

# NATIONAL INCOME STATISTICS

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政府統計處  
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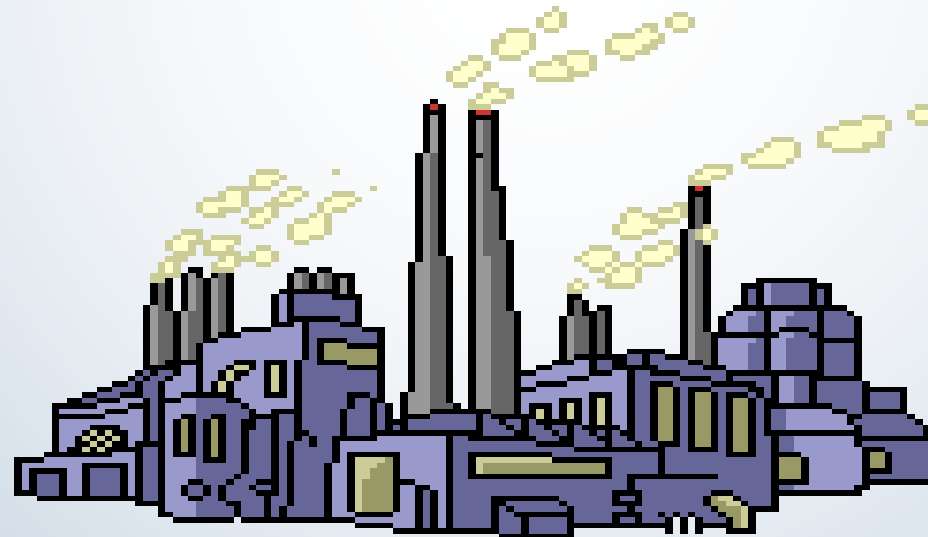
# CONTENTS

- I. Brief introduction to compilation of national income statistics
- II. The uses of national income statistics in understanding the Hong Kong economy
- III. Commonly asked questions on the concepts of GDP

# **I. BRIEF INTRODUCTION TO COMPILATION OF NATIONAL INCOME STATISTICS**

# WHAT IS GROSS DOMESTIC PRODUCT (GDP)?

- **Gross Domestic Product** (GDP): measure of the total value of production (**product**) of all resident producing units of an economy (domestic) in a specified period, before deducting the consumption of fixed capital (**gross**).



# THREE APPROACHES TO MEASURE GDP



1. Production measure of GDP  
sum of value added of all economic activities
2. Expenditure measure of GDP  
sum of final expenditures on consumption, capital formation, and exports less imports
3. Income measure of GDP  
sum of compensation of employees and operating surplus of entrepreneurs

# GIVEN THERE CAN BE 3 ALTERNATIVE APPROACHES TO COMPILE GDP, ARE WE SUPPOSED TO HAVE 3 FIGURES OF GDP OR ONE SINGLE FIGURE OF GDP?

## In theory

GDP estimates by the 3 approaches should be the same

## In practice

Statistical discrepancy exists, as different data sources are used for different approaches

