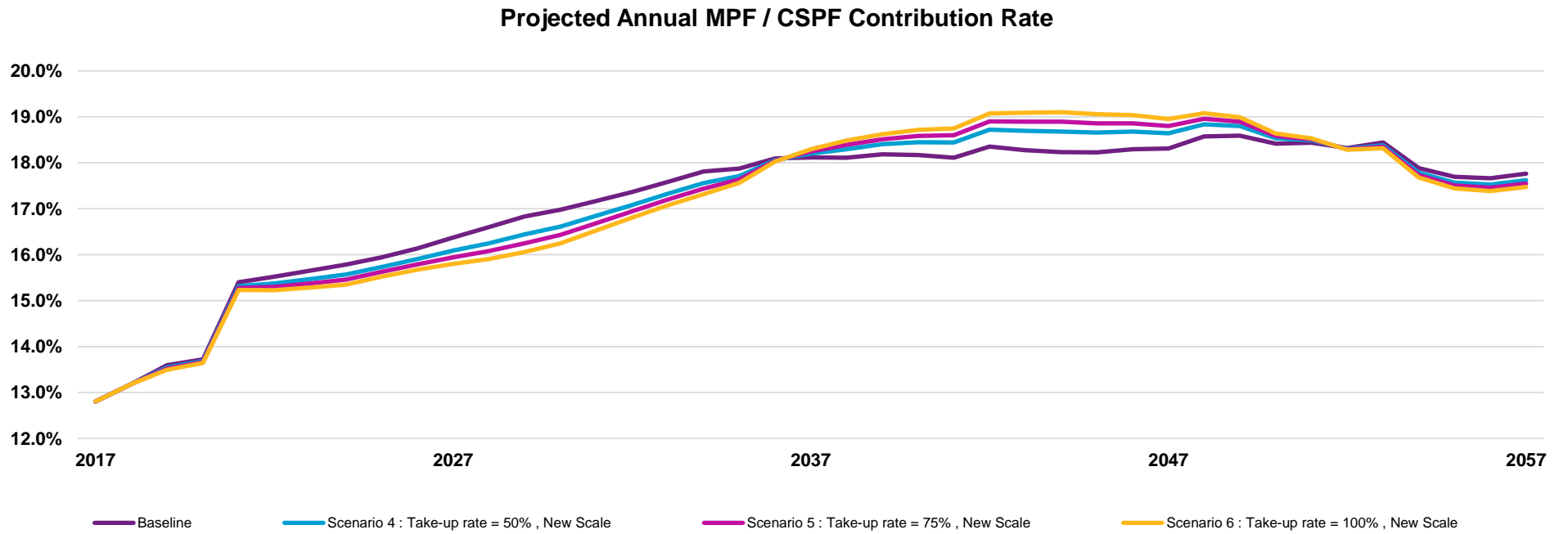
There are 4 graphs of the Projected Annual Contribution Rates of the Government presented in this Appendix, and the summary of scenarios are shown as follows:

- Graph 1: Baseline, option period = 1 year, and Current Scale (Scenarios 1, 2, 3)
- Graph 2: Baseline, option period = 1 year, and New Scale (Scenarios 4, 5, 6)
- Graph 3: Baseline, option period = 2 years, and New Scale (Scenarios 7, 8, 9)
- Graph 4: Baseline, option period = 5 years, and New Scale (Scenarios 10, 11, 12)

