

香港 — 知識型經濟 統計透視

Hong Kong as a Knowledge-based Economy A Statistical Perspective

2019 年版
2019 Edition



香港特別行政區 政府統計處
Census and Statistics Department
Hong Kong Special Administrative Region



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政府統計處 科技統計組

地址：香港九龍協調道 3 號工業貿易大樓 11 樓

電話：(852) 3903 7282 圖文傳真：(852) 2887 5117

電郵：stb1@censtatd.gov.hk

Enquiries about this publication can be directed to:

Science and Technology Statistics Section

Census and Statistics Department

Address: 11/F, Trade and Industry Tower, 3 Concorde Road, Kowloon, Hong Kong.

Tel.: (852) 3903 7282 Fax: (852) 2887 5117

E-mail: stb1@censtatd.gov.hk

政府統計處網站 Website of the Census and Statistics Department

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自 2005 年起，政府統計處每 2 年出版《香港－知識型經濟 統計透視》。本刊物旨在提供最新的統計資料，以便各界就評估香港作為知識型經濟作參考。

本刊物所載的統計指標按四個範疇分類，每一個範疇均包括一系列相關的統計數字，以量度一個知識型經濟各方面的情況。這些統計指標主要以圖表形式及簡評來突顯香港邁向知識型經濟的最新趨勢及轉變。

本刊物登載的統計資料主要來自政府統計處和其他政府部門。在適當情況下亦引用其他機構發表的統計數字。

參考本刊物內各圖表及統計表內的數字時，讀者須注意相應的註釋（如適用），以便了解有關定義、涵蓋範圍、計算方法及點算規則方面的變化，以及有關數據的局限。任何上述變化均可能影響數列在相關統計期間內的可比性。

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Hong Kong as a Knowledge-based Economy – A Statistical Perspective is a biennial publication published by the Census and Statistics Department (C&SD) since 2005. It is designed to provide a handy collation of up-to-date statistical information for gauging the development of Hong Kong towards a knowledge-based economy (KBE).

In this publication, statistical indicators are organised into four dimensions with each covering a suite of relevant statistics for measuring the situation of a KBE from different aspects. These indicators are mainly presented in the form of statistical charts, with short commentaries, for highlighting the latest trends and changes that underpin the development of Hong Kong towards a KBE.

The principal sources of the statistical information presented in this publication are official statistics compiled by C&SD and other government departments. Statistics produced by other organisations are also referred to as appropriate.

In making reference to figures presented in various charts and tables in this publication, readers should pay attention to the corresponding footnotes where applicable, which describe changes in the definitions, coverage, methods of calculation and counting rules as well as limitations of the relevant data. Any such changes may render the data series not fully comparable over the reference period concerned.

Symbols

The following symbols are used throughout this publication :

| | |
|------|---|
| @ | Figures are subject to revisions later on |
| * | Revised figures |
| - | Not applicable |
| N.A. | Not yet available |

本地生產總值和人口數字

為了方便與其他國家／地區比較，部分統計指標以「相對本地生產總值的比率」、「人均」、「每百名人口」或「每千名人口」的相比量度形式來表達。除非另有說明，否則本地生產總值的數字以2019年8月發表的最新本地生產總值數字為準，而人口數字是指2019年8月發表的人口估計數字。一些以往發布的有關統計數字已作出相應修訂，因此這些數字可能與在本刊物以往期號所刊載的數字不同。本刊物內的本地生產總值數字，除另有說明外，是以當時市價計算。

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Gross Domestic Product (GDP) and population figures

To facilitate comparison with other countries/territories, some of the statistical indicators are presented as a relative measure in the form of “as a ratio to GDP”, “per capita”, “per 100 population” or “per 1 000 population”. Unless otherwise specified, figures on GDP are based on the latest GDP estimates released in August 2019, while population figures refer to the population estimates released in August 2019. Some previously released statistics have been revised accordingly and therefore they may be different from those published in previous editions of this publication. GDP figures in this publication refer to estimates at current market prices, unless otherwise specified.

Statistics by industry grouping

In this publication, all statistics analysed by industry grouping or economic activity are compiled based on the Hong Kong Standard Industrial Classification (HSIC) Version 2.0. The HSIC Version 2.0 is modelled on the United Nations' International Standard Industrial Classification of All Economic Activities Revision 4 with local adaptations and is the latest industry classification scheme adopted since 2009.

Monetary figures

All monetary figures quoted are in Hong Kong dollars unless otherwise specified.

Rounding of figures

There may be a slight discrepancy between the sum of individual items and the total as shown in the tables owing to rounding.

1. 背景

1.1 環球經濟在近數年經歷了重大的轉變，這些轉變的其中一項特點是各類經濟活動，尤其是先進經濟體的經濟活動，均日益重視知識的應用。蘊藏在人才與科技中的知識，被視為長遠經濟增長的主要源頭。

1.2 資訊與知識融入經濟活動的程度之深，大大影響一個經濟體在結構及質量上的運作。隨着知識的運用在經濟活動中日漸深化與及全球邁向一體化的影響，經濟分析模式也不再如以往般專注於土地、勞工及資本等傳統的生產因素。知識資本在生產過程中的作用愈趨重要。

2. 衡量香港作為知識型經濟的統計方法

2.1 知識型經濟強調側重知識、資訊及高水平技能的趨勢，而工商及公營機構對接觸這些元素的需要日益增加。必須持續學習系統化的資訊及掌握運用資訊的才能是知識型經濟的特徵。驅使知識型經濟出現的各種力量，正在不斷重塑環球經濟狀況。經濟增長較從前更加倚重知識的創造、生產、傳播和運用。我們愈來愈講求掌握知識型經濟的各種動力，以及知識型經濟與傳統經濟動力的關係。總括而言，有關知識型經濟的影響的新課題不斷湧現，而這些課題已成為決策者制訂合適的發展政策的核心。有鑑於此，編製反映一個經濟體邁向知識型經濟進程的統計指標，有助制訂合適的發展策略。

1. Background

1.1 The global economy has undergone significant changes in recent years. One of the key features of the changes is the growing importance of knowledge in all sectors of economic activities, especially those in the advanced economies. Knowledge, as embodied in individuals and in technology, is a vital source of long-term economic growth.