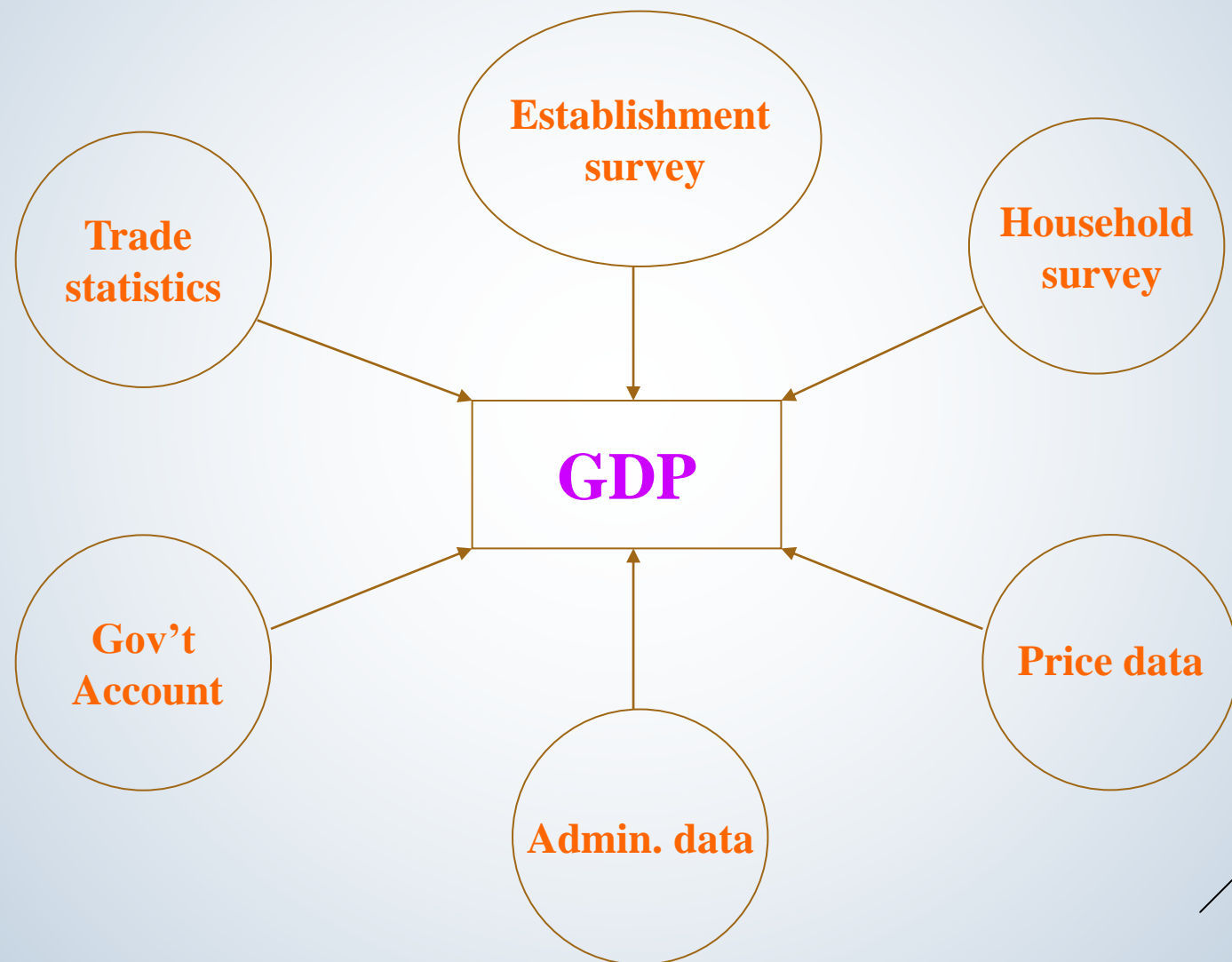


# AVAILABILITY OF GDP STATISTICS IN HONG KONG

- Expenditure-based GDP
  - Annual current price and volume series since 1961 ✓
  - Quarterly current price and volume series since Q1 1973
- Production-based GDP
  - Annual current price series can be traced back to 1980 ✓
  - Annual and quarterly volume series since Q1 2000
- Income-based GDP
  - Once compiled for 1970 - 1980, but had discontinued since 1981 x



# DATA SOURCES FOR COMPILATION OF GDP





# CHAIN VOLUME MEASURES OF GDP

- C&SD has replaced the constant price measures by the chain volume measures of GDP
- Why?
  - ▶ Align with the latest **international statistical guidelines**
  - ▶ Provide a **better measure of the real growth rate** of the aggregate economic activity in an economy as compared with the constant price volume measure of GDP

# CHAIN VOLUME MEASURES OF GDP

- Compile the value of GDP for a particular year (e.g. 2022) using the **price structure of the preceding year (2021)** (the preceding year is the **base year** → the concept of “annually re-weighted”)
- Compile the real growth rates
- Choose a **reference year** (e.g. 2021), **based on the current value of the reference year**, convert the time series of real growth rates into **chained dollar series**
  - ✓ The choice of the reference year does not affect the real growth rates

# CHAIN VOLUME MEASURES OF GDP

- The chain dollar value is compiled for GDP and its components independently in order to preserve the historical real growth rates

# ILLUSTRATION OF COMPILATION OF CHAIN VOLUME MEASURE

Year	2018	2019	2020	2021	2022
Values at current prices (\$)	1,000	1,200	1,300	1,400	1,600
<i>(1) Compile the value of GDP using the price structure of the <b>preceding year</b></i>					
Values at <b>preceding year</b> prices (\$)		1,160	1,140	1,300	1,500
<i>(2) Compile the <b>real growth rate</b></i>					
<b>Real growth rate (%)</b>		16.0	-5.0	0	7.1
<i>(3) Choose a <b>reference year</b>, based on the current value of the reference year; convert the time series of real growth rates into chained dollar series</i>					
Values at chained <b>(2021)</b> dollars (\$)	1,271	1,474	1,400	1,400	1,499
Values at chained <b>(2018)</b> dollars (\$)	1,000	1,160	1,102	1,102	1,180

## BASE YEAR VS REFERENCE YEAR

- Base year is the year from which the price structures are used for deriving the aggregate values
  - ✓ The base year is always the preceding year in principle
- The reference year provides a reference time point to convert the time series of real growth rates into a time series in dollar value
  - ✓ The choice of the reference year does not affect the real growth rates

# CHAINED DOLLAR VALUES ARE NON-ADDITIVE

✗ Chained dollar value are in general not additive



# MERITS OF THE CHAIN VOLUME MEASURE OF GDP OVER THE CONSTANT PRICE MEASURE

- Better accommodate changes in product mix
- Take account of latest price structures
- Chain volume measures can better gauge the contributions of components to the real growth of the GDP aggregate





## **II. THE USES OF NATIONAL INCOME STATISTICS IN UNDERSTANDING THE HONG KONG ECONOMY**

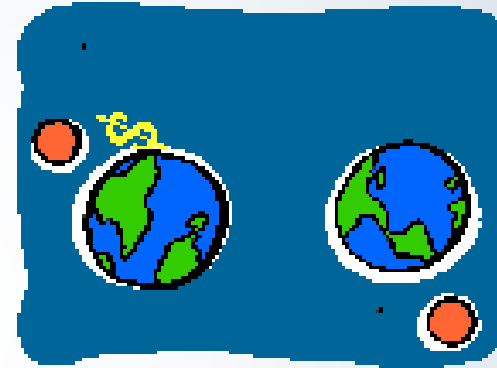
# THE USES OF NATIONAL INCOME STATISTICS IN UNDERSTANDING THE HONG KONG ECONOMY

1. Assess the degree of openness of an economy
2. Understanding the economic restructuring of the Hong Kong economy
3. Measure of economic growth

