

APPENDICES

Page

A. MEDIUM RANGE FORECAST

3

Forecast of government expenditure and revenue for the period up to 2023-24

B. ANALYSIS OF EXPENDITURE AND REVENUE

15

Allocation of resources among policy area groups and analysis of revenue

C. GLOSSARY OF TERMS

35

Note: Expenditure figures for 2018-19 and before have been adjusted to align with the definitions and policy area group classifications adopted in the 2019-20 estimate.

APPENDIX A

MEDIUM RANGE FORECAST

CONTENTS	Page
SECTION I FORECASTING ASSUMPTIONS AND BUDGETARY CRITERIA	6
SECTION II MEDIUM RANGE FORECAST	7
SECTION III RELATIONSHIP BETWEEN GOVERNMENT EXPENDITURE/ PUBLIC EXPENDITURE AND GDP IN THE MEDIUM RANGE FORECAST	11
SECTION IV CONTINGENT AND MAJOR UNFUNDED LIABILITIES	13

SECTION I FORECASTING ASSUMPTIONS AND BUDGETARY CRITERIA

1 The Medium Range Forecast (MRF) is a fiscal planning tool. It sets out the high-level forecast of government expenditure and revenue as well as the financial position covering the five-year period including the budget year, i.e. from 2019-20 to 2023-24.

2 A wide range of assumptions underlying the factors affecting Government's revenue and expenditure are used to derive the MRF. Some assumptions are economic in nature (the general economic assumptions) while others deal with specific areas of Government's activities (other assumptions).

General Economic Assumptions

Real Gross Domestic Product (real GDP)

3 GDP is forecast to increase by 2% to 3% in real terms in 2019. We have used the mid-point of this range forecast in deriving the MRF. For planning purposes, in the four-year period 2020 to 2023, the trend growth rate of the economy in real terms is assumed to be 3% per annum.

Price change

4 The GDP deflator, measuring overall price change in the economy, is forecast to increase by 2.5% in 2019. For the four-year period 2020 to 2023, the GDP deflator is assumed to increase at a trend rate of 2% per annum.

5 The Composite Consumer Price Index (CCPI), measuring inflation in the consumer domain, is forecast to increase by 2.5% in 2019. Netting out the effects of various one-off relief measures, the underlying CCPI is forecast to increase by 2.5% in 2019. For the ensuing period 2020 to 2023, the trend rate of increase for the underlying CCPI is assumed to be 2.5% per annum.

Nominal Gross Domestic Product (nominal GDP)

6 Given the assumptions on the rates of change in the real GDP and the GDP deflator, the GDP in nominal terms is forecast to increase by 4.5% to 5.5% in 2019, and the trend growth rate in nominal terms for the period 2020 to 2023 is assumed to be 5% per annum.

Other Assumptions

7 Other assumptions on expenditure and revenue patterns over the forecast period are as follows –

- The operating expenditure for 2020-21 and beyond represents the forecast expenditure requirements for Government.
- The capital expenditure for 2019-20 and beyond reflects the estimated cash flow requirements for capital projects including approved capital works projects and those at an advanced stage of planning.
- The revenue projections for 2020-21 and beyond basically reflect the relevant trend yields.

Budgetary Criteria

8 Article 107 of the Basic Law stipulates that “*The Hong Kong Special Administrative Region shall follow the principle of keeping expenditure within the limits of revenues in drawing up its budget, and strive to achieve a fiscal balance, avoid deficits and keep the budget commensurate with the growth rate of its gross domestic product.*”

9 Article 108 of the Basic Law stipulates that “*... The Hong Kong Special Administrative Region shall, taking the low tax policy previously pursued in Hong Kong as reference, enact laws on its own concerning types of taxes, tax rates, tax reductions, allowances and exemptions, and other matters of taxation.*”

10 For the purpose of preparing the MRF, the following criteria are also relevant –

Budget surplus/deficit

The Government aims to achieve, over time, a balance in the consolidated account.

Expenditure policy

The general principle is that, over time, the growth rate of expenditure should commensurate with the growth rate of the economy.

Revenue policy

The Government aims to maintain, over time, the real yield from revenue.

Fiscal reserves

The Government aims to maintain adequate reserves in the long run.