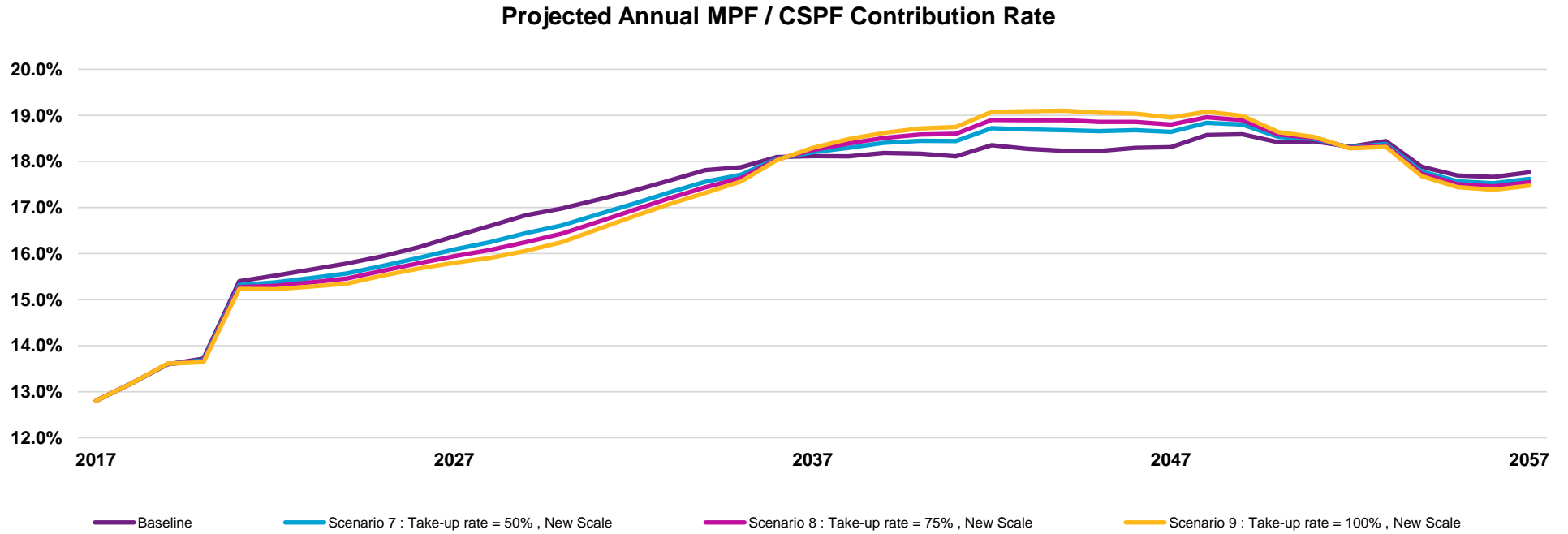
Graph 1: Option period = 1 year, Current Scale (Scenarios 1 to 3)



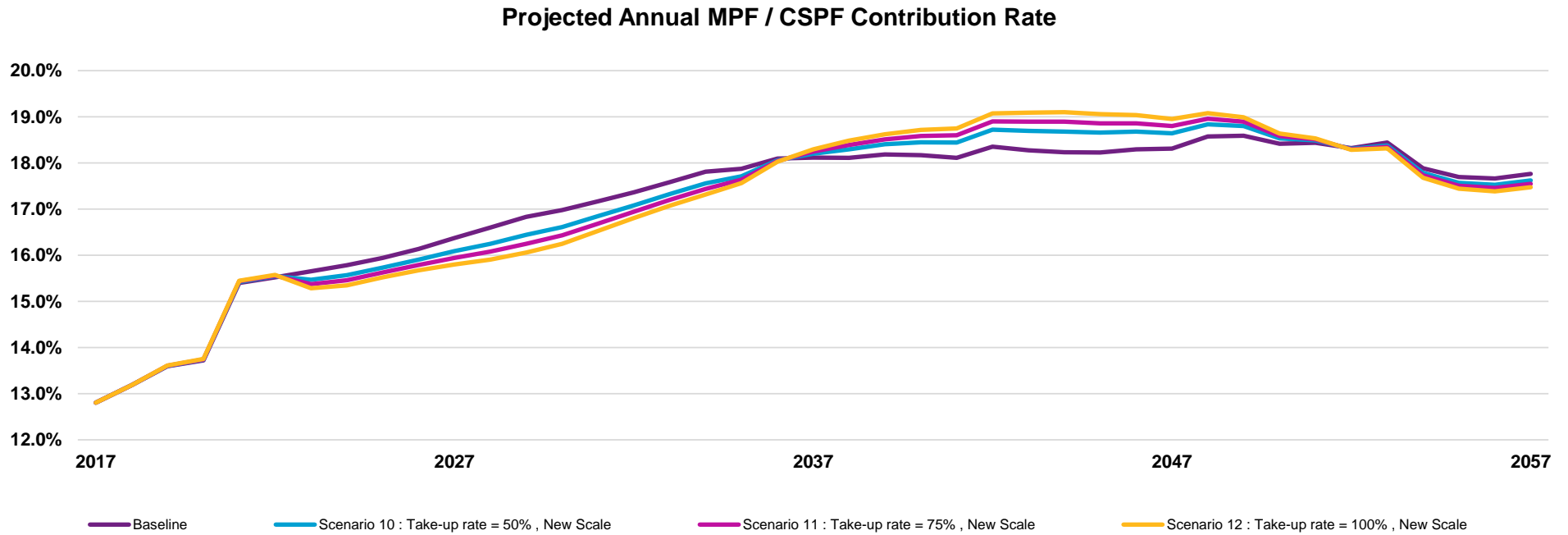
Graph 2: Option period = 1 year, New Scale (Scenarios 4 to 6)



