

## **Possible economic losses caused by the local COVID-19 pandemic**

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### **Abstract**

The outbreak of COVID-19 pandemic since early 2020 dealt a significant blow to global and local economic activities. This article focuses on seven economic activities (catering, retail, hotels, passenger transport, other spending of visitors, construction, and import/export) that were harder hit, and estimates their economic losses caused by the pandemic. It is crudely estimated that the total economic loss caused by these seven selected economic activities totalled around \$320 billion and \$246 billion in 2020 and 2021 respectively, equivalent to 10.6% and 8.0% of GDP under the hypothetical no-pandemic scenario.

### **本地新冠病毒疫情可能導致的經濟損失**

#### **摘要**

2020 年年初爆發的新冠病毒疫情，嚴重衝擊環球及本地經濟活動。本文針對受到較沉重打擊的七類經濟活動(餐飲、零售、酒店、乘客運輸、訪港旅客的其他消費、建造及進出口)，就其因疫情而導致的經濟損失作出估算。根據粗略推算，在 2020 年及 2021 年，由七類選定經濟活動所引致的經濟損失總和分別約 3,200 億元及 2,460 億元，相當於在沒有疫情的假設情景下本地生產總值的 10.6% 及 8.0%。

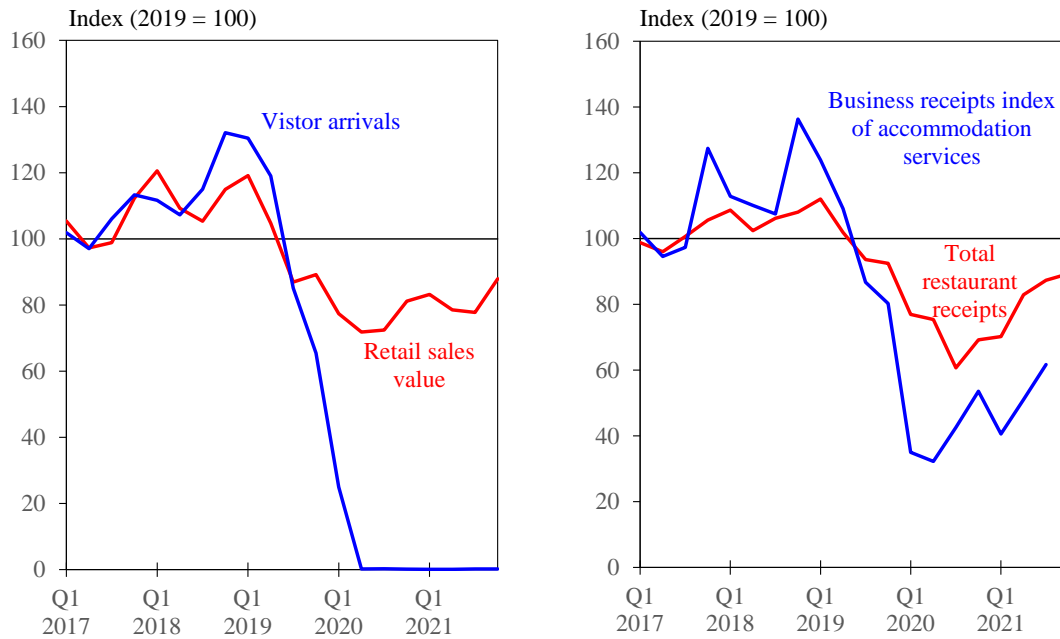
## I. INTRODUCTION

1. The COVID-19 epidemic in early 2020 that subsequently evolved into a pandemic dealt a significant blow to global and local economic activities, aggravating the economic recession of the Hong Kong economy. In 2021, although the Hong Kong economy staged a strong rebound thanks to robust goods exports and improving domestic demand, it was still below its pre-pandemic level. This article crudely estimates the economic losses caused by seven economic activities that were harder hit by the pandemic in 2020 and 2021 and further estimates the indirect losses suffered by other sectors.