1.2 The degree of incorporation of information and knowledge into economic activities has now become so great that it is inducing profound structural and qualitative changes in the way an economy operates. Driven by the rise in knowledge intensity of economic activities and the increasing globalisation of economic affairs, there has been a paradigm shift in economic analysis model from the approach of devoting major attention to the traditional factors of production such as land, labour and capital. Intellectual capital is playing an increasingly important role in production.

2. Statistical approach for measuring Hong Kong as a knowledge-based economy (KBE)

2.1 A KBE is featured by the trends towards greater dependence on knowledge, information and high skill levels and the increasing need for ready access to all of these by the business and public sectors. It is characterised by the drive for continuous learning of both codified information and the competencies to use information. The forces driving the emergence of the KBE are constantly reshaping the world economy. Economic growth is much more dependent on the creation, production, distribution and use of knowledge than before. Increasing attention is directed to understanding the dynamics of the KBE and its relationship with traditional economic forces. All in all, new issues are emerging regarding the implications of the KBE and these become the focal points for policy makers in formulating appropriate development policies. As such, statistical indicators showing the evolution of an economy into a KBE could provide clues for devising appropriate strategies.

2.2 全球有不少經濟體正在知識的跑道上邁進。合適的知識型經濟指標，有助確定相關政策的目標是否已達到，並可作為與其他經濟體比較的基準，從而找出有待改善之處。

2.3 要了解一個經濟體邁向知識型經濟的進程為何，先要具備一個分析框架，再從中設定相關的統計指標。有關的分析框架必須能夠合乎邏輯地把相關的統計指標分組、整理和分析。

2.4 雖然迄今尚未有一個國際間一致接納的框架，一些國家／地區及國際組織已採用不同的方法量度知識型經濟。一般而言，最常採用「描述式」或「展示式」的方法，把一系列的統計指標按以下被廣泛認為知識型經濟的重要支柱的四個範疇歸納：

- (a) *資訊及通訊科技* – 反映經濟體內知識和資訊傳遞／應用的效率和效能的指標。
- (b) *人力資本發展* – 反映經濟體內能夠接觸及運用知識和資訊，從而進一步生產／創造／傳遞知識和資訊的人才的數量和質素的指標。
- (c) *創新系統* – 反映經濟體內生產／創造／應用知識和資訊的數量、質素和速度的指標。
- (d) *營商環境* – 反映經濟體內的營商環境如何有利生產／創造／傳遞／應用知識和資訊的指標。

2.2 Many economies around the world are now progressing on the knowledge track. Appropriate KBE indicators would thus help ascertain whether the targets of KBE policies have been achieved, and to benchmark with other economies with a view to identifying areas for improvement.

2.3 To help understand the development progress of an economy towards a KBE, an analytical framework is needed, following which relevant statistical indicators can be constructed. The analytical framework should be one that enables relevant statistical indicators to be grouped, organised and analysed logically.

2.4 While an internationally accepted framework is not yet available, different approaches have been adopted by some countries/territories and international organisations for measuring a KBE. Generally, a “descriptive” or “presentational” approach is commonly adopted, making reference to a suite of statistical indicators grouped into the following four dimensions which are widely recognised as the crucial pillars of a KBE:

- (a) *Information and communication technology (ICT)* – indicators to reflect the efficiency and effectiveness of knowledge and information distribution/application in the economy.
- (b) *Human capital development* – indicators to reflect the quantity and quality of individuals equipped for access to and use of knowledge and information for further production/creation/distribution of knowledge and information in the economy.
- (c) *Innovation system* – indicators to reflect the quantity, quality and rate of knowledge and information production/creation/application in the economy.
- (d) *Business environment* – indicators to reflect how conducive the business environment is to the production/creation/distribution/application of knowledge and information in the economy.

2.5 建立上述框架是基於以下前提：

- (a) 知識的集成及透過資訊及通訊科技傳遞資訊日趨普遍，締造了發展資訊社會的有利條件。
- (b) 培育知識廣博的人力資本是爭取競爭優勢的關鍵。
- (c) 創新與科技是提升競爭力的主要動力。
- (d) 一個經濟體的社會及經濟特色，以及宏觀經濟環境，是孕育知識型經濟的先決條件。

2.6 一般而言，一個經濟體能成功轉型為知識型經濟，有賴擁有現代化的資訊及通訊科技基礎建設；在教育方面作出長遠的投資；發展創新與科技的能力；以及營造有利於市場交易的經濟環境等元素。本刊物所採用的知識型經濟框架，是基於上述框架而建立的。

3. 香港的資訊及通訊科技發展

3.1 資訊及通訊科技是推動知識型經濟的主要驅動力。不同經濟體無論處於哪個發展階段，都會因邁向知識型經濟而要面對這股不可遏止的變革浪潮所帶來的挑戰。香港是一個開放型的經濟體，其國際貿易和商業發達。作為全球的重要貿易樞紐，香港必須有效地和全世界及其商業伙伴聯繫，並透過使用資訊及通訊科技提升競爭力。

2.5 The above framework is established on the following premises:

- (a) The growing codification of knowledge and transmission of information through ICT are enablers of an information society.
- (b) Development of a pool of knowledge-rich human capital is the key for carving out competitive advantages.
- (c) Innovation and technology are crucial driving forces to enhance competitiveness.
- (d) The underlying social and economic characteristics together with the macroeconomic environment provide the pre-requisite for nurturing a successful KBE.

2.6 The successful transition of an economy to a KBE typically involves elements such as modernising the ICT infrastructure, making long-term investments in education, developing innovation and technology capability, and having an economic environment conducive to market transactions. The KBE framework adopted in this publication follows the above framework.

3. ICT development in Hong Kong

3.1 ICT is the key enabler in spearheading the development of an economy into a KBE. Economies at different stages of development all face challenges brought about by unstoppable waves of change towards a KBE. Hong Kong is an open economy that thrives on international trade and commerce. Being an important trading hub in the global economy, Hong Kong needs to be connected effectively to the global system and its business partners as well as to use ICT to sharpen its competitive edge.

