

# APPENDICES

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*Note:* Expenditure figures for 2017-18 and before have been adjusted to align with the definitions and policy area group classifications adopted in the 2018-19 estimate.



# **APPENDIX A**

## **MEDIUM RANGE FORECAST**



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## 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 covering the five-year period including the budget year, i.e. from 2018-19 to 2022-23.

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 3% to 4% in real terms in 2018. We have used the mid-point of this range forecast in deriving the MRF. For planning purposes, in the four-year period 2019 to 2022, 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 2018. For the four-year period 2019 to 2022, 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 2.2% in 2018. Netting out the effects of various one-off relief measures, the underlying CCPI is forecast to increase by 2.5% in 2018. For the ensuing period 2019 to 2022, 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 5.5% to 6.5% in 2018, and the trend growth rate in nominal terms for the period 2019 to 2022 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 2019-20 and beyond represents the forecast expenditure requirements for Government.
- The capital expenditure for 2018-19 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 2019-20 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)	2017-18 Revised Estimate	2018-19 Estimate	2019-20 Forecast	2020-21 Forecast	2021-22 Forecast	2022-23 Forecast
<b>Operating Account</b>						
Operating revenue ( <i>Note (b)</i> )	436,885	456,139	507,974	504,993	531,965	568,654
Less: Operating expenditure ( <i>Note (c)</i> )	372,870	441,500	470,300	498,000	526,000	557,100
<b>Operating surplus</b>	<b>64,015</b>	<b>14,639</b>	<b>37,674</b>	<b>6,993</b>	<b>5,965</b>	<b>11,554</b>
<b>Capital Account</b>						
Capital revenue ( <i>Note (d)</i> )	175,500	148,370	125,690	129,899	138,050	147,059
Less: Capital expenditure ( <i>Note (e)</i> )	101,536	116,388	117,851	121,874	138,956	138,664
<b>Capital surplus / (deficit)</b>	<b>73,964</b>	<b>31,982</b>	<b>7,839</b>	<b>8,025</b>	<b>(906)</b>	<b>8,395</b>
<b>Consolidated Account</b>						
Government revenue	612,385	604,509	633,664	634,892	670,015	715,713
Less: Government expenditure	474,406	557,888	588,151	619,874	664,956	695,764
<b>Consolidated surplus before repayment of bonds and notes</b>	<b>137,979</b>	<b>46,621</b>	<b>45,513</b>	<b>15,018</b>	<b>5,059</b>	<b>19,949</b>
Less: Repayment of bonds and notes ( <i>Note (f)</i> )	-	-	1,500	-	-	-
<b>Consolidated surplus after repayment of bonds and notes</b>	<b>137,979</b>	<b>46,621</b>	<b>44,013</b>	<b>15,018</b>	<b>5,059</b>	<b>19,949</b>
<b>Fiscal reserves at 31 March</b>	<b>1,091,939</b>	<b>1,138,560</b>	<b>1,182,573</b>	<b>1,197,591</b>	<b>1,202,650</b>	<b>1,222,599</b>
In terms of number of months of government expenditure	28	24	24	23	22	21
In terms of percentage of GDP	41.0%	40.3%	39.9%	38.5%	36.8%	35.6%

**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

<b>Distribution of fiscal reserves at 31 March</b>					
	2017-18 Revised Estimate	<b>2018-19 Estimate</b>	Future Fund	Operating and Capital Reserves	Total
(\$ million)					
General Revenue Account	619,925	<b>715,770</b>	4,800*	710,970	715,770
Funds with designated use	252,284	<b>203,060</b>		203,060	203,060
Capital Works Reserve Fund	180,578	<b>132,194</b>		132,194	132,194
Capital Investment Fund	2,917	<b>2,583</b>		2,583	2,583
Civil Service Pension Reserve Fund	35,129	<b>38,316</b>		38,316	38,316
Disaster Relief Fund	17	<b>80</b>		80	80
Innovation and Technology Fund	6,776	<b>4,979</b>		4,979	4,979
Loan Fund	3,726	<b>2,557</b>		2,557	2,557
Lotteries Fund	23,141	<b>22,351</b>		22,351	22,351
Land Fund	219,730	<b>219,730</b>	219,730	-	219,730
	<u>1,091,939</u>	<u><b>1,138,560</b></u>	<u>224,530</u>	<u>914,030</u>	<u>1,138,560</u>
In terms of number of months of government expenditure	28	24	5	19	24

\* 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 \$350 billion for capital works projects under way and about \$470 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 2018-19 Budget, and is made up of –