SECTION II MEDIUM RANGE FORECAST

11 The financial position of the Government for the current MRF period (*Note (a)*) is summarised below –

Table 1

(\$ million)	2018-19 Revised Estimate	2019-20 Estimate	2020-21 Forecast	2021-22 Forecast	2022-23 Forecast	2023-24 Forecast
Operating Account						
Operating revenue (<i>Note (b)</i>)	452,154	467,000	528,485	547,874	577,552	598,202
Less: Operating expenditure (<i>Note (c)</i>)	434,606	501,500	510,900	540,200	568,900	595,000
Operating surplus / (deficit)	17,548	(34,500)	17,585	7,674	8,652	3,202
Capital Account						
Capital revenue (<i>Note (d)</i>)	144,265	159,059	139,718	152,271	167,765	165,320
Less: Capital expenditure (<i>Note (e)</i>)	103,147	106,258	129,715	155,003	170,902	160,388
Capital surplus / (deficit)	41,118	52,801	10,003	(2,732)	(3,137)	4,932
Consolidated Account						
Government revenue	596,419	626,059	668,203	700,145	745,317	763,522
Less: Government expenditure	537,753	607,758	640,615	695,203	739,802	755,388
Consolidated surplus before repayment of bonds and notes	58,666	18,301	27,588	4,942	5,515	8,134
Less: Repayment of bonds and notes (<i>Note (f)</i>)	-	1,500	-	-	-	-
Consolidated surplus after repayment of bonds and notes	58,666	16,801	27,588	4,942	5,515	8,134
Fiscal reserves at 31 March	1,161,600	1,178,401	1,205,989	1,210,931	1,216,446	1,224,580
In terms of number of months of government expenditure	26	23	23	21	20	19
In terms of percentage of GDP	40.8%	39.4%	38.4%	36.8%	35.2%	33.7%

Fiscal Reserves

12 Part of the fiscal reserves has, since 1 January 2016, been held in a notional savings account called the Future Fund, which is placed with the Exchange Fund with a view to securing higher investment returns over a ten-year investment period. The initial endowment of the Future Fund was \$219,730 million, being the balance of the Land Fund on 1 January 2016. \$4.8 billion of the consolidated surplus from the Operating and Capital Reserves was transferred to the Future Fund as top-up in 2016-17. The arrangement thereafter is subject to an annual review by the Financial Secretary.

Table 2

Distribution of fiscal reserves at 31 March					
	2018-19 Revised Estimate	2019-20 Estimate			
(\$ million)			Future Fund	Operating and Capital Reserves	Total
General Revenue Account	708,041	717,469	4,800*	712,669	717,469
Funds with designated use	233,829	241,202		241,202	241,202
Capital Works Reserve Fund	142,540	149,170		149,170	149,170
Capital Investment Fund	335	3,627		3,627	3,627
Civil Service Pension Reserve Fund	38,315	39,426		39,426	39,426
Disaster Relief Fund	24	100		100	100
Innovation and Technology Fund	25,522	22,260		22,260	22,260
Loan Fund	3,121	3,745		3,745	3,745
Lotteries Fund	23,972	22,874		22,874	22,874
Land Fund	219,730	219,730	219,730	-	219,730
	<u>1,161,600</u>	<u>1,178,401</u>	<u>224,530</u>	<u>953,871</u>	<u>1,178,401</u>
In terms of number of months of government expenditure	26	23	4	19	23

* Being one-third of 2015-16 consolidated surplus.

13 The fiscal reserves would be drawn on to fund contingent and other liabilities. As detailed in Section IV, these include over \$376 billion for capital works projects underway and about \$480 billion as statutory pension obligations in the coming ten years.

Notes –

(a) *Accounting policies*

- (i) The MRF is prepared on a cash basis and reflects forecast receipts and payments, whether they relate to operating or capital transactions.
- (ii) The MRF includes the General Revenue Account and eight Funds (Capital Investment Fund, Capital Works Reserve Fund, Civil Service Pension Reserve Fund, Disaster Relief Fund, Innovation and Technology Fund, Land Fund, Loan Fund and Lotteries Fund). It does not include the Bond Fund which is managed separately and the balance of which does not form part of the fiscal reserves.

(b) *Operating revenue*

- (i) The operating revenue takes into account the revenue measures proposed in the 2019-20 Budget, and is made up of –

(\$ million)	2018-19 Revised Estimate	2019-20 Estimate	2020-21 Forecast	2021-22 Forecast	2022-23 Forecast	2023-24 Forecast
Operating revenue before investment income	424,414	427,002	488,093	508,378	536,089	567,829
Investment income (<i>Note (g)</i>)	27,740	39,998	40,392	39,496	41,463	30,373
Total	452,154	467,000	528,485	547,874	577,552	598,202

- (ii) Investment income under the Operating Account includes investment income of the General Revenue Account (other than the portion notionally held for the Future Fund) which is credited to revenue head Properties and Investments. The rate of investment return is 2.9% for 2019 (vs 4.6% for 2018) and is assumed to be in the range of 2.8% to 4.6% a year for 2020 to 2023.
- (iii) Investment income of the Future Fund includes investment income of the relevant portion of the General Revenue Account and investment income of the Land Fund, compounded on an annual basis. It will be retained by the Exchange Fund for reinvestment and will not be paid to Government until the end of the ten-year placement (i.e. 31 December 2025) or a date as directed by the Financial Secretary.