3.2 資訊及通訊科技的發展有賴於技術及商業基礎建設。香港的工商機構單位和消費者均可享用高質素的電訊基礎建設。香港的電訊市場在2003年全面開放後，電訊業的競爭愈趨激烈。香港是區內首個在1990年代初率先把電話網絡數碼化的大都會、全球首個採用碼分多址（CDMA）標準的地方、在亞洲內推出多媒體訊息服務（MMS）的先驅，也是其中一個率先引入通用分組無線服務（GPRS）的先進經濟體。

3.3 香港的工商及公營機構樂於接受嶄新的資訊及通訊科技，而香港亦被業界視為一個試驗新產品和技術的場地。香港政府和私營機構致力提供公共 Wi-Fi 服務，截至2019年年中，在全港約14 000個地點設有超過57 000個Wi-Fi熱點，香港在提供公共Wi-Fi服務上已佔世界前列地位，此因素有利香港發展為一個無線網絡的城市。另外，香港的數碼地面電視服務已覆蓋差不多全港所有的人口。

3.4 資訊及通訊科技在社會的滲透程度也相當高，全港的商業大廈和差不多所有住宅大廈都設有寬頻設施。以下是一些有關的統計數字：

- (a) 流動電話在香港已是日常生活的必需品。在2018年，每百名人口中平均有289個公共流動電話用戶，是全球比率最高的地區之一。

3.2 The development of ICT is underpinned by technical and commercial infrastructural support. Business establishments and consumers in Hong Kong enjoy an excellent telecommunications infrastructure. With full liberalisation of the telecommunications market in 2003, the telecommunications sector in Hong Kong is highly competitive. Hong Kong is the first metropolitan area in the region to have the telephone network digitised in the early 1990's, the first in the world to adopt the Code Division Multiple Access (CDMA) standards, the first in Asia to launch Multi-media Messaging Services (MMS) and one of the forerunner economies to introduce General Packet Radio Services (GPRS).

3.3 Business and public sectors in Hong Kong are receptive to new ICT and Hong Kong has been regarded as a test-bed for new products and technology of the industry. The Hong Kong Government and the private sector are committed to providing public Wi-Fi services. As at mid-2019, there were 57 000 Wi-Fi hot spots at around 14 000 locations in the territory. Hong Kong is at the forefront in the world in the provision of public Wi-Fi service, an enabling factor for development of Hong Kong into a wireless city. Moreover, the coverage of digital terrestrial television service has been extended to almost all population in Hong Kong.

3.4 There is also an extensive ICT diffusion in the community, with broadband connection reaching all commercial buildings and virtually all residential buildings in Hong Kong. Below is a glimpse of some related statistics:

- (a) The use of mobile phone is part of everyday life in Hong Kong. There were on average 289 public mobile subscribers per 100 population in 2018, being one of the places with the highest ratio in the world.

(b) 在 2018 年，每百名人口中有 37 個固定互聯網用戶。隨着科技的進步，以寬頻連接互聯網已日漸普及。在 2018 年，固定寬頻互聯網用戶數目為 270 萬，而按每百名人口計算的固定寬頻互聯網用戶數目比率達 36 個。根據國際電信聯盟發表的數字，香港的固定寬頻互聯網用戶比率在 2018 年的排名為亞太區第 2 高。

(c) 香港市民大多熱衷使用資訊科技。在 2018 年，約 92% 的住戶有透過不同的設備在家中接駁互聯網，包括個人電腦、智能手機及其他設備（如智能電視、電視盒等）。

(d) 香港的工商機構單位熱衷採用資訊及通訊科技以加強營運效率及競爭優勢。在 2017 年，約 88% 的工商機構單位有使用互聯網，而約 34% 具有網絡存在。

(b) In 2018, the number of fixed Internet subscribers per 100 population was 37. With the advance in technology, the use of Internet with broadband connection has become popular. In 2018, about 2.70 million customers subscribed fixed broadband Internet service, representing 36 fixed broadband Internet subscribers per 100 population. Internationally, Hong Kong was ranked the second highest in the Asia Pacific region in terms of fixed broadband Internet subscription rate by the International Telecommunication Union in 2018.

(c) Hong Kong has an information technology-savvy population. In 2018, some 92% of households had access to the Internet at home via various devices, including personal computers (PCs), smartphones and other devices (e.g. SmartTVs, TV boxes, etc.).

(d) The business establishments in Hong Kong are keen to adopt ICT to enhance their operational efficiency and competitive edge. In 2017, around 88% of all business establishments had used the Internet, and about 34% had a web presence.

4. 香港的人力資本發展

4.1 知識的運用通常是依靠人才的技能。知識資本是普遍公認的重要資產，而人力資本的發展則是可持續發展的關鍵動力之一。教育是人力資本發展的基石，這一點毋庸置疑。香港在教育方面的投資，略述如下：

(a) 政府的教育開支由 2008-09 年度的 750 億元上升至 2018-19 年度的 1,105 億元，增幅為 47%，顯示政府在投資於教育方面的承擔。在 2018-19 年度，政府在教育的開支佔政府整體開支的 21%。

4. Human capital development in Hong Kong

4.1 Knowledge is usually applied through the skills of individuals. Intellectual capital is widely recognised as a critical asset, while development of human capital is one of the critical and strategic thrusts for sustainable development. Undoubtedly, education is the fundamental building block of human capital development. Highlights of the investment in education in Hong Kong are:

(a) Government expenditure on education in Hong Kong rose by 47% from \$75.0 billion in 2008-09 to \$110.5 billion in 2018-19, indicating the Government's commitment to investing in education. In 2018-19, government expenditure on education as a percentage of total government expenditure reached 21%.

- (b) 政府一直在專上教育作出龐大投資。在 2018-19 年度，政府在專上教育的開支達 402 億元，佔政府整體教育開支的 36%。

4.2 勞動人口的知識和技能水平與其教育程度息息相關。在今天知識主導的社會中，大多數人都會不斷充實自己。因此，市民的教育程度已漸漸提高，而各類工作也要求具備更高的技術水平。過去 10 年的數字顯示：

- (a) 在勞動人口中，曾受專上教育（即曾修讀非學位／學位／研究院課程）的人士所佔比例由 2008 年的 31% 上升至 2018 年的 41%。
- (b) 在 2018 年的就業人士中，專業人員及輔助專業人員所佔的比例為 28%。

4.3 簡而言之，人力資本的發展基本上包括教育、技術培訓和再培訓、終身學習和向外招攬人才。培育市民終身學習的態度，是發展一個不斷求進的經濟體不可缺少的部分。

5. 香港的創新系統

5.1 創新是提升競爭優勢和生產力的動力之一，而技術則有助推動創新。這些都是一個經濟體推動創新的元素，以助其經濟持續發展。

5.2 我們採用多角度分析有關創新的指標。除了協助政策發展和評估計劃成效外，創新和科技的統計指標在反映一個經濟體的創新水平和技術精湛程度，以及訂立國際間的比較基準，均十分重要。下列的統計數字突顯本港在創新活動各方面的情況：

- (b) The Government has made phenomenal investment in post-secondary education. In 2018-19, government expenditure on post-secondary education amounted to \$40.2 billion, accounting for 36% of the Government's total expenditure on education.