Graph 3: Option period = 2 years, New Scale (Scenarios 7 to 9)



Graph 4: Option period = 5 years, New Scale (Scenarios 10 to 12)

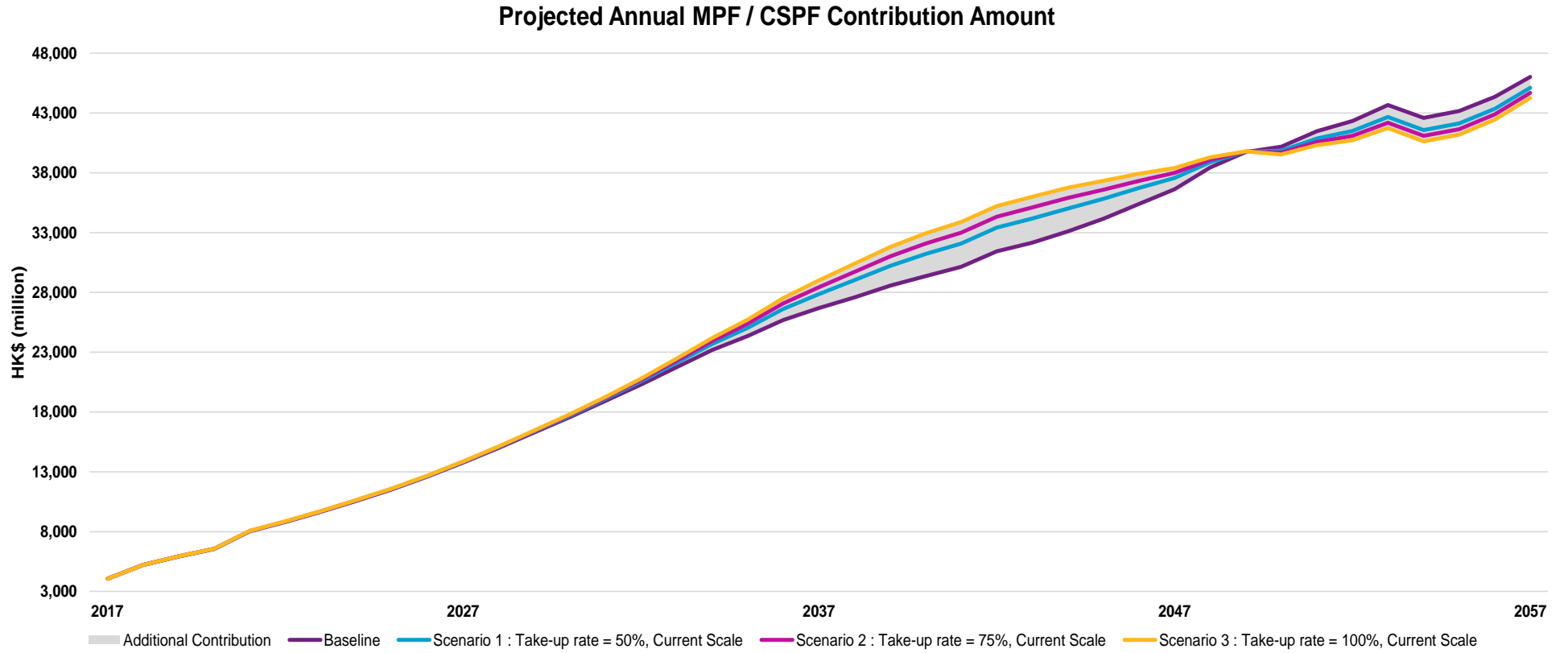


Appendix C: Graphical Illustration of Projected Annual Contribution Amounts

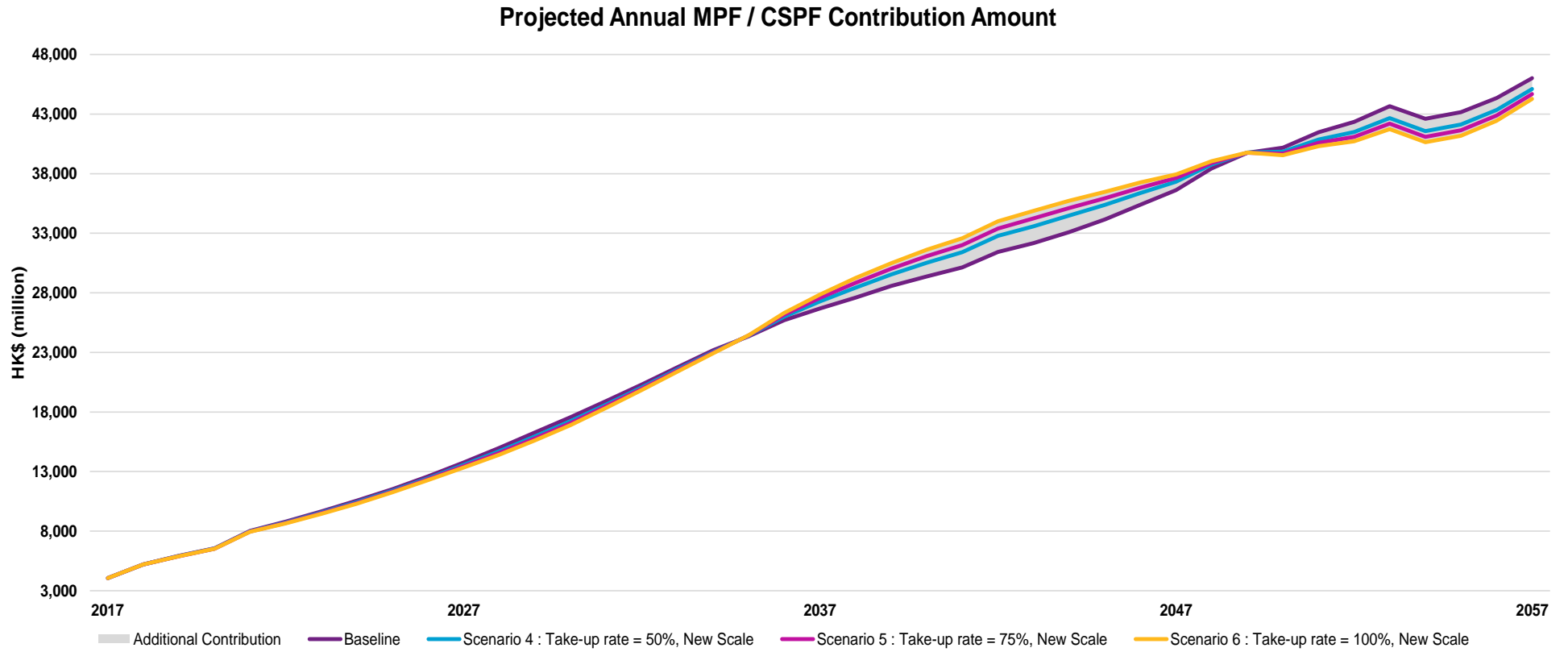
There are 4 graphs of the Projected Annual Contribution Amounts of the Government presented in this Appendix, and the summary of scenarios are shown as follows:

- Graph 5: Baseline, option period = 1 year, and Current Scale (Scenarios 1, 2, 3)
- Graph 6: Baseline, option period = 1 year, and New Scale (Scenarios 4, 5, 6)
- Graph 7: Baseline, option period = 2 years, and New Scale (Scenarios 7, 8, 9)
- Graph 8: Baseline, option period = 5 years, and New Scale (Scenarios 10, 11, 12)