# 1. ASSESS THE DEGREE OF OPENNESS OF AN ECONOMY



Exports and imports of goods



Exports and imports of services

# HOW DOES THE DEGREE OF OPENNESS OF HONG KONG COMPARE WITH OTHER ECONOMIES?

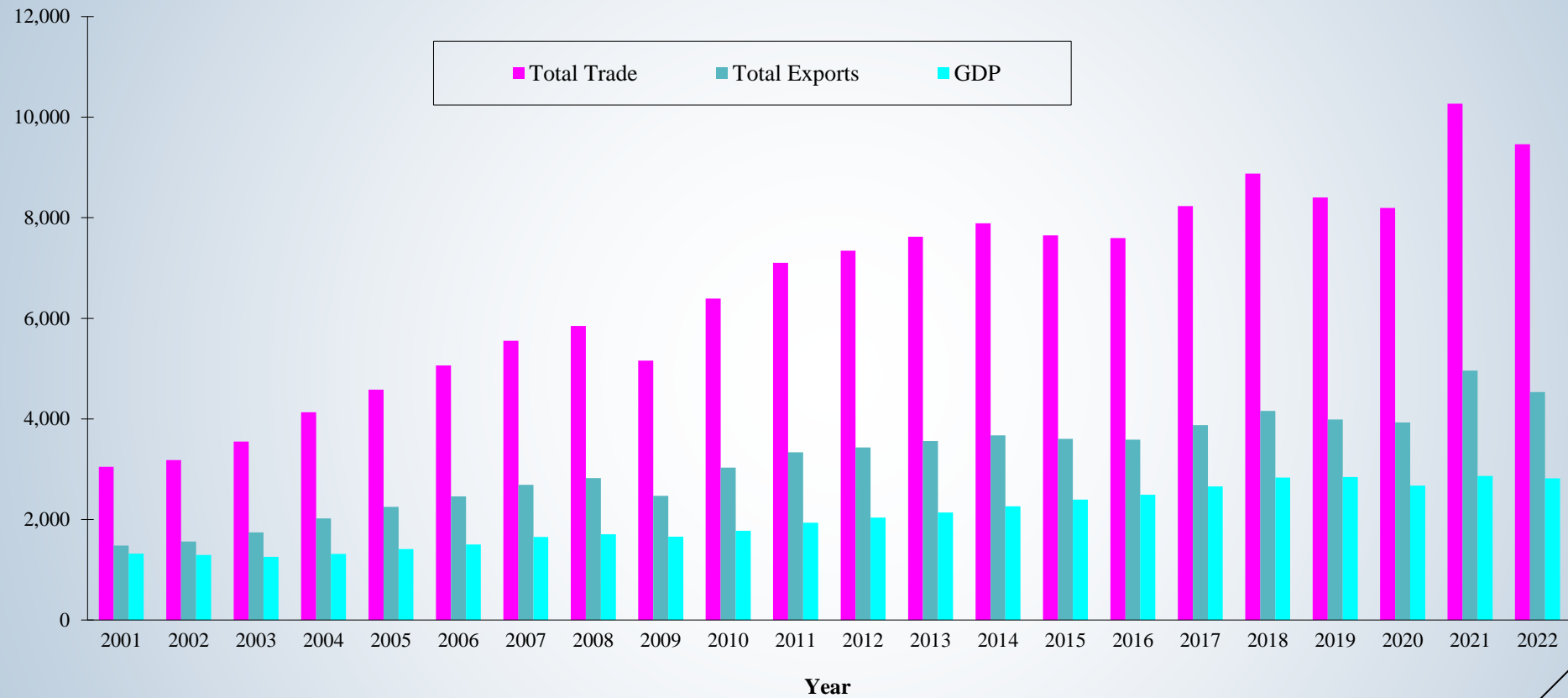
## Ratio of total exports to nominal GDP, 2021

	Exports of goods and services	Total trade in goods and services
Hong Kong, China	2.04	4.02
Singapore	1.85	3.38
Malaysia	0.69	1.31
Thailand	0.58	1.17
Korea	0.42	0.80
UK	0.27	0.55
Japan *	0.16	0.31
US *	0.10	0.23

\* Figure in 2020

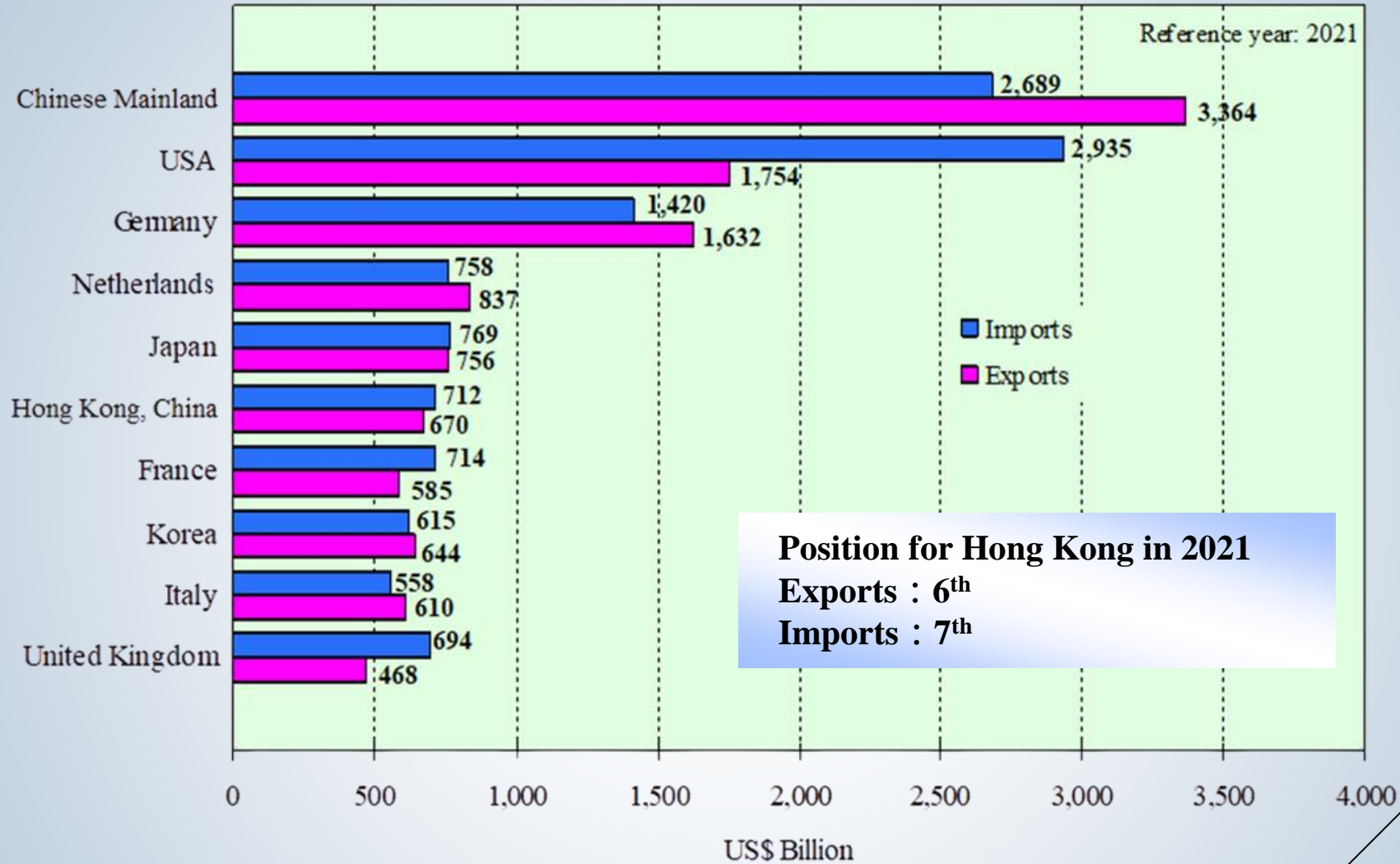
# HONG KONG'S MERCHANDISE TRADE VALUE VS. GDP