(\$ million)	2017-18 Revised Estimate	2018-19 Estimate	2019-20 Forecast	2020-21 Forecast	2021-22 Forecast	2022-23 Forecast
Operating revenue before investment income	421,262	428,470	482,570	480,273	505,252	535,912
Investment income	15,623	27,669	25,404	24,720	26,713	32,742
Total	<u>436,885</u>	<u>456,139</u>	<u>507,974</u>	<u>504,993</u>	<u>531,965</u>	<u>568,654</u>

- (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 4.6% for 2018 (vs 2.8% for 2017) and is assumed to be in the range of 3.7% to 4.9% a year for 2019 to 2022.
- (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 2019-20 and beyond set out the forecast expenditure requirements for Government.

*(d) Capital revenue*

(i) The breakdown of capital revenue is –

(\$ million)	2017-18 Revised Estimate	2018-19 Estimate	2019-20 Forecast	2020-21 Forecast	2021-22 Forecast	2022-23 Forecast
General Revenue Account	1,390	10,184	5,176	3,906	4,434	4,433
Capital Investment Fund	818	1,238	911	1,016	1,211	1,181
Capital Works Reserve Fund	163,687	121,010	106,686	112,021	117,623	123,502
Disaster Relief Fund	1	-	-	-	-	-
Innovation and Technology Fund	51	4	-	-	-	-
Loan Fund	2,276	2,273	2,309	2,339	3,022	3,470
Lotteries Fund	1,167	1,152	1,135	1,119	1,103	1,087
Capital revenue before asset sales and investment income	169,390	135,861	116,217	120,401	127,393	133,673
Asset sales	293	371	460	412	412	412
Investment income	5,817	12,138	9,013	9,086	10,245	12,974
Total	175,500	148,370	125,690	129,899	138,050	147,059

(ii) Land premium included under the Capital Works Reserve Fund for 2018-19 is estimated to be \$121.0 billion. For 2019-20 onwards, it is assumed to be 3.6% 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 4.6% for 2018 (vs 2.8% for 2017) and is assumed to be in the range of 3.7% to 4.9% a year for 2019 to 2022.

*(e) Capital expenditure*

The breakdown of capital expenditure is –

(\$ million)	2017-18 Revised Estimate	2018-19 Estimate	2019-20 Forecast	2020-21 Forecast	2021-22 Forecast	2022-23 Forecast
General Revenue Account	4,525	6,388	7,196	8,088	6,881	7,043
Capital Investment Fund	1,058	1,694	4,141	2,818	2,718	1,552
Capital Works Reserve Fund	87,815	98,293	97,018	101,663	122,700	123,869
Disaster Relief Fund	63	-	-	-	-	-
Innovation and Technology Fund	1,484	2,085	2,313	2,422	2,109	2,099
Loan Fund	5,148	4,947	2,742	2,681	2,667	2,648
Lotteries Fund	1,443	2,981	4,441	4,202	1,881	1,453
Total	101,536	116,388	117,851	121,874	138,956	138,664

*(f) Repayment of bonds and notes*

Repayment of bonds and notes is only 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, which was established in 2014 to support large-scale public housing development projects, now stands at \$78.8 billion. The sum is retained within the Exchange Fund to earn the same rate of investment return as stipulated in *Note (b)(ii)*. The Housing Reserve is kept outside the Government's accounts and does not form part of the fiscal reserves. Government will seek the approval of the Finance Committee before offering to draw on the Housing Reserve for injections into the Housing Authority.

### 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

	2017-18 Revised Estimate	2018-19 Estimate	2019-20 Forecast	2020-21 Forecast	2021-22 Forecast	2022-23 Forecast
(\$ million)						
Operating expenditure	372,870	441,500	470,300	498,000	526,000	557,100
Capital expenditure	101,536	116,388	117,851	121,874	138,956	138,664
<b>Government expenditure</b>	<b>474,406</b>	<b>557,888</b>	<b>588,151</b>	<b>619,874</b>	<b>664,956</b>	<b>695,764</b>
Expenditure by other public bodies	38,306	40,695	40,502	43,649	45,797	47,415
<b>Public expenditure (Note (a))</b>	<b>512,712</b>	<b>598,583</b>	<b>628,653</b>	<b>663,523</b>	<b>710,753</b>	<b>743,179</b>
<b>Gross Domestic Product (calendar year)</b>	<b>2,662,637</b>	<b>2,822,400</b>	<b>2,963,500</b>	<b>3,111,700</b>	<b>3,267,300</b>	<b>3,430,600</b>
Nominal growth in GDP (Note (b))	6.9%	6.0%	5.0%	5.0%	5.0%	5.0%
Growth in recurrent government expenditure (Note (c))	5.5%	11.8%	9.7%	6.8%	6.1%	6.4%
Growth in government expenditure (Note (c))	2.7%	17.6%	5.4%	5.4%	7.3%	4.6%
Growth in public expenditure (Note (c))	3.6%	16.7%	5.0%	5.5%	7.1%	4.6%
<b>Public expenditure in terms of percentage of GDP</b>	<b>19.3%</b>	<b>21.2%</b>	<b>21.2%</b>	<b>21.3%</b>	<b>21.8%</b>	<b>21.7%</b>

