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Note: Expenditure figures for 2019-20 and before have been adjusted to align with the definitions and policy area group classifications adopted in the 2020-21 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 2020-21 to 2024-25.

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 -1.5% to 0.5% in real terms in 2020. We have used the mid-point of this range forecast in deriving the MRF. For planning purposes, in the four-year period 2021 to 2024, the trend growth rate of the economy in real terms is assumed to be 2.8% per annum.

Price change

4 The GDP deflator, measuring overall price change in the economy, is forecast to increase by 2% in 2020. For the four-year period 2021 to 2024, the GDP deflator is assumed to increase at a trend rate of 2.2% per annum.

5 The Composite Consumer Price Index (CCPI), measuring inflation in the consumer domain, is forecast to increase by 1.7% in 2020. Netting out the effects of various one-off relief measures, the underlying CCPI is forecast to increase by 2.5% in 2020. For the ensuing period 2021 to 2024, 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 0.5% to 2.5% in 2020, and the trend growth rate in nominal terms for the period 2021 to 2024 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 2021-22 and beyond represents the forecast expenditure requirements for Government.
- The capital expenditure for 2020-21 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 2021-22 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)	2019-20 Revised Estimate	2020-21 Estimate	2021-22 Forecast	2022-23 Forecast	2023-24 Forecast	2024-25 Forecast
Operating Account						
Operating revenue (<i>Note (b)</i>)	410,246	434,732	519,594	545,697	557,779	580,737
Less: Operating expenditure (<i>Note (c)</i>)	528,271	617,700	568,100	594,800	613,600	636,400
Operating deficit	(118,025)	(182,968)	(48,506)	(49,103)	(55,821)	(55,663)
Capital Account						
Capital revenue (<i>Note (d)</i>)	157,053	137,806	155,590	172,873	173,817	178,775
Less: Capital expenditure (<i>Note (e)</i>)	83,175	113,395	135,551	152,449	145,422	134,435
Capital surplus	73,878	24,411	20,039	20,424	28,395	44,340
Consolidated Account						
Government revenue	567,299	572,538	675,184	718,570	731,596	759,512
Less: Government expenditure	611,446	731,095	703,651	747,249	759,022	770,835
Consolidated deficit before issuance and repayment of bonds and notes	(44,147)	(158,557)	(28,467)	(28,679)	(27,426)	(11,323)
Add: Net proceeds from issuance of green bonds under the Government Green Bond Programme (<i>Note (f)</i>)	7,829	19,500	11,700	11,700	11,700	11,700
Less: Repayment of bonds and notes (<i>Note (f)</i>)	1,500	-	-	-	-	7,800
Consolidated deficit after issuance and repayment of bonds and notes	(37,818)	(139,057)	(16,767)	(16,979)	(15,726)	(7,423)
Fiscal reserves at 31 March	1,133,065	994,008	977,241	960,262	944,536	937,113
In terms of number of months of government expenditure	22	16	17	15	15	15
In terms of percentage of GDP	39.5%	34.1%	32.0%	29.9%	28.0%	26.5%

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					
	2019-20 Revised Estimate	2020-21 Estimate			
(\$ million)			Future Fund	Operating and Capital Reserves	Total
General Revenue Account	639,291	534,553	4,800*	529,753	534,553
Funds with designated use	274,044	239,725		239,725	239,725
Capital Works Reserve Fund	176,219	149,873		149,873	149,873
Capital Investment Fund	6,287	3,437		3,437	3,437
Civil Service Pension Reserve Fund	39,426	42,764		42,764	42,764
Disaster Relief Fund	38	100		100	100
Innovation and Technology Fund	24,185	18,439		18,439	18,439
Loan Fund	4,250	3,860		3,860	3,860
Lotteries Fund	23,639	21,252		21,252	21,252
Land Fund	219,730	219,730	219,730	-	219,730
	<u>1,133,065</u>	<u>994,008</u>	<u>224,530</u>	<u>769,478</u>	<u>994,008</u>
In terms of number of months of government expenditure	22	16	4	12	16

* 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 \$390 billion for capital works projects underway and about \$501 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 2020-21 Budget, and is made up of –

(\$ million)	2019-20 Revised Estimate	2020-21 Estimate	2021-22 Forecast	2022-23 Forecast	2023-24 Forecast	2024-25 Forecast
Operating revenue before investment income	370,127	388,870	478,653	508,054	535,772	565,122
Investment income (<i>Note (g)</i>)	40,119	45,862	40,941	37,643	22,007	15,615
Total	410,246	434,732	519,594	545,697	557,779	580,737

- (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 3.7% for 2020 (vs 2.9% for 2019) and is assumed to be in the range of 4% to 5.3% a year for 2021 to 2024.
- (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 2021-22 and beyond set out the forecast operating expenditure requirements for Government.