HK\$ Billion



Note : GDP figures for 2021 and 2022 are subject to revision later on.  
Sources: Hong Kong External Merchandise Trade  
Gross Domestic Product

## Hong Kong's Position among Leading Importers/Exporters in the World



Source: World Trade Organization

# TRADE IN SERVICES IN HONG KONG

- ▶ Ratio of trade in services to Gross Domestic Product (GDP)

Exports of services :    20.1% (2002)    23.0% (2022)

Imports of services :    26.5% (2002)    17.5% (2022)





# HONG KONG, CHINA'S POSITION AMONG LEADING WORLD EXPORTERS/IMPORTERS OF COMMERCIAL SERVICES

Position for Hong Kong, China in 2021

- ▶ Exports : 22<sup>nd</sup>
- ▶ Imports : 25<sup>th</sup>

## 2. ECONOMIC RESTRUCTURING OF THE HONG KONG ECONOMY



1960s–1970s

Manufacturing  
base

1980s–1990s

Trading and  
logistics hub

# ECONOMIC RESTRUCTURING OF THE HONG KONG ECONOMY





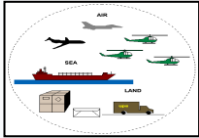

1980s-1990s

Trading and  
logistics hub

2000s

Financial  
centre and  
business  
hub

# CONTRIBUTION OF DIFFERENT ECONOMIC ACTIVITIES TO GDP (IN %)

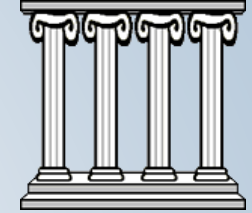
		2011	2016	2021
Manufacturing		1.6	1.1	1.0
Construction		3.4	5.2	4.0
Services of which		93.1	92.2	93.7
Import/export, wholesale and retail trades		25.9	21.7	19.4
Transportation, storage, postal and courier services		6.3	6.2	7.3
Financing and insurance		16.1	17.7	21.3
Others (e.g. electricity, fishing)		1.8	1.5	1.4

Note: Figures may not add up to 100% due to rounding.



# FOUR KEY INDUSTRIES IN THE HONG KONG ECONOMY

- Financial services
- Tourism
- Trading and logistics
- Professional and producer services



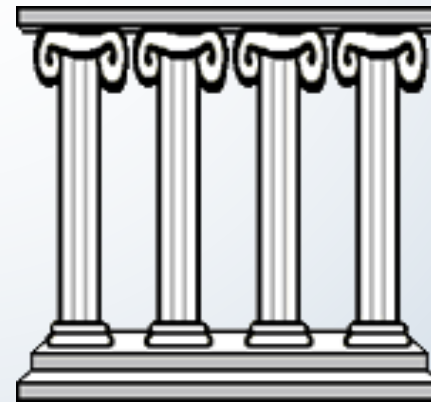
"Hong Kong booth" decorated with Brand Hong Kong banners attracted thousands of visitors during the two-day San Francisco International Dragon Boat Festival event.



# FOUR KEY INDUSTRIES IN THE HONG KONG ECONOMY

## ➤ Importance

- the driving force of Hong Kong's economic growth
- providing impetus to growth of other sectors
- creating employment



# VALUE ADDED AND EMPLOYMENT IN RESPECT OF THE FOUR KEY INDUSTRIES

	<u>Value added</u>	<u>Employment</u>
	% share in nominal GDP at basic prices in 2021	% share in total employment in 2021
Financial services	21.3%	7.6%
Tourism *	0.1%	0.6%
Trading and logistics	23.7%	16.6%
Professional services and other producer services	11.4%	15.5%

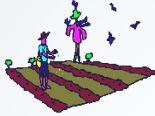


(\*) In 2019, tourism's % share in nominal GDP at basic prices and total employment were 3.6% and 6.0% respectively.

Observation:  
Higher value added per person for financial services



# HOW DOES THE ECONOMIC STRUCTURE OF HONG KONG COMPARE WITH THOSE OF OTHER ECONOMIES?

Percentage share of different economic sectors in GDP, 2020

	 Agriculture and Fishing	 Industry	 Services
Hong Kong, China	* #	6	93
USA	1	18	81
UK	1	19	80
Singapore	*	25	75
Japan	1	29	70
Korea	2	36	62
Chinese Mainland	8 @	38 &	55 ^