(c) *Operating expenditure*

This represents expenditure charged to the Operating Account of the General Revenue Account. The figures for 2020-21 and beyond set out the forecast operating expenditure requirements for Government.

(d) Capital revenue

(i) The breakdown of capital revenue is –

(\$ million)	2018-19 Revised Estimate	2019-20 Estimate	2020-21 Forecast	2021-22 Forecast	2022-23 Forecast	2023-24 Forecast
General Revenue Account	10,623	3,223	4,627	4,201	2,986	2,985
Capital Investment Fund	1,292	1,337	1,210	1,299	1,394	1,508
Capital Works Reserve Fund	115,986	143,027	122,343	128,458	134,882	141,625
Disaster Relief Fund	1	-	-	-	-	-
Innovation and Technology Fund	40	-	-	-	-	-
Loan Fund	2,504	2,315	2,407	3,285	3,848	3,709
Lotteries Fund	1,229	1,228	1,227	1,225	1,222	1,220
Capital revenue before investment income	131,675	151,130	131,814	138,468	144,332	151,047
Investment income (<i>Note (g)</i>)	12,590	7,929	7,904	13,803	23,433	14,273
Total	144,265	159,059	139,718	152,271	167,765	165,320

(ii) Land premium included under the Capital Works Reserve Fund for 2019-20 is estimated to be \$143 billion. For 2020-21 onwards, it is assumed to be 3.9% of GDP, being the ten-year historical average.

(iii) Investment income under the Capital Account includes investment income of the Capital Investment Fund, Capital Works Reserve Fund, Civil Service Pension Reserve Fund, Disaster Relief Fund, Innovation and Technology Fund, Loan Fund and Lotteries Fund. The rate of investment return is 2.9% for 2019 (vs 4.6% for 2018) and is assumed to be in the range of 2.8% to 4.6% a year for 2020 to 2023.

(e) Capital expenditure

The breakdown of capital expenditure is –

(\$ million)	2018-19 Revised Estimate	2019-20 Estimate	2020-21 Forecast	2021-22 Forecast	2022-23 Forecast	2023-24 Forecast
General Revenue Account	5,783	7,221	8,391	8,898	8,626	8,226
Capital Investment Fund	3,988	4,133	7,911	5,167	5,468	4,146
Capital Works Reserve Fund	85,130	85,157	101,469	129,750	147,708	138,936
Disaster Relief Fund	65	-	-	-	-	-
Innovation and Technology Fund	1,984	3,968	4,664	4,376	4,345	4,421
Loan Fund	4,636	2,774	2,632	2,563	2,541	2,555
Lotteries Fund	1,561	3,005	4,648	4,249	2,214	2,104
Total	103,147	106,258	129,715	155,003	170,902	160,388

(f) Repayment of bonds and notes

Repayment of bonds and notes is in respect of the global bond issue in 2004. The outstanding principal of \$1,500 million would be fully repaid in 2019-20.

(g) Housing Reserve

The Housing Reserve was established in 2014 to support public housing development projects. The Housing Reserve, now standing at \$82.4 billion, is kept outside the Government's accounts and does not form part of the fiscal reserves. To clearly reflect the prevailing Government financial position, the sum will be brought back to the Government's accounts over four years from 2019-20 to 2022-23 as investment income, and will earn the same rate of investment return as stipulated in *Note (b)(ii)* above. At the same time, an equivalent amount has been earmarked for public housing development under the 2019-20 Budget.

SECTION III RELATIONSHIP BETWEEN GOVERNMENT EXPENDITURE/PUBLIC EXPENDITURE AND GDP IN THE MEDIUM RANGE FORECAST

14 For monitoring purposes, expenditure of the Trading Funds and the Housing Authority (collectively referred to as “other public bodies” in this Appendix) is added to government expenditure in order to compare public expenditure with GDP.

Government Expenditure and Public Expenditure in the Context of the Economy

Table 3

(\$ million)	2018-19 Revised Estimate	2019-20 Estimate	2020-21 Forecast	2021-22 Forecast	2022-23 Forecast	2023-24 Forecast
Operating expenditure	434,606	501,500	510,900	540,200	568,900	595,000
Capital expenditure	103,147	106,258	129,715	155,003	170,902	160,388
Government expenditure	537,753	607,758	640,615	695,203	739,802	755,388
Expenditure by other public bodies	37,692	38,638	41,928	44,312	43,809	45,331
Public expenditure (Note (a))	575,445	646,396	682,543	739,515	783,611	800,719
Gross Domestic Product (calendar year)	2,845,317	2,987,600	3,137,000	3,293,800	3,458,500	3,631,400
Nominal growth in GDP (Note (b))	6.9%	5.0%	5.0%	5.0%	5.0%	5.0%
Growth in recurrent government expenditure (Note (c))	11.9%	9.0%	8.8%	6.1%	5.7%	5.0%
Growth in government expenditure (Note (c))	14.2%	13.0%	5.4%	8.5%	6.4%	2.1%
Growth in public expenditure (Note (c))	13.4%	12.3%	5.6%	8.3%	6.0%	2.2%
Public expenditure in terms of percentage of GDP	20.2%	21.6%	21.8%	22.5%	22.7%	22.0%