4.2 The levels of knowledge and skills of the labour force are highly related to their educational attainment. In the knowledge-driven society nowadays, people in general are keen to better equip themselves and there has been an upward shift towards higher education and more skilful jobs over the past decade, as evidenced by the following figures:

- (a) The proportion of labour force with post-secondary education (i.e. having attended non-degree/degree/postgraduate courses) rose from 31% in 2008 to 41% in 2018.
- (b) The proportion of employed persons who worked as professionals and associate professionals was 28% in 2018.

4.3 In a nutshell, development of human capital essentially comprises education, skill training and retraining, lifelong learning and sourcing of global talents. This demands that we need to instill the spirit of continuous learning, an integral part of a learning economy, into our people.

5. Innovation system in Hong Kong

5.1 Innovation is one of the engines to enhance competitive edge and productivity, while technology is a key driver for innovation. An innovation-driven economy builds upon these components for sustainable economic growth.

5.2 A multi-dimensional view is adopted in analysing innovation indicators. Apart from facilitating policy development and programme evaluation, statistical indicators on innovation and technology are important for assessing the level of innovation and technological sophistication in an economy and for international benchmarking. The following figures highlight some of the facets of innovation activities in Hong Kong:

- (a) 與其他先進的經濟體相比，香港在研究及發展（研發）活動的投資水平不算高，本地研發總開支相對本地生產總值的比率在 2007 年至 2017 年期間徘徊於 0.72% 至 0.80% 之間。
- (b) 2017 年的本地研發總開支達 213 億元，較 2007 年上升 72%。在 2017 年，工商機構的研發開支佔本地研發總開支的比例為 44%。高等教育機構的研發開支的相應比例為 51%。
- (c) 由於香港是以服務業為主的經濟體，工商機構單位一直進行非直接涉及研發的各類型創新活動，這些活動有助改善業務表現。在 2017 年，工商機構的技術創新活動開支達 295 億元，較 2007 年上升 88%。

5.3 雖然香港的研發基礎不及一些先進經濟體，但是香港已聚集了一批在集成電路設計、光子學、無線應用、數碼媒體娛樂及中醫藥等範疇具有開發創新能力的高水平研究人員。要進一步促進創新及科技發展，香港會繼續發揮現有的實力、充分配合研究能力和業界需要，以及好好把握粵港澳大灣區發展所帶來的機遇。自從創新及科技局（創科局）於 2015 年 11 月成立以來，香港的創科氛圍顯著提升，世界頂級科研機構相繼在香港落戶。

- (a) The level of investment in research and development (R&D) in Hong Kong is not as high as that in other advanced economies, with gross domestic expenditure on R&D (GERD) as a ratio to GDP ranging from 0.72% to 0.80% during 2007 to 2017.
- (b) GERD in 2017 amounted to \$21.3 billion, 72% higher than that recorded in 2007. The expenditure on R&D performed in the business sector occupied a share of 44% in the GERD in 2017. The corresponding proportion for the expenditure on R&D performed in the higher education sector was 51%.
- (c) With Hong Kong being a service oriented economy, business establishments have been carrying out various innovation activities that are not directly related to R&D but are yet conducive to enhancing business performance. The business technological innovation expenditure in 2017 amounted 29.5 billion, 88% higher than that in 2007.

5.3 While its R&D base is not as sizeable as that in some advanced economies, Hong Kong has amassed a group of high quality researchers who are capable of pursuing innovations in areas such as integrated circuit design, photonics, wireless applications, digital media entertainment and Chinese medicine. To further promote the development of innovation and technology, Hong Kong will continue to capitalise on its existing strength; bridge the gap between research capabilities and industry needs; and grasp the opportunities brought by the development of the Greater Bay Area. Since the establishment of the Innovation and Technology Bureau (ITB) in November 2015, the atmosphere for innovation and technology development in Hong Kong has been significantly enhanced with more top-tier global research institutions establishing their presence in Hong Kong.

6. 香港的營商環境

6.1 健全的宏觀經濟框架，配合公平的競爭環境，是鼓勵商業活動及投資的基礎。在各項要素中，審慎的公共財務管理、穩定的價格、穩健的法制和稅制是必不可少的條件。

6.2 香港是全球最開放和外向型的經濟體之一，以自由貿易為經濟命脈。香港地處中國南岸、東亞的中心，佔地利之宜外，還有許多有利的因素，使它成為理想的營商大都會。這些因素包括低稅率、高透明度的普通法制度、公正的司法、穩健的公共財政系統、一流的基礎建設、資訊的自由流通、廉潔的政府和富企業家精神。下列統計數字描述香港在過去 10 年有利促進知識型經濟發展的整體經濟及制度狀況：

- (a) 在 2008 年至 2018 年期間，香港的人均本地生產總值平均按年實質增長約 2%。
- (b) 香港是一個以服務業為主的經濟體。服務業對以基本價格計算的本地生產總值的貢獻在 2017 年為 92%。
- (c) 在全球經濟一體化下，香港的工商機構單位面對國際間的競爭而不斷轉移至高增值的活動，助長了知識型行業的發展（包括高科技製造業、中高科技製造業、通訊業、金融和保險業以及商用服務業（不包括地產服務））。在 2017 年，從事知識型行業的人數達 656 200 人，佔整體就業人數的 17%。同年，知識型行業的增加價值佔以基本價格計算的本地生產總值的 27%。

6. Business environment in Hong Kong

6.1 A sound macroeconomic framework together with a level playing field is the cornerstone to encouraging business activities and investment. This requires prudent fiscal management, stable prices, robust legal and tax regimes, among many others.

6.2 Hong Kong is one of the most open, external-oriented economies in the world, with free trade being its lifeblood. Apart from being strategically located at the heart of East Asia on China's southern coast, there are many favourable factors that make Hong Kong an ideal metropolis for conducting business: low tax regime; transparent common law system; impartial judiciary; robust fiscal system; state-of-the-art infrastructure; free flow of information; a clean government; and entrepreneurial spirit. The following statistics depict the general economic conditions and institutional factors in Hong Kong which are conducive to the development of a KBE during the past decade:

- (a) Between 2008 and 2018, per capita GDP of Hong Kong increased at an average annual growth rate of around 2% in real terms.
- (b) Hong Kong is a service-oriented economy. The contribution of the services sector to GDP at basic prices was 92% in 2017.
- (c) Facing the international competition under economic globalisation, the business establishments in Hong Kong have been shifting to high value added activities, enabling the development of knowledge-based industries (KBI) (including high technology manufacturing industries, medium-high technology manufacturing industries, communications, finance and insurance, and business services (excluding real estate services)). In 2017, there were 656 200 persons engaged in the KBI, accounting for 17% of the total employment. The value added of the KBI as a percentage of GDP at basic prices was 27% during the same year.

6.3 香港屬開放型的經濟體，有利於產品及服務在國際間的貿易。這些商貿活動（尤其涉及高科技產品的對外貿易以及與技術知識和技術相關服務的無形貿易）有助促進國家／地區間的資訊及知識交流。

- (a) 在對外商品貿易方面，2018 年的商品整體出口貨值為 41,581 億元。在 2008 年至 2018 年期間，平均按年增長率為 4%。商品進口方面同樣強勁，2018 年的貨值達 47,214 億元。在無形貿易方面，服務輸出的金額以平均每年 5% 的增長率上升，由 2008 年的 5,444 億元增加至 2018 年的 8,914 億元。服務輸入的金額也以 1% 的平均按年增長率上升，由 2008 年的 5,654 億元增加至 2018 年的 6,353 億元。
- (b) 香港的營商環境吸引全球各地的企業來港設立地區總部和辦事處，帶來資金和創造大量高增值的就業機會，同時引進嶄新的管理文化，帶動技術轉移和提高本地的創意能力。在 2018 年，駐港的地區總部數目為 1 530 間，而駐港的地區辦事處數目為 2 425 間。

7. 結語

7.1 知識有別於傳統的資本貨物，沒有固定的生產量限，因而難以量度。知識型經濟的核心就是知識，但知識本身特別難以量化和釐定價值，故此沒有方法直接量度知識型經濟體的表現。折衷的辦法是運用描述式的框架，以一組指標來量度香港發展為知識型經濟的情況。

6.3 Hong Kong is an open economy which is beneficial to the international trade in products and services. Such trading activities, particularly the external trade in high technology products and intangible transactions relating to trade in technical knowledge and technology-related services, facilitate the exchange of information and knowledge among countries/territories.

- (a) On trade in goods, the value of total exports of goods was \$4,158.1 billion in 2018. This represented an average annual growth rate of 4% between 2008 and 2018. Imports of goods were likewise robust, reaching \$4,721.4 billion in 2018. On invisible trade, the value of exports of services grew at an average annual rate of 5% from \$544.4 billion in 2008 to \$891.4 billion in 2018. The value of imports of services also increased at an average annual rate of 1%, from \$565.4 billion in 2008 to \$635.3 billion in 2018.
- (b) The business environment of Hong Kong attracts enterprises from all around the world to set up regional headquarters and offices here, bringing in capital and creating abundant high value-added job opportunities. They introduce new management culture, promote transfer of technology and enhance local creativity. In 2018, the number of regional headquarters in Hong Kong stood at 1 530 while that of regional offices was 2 425.

7. Concluding remarks

7.1 Knowledge, unlike conventional capital goods, has no fixed production capacity and hence presents great challenges in terms of measurement. At the heart of a KBE, knowledge itself is particularly difficult to quantify and to price. There is no direct way to measure the performance of a KBE. Instead, a descriptive framework using a suite of indicators may be used to measure the development of Hong Kong towards a KBE.

7.2 就知識型經濟的一般特色而言，香港整體上在許多方面都表現不俗，並且有很好的成就。香港有優良的資訊及通訊科技基礎建設，社會各界採用資訊科技越趨普遍，香港市民的知識和技能水平也越來越高。同時，工商機構單位的創新活動在近年也穩定地發展。不過，香港仍有可改善之處。我們需要加強創新能力，才可以充分運用先進的科技。要保持經濟增長的勢頭、生生不息，我們需要培養終身學習的風氣，無論個人與機構都要不斷追求完善、自強不息。

7.2 Generally, Hong Kong is positioned well and has very good achievements in many of the general characteristics of a KBE. Hong Kong has excellent ICT infrastructure and there has been a steady growing trend in adoption of information technology in the community. Hong Kong people are increasingly equipped in terms of knowledge and skills. Also, innovation activities undertaken by business establishments have been growing steadily in recent years. Nevertheless, there is still room for improvement. We need to strengthen our innovation capacity to fully exploit advanced technologies. To sustain the momentum of economic growth and continued vitality, we need to embrace a culture of continuous learning and improvement both at individual and organisational levels.

表甲 與知識型經濟有關的香港主要統計數字

Table A Key statistical indicators for Hong Kong relating to a KBE

| | 2008 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|-------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
| I. 資訊及通訊科技 Information and communication technology | | | | | | | |
| 按每百名人口計算的公共流動電話用戶數目 Public mobile subscribers per 100 population | 163.3 | 238.4 | 239.5 | 229.5 | 233.6 | 256.5 | 288.6 |
| 按每百名人口計算的固定互聯網用戶數目 Fixed Internet subscribers per 100 population | 36.5 | 37.4 | 34.6 | 34.7 | 38.0 | 37.6 | 36.8 |
| 按每百名人口計算的流動寬頻用戶數目 Mobile broadband subscribers per 100 population | 40.4 | 168.0 | 174.6 | 193.5 | 211.2 | 237.0 | 279.0 |
| 家中有接駁互聯網的住戶佔所有住戶的百分比(%) ⁽¹⁾ Percentage of households with access to the Internet at home among all households (%) ⁽¹⁾ | — | — | — | — | — | — | 92.3 |
| 家中有個人電腦接駁互聯網的住戶佔所有住戶的百分比(%) Percentage of households with personal computer at home connected to the Internet among all households (%) | 70.9 | 79.9 | 78.7 | 79.0 | 79.5 | 80.2 | 75.1 |
| 在統計前 12 個月內曾使用互聯網的 10 歲及以上人士的百分比(%) Percentage of persons aged 10 and over who had used the Internet during the 12 months before enumeration (%) | 66.7 | 74.2 | 79.9 | 84.9 | 87.5 | 89.4 | 90.5 |
| 有使用互聯網的工商機構單位的百分比(%) Percentage of business establishments having used the Internet (%) | 58.8 | 74.8 | — | 79.9 | — | 87.7 | — |
| 具有網絡存在的工商機構單位的百分比(%) Percentage of business establishments having a web presence (%) | 19.3 | 26.4 | — | 32.6 | — | 33.6 | — |
| II. 人力資本發展 Human capital development | | | | | | | |
| 政府的教育開支（十億元） （指統計年 4 月 1 日至翌年 3 月 31 日的財政年度的數字） Government expenditure on education (\$ billion) (Figure refers to the financial year from 1 April of the reference year to 31 March of the following year) | 75.0 | 76.4 | 73.7 | 79.0 | 82.4 | 88.5 | 110.5 ⁽²⁾ |
| 政府的專上教育開支（十億元） （指統計年 4 月 1 日至翌年 3 月 31 日的財政年度的數字） Government expenditure on post-secondary education (\$ billion) (Figure refers to the financial year from 1 April of the reference year to 31 March of the following year) | 34.3 | 22.5 | 21.9 | 24.0 | 23.5 | 26.0 | 40.2 ⁽²⁾ |
| 曾受專上教育的勞動人口的百分比(%) Percentage of labour force with post-secondary education (%) | 31.4 | 35.4 | 36.4 | 37.9 | 38.8 | 39.6 | 40.8 |
| 從事專業職級及輔助專業職級的就業人口的百分比(%) Percentage of employed population working as professionals and associate professionals (%) | 26.4 | 27.2 ⁽³⁾ | 27.4 ⁽³⁾ | 27.7 ⁽³⁾ | 27.3 ⁽³⁾ | 27.8 ⁽³⁾ | 28.5 ⁽³⁾ |

| | 2008 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|----------------|---------|---------|---------|---------|-------------------|----------------------|
| III. 創新系統 Innovation system | | | | | | | |
| 本地研究及發展（研發）總開支（百萬元） Gross domestic expenditure on research and development (R&D) (\$ million) | 12,293 | 15,613 | 16,727 | 18,271 | 19,713 | 21,280 | N.A. |
| 本地研發總開支相對本地生產總值的比率(%) Gross domestic expenditure on R&D as a ratio to Gross Domestic Product (GDP) (%) | 0.72 | 0.73 | 0.74 | 0.76 | 0.79 | 0.80 [@] | N.A. |
| 工商機構的研發開支佔本地研發總開支的百分比(%) Percentage share of business expenditure on R&D in gross domestic expenditure on R&D (%) | 42.8 | 44.9 | 44.5 | 43.8 | 43.3 | 44.2 | N.A. |
| 工商機構的技術創新活動開支(百萬元) Business technological innovation expenditure (\$ million) | 14,666 | 16,113 | 17,018 | 17,496 | 19,960 | 29,542 | N.A. |
| IV. 營商環境 Business environment | | | | | | | |
| 以當時市價計算的人均本地生產總值 Per capita GDP at current market prices | (港元) (HK\$) | 245,406 | 297,860 | 312,609 | 328,924 | 339,478 | 360,247 [@] |
| | (美元) (US\$) | 31,515 | 38,404 | 40,316 | 42,431 | 43,736 | 46,221 [@] |
| 整體服務業在以基本價格計算的本地生產總值內所佔的百分比(%) Percentage contribution of services sector to GDP at basic prices (%) | | 92.6 | 92.9 | 92.7 | 92.7 | 92.2 | 92.4 [@] |
| 從事知識型行業的人數佔整體就業人數的百分比(%) Number of persons engaged in knowledge-based industries as a percentage of total employment (%) | | 13.9 | 16.0 | 16.5 | 16.7 | 17.1 | 17.2 |
| 知識型行業的增加價值佔以基本價格計算的本地生產總值的百分比(%) Value added of knowledge-based industries as a percentage of GDP at basic prices (%) | | 24.4 | 25.0 | 25.1 | 26.1 | 26.3 | 27.2 [@] |
| 商品整體出口貨值（十億元） Value of total exports of goods (\$ billion) | | 2,824.2 | 3,559.7 | 3,672.8 | 3,605.3 | 3,588.2 | 3,875.9 |
| 商品進口貨值（十億元） Value of imports of goods (\$ billion) | | 3,025.3 | 4,060.7 | 4,219.0 | 4,046.4 | 4,008.4 | 4,357.0 |
| 服務輸出金額（十億元） Value of exports of services (\$ billion) | | 544.4 | 812.6 | 829.1 | 808.9 | 764.8 | 812.9 [@] |
| 服務輸入金額（十億元） Value of imports of services (\$ billion) | | 565.4 | 583.2 | 573.5 | 574.3 | 578.1 | 605.5 [@] |
| 駐港的地區總部及地區辦事處的總數 （指統計年 6 月首個工作天的數字） Total number of regional headquarters and regional offices (Figures refer to the first working day of June of the reference year) | | 3 882 | 3 835 | 3 784 | 3 798 | 3 731 | 3 955 |

註釋：

- (1) 數字自 2018 年開始備有。
- (2) 修訂預算。
- (3) 由 2012 統計年開始，統計數字是按「國際標準職業分類 2008 年版」編製，其數列已作出後向估計至 2011 年。2011 年以前的統計數字是按「國際標準職業分類 1988 年版」編製。因此，2011 年及往後的數字不能與較早年份的數字作嚴格比較。

Notes：

- (1) Figure is available from 2018 onwards.
- (2) Revised Estimate.
- (3) Starting from the reference year of 2012, the statistics are compiled based on the International Standard Classification of Occupations 2008 (ISCO-08) and the series has been backcasted to 2011. Statistics prior to 2011 are compiled based on ISCO-88. Figures for 2011 and after are therefore not strictly comparable to those of earlier years.

第 1 章 資訊及通訊科技

Chapter 1 Information and Communication Technology

資訊及通訊科技在知識型經濟的重要性

1.1 廣泛地採用資訊及通訊科技有助社會上人與人之間傳遞知識，而資訊及通訊科技的進步更可促進一個經濟體內新知識的創造及應用。資訊及通訊科技是推動知識型經濟發展的一項主要動力。

1.2 資訊及通訊科技亦可被視為普及用途的技術，並透過兩個層面影響一個國家／地區的經濟發展。首先，資訊及通訊科技的投資乃固定資產的累積，直接帶動經濟增長。其次，資訊及通訊科技的投資可提高工商業的生產力。工商機構單位的生產過程、人力資源管理以及組織架構隨著資訊及通訊科技的投資及應用而作出轉變，往往可提升生產力。事實上，資訊及通訊科技是推動經濟活動轉型的主要元素。

資訊及通訊科技在香港的發展情況

1.3 香港轉型為知識型經濟有賴資訊及通訊科技的持續發展，這個元素在全球經濟一體化的情況下更為突出。本刊物選取一系列反映資訊及通訊科技在社會及經濟各方面的滲透程度的統計指標，以助評估香港發展為知識型經濟的進度。選定的統計指標載列於表 1.1。以下段落描述資訊及通訊科技在香港的最新發展情況。

Importance of information and communication technology (ICT) in a knowledge-based economy (KBE)

1.1 While the wider use of ICT is conducive to dissemination of knowledge among people in a society, advancement in ICT can stimulate the creation and application of new knowledge in an economy. ICT is a key impetus for the development of a KBE.

1.2 ICT can also be viewed as general-purpose technologies that can affect the economic growth of a country/territory through two channels. First, investment in ICT represents accumulation of fixed assets, which is directly linked to economic growth. Secondly, ICT investment can enhance productivity within industries. Changes in production processes, human resources management, and organisational structure of business establishments that are accompanied by ICT investment and application generally improve productivity. In fact, ICT is the key enabler to transform economic activities.

ICT development in Hong Kong

1.3 The sustained development of ICT in Hong Kong contributes to its transition to a KBE, especially in the context of economic globalisation. A suite of statistical indicators reflecting the diffusion of ICT in various socio-economic aspects of an economy is selected to help gauge the extent to which Hong Kong has developed towards a KBE. The selected indicators are listed in Table 1.1. The latest development of ICT in Hong Kong is highlighted in the following paragraphs.

1.4 現代化及適量的資訊及通訊科技基礎建設可有效地傳遞和處理資訊及知識，是知識型經濟的一個重要基礎。政府積極地透過私營化方式、開放及鼓勵競爭以使香港擴展電訊網絡及以較低的價錢提供優質的電訊服務，從而促進社會人士使用資訊及通訊科技。

1.5 電訊市場在 2003 年全面開放後，香港電訊業的競爭愈趨激烈。流動電話的使用在香港變得非常普及。在 2018 年，每百名人口中，平均有 289 個公共流動電話用戶，使香港成為全球流動電話用戶比率最高的地區之一。（圖 1.1）

1.6 香港市民在工作及生活上使用互聯網服務愈趨普遍。在 2018 年，每百名人口中便有 37 個固定互聯網用戶。隨着科技的進步及電訊網絡營辦商提供具競爭力的價格，固定寬頻互聯網用戶數目由 2008 年的 192 萬上升至 2018 年的 270 萬。根據國際電信聯盟發表的數字，香港的固定寬頻互聯網用戶比率（按每百人口計算）在 2018 年的排名為亞太區第 2 高。（圖 1.2）

1.7 另一方面，流動寬頻用戶數目的增長更為顯著。在 2018 年，流動寬頻用戶達 2 087 萬戶，該數字約為 2008 年數字的 7 倍。每百名人口中，平均有 279 個流動寬頻用戶。（圖 1.3）

1.4 A modern and adequate ICT infrastructure which facilitates the effective dissemination and processing of information and knowledge is a key foundation of a KBE. The Government has taken initiative to expand the telecommunications network and provide quality telecommunications services at lower prices by means of privatisation, liberalisation, and encouragement of competition, hence promoting the use of ICT in the community.

1.5 With full liberalisation of the telecommunications market in 2003, the telecommunications sector in Hong Kong is highly competitive. The use of mobile phone has become very popular in Hong Kong. There were on average 289 public mobile subscribers per 100 population in 2018, making Hong Kong one of the places with the highest subscription rate in the world. (Chart 1.1)

1.6 The use of Internet has been prevailing in work and life of people in Hong Kong. In 2018, the number of fixed Internet subscribers per 100 population was 37. With the advance in technology and competitive pricing offered by telecommunications network operators, the number of fixed broadband Internet subscribers rose from 1.92 million in 2008 to 2.70 million in 2018. According to the information released by the International Telecommunication Union, the fixed broadband Internet subscription rate (per 100 population) in Hong Kong was the second highest in the Asia Pacific region in 2018. (Chart 1.2)

1.7 On the other hand, the number of mobile broadband subscribers rose more significantly. It reached 20.87 million in 2018, which was about 7 times of the figure in 2008. There were on average 279 mobile broadband subscribers per 100 population. (Chart 1.3)

1.8 香港在差不多所有方面的經濟活動中應用資訊科技都走在最前列。社會內使用資訊科技的情況日趨普遍。在 2018 年，92.3% 的住戶有透過不同設備在家中接駁互聯網，包括個人電腦、智能手機及其他設備（如智能電視、電視盒等）。（圖 1.4）

1.9 香港市民普遍熱衷使用資訊科技。在 2018 年，每百名 10 歲及以上人口當中，在統計前 12 個月內曾使用個人電腦的人士有 80 人（2008 年為 68 人）。此外，智能手機的使用情況日趨普及。在 10 歲及以上人士中，智能手機的滲透率由 2016 年的 85.8% 上升至 2018 年的 89.8%。（圖 1.5）

1.10 與 2008 年相比，2018 年明顯有較多人士曾使用互聯網。在 2018 年，每百名 10 歲及以上人口當中，便有 91 人在統計前 12 個月內曾使用互聯網（2008 年為 67 人）。當中，在 2018 年有 98.8% 曾使用智能手機及 88.4% 曾使用個人電腦接駁互聯網。在 2016 年，使用智能手機及個人電腦作接駁的相應百分比分別為 98.0% 及 92.5%。（圖 1.6）

1.11 網上購物服務亦愈來愈為香港市民所接受。在 2018 年，有 35.8% 的 15 歲及以上人士在統計前 12 個月內曾為個人事務於互聯網上購買商品／服務。在 2008 年，相應的百分比為 10.3%。（圖 1.7）

1.8 Hong Kong is at the forefront of adopting information technology (IT) in virtually all aspects of economic activities. The community is speeding up its adoption of IT. In 2018, 92.3% of households had access to the Internet at home via various devices, including personal computers (PCs), smartphones and other devices (e.g. SmartTVs, TV boxes, etc.). (Chart 1.4)

1.9 People in Hong Kong are generally keen users of IT. The number of persons aged 10 and over who had used PC during the 12 months before enumeration per 100 population was 80 in 2018 (68 in 2008). Moreover, the usage of smartphone has become more popular. The smartphone penetration rate among persons aged 10 and over rose from 85.8% in 2016 to 89.8% in 2018. (Chart 1.5)

1.10 Significantly more people had used the Internet in 2018 when compared with 2008. The number of persons aged 10 and over who had used the Internet during the 12 months before enumeration per 100 population reached 91 in 2018 (67 in 2008). Among them, 98.8% and 88.4% had used smartphone and PC for connection to the Internet respectively in 2018. The corresponding percentages for using smartphone and PC for connection were 98.0% and 92.5% respectively in 2016. (Chart 1.6)

1.11 Online purchasing services have also become more receptive to Hong Kong people. In 2018, 35.8% of persons aged 15 and over had made online purchases of products/services for personal matters during the 12 months before enumeration. The corresponding percentage in 2008 was 10.3%. (Chart 1.7)

工商機構採用資訊及通訊科技的普及程度

1.12 因應全球經濟一體化所帶來日益激烈的競爭，香港的工商機構單位一直透過大量及迅速運用資訊及通訊科技以提升營運效率。在 2017 年，87.7% 的工商機構單位有使用互聯網，而有設立網頁／網站（具有網絡存在）的工商機構單位則佔 33.6%（在 2007 年的數字分別為 59.8% 及 18.2%）。工商機構單位透過電腦網絡提交／獲取訂單的情況日趨普遍，在 2017 年，分別有 21.2% 和 7.5% 的工商機構單位曾透過電腦網絡提交和獲取訂單。（圖 1.8 及 1.9）

政府及工商機構對資訊及通訊科技的投資

1.13 為維持香港作為一個領先的數碼城市的地位，政府致力提供以客為本的電子服務，從而建立一個開放、負責任及高效率的政府。因此，政府過去 10 年在資訊及通訊科技的開支亦穩步上升。在 2017-18 年度，政府用於資訊及通訊科技的支出相等於公共開支總額的 1.7% 或本地生產總值的 0.3%。（圖 1.10）

1.14 成功地採用資訊科技往往能成為提升生產力及競爭力的原動力。在 2017 年，工商機構在資訊科技設備和軟件上的投資約佔非住宅的固定資本形成總額的 10.6%。在 2007 年至 2017 年期間，工商機構在資訊科技的總開支相對於本地生產總值的比率大約為 2.0% 至 2.7%。（圖 1.11 及 1.12）

資訊及通訊科技業的經濟貢獻

1.15 資訊及通訊科技業（包括生產及分銷資訊及通訊科技產品，以及提供資訊及通訊科技服務的行業群組）在近年為整體經濟作出大致穩定的貢獻。香港的資訊及通訊科技業的增加價值佔以基本價格計算的本地生產總值的比率在 2010 年至 2017 年期間為 5.5% 至 6.6% 之間。（圖 1.13）

Diffusion of ICT in the business sector

1.12 Owing to the growing competition under globalisation, the business establishments in Hong Kong have all along pursued improvement of operation efficiency through intensive and rapid adoption of ICT. In 2017, 87.7% of business establishments had used the Internet, whereas 33.6% had webpages/websites (with a web presence) (59.8% and 18.2% respectively in 2007). There is a rising trend in placing/receiving orders online among the business establishments. There were 21.2% and 7.5% of business establishments had placed and received orders online respectively in 2017. (Charts 1.8 and 1.9)

Investment in ICT by the Government and business sector

1.13 To sustain Hong Kong as a leading digital city, the Government is committed to providing customer-centric e-services that promote an accessible, accountable and efficient government. To this end, the government expenditure on ICT increased steadily over the past decade. In 2017-18, government spending on ICT represented 1.7% of total public expenditure or 0.3% of Gross Domestic Product (GDP). (Chart 1.10)

1.14 Successful adoption of IT is often seen as a driving force to enhance productivity and competitiveness. Investment in IT equipment and software in the business sector accounted for about 10.6% of non-residential gross domestic fixed capital formation in 2017. The total expenditure on IT in the business sector as a ratio to GDP was around 2.0% to 2.7% between 2007 and 2017. (Charts 1.11 and 1.12)

Economic contribution of the ICT sector

1.15 The ICT sector (a cluster of industries engaged in the production and distribution of ICT products and provision of services related to ICT) has made a rather stable contribution to the whole economy in recent years. The value added of the ICT sector in Hong Kong as a percentage of GDP at basic prices ranged from 5.5% to 6.6% between 2010 and 2017. (Chart 1.13)

1.16 資訊及通訊科技業的機構單位數目及就業人數亦可作為衡量該行業對經濟的重要性的指標。在 2017 年，約有 129 600 人在 17 900 間資訊及通訊科技業的機構單位工作，佔整體就業人數的 3.4%。(圖 1.14 及 1.15)

結語

1.17 政府一直致力於建立一個有助資訊及通訊科技普及的環境。相應地，香港的工商機構單位及個人熱衷使用資訊及通訊科技。香港的資訊及通訊科技的持續發展有賴於政府、工商機構單位以及普羅大眾的共同努力，令香港成功邁向為知識型的經濟體。

1.16 The number of establishments and persons engaged in the ICT sector also serve as indicators of the economic importance of the sector. In 2017, there were some 129 600 persons engaged in 17 900 establishments of the ICT sector, accounting for 3.4% of the total employment. (Charts 1.14 and 1.15)

Concluding remarks

1.17 The Government has been making efforts to lay down an environment conducive to the diffusion of ICT. Correspondingly, business establishments and individuals in Hong Kong have shown their enthusiasm about the adoption of ICT. Sustained development of ICT in Hong Kong is the result of concerted efforts by the Government, business establishments and individuals, contributing to Hong Kong's successful progress towards a KBE.

表 1.1 量度知識型經濟中有關資訊及通訊科技範疇的統計指標一覽

Table 1.1 List of statistical indicators for measuring the ICT aspect of a KBE