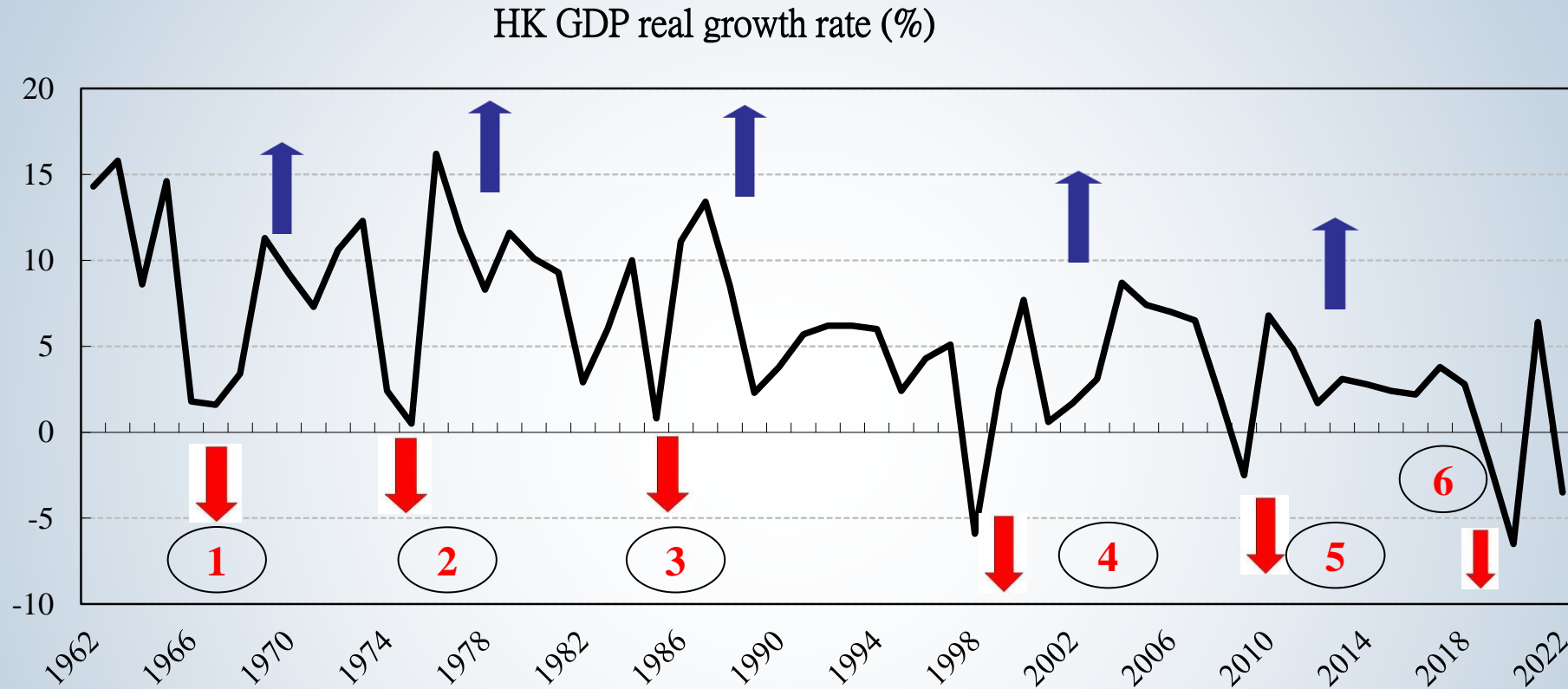
Notes: \* insignificant.  
# include mining and quarrying.

@ refers to Primary Industry.  
& refers to Secondary Industry.  
^ refers to Tertiary Industry.

### 3. MEASURE OF ECONOMIC GROWTH

- Measured by change in the volume measure of GDP over time (growth rate in real terms)
- Positive growth : expansion of economic activities
- Negative growth : contraction of economic activities