Notes –

- (a) Public expenditure comprises government expenditure and expenditure by other public bodies. It does not include expenditure by those organisations, including statutory organisations in which the Government has only an equity position, such as the Airport Authority and the MTR Corporation Limited.
- (b) For 2019-20, the nominal GDP growth of 5% represents the mid-point of the range forecast of 4.5% to 5.5% for the calendar year 2019.
- (c) The growth rates for 2018-19 to 2023-24 refer to year-on-year change. For example, the rates for 2018-19 refer to the change between revised estimate for 2018-19 and actual expenditure in 2017-18. The rates for 2019-20 refer to the change between the 2019-20 estimate and the 2018-19 revised estimate, and so forth.

15 Table 4 shows the relationship amongst the sum to be appropriated in the 2019-20 Budget, government expenditure and public expenditure.

**Relationship between Government Expenditure
and Public Expenditure in 2019-20**

Table 4

Appropriation	Government expenditure and revenue			Public expenditure
	Operating	Capital	Total	
(\$ million)				
Expenditure				
General Revenue Account				
Operating				
Recurrent	440,989	-	440,989	440,989
Non-recurrent	60,511	-	60,511	60,511
Capital				
Plant, equipment and works	4,614	4,614	4,614	4,614
Subventions	2,607	2,607	2,607	2,607
	508,721	7,221	508,721	508,721
Transfer to Funds	7,074	-	-	-
Capital Investment Fund	-	4,133	4,133	4,133
Capital Works Reserve Fund	-	85,157	85,157	85,157
Innovation and Technology Fund	-	3,968	3,968	3,968
Loan Fund	-	2,774	2,774	2,774
Lotteries Fund	-	3,005	3,005	3,005
Trading Funds	-	-	-	6,297
Housing Authority	-	-	-	32,341
	515,795	106,258	607,758	646,396
Revenue				
General Revenue Account				
Taxation	385,848	15	385,863	
Other revenue	81,152	3,208	84,360	
	467,000	3,223	470,223	
Capital Investment Fund	-	1,425	1,425	
Capital Works Reserve Fund	-	148,287	148,287	
Civil Service Pension Reserve Fund	-	1,111	1,111	
Disaster Relief Fund	-	2	2	
Innovation and Technology Fund	-	706	706	
Loan Fund	-	2,398	2,398	
Lotteries Fund	-	1,907	1,907	
	467,000	159,059	626,059	
Surplus / (Deficit)	(34,500)	52,801	18,301	

SECTION IV CONTINGENT AND MAJOR UNFUNDED LIABILITIES

16 The Government's contingent liabilities as at 31 March 2018, 31 March 2019 and 31 March 2020, are provided below as supplementary information to the MRF –

Table 5

(\$ million)	2018	At 31 March 2019	2020
Guarantee to the Hong Kong Export Credit Insurance Corporation for liabilities under contracts of insurance	39,881	38,761	40,613
Guarantees provided under the SME Financing Guarantee Scheme – Special Concessionary Measures	19,763	17,427	17,232
Legal claims, disputes and proceedings	10,826	10,033	4,070
Subscription to callable shares in the Asian Development Bank	6,265	5,982	5,982
Subscription to callable shares in the Asian Infrastructure Investment Bank	4,800	4,794	4,794
Guarantees provided under the SME Loan Guarantee Scheme	4,234	4,303	4,549
Guarantees provided under a commercial loan of the Hong Kong Science and Technology Parks Corporation	1,911	1,866	975
Guarantees provided under the Special Loan Guarantee Scheme	654	205	129
Total	88,334	83,371	78,344

17 The Government's major unfunded liabilities as at 31 March 2018 were as follows –

(\$ million)	
Present value of statutory pension obligations (<i>Note (a)</i>)	964,599
Untaken leave (<i>Note (b)</i>)	26,777
Government bonds and notes issued in 2004	1,500

Notes –

- (a) The statutory pension obligations for the coming ten years are estimated to be about \$480 billion in money of the day.
- (b) The estimate for “untaken leave” gives an indication of the overall value of leave earned but not yet taken by serving public officers.

18 The estimated outstanding commitments of capital works projects as at 31 March 2018 and 31 March 2019 are \$350,711 million and \$376,388 million respectively. Some of these are contractual commitments.