(d) Capital revenue

(i) The breakdown of capital revenue is –

(\$ million)	2019-20 Revised Estimate	2020-21 Estimate	2021-22 Forecast	2022-23 Forecast	2023-24 Forecast	2024-25 Forecast
General Revenue Account	2,504	3,764	4,589	2,913	3,962	3,961
Capital Investment Fund	770	1,066	1,108	1,200	1,408	1,647
Capital Works Reserve Fund	141,844	118,091	128,386	134,803	141,544	148,621
Disaster Relief Fund	2	-	-	-	-	-
Innovation and Technology Fund	45	-	-	-	-	-
Loan Fund	2,263	2,344	3,228	3,735	3,558	3,572
Lotteries Fund	1,377	1,410	1,427	1,454	1,481	1,509
Capital revenue before investment income	148,805	126,675	138,738	144,105	151,953	159,310
Investment income (<i>Note (g)</i>)	8,248	11,131	16,852	28,768	21,864	19,465
Total	157,053	137,806	155,590	172,873	173,817	178,775

(ii) Land premium included under the Capital Works Reserve Fund for 2020-21 is estimated to be \$118 billion. For 2021-22 onwards, it is assumed to be 4.2% 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 3.7% for 2020 (vs 2.9% for 2019) and is assumed to be in the range of 4% to 5.3% a year for 2021 to 2024.

(e) Capital expenditure

The breakdown of capital expenditure is –

(\$ million)	2019-20 Revised Estimate	2020-21 Estimate	2021-22 Forecast	2022-23 Forecast	2023-24 Forecast	2024-25 Forecast
General Revenue Account	5,568	7,635	8,956	9,410	8,229	7,911
Capital Investment Fund	929	4,115	4,206	8,081	8,267	5,469
Capital Works Reserve Fund	69,136	87,562	107,388	120,131	115,555	109,626
Disaster Relief Fund	64	-	-	-	-	-
Innovation and Technology Fund	2,543	6,568	6,137	6,531	6,352	5,842
Loan Fund	2,651	2,880	2,879	2,769	2,793	2,866
Lotteries Fund	2,284	4,635	5,985	5,527	4,226	2,721
Total	83,175	113,395	135,551	152,449	145,422	134,435

(f) Government bonds and notes

(i) The Government issued an inaugural green bond under the Government Green Bond Programme in May 2019, and plans to issue more green bonds from 2020-21 to 2024-25. The actual size and timing of issuance will be determined having regard to market conditions. The net proceeds of the Programme are credited to the Capital Works Reserve Fund to finance public works projects of the Government with environmental benefits.

(ii) The outstanding principal of \$1,500 million of the global bond issue in 2004 was fully repaid in 2019-20.

(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)* above. At the same time, \$82.4 billion (the balance of the Housing Reserve at 31 December 2018) was earmarked for public housing development. A sum of \$21.2 billion has been brought back from the Housing Reserve in 2019-20.

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)	2019-20 Revised Estimate	2020-21 Estimate	2021-22 Forecast	2022-23 Forecast	2023-24 Forecast	2024-25 Forecast
Operating expenditure	528,271	617,700	568,100	594,800	613,600	636,400
Capital expenditure	83,175	113,395	135,551	152,449	145,422	134,435
Government expenditure	611,446	731,095	703,651	747,249	759,022	770,835
Expenditure by other public bodies	36,159	41,994	43,451	45,856	49,907	51,874
Public expenditure (Note (a))	647,605	773,089	747,102	793,105	808,929	822,709
Gross Domestic Product (calendar year)	2,868,171	2,911,200	3,056,800	3,209,600	3,370,100	3,538,600
Nominal growth in GDP (Note (b))	1.2%	1.5%	5.0%	5.0%	5.0%	5.0%
Growth in recurrent government expenditure (Note (c))	9.8%	10.0%	8.6%	5.0%	4.3%	5.0%
Growth in government expenditure (Note (c))	15.0%	19.6%	-3.8%	6.2%	1.6%	1.6%
Growth in public expenditure (Note (c))	14.1%	19.4%	-3.4%	6.2%	2.0%	1.7%
Public expenditure in terms of percentage of GDP	22.6%	26.6%	24.4%	24.7%	24.0%	23.2%