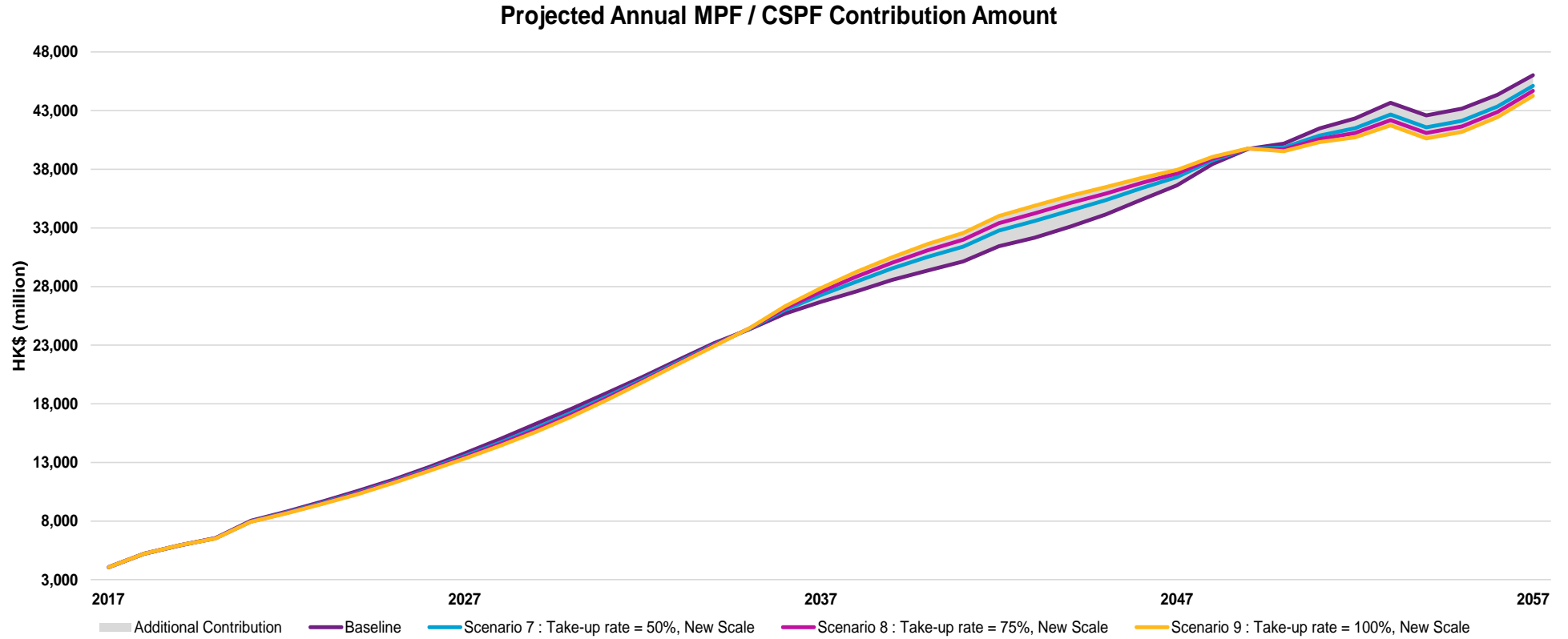
Graph 5: Option period = 1 year, Current Scale (Scenarios 1 to 3)