# ECONOMIC GROWTH CYCLES IN HONG KONG TRACKED BY THE REAL GROWTH OF GDP



## Average annual real growth

1961-1970: 8.8%

1970-1980: 9.0%

1980-1990: 6.7%

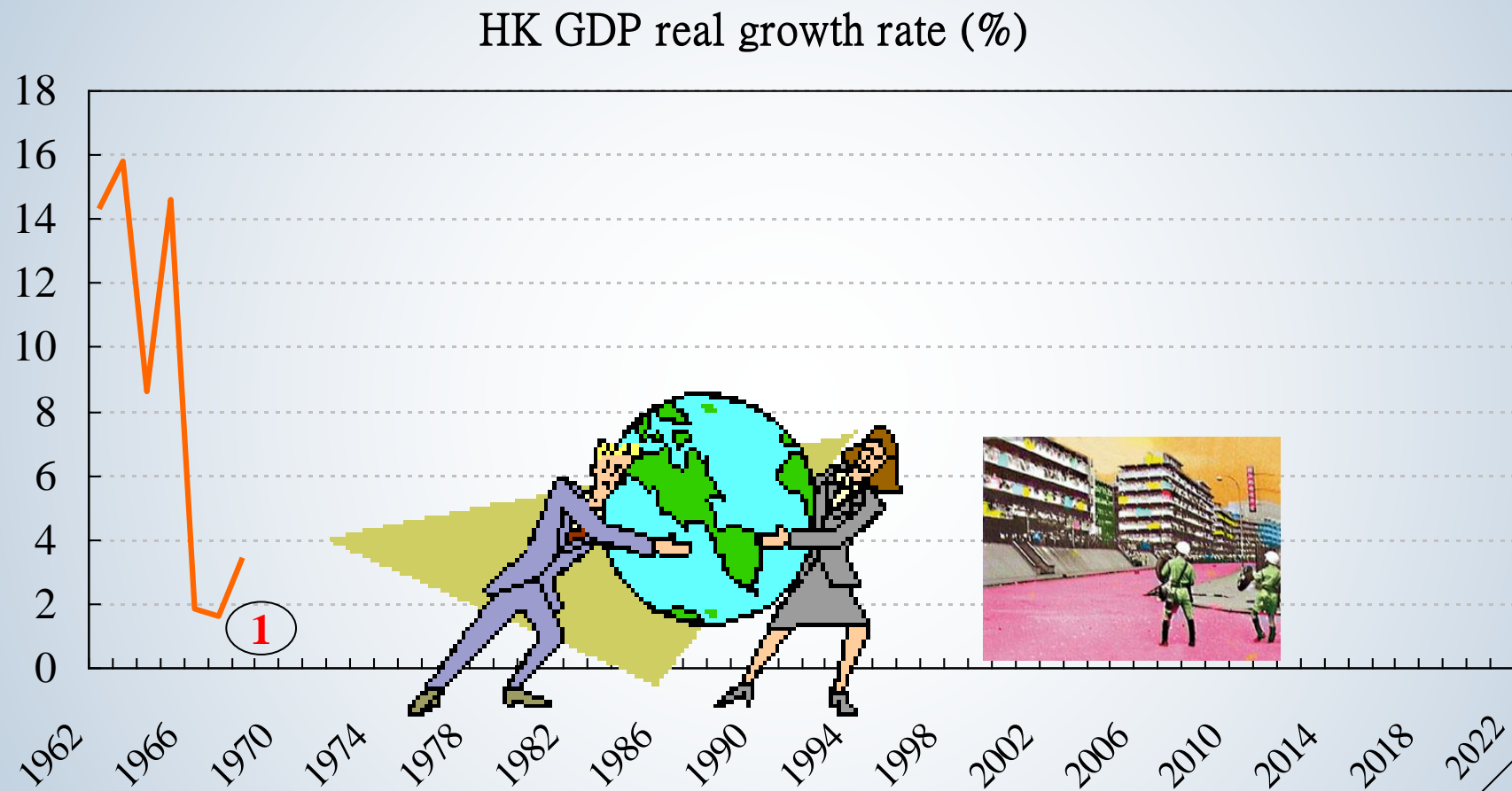
1990-2000: 4.0%

2000-2010: 4.1%

2010-2020: 1.5%

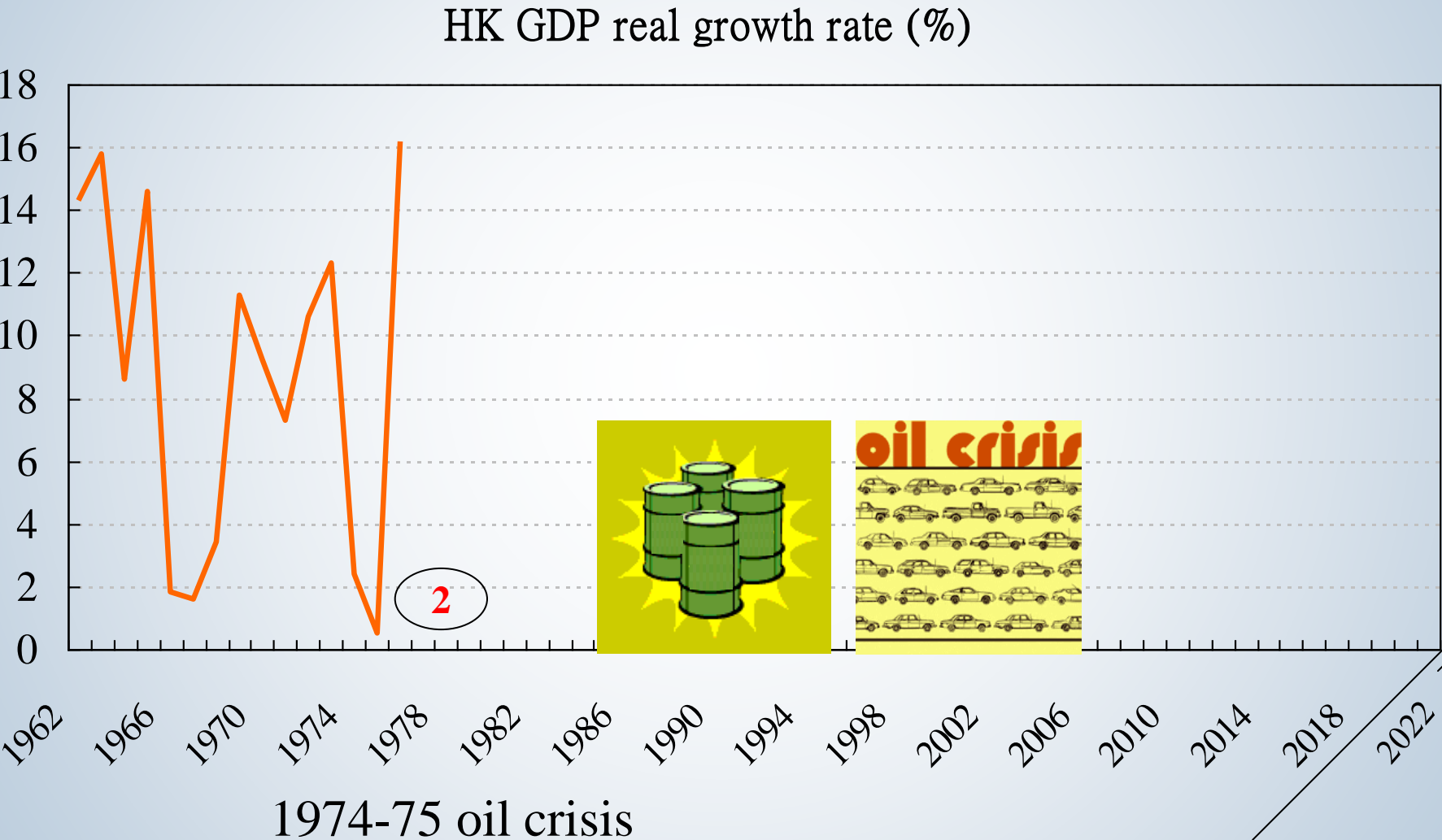
2020-2022: 1.4%

# ECONOMIC SLOW-DOWN IN THE LATE-1960S

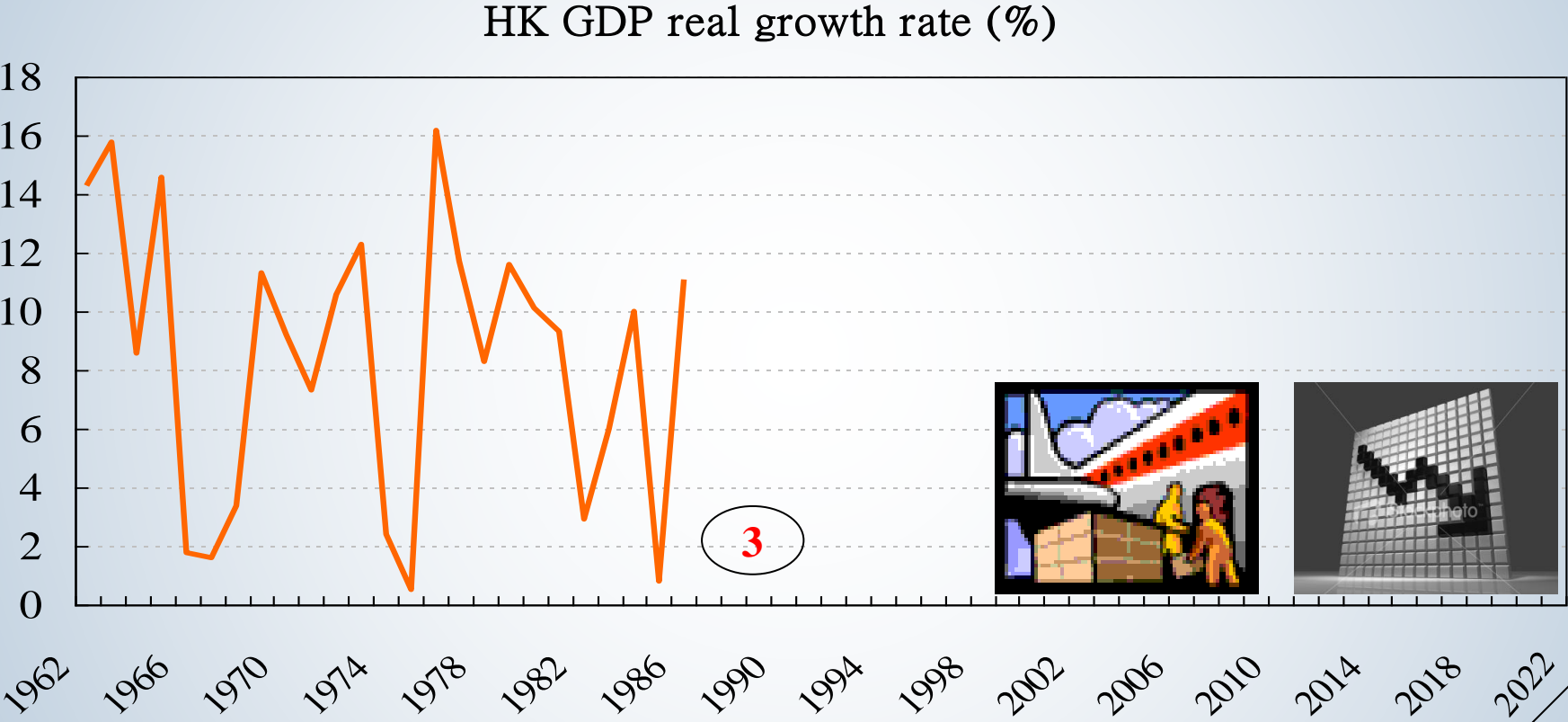


1967 social unrest

# ECONOMIC SLOW-DOWN IN THE MID-1970S



# ECONOMIC SLOW-DOWN IN THE MID-1980S



1985 global slow down in external trade



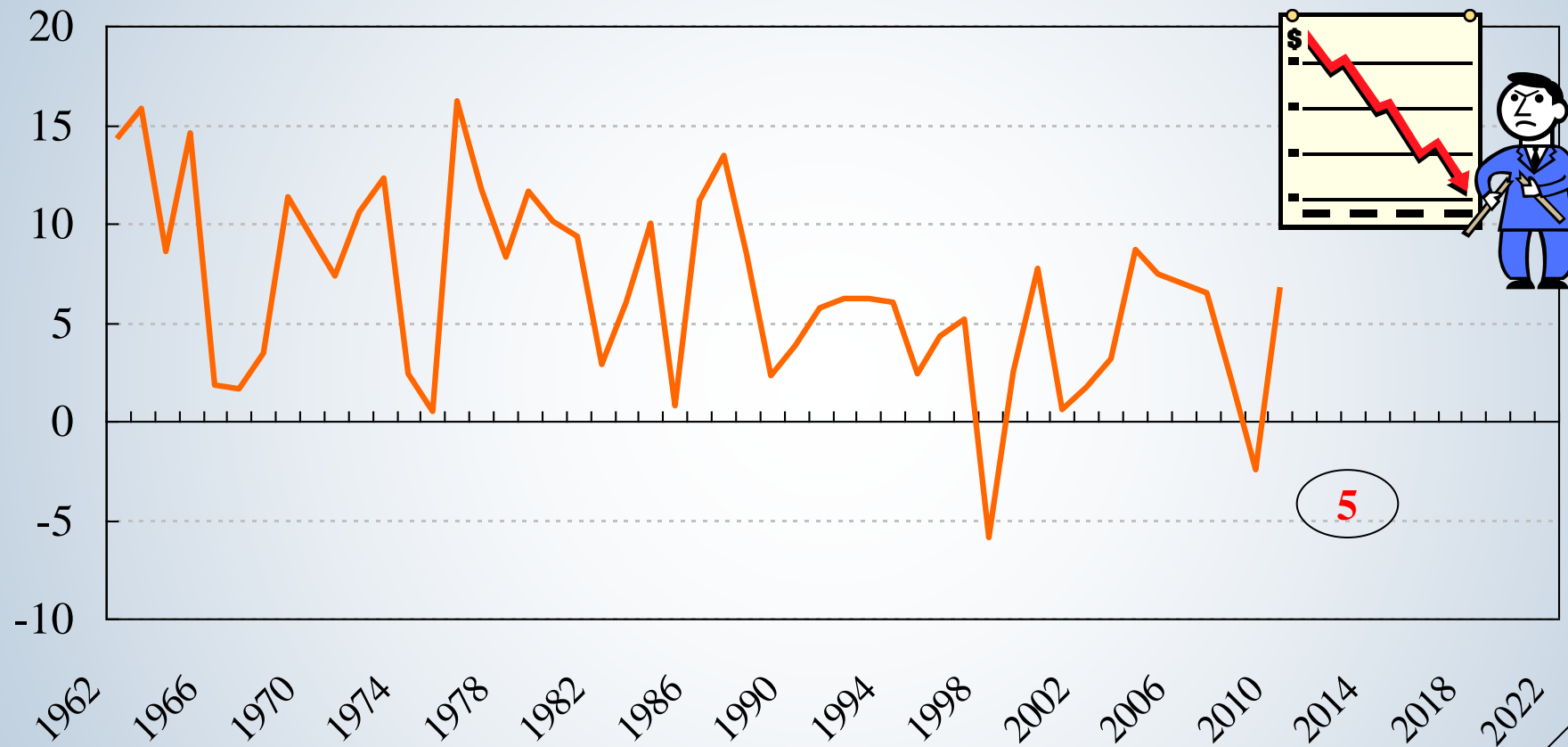
# ECONOMIC DOWN-TURN IN THE LATE-1990S





# ECONOMIC DOWN-TURN IN THE LATE-2000S

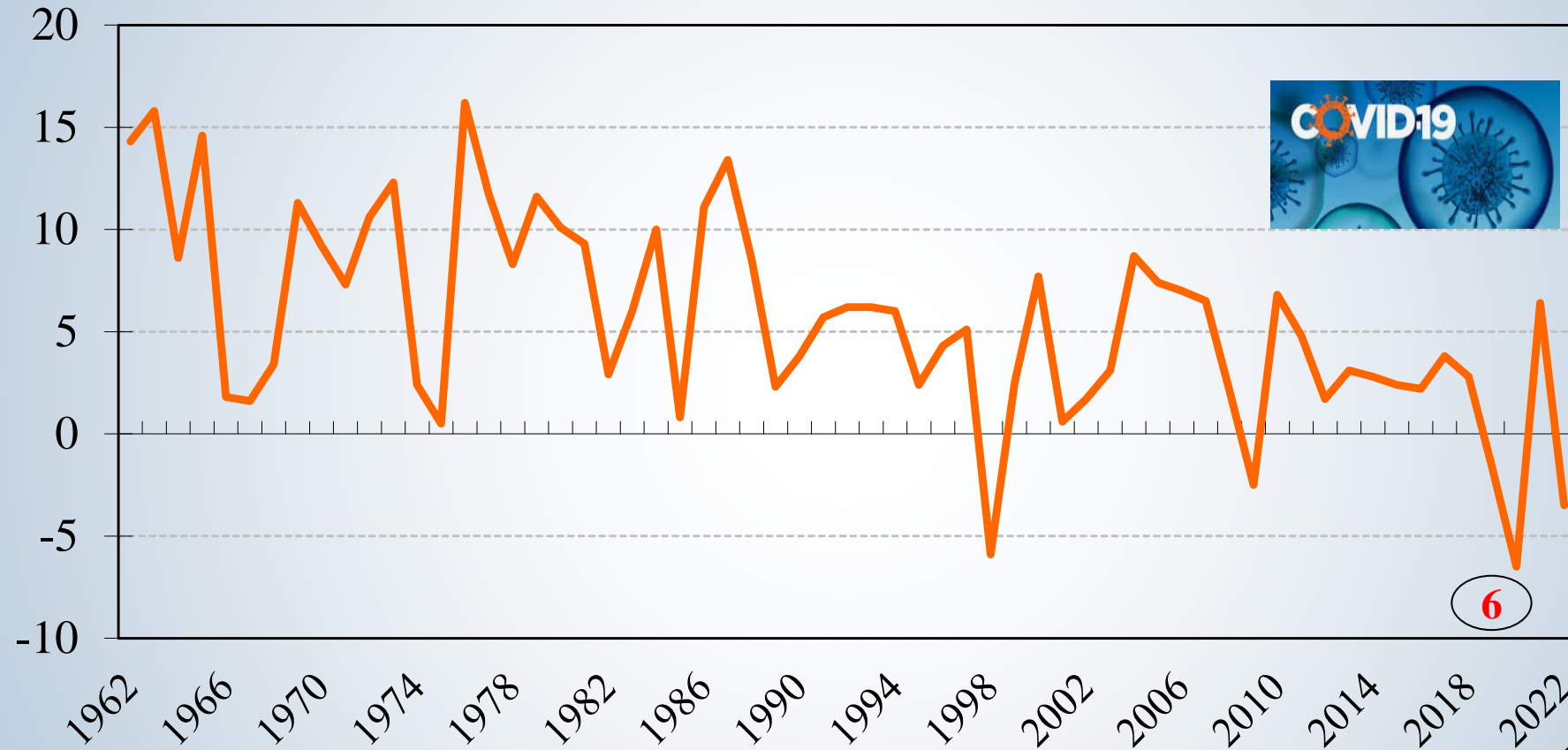
HK GDP real growth rate (%)



Global financial tsunami in  
latter part of 2008

# LATEST ECONOMIC SITUATION

HK GDP real growth rate (%)



COVID-19 pandemic started in 2020