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 2018-19, the nominal GDP growth of 6% represents the mid-point of the range forecast of 5.5% to 6.5% for the calendar year 2018.
- (c) The growth rates for 2017-18 to 2022-23 refer to year-on-year change. For example, the rates for 2017-18 refer to the change between revised estimate for 2017-18 and actual expenditure in 2016-17. The rates for 2018-19 refer to the change between the 2018-19 estimate and the 2017-18 revised estimate, and so forth.

15 Table 4 shows the relationship amongst the sum to be appropriated in the 2018-19 Budget, government expenditure and public expenditure.

**Relationship between Government Expenditure  
and Public Expenditure in 2018-19**

Table 4

(\$ million)	Appropriation	Government expenditure and revenue			Public expenditure
		Operating	Capital	Total	
<b>Expenditure</b>					
General Revenue Account					
Operating					
Recurrent	406,494	406,494	-	406,494	406,494
Non-recurrent	35,006	35,006	-	35,006	35,006
Capital					
Plant, equipment and works	4,014	-	4,014	4,014	4,014
Subventions	2,374	-	2,374	2,374	2,374
	447,888	441,500	6,388	447,888	447,888
Transfer to Funds	2,590	-	-	-	-
Capital Investment Fund	-	-	1,694	1,694	1,694
Capital Works Reserve Fund	-	-	98,293	98,293	98,293
Innovation and Technology Fund	-	-	2,085	2,085	2,085
Loan Fund	-	-	4,947	4,947	4,947
Lotteries Fund	-	-	2,981	2,981	2,981
Trading Funds	-	-	-	-	5,546
Housing Authority	-	-	-	-	35,149
	450,478	441,500	116,388	557,888	598,583
<b>Revenue</b>					
General Revenue Account					
Taxation		389,217	15	389,232	
Other revenue		66,922	10,169	77,091	
		456,139	10,184	466,323	
Capital Investment Fund		-	1,360	1,360	
Capital Works Reserve Fund		-	129,909	129,909	
Civil Service Pension Reserve Fund		-	1,657	1,657	
Disaster Relief Fund		-	3	3	
Innovation and Technology Fund		-	288	288	
Loan Fund		-	2,778	2,778	
Lotteries Fund		-	2,191	2,191	
		456,139	148,370	604,509	
<b>Surplus</b>		14,639	31,982	46,621	

**SECTION IV CONTINGENT AND MAJOR UNFUNDED LIABILITIES**

**16** The Government's contingent liabilities as at 31 March 2017, 31 March 2018 and 31 March 2019, are provided below as supplementary information to the MRF –

*Table 5*

(\$ million)	2017	At 31 March 2018	2019
Guarantee to the Hong Kong Export Credit Insurance Corporation for liabilities under contracts of insurance	36,799	39,528	42,037
Legal claims, disputes and proceedings	29,324	30,021	26,243
Guarantees provided under the SME Financing Guarantee Scheme – Special Concessionary Measures	20,811	18,147	10,721
Subscription to callable shares in the Asian Development Bank	5,804	6,110	6,110
Guarantees provided under the SME Loan Guarantee Scheme	4,544	4,482	4,801
Subscription to callable shares in the Asian Infrastructure Investment Bank	-	4,782	4,782
Guarantees provided under a commercial loan of the Hong Kong Science and Technology Parks Corporation	1,957	1,911	1,866
Guarantees provided under the Special Loan Guarantee Scheme	899	307	219
<b>Total</b>	100,138	105,288	96,779

**17** The Government's major unfunded liabilities as at 31 March 2017 were as follows –

(\$ million)	
Present value of statutory pension obligations ( <i>Note (a)</i> )	919,197
Untaken leave ( <i>Note (b)</i> )	27,232
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 \$470 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 2017 and 31 March 2018 are \$310,334 million and \$350,711 million respectively. Some of these are contractual commitments.