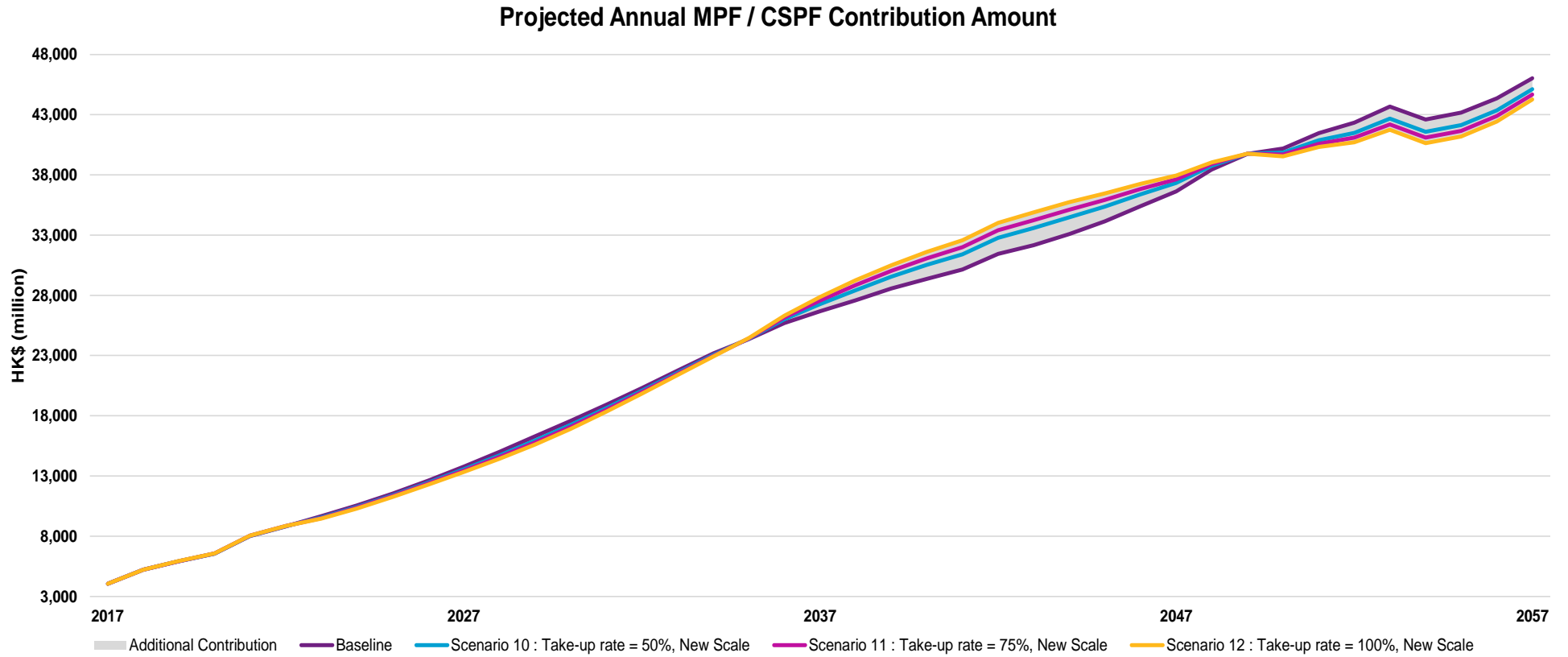
Graph 6: Option period = 1 year, New Scale (Scenarios 4 to 6)



Graph 7: Option period = 2 year, New Scale (Scenarios 7 to 9)



Graph 8: Option period = 5 year, New Scale (Scenarios 10 to 12)



Appendix D: Specimen Projection Results of MPF and CSPF Contributions

This Appendix shows the detailed project results under Baseline and Scenarios 1 – 12 in tabular format for each year from 2017 to 2023 (which covers the option period expiration of all 3 options periods), and every 5 years up to year 2057.

	2017	2018	2019	2020	2021	2022	2023	2027	2032	2037	2042	2047	2052	2057
Baseline														
(i) Number of civil servants covered by MPF / CSPF	81,639	103,681	107,979	111,827	115,451	119,317	123,304	139,695	158,893	167,699	168,144	168,144	168,144	168,144
(ii) Annual salaries in respect of civil servants covered under MPF / CSPF (HK\$ million)	31,692	39,537	43,569	47,728	52,082	56,732	61,686	84,125	116,961	147,296	171,292	200,016	231,085	259,094
(iii) Annual MPF / CSPF contributions (HK\$ million)	4,058	5,214	5,924	6,550	8,022	8,806	9,657	13,777	20,307	26,685	31,436	36,628	42,343	46,024
(iv) Annual MPF / CSPF contribution rates (iii) / (ii)	12.8%	13.2%	13.6%	13.7%	15.4%	15.5%	15.7%	16.4%	17.4%	18.1%	18.4%	18.3%	18.3%	17.8%
Scenario 1 - Current Scale, Option period = 1 year, take-up rate = 50%														
(v) Annual salaries in respect of civil servants covered under MPF / CSPF (HK\$ million)	31,692	39,537	43,579	47,750	52,118	56,788	61,764	84,264	117,517	149,811	175,055	200,189	226,648	255,978
(vi) Annual MPF / CSPF contributions (HK\$ million)	4,058	5,214	5,928	6,560	8,040	8,831	9,689	13,824	20,559	27,862	33,411	37,573	41,493	45,111
(vii) Annual MPF / CSPF contribution rates (vi) / (v)	12.8%	13.2%	13.6%	13.7%	15.4%	15.6%	15.7%	16.4%	17.5%	18.6%	19.1%	18.8%	18.3%	17.6%
Scenario 2 - Current Scale, Option period = 1 year, take-up rate = 75%														
(viii) Annual salaries in respect of civil servants covered under MPF / CSPF (HK\$ million)	31,692	39,537	43,583	47,761	52,136	56,816	61,803	84,333	117,792	151,049	176,704	200,182	224,577	254,586
(ix) Annual MPF / CSPF contributions (HK\$ million)	4,058	5,214	5,931	6,565	8,048	8,843	9,705	13,848	20,683	28,443	34,328	37,996	41,092	44,682
(x) Annual MPF / CSPF contribution rates (ix) / (viii)	12.8%	13.2%	13.6%	13.7%	15.4%	15.6%	15.7%	16.4%	17.6%	18.8%	19.4%	19.0%	18.3%	17.6%
Scenario 3 - Current Scale, Option period = 1 year, take-up rate = 100%														
(xi) Annual salaries in respect of civil servants covered under MPF / CSPF (HK\$ million)	31,692	39,537	43,588	47,772	52,154	56,844	61,842	84,402	118,065	152,257	178,279	200,182	222,634	253,295
(xii) Annual MPF / CSPF contributions (HK\$ million)	4,058	5,214	5,933	6,570	8,057	8,855	9,721	13,872	20,807	29,013	35,216	38,404	40,716	44,268
(xiii) Annual MPF / CSPF contribution rates (xii) / (xi)	12.8%	13.2%	13.6%	13.8%	15.4%	15.6%	15.7%	16.4%	17.6%	19.1%	19.8%	19.2%	18.3%	17.5%