### **III. COMMONLY ASKED QUESTIONS ON THE CONCEPTS OF GDP**

# Q1. HOW ARE ECONOMIC ACTIVITIES RELATED TO THE DEVELOPMENT OF KAI TAK CRUISE TERMINAL CAPTURED IN GDP BY EXPENDITURE APPROACH ?

- **Construction** of Kai Tak Cruise Terminal : GDFCF
- **Incoming visitors** through Kai Tak Cruise Terminal : Exports of travel services
- **Outbound travels by HK residents** through Kai Tak Cruise Terminal : Imports of travel services
- Services provided by Kai Tak Cruise Terminal to **non-resident** cruises : Exports of transport services

Note that services provided to **resident** cruises are not captured in trade in services.

## Q2. PEOPLE REGARD THE PURCHASE OF A RESIDENTIAL FLAT AN INVESTMENT. IS IT INCLUDED IN GDFCF OF GDP DURING THE PERIOD WHEN THE FLAT IS PURCHASED?

- No.
- The value of the flat has already been included in GDFCF of GDP previously when the flat was built.
- The purchase of a flat is a **transfer of ownership** rather than creation of a new asset. Therefore, **no new capital formation** is captured in GDP.
- However, SNA states that costs incurred in the transfer of ownership of the asset e.g. **brokerage fees, legal fees and stamp duties**, are included in GDFCF during the period when the flat is purchased.

### **Q3. IS THE CONSUMPTION VOUCHERS DISBURSED BY THE GOVERNMENT INCLUDED IN GDP?**

- The consumption voucher disbursed by the government is treated as transfer payment to households.
- When households purchase goods and services using the vouchers, the transactions will then be captured as the private consumption expenditure in the period concerned.



## **Q4. IS A FIRM'S EXPENDITURE ON SERVICES (E.G. DELIVERY COST, INSURANCE EXPENSES, ETC.) INCLUDED IN GDP?**

- Since the expenditure of a firm on consumption items is not for final use by households and government, it is an intermediate consumption.
- It is excluded in the compilation of GDP under the expenditure approach.