

APPENDICES

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Note: Expenditure figures for 2021-22 and before have been adjusted to align with the definitions and policy area group classifications adopted in the 2022-23 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 as well as the financial position covering the five-year period including the budget year, i.e. from 2022-23 to 2026-27.

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 growth is forecast to range from 2% to 3.5% in real terms in 2022. We have used the mid-point of this range forecast in deriving the MRF. For planning purposes, in the four-year period 2023 to 2026, 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% in 2022. For the four-year period 2023 to 2026, the GDP deflator is assumed to increase at a trend rate of 2.3% per annum.

5 The Composite Consumer Price Index (CCPI), measuring inflation in the consumer domain, is forecast to increase by 2.1% in 2022. Netting out the effects of various one-off relief measures, the underlying CCPI is forecast to increase by 2% in 2022. For the ensuing period 2023 to 2026, 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% to 5.5% in 2022, and the trend growth rate in nominal terms for the period 2023 to 2026 is assumed to be 5.3% per annum.

Other Assumptions

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

- The operating expenditure for 2023-24 and beyond represents the forecast expenditure requirements for Government.
- The capital expenditure for 2022-23 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 2023-24 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 be 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)	2021-22 Revised Estimate	2022-23 Estimate	2023-24 Forecast	2024-25 Forecast	2025-26 Forecast	2026-27 Forecast
Operating Account						
Operating revenue (<i>Note (b)</i>)	519,478	556,911	584,878	613,605	658,905	687,847
Less: Operating expenditure (<i>Note (c)</i>)	593,057	682,500	584,400	601,500	627,600	654,100
Operating surplus / (deficit)	(73,579)	(125,589)	478	12,105	31,305	33,747
Capital Account						
Capital revenue (<i>Note (d)</i>)	163,255	158,947	148,629	153,872	170,009	174,777
Less: Capital expenditure (<i>Note (e)</i>)	105,898	124,789	141,266	148,316	148,319	148,383
Capital surplus	57,357	34,158	7,363	5,556	21,690	26,394
Consolidated Account						
Government revenue	682,733	715,858	733,507	767,477	828,914	862,624
Less: Government expenditure	698,955	807,289	725,666	749,816	775,919	802,483
Consolidated surplus / (deficit) before issuance and repayment of bonds	(16,222)	(91,431)	7,841	17,661	52,995	60,141
Add: Proceeds from issuance of green bonds under the Government Green Bond Programme (<i>Note (f)</i>)	35,124	35,100	35,100	35,100	35,100	-
Less: Repayment of green bonds (<i>Note (f)</i>)	-	-	-	17,064	22,850	29,777
Consolidated surplus / (deficit) after issuance and repayment of bonds	18,902	(56,331)	42,941	35,697	65,245	30,364
Fiscal reserves at 31 March	946,669	890,338	933,279	968,976	1,034,221	1,064,585
In terms of number of months of government expenditure	16	13	15	16	16	16
In terms of percentage of GDP	33.1%	29.7%	29.6%	29.2%	29.6%	28.9%

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					
	2021-22 Revised Estimate	2022-23 Estimate	Future Fund	Operating and Capital Reserves	Total
(\$ million)					
General Revenue Account	372,569	275,522	4,800*	270,722	275,522
Funds with designated use	316,733	295,138		295,138	295,138
Capital Works Reserve Fund	196,755	174,687		174,687	174,687
Capital Investment Fund	19,833	15,484		15,484	15,484
Civil Service Pension Reserve Fund	48,813	53,864		53,864	53,864
Disaster Relief Fund	72	100		100	100
Innovation and Technology Fund	25,937	26,404		26,404	26,404
Loan Fund	3,742	3,425		3,425	3,425
Lotteries Fund	21,581	21,174		21,174	21,174
Land Fund	257,367	319,678	319,678	-	319,678
	<u>946,669</u>	<u>890,338</u>	<u>324,478</u>	<u>565,860</u>	<u>890,338</u>
In terms of number of months of government expenditure	16	13	5	8	13

* 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 \$610 billion for capital works projects underway and about \$521 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 2022-23 Budget, and is made up of –

(\$ million)	2021-22 Revised Estimate	2022-23 Estimate	2023-24 Forecast	2024-25 Forecast	2025-26 Forecast	2026-27 Forecast
Operating revenue before investment income	456,596	478,422	536,199	569,082	617,889	648,436
Investment income (<i>Note (g)</i>)	62,882	78,489	48,679	44,523	41,016	39,411
Total	<u>519,478</u>	<u>556,911</u>	<u>584,878</u>	<u>613,605</u>	<u>658,905</u>	<u>687,847</u>

- (ii) Investment income under the Operating Account includes investment income of the General Revenue Account (which is credited to revenue head Properties and Investments) and investment income of the Land Fund. The rate of investment return is 5.6% for 2022 (vs 4.7% for 2021) and is assumed to be in the range of 4.7% to 5.9% a year for 2023 to 2026.
- (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. As directed by the Financial Secretary, the investment income is reflected in the Government's accounts on a progressive basis starting from 2021-22.