	2017	2018	2019	2020	2021	2022	2023	2027	2032	2037	2042	2047	2052	2057
Scenario 4 - New Scale, Option period = 1 year, take-up rate = 50%														
(xiv) Annual salaries in respect of civil servants covered under MPF / CSPF (HK\$ million)	31,692	39,537	43,579	47,750	52,118	56,788	61,764	84,264	117,517	149,811	175,055	200,189	226,648	255,978
(xv) Annual MPF / CSPF contributions (HK\$ million)	4,058	5,214	5,904	6,534	7,984	8,731	9,555	13,557	20,074	27,272	32,779	37,326	41,493	45,111
(xvi) Annual MPF / CSPF contribution rates (xv) / (xiv)	12.8%	13.2%	13.5%	13.7%	15.3%	15.4%	15.5%	16.1%	17.1%	18.2%	18.7%	18.6%	18.3%	17.6%
Scenario 5 - New Scale, Option period = 1 year, take-up rate = 75%														
(xvii) Annual salaries in respect of civil servants covered under MPF / CSPF (HK\$ million)	31,692	39,537	43,583	47,761	52,136	56,816	61,803	84,333	117,792	151,049	176,704	200,182	224,577	254,586
(xviii) Annual MPF / CSPF contributions (HK\$ million)	4,058	5,214	5,893	6,526	7,964	8,693	9,503	13,448	19,960	27,568	33,403	37,638	41,092	44,682
(xix) Annual MPF / CSPF contribution rates (xviii) / (xvii)	12.8%	13.2%	13.5%	13.7%	15.3%	15.3%	15.4%	15.9%	16.9%	18.3%	18.9%	18.8%	18.3%	17.6%
Scenario 6 - New Scale, Option period = 1 year, take-up rate = 100%														
(xx) Annual salaries in respect of civil servants covered under MPF / CSPF (HK\$ million)	31,692	39,537	43,588	47,772	52,154	56,844	61,842	84,402	118,065	152,257	178,279	200,182	222,634	253,295
(xxi) Annual MPF / CSPF contributions (HK\$ million)	4,058	5,214	5,883	6,518	7,945	8,656	9,452	13,339	19,846	27,859	34,010	37,942	40,716	44,268
(xxii) Annual MPF / CSPF contribution rates (xxi) / (xx)	12.8%	13.2%	13.5%	13.6%	15.2%	15.2%	15.3%	15.8%	16.8%	18.3%	19.1%	19.0%	18.3%	17.5%
Scenario 7 - New Scale, Option period = 2 years, take-up rate = 50%														
(xxiii) Annual salaries in respect of civil servants covered under MPF / CSPF (HK\$ million)	31,692	39,537	43,578	47,750	52,118	56,787	61,764	84,264	117,517	149,811	175,055	200,189	226,648	255,978
(xxiv) Annual MPF / CSPF contributions (HK\$ million)	4,058	5,214	5,928	6,534	7,984	8,731	9,555	13,557	20,074	27,272	32,779	37,326	41,493	45,111
(xxv) Annual MPF / CSPF contribution rates (xxiv) / (xxiii)	12.8%	13.2%	13.6%	13.7%	15.3%	15.4%	15.5%	16.1%	17.1%	18.2%	18.7%	18.6%	18.3%	17.6%
Scenario 8 - New Scale, Option period = 2 years, take-up rate = 75%														
(xxvi) Annual salaries in respect of civil servants covered under MPF / CSPF (HK\$ million)	31,692	39,537	43,583	47,761	52,136	56,816	61,803	84,333	117,792	151,049	176,704	200,182	224,577	254,586
(xxvii) Annual MPF / CSPF contributions (HK\$ million)	4,058	5,214	5,930	6,526	7,964	8,693	9,503	13,448	19,960	27,568	33,403	37,638	41,092	44,682
(xxviii) Annual MPF / CSPF contribution rates (xxvii) / (xxvi)	12.8%	13.2%	13.6%	13.7%	15.3%	15.3%	15.4%	15.9%	16.9%	18.3%	18.9%	18.8%	18.3%	17.6%
Scenario 9 - New Scale, Option period = 2 years, take-up rate = 100%														
(xxix) Annual salaries in respect of civil servants covered under MPF / CSPF (HK\$ million)	31,692	39,537	43,588	47,772	52,154	56,844	61,842	84,402	118,065	152,257	178,279	200,182	222,634	253,295
(xxx) Annual MPF / CSPF contributions (HK\$ million)	4,058	5,214	5,933	6,518	7,945	8,656	9,452	13,339	19,846	27,859	34,010	37,942	40,716	44,268
(xxxi) Annual MPF / CSPF contribution rates (xxx) / (xxix)	12.8%	13.2%	13.6%	13.6%	15.2%	15.2%	15.3%	15.8%	16.8%	18.3%	19.1%	19.0%	18.3%	17.5%