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 2020-21, the nominal GDP growth of 1.5% represents the mid-point of the range forecast of 0.5% to 2.5% for the calendar year 2020.
- (c) The growth rates for 2019-20 to 2024-25 refer to year-on-year change. For example, the rates for 2019-20 refer to the change between the revised estimate for 2019-20 and the actual expenditure in 2018-19. The rates for 2020-21 refer to the change between the 2020-21 estimate and the 2019-20 revised estimate, and so forth.

15 Table 4 shows the relationship amongst the sum to be appropriated in the 2020-21 Budget, government expenditure and public expenditure.

**Relationship between Government Expenditure
and Public Expenditure in 2020-21**

Table 4

(\$ million)	Appropriation	Government expenditure and revenue			Public expenditure
		Operating	Capital	Total	
Expenditure					
General Revenue Account					
Operating					
Recurrent	486,595	486,595	-	486,595	486,595
Non-recurrent	131,105	131,105	-	131,105	131,105
Capital					
Plant, equipment and works	4,505	-	4,505	4,505	4,505
Subventions	3,130	-	3,130	3,130	3,130
	625,335	617,700	7,635	625,335	625,335
Transfer to Funds	1,899	-	-	-	-
Capital Investment Fund	-	-	4,115	4,115	4,115
Capital Works Reserve Fund	-	-	87,562	87,562	87,562
Innovation and Technology Fund	-	-	6,568	6,568	6,568
Loan Fund	-	-	2,880	2,880	2,880
Lotteries Fund	-	-	4,635	4,635	4,635
Trading Funds	-	-	-	-	6,332
Housing Authority	-	-	-	-	35,662
	627,234	617,700	113,395	731,095	773,089
Revenue					
General Revenue Account					
Taxation		347,859	15	347,874	
Other revenue		86,873	3,749	90,622	
		434,732	3,764	438,496	
Capital Investment Fund		-	1,265	1,265	
Capital Works Reserve Fund		-	125,716	125,716	
Civil Service Pension Reserve Fund		-	1,498	1,498	
Disaster Relief Fund		-	3	3	
Innovation and Technology Fund		-	822	822	
Loan Fund		-	2,490	2,490	
Lotteries Fund		-	2,248	2,248	
		434,732	137,806	572,538	
Surplus / (Deficit)		(182,968)	24,411	(158,557)	

SECTION IV CONTINGENT AND MAJOR UNFUNDED LIABILITIES

16 The Government's contingent liabilities as at 31 March 2019, 31 March 2020 and 31 March 2021, are provided below as supplementary information to the MRF –

Table 5

(\$ million)	2019	At 31 March 2020	2021
Guarantee to the Hong Kong Export Credit Insurance Corporation for liabilities under contracts of insurance	37,289	36,968	40,098
Guarantees provided under the SME Financing Guarantee Scheme – Special Concessionary Measures	18,275	23,592	29,816
Guarantees provided under the SME Financing Guarantee Scheme – 90% Guarantee Coverage	-	3,329	16,285
Legal claims, disputes and proceedings	10,376	6,353	4,478
Subscription to callable shares in the Asian Development Bank	5,985	5,915	5,915
Subscription to callable shares in the Asian Infrastructure Investment Bank	4,800	4,768	4,768
Guarantees provided under the SME Loan Guarantee Scheme	4,104	4,169	4,170
Guarantees provided under a commercial loan of the Hong Kong Science and Technology Parks Corporation	1,866	975	947
Guarantees provided under the Special Loan Guarantee Scheme	449	144	86
Total	83,144	86,213	106,563

17 The Government's major unfunded liabilities as at 31 March 2019 were as follows –

(\$ million)	
Present value of statutory pension obligations (<i>Note (a)</i>)	1,021,671
Untaken leave (<i>Note (b)</i>)	26,993
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 \$501 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 2019 and 31 March 2020 are \$376,388 million and \$390,573 million respectively. Some of these are contractual commitments.