(c) Operating expenditure

This represents expenditure charged to the Operating Account of the General Revenue Account and Land Fund. The figures for 2023-24 and beyond set out the forecast operating expenditure requirements for Government.

(d) Capital revenue

(i) The breakdown of capital revenue is –

(\$ million)	2021-22 Revised Estimate	2022-23 Estimate	2023-24 Forecast	2024-25 Forecast	2025-26 Forecast	2026-27 Forecast
General Revenue Account	2,599	6,277	4,968	3,541	4,732	4,731
Capital Investment Fund	260	660	778	1,023	1,577	1,733
Capital Works Reserve Fund	141,195	120,036	119,943	126,301	132,996	140,045
Disaster Relief Fund	1	-	-	-	-	-
Innovation and Technology Fund	70	-	-	-	-	-
Loan Fund	691	1,207	1,248	3,176	3,675	3,330
Lotteries Fund	881	907	896	900	902	904
Capital revenue before investment income	145,697	129,087	127,833	134,941	143,882	150,743
Investment income (<i>Note (g)</i>)	17,558	29,860	20,796	18,931	26,127	24,034
Total	163,255	158,947	148,629	153,872	170,009	174,777

(ii) Land premium included under the Capital Works Reserve Fund for 2022-23 is estimated to be \$120.0 billion. For 2023-24 onwards, it is assumed to be 3.8% of GDP, being the 15-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 5.6% for 2022 (vs 4.7% for 2021) and is assumed to be in the range of 4.7% to 5.9% a year for 2023 to 2026.

(e) Capital expenditure

The breakdown of capital expenditure is –

(\$ million)	2021-22 Revised Estimate	2022-23 Estimate	2023-24 Forecast	2024-25 Forecast	2025-26 Forecast	2026-27 Forecast
General Revenue Account	7,140	9,653	9,740	10,124	10,214	8,741
Capital Investment Fund	3,190	6,196	3,876	7,836	6,323	6,280
Capital Works Reserve Fund	85,646	95,954	111,209	115,002	116,478	117,929
Disaster Relief Fund	29	-	-	-	-	-
Innovation and Technology Fund	3,537	5,885	7,470	7,124	5,967	5,171
Loan Fund	3,434	2,849	2,943	2,938	3,052	3,140
Lotteries Fund	2,922	4,252	6,028	5,292	6,285	7,122
Total	105,898	124,789	141,266	148,316	148,319	148,383

(f) Government bonds

The Government issued green bonds under the Government Green Bond Programme in May 2019, February 2021 and November 2021, and plans to issue more green bonds from 2022-23 to 2025-26. The actual size and timing of issuance will be determined having regard to market conditions. The proceeds of the Programme are credited to the Capital Works Reserve Fund to finance projects with environmental benefits.

(g) Housing Reserve

The Housing Reserve was established in 2014 to support public housing development projects. As announced in the 2019-20 Budget Speech, the Housing Reserve would be brought back to the Government's accounts over four years from 2019-20 to 2022-23 as investment income, and would earn the same rate of investment return as stipulated in *Note (b)(ii)* or *Note (d)(iii)* above. At the same time, \$82.4 billion (the balance of the Housing Reserve at 31 December 2018) was earmarked for public housing development. \$21.2 billion, \$22.0 billion and \$23.1 billion have been brought back from the Housing Reserve in 2019-20, 2020-21 and 2021-22 respectively.

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)	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
	Revised Estimate					
Operating expenditure	593,057	682,500	584,400	601,500	627,600	654,100
Capital expenditure	105,898	124,789	141,266	148,316	148,319	148,383
Government expenditure	698,955	807,289	725,666	749,816	775,919	802,483
Expenditure by other public bodies	40,949	44,535	48,361	51,936	59,946	62,792
Public expenditure (Note (a))	739,904	851,824	774,027	801,752	835,865	865,275
Gross Domestic Product (calendar year)	2,861,620	2,997,500	3,156,400	3,323,700	3,499,900	3,685,400
Nominal growth in GDP (Note (b))	7.0%	4.75%	5.3%	5.3%	5.3%	5.3%
Growth in recurrent government expenditure (Note (c))	6.0%	13.8%	-1.8%	4.3%	4.6%	4.1%
Growth in government expenditure (Note (c))	-14.4%	15.5%	-10.1%	3.3%	3.5%	3.4%
Growth in public expenditure (Note (c))	-13.4%	15.1%	-9.1%	3.6%	4.3%	3.5%
Public expenditure in terms of percentage of GDP	25.9%	28.4%	24.5%	24.1%	23.9%	23.5%

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 2022-23, the nominal GDP growth of 4.75% represents the mid-point of the range forecast of 4% to 5.5% for the calendar year 2022.
- (c) The growth rates for 2021-22 to 2026-27 refer to year-on-year change. For example, the rates for 2021-22 refer to the change between the revised estimate for 2021-22 and the actual expenditure in 2020-21. The rates for 2022-23 refer to the change between the 2022-23 estimate and the 2021-22 revised estimate, and so forth.

15 Table 4 shows the relationship amongst the sum to be appropriated in the 2022-23 Budget, government expenditure and public expenditure.

**Relationship between Government Expenditure
and Public Expenditure in 2022-23**

Table 4

(\$ million)	Appropriation	Government expenditure and revenue			Public expenditure
		Operating	Capital	Total	
Expenditure					
	General Revenue Account				
	Operating				
	Recurrent	563,454	-	563,454	563,454
	Non-recurrent	118,967	-	118,967	118,967
	Capital				
	Plant, equipment and works	5,766	5,766	5,766	5,766
	Subventions	3,887	3,887	3,887	3,887
		692,074	9,653	692,074	692,074
	Transfer to Funds	5,771	-	-	-
	Capital Investment Fund	-	6,196	6,196	6,196
	Capital Works Reserve Fund	-	95,954	95,954	95,954
	Innovation and Technology Fund	-	5,885	5,885	5,885
	Land Fund	-	-	79	79
	Loan Fund	-	2,849	2,849	2,849
	Lotteries Fund	-	4,252	4,252	4,252
	Trading Funds	-	-	-	7,367
	Housing Authority	-	-	-	37,168
		697,845	124,789	807,289	851,824
Revenue					
	General Revenue Account				
	Taxation	437,792	10	437,802	
	Other revenue	56,729	6,267	62,996	
		494,521	6,277	500,798	
	Capital Investment Fund	-	1,847	1,847	
	Capital Works Reserve Fund	-	138,786	138,786	
	Civil Service Pension Reserve Fund	-	5,051	5,051	
	Disaster Relief Fund	-	7	7	
	Innovation and Technology Fund	-	1,602	1,602	
	Land Fund	62,390	-	62,390	
	Loan Fund	-	1,532	1,532	
	Lotteries Fund	-	3,845	3,845	
		556,911	158,947	715,858	
	Surplus / (Deficit)	(125,589)	34,158	(91,431)	

SECTION IV CONTINGENT AND MAJOR UNFUNDED LIABILITIES

16 The Government's contingent liabilities as at 31 March 2021, 31 March 2022 and 31 March 2023, are provided below as supplementary information to the MRF –

(\$ million)	<i>Table 5</i>		
	2021	At 31 March 2022	2023
Guarantee to the Hong Kong Export Credit Insurance Corporation for liabilities under contracts of insurance	37,468	43,496	46,654
Guarantees provided under the SME Financing Guarantee Scheme	78,271	119,317	114,028
Legal claims, disputes and proceedings	6,346	3,366	565
Subscription to callable shares in the Asian Development Bank	6,054	5,994	5,994
Subscription to callable shares in the Asian Infrastructure Investment Bank	4,800	4,773	4,773
Guarantees provided under the SME Loan Guarantee Scheme	3,141	2,450	1,766
Guarantees provided under a commercial loan of the Hong Kong Science and Technology Parks Corporation	947	920	893
Guarantees provided under the Special Loan Guarantee Scheme	230	98	88
Total	137,257	180,414	174,761

17 The Government's major unfunded liabilities as at 31 March 2021 were as follows –

(\$ million)	
Present value of statutory pension obligations (<i>Note (a)</i>)	1,031,063
Untaken leave (<i>Note (b)</i>)	28,855
Green bonds	27,216

Notes –

- (a) The statutory pension obligations for the coming ten years are estimated to be about \$521 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 2021 and 31 March 2022 are \$489,020 million and \$610,268 million respectively. Some of these are contractual commitments.