	2017	2018	2019	2020	2021	2022	2023	2027	2032	2037	2042	2047	2052	2057
Scenario 10 - New Scale, Option period = 5 years, take-up rate = 50%														
(xxxii) Annual salaries in respect of civil servants covered under MPF / CSPF (HK\$ million)	31,692	39,537	43,578	47,750	52,118	56,787	61,764	84,264	117,517	149,811	175,055	200,189	226,648	255,978
(xxxiii) Annual MPF / CSPF contributions (HK\$ million)	4,058	5,214	5,928	6,560	8,039	8,830	9,555	13,557	20,074	27,272	32,779	37,326	41,493	45,111
(xxxiv) Annual MPF / CSPF contribution rates (xxxiii) / (xxxii)	12.8%	13.2%	13.6%	13.7%	15.4%	15.5%	15.5%	16.1%	17.1%	18.2%	18.7%	18.6%	18.3%	17.6%
Scenario 11 - New Scale, Option period = 5 years, take-up rate = 75%														
(xxxv) Annual salaries in respect of civil servants covered under MPF / CSPF (HK\$ million)	31,692	39,537	43,583	47,761	52,136	56,816	61,803	84,333	117,792	151,049	176,704	200,182	224,577	254,586
(xxxvi) Annual MPF / CSPF contributions (HK\$ million)	4,058	5,214	5,930	6,565	8,048	8,841	9,503	13,448	19,960	27,568	33,403	37,638	41,092	44,682
(xxxvii) Annual MPF / CSPF contribution rates (xxxvi) / (xxxv)	12.8%	13.2%	13.6%	13.7%	15.4%	15.6%	15.4%	15.9%	16.9%	18.3%	18.9%	18.8%	18.3%	17.6%
Scenario 12 - New Scale, Option period = 5 years, take-up rate = 100%														
(xxxviii) Annual salaries in respect of civil servants covered under MPF / CSPF (HK\$ million)	31,692	39,537	43,588	47,772	52,154	56,844	61,842	84,402	118,065	152,257	178,279	200,182	222,634	253,295
(xxxix) Annual MPF / CSPF contributions (HK\$ million)	4,058	5,214	5,933	6,570	8,056	8,853	9,452	13,339	19,846	27,859	34,010	37,942	40,716	44,268
(xL) Annual MPF / CSPF contribution rates (xxxix) / (xxxviii)	12.8%	13.2%	13.6%	13.8%	15.4%	15.6%	15.3%	15.8%	16.8%	18.3%	19.1%	19.0%	18.3%	17.5%

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