## II. ESTIMATION METHOD

2. The COVID-19 pandemic dealt a severe and wide-ranging blow to the Hong Kong economy, particularly for sectors involving more frequent person-to-person contact like tourism, catering, retail and hotels. In 2020, visitor arrivals plunged by 93.6% from the preceding year, the values of retail sales and restaurant receipts fell by 24.3% and 29.4% respectively, and business receipts of the accommodation services sector declined by 59.1% (*Chart 1*). The lack of visitors and the greatly reduced desire of citizens to go out amid the pandemic also hit the businesses of passenger transport substantially. In 2020, the number of passenger journeys by public transport operator fell by 28.0% from the preceding year. The construction sector was also hit to some extent, with building and construction expenditure in 2020 falling by 9.3% in real terms. The businesses of these industries were still below their pre-pandemic levels in 2021. Meanwhile, as the global pandemic caused disruptions to supply chains in many places and dented global demand, the value of Hong Kong's merchandise exports fell sharply in the first half of 2020. Although the situation improved subsequently alongside the global economic recovery, the value of Hong Kong's merchandise exports still fell by 1.5% for 2020 as a whole.

**Chart 1 : Tourism, retail, catering and hotel sectors were severely hit by the pandemic**



3. This article examines seven economic activities that were harder and directly hit by the pandemic and with more complete economic data, viz. catering, retail, hotels, passenger transport, other spending of visitors, construction and import/export<sup>1</sup>. Their hypothetical levels of business activity in 2020 and 2021 under the no-pandemic scenario are projected using their average annual growth rates in 2016-18<sup>2</sup> with 2018 as the benchmark year<sup>3</sup>. The losses in businesses in these activities caused by the pandemic can then be crudely estimated by comparing the hypothetical levels to the actual figures<sup>4</sup>. Making reference to the relationship between business receipts and value added obtained from the Census and Statistics Department's (C&SD) annual survey, the direct economic losses in these

1 Other spending of visitors mainly includes expenditure on entertainment and local sightseeing tours. Economic activities that are not covered here include manufacturing, information and communications, financing and insurance, real estate, professional and business services, and public administration, social and other personal services.

2 Specifically, the following data are used for calculation or estimation in respect of the seven activities: catering (volume of restaurant receipts), retail (volume of retail sales), passenger transport (real business receipts), hotels (real business receipts), other spending of visitors (visitor arrivals), construction (building and construction expenditure), import/export (merchandise trade volume).

3 As the Hong Kong economy slipped into recession in 2019 owing to the social incidents, 2018 is chosen as the benchmark year instead of 2019.

4 The effect of anti-epidemic and relief measures rolled out by the Government over the past two years or so is also included. In fact, as the Government introduced different measures in response to the evolving pandemic situation, it is very difficult to calculate the standalone impact of the pandemic on the economy without government intervention.

activities can be crudely estimated. Further utilising the interrelations among different sectors obtained from C&SD's annual survey, the indirect losses in other sectors caused by the blow to these seven economic activities can be crudely estimated. Economic losses are calculated in terms of value added in 2018 prices.

4. It should be noted that as there is also some interrelation among the seven selected economic activities, there would be some overlapping between the above crudely estimated direct and indirect losses, though the degree of overlapping should be relatively modest. Also, the above estimates are based on historical data and statistical survey information on the operating characteristics in and interrelation among these sectors, and hence have yet to take into account the change in economic structure and related impact that may be caused by the pandemic.

### III. ESTIMATION RESULTS

5. Using the method described in para. 3, the estimated business losses and direct economic losses in these seven economic activities are shown in *Table 1*. Analysed by selected economic activity, other spending of visitors registered the largest loss in business in 2020, equivalent to 94.9% of the level under the hypothetical no-pandemic scenario, followed by passenger transport (67.7%). The businesses of these sectors fell into a trough as cross-boundary tourism had been frozen since February 2020 alongside the global pandemic and worldwide travel restrictions. While the global and Hong Kong economies rebounded in 2021, these activities had yet to see any improvement. The businesses of the hotel, catering and retail sectors also saw visible losses in 2020, though they were able to recoup some lost ground in 2021 alongside the gradual pick-up in local consumption. It is estimated that the direct economic losses in these seven economic activities amounted to \$185 billion (in 2018 prices), equivalent to 6.2% of GDP under the hypothetical no-pandemic scenario<sup>5</sup>. The corresponding figures for 2021 are \$139 billion and 4.5%.

6. Further utilising the interrelations among different sectors obtained from C&SD's annual survey, the indirect losses in other sectors caused by the blow to these seven economic activities can be crudely estimated. In 2020, the indirect economic losses in other sectors stemming from the blow to these seven economic activities amounted to around \$134 billion (in 2018 prices), equivalent to 4.5% of GDP under the hypothetical no-pandemic scenario. The corresponding figures for 2021 are \$107 billion and 3.5%.

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<sup>5</sup> Same as the seven economic activities, the hypothetical GDP level under the no-pandemic scenario is estimated using the average annual growth rate of real GDP in 2016-18 and with 2018 as benchmark year.

Summing up the above direct and indirect losses, the economic losses related to the seven selected economic activities totalled \$320 billion, equivalent to 10.6% of GDP under the hypothetical no-pandemic scenario. The corresponding figures for 2021 are \$246 billion and 8.0%. Considering that other economic activities could also be directly hit by the pandemic, the above estimated losses should only represent the lower bound of the actual economic losses.

#### **IV. CONCLUDING REMARKS**

7. It should be noted that the above calculations only attempt to crudely estimate the short-term impact of the COVID-19 pandemic on the Hong Kong economy. The possible long-term impacts have not been considered. For example, some studies have pointed out that the interruption of face-to-face learning due to the COVID-19 pandemic could affect the learning outcomes of students<sup>6</sup>, which could have unfavourable effects on their ability to accumulate human capital and future income levels. On the other hand, there are also views that the pandemic has fostered the use of technology in different areas, which could help boost productivity growth in the long term. Besides, the pandemic has a relatively larger impact on the lower-income earners and affects the income distribution<sup>7</sup>. How these developments would affect Hong Kong's growth momentum in the medium- to long-term also warrants attention.

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6 Engzell, P., A. Frey, and M. Verhagen. (2021). "Learning loss due to school closures during the COVID-19 pandemic." *Proceedings of the National Academy of Sciences* 118(17).

7 For reference, please refer to Economic Letter 2021/03 of the Office of the Government Economist entitled "The potential impact of the COVID-19 pandemic on global poverty and income disparity: A literature review" (March 2021).

**Table 1 : Economic losses caused by the COVID-19 pandemic**

	2020			2021		
	Losses in business in real terms *	Losses in value added (\$ billion)	As % of GDP#	Losses in business in real terms *	Losses in value added (\$ billion)	As % of GDP#
<b>Direct economic losses</b>		<b>185</b>	<b>6.2%</b>		<b>139</b>	<b>4.5%</b>
<i>Of which: Catering</i>	-37.7%	16	0.5%	-29.7%	13	0.4%
<i>Retail</i>	-35.5%	21	0.7%	-31.7%	19	0.6%
<i>Hotels</i>	-55.6%	15	0.5%	-42.0%	12	0.4%
<i>Passenger transport</i>	-67.7%	34	1.1%	-77.5%	39	1.3%
<i>Other spending of visitors</i>	-94.9%	14	0.5%	-99.9%	16	0.5%
<i>Construction</i>	-21.6%	36	1.2%	-22.5%	38	1.2%
<i>Import/export</i>	-13.1%	49	1.6%	-0.5%	2	0.1%
<b>Indirect economic losses</b>		<b>134</b>	<b>4.5%</b>		<b>107</b>	<b>3.5%</b>
<b>Direct and indirect economic losses</b>		<b>320</b>	<b>10.6%</b>		<b>246</b>	<b>8.0%</b>

Notes: (\*) Compared to the business situation under the hypothetical no-pandemic scenario and calculated/estimated using the following data: catering (volume of restaurant receipts); retail (volume of retail sales); passenger transport (business receipts in real terms); hotels (business receipts in real terms); other spending of visitors (visitor arrivals); construction (expenditure on building and construction); import/export (merchandise trade volume).

(#) As percentage of GDP under the hypothetical no-pandemic scenario.

Economic losses are in 2018 prices.

Figures in the table may not add up to totals due to rounding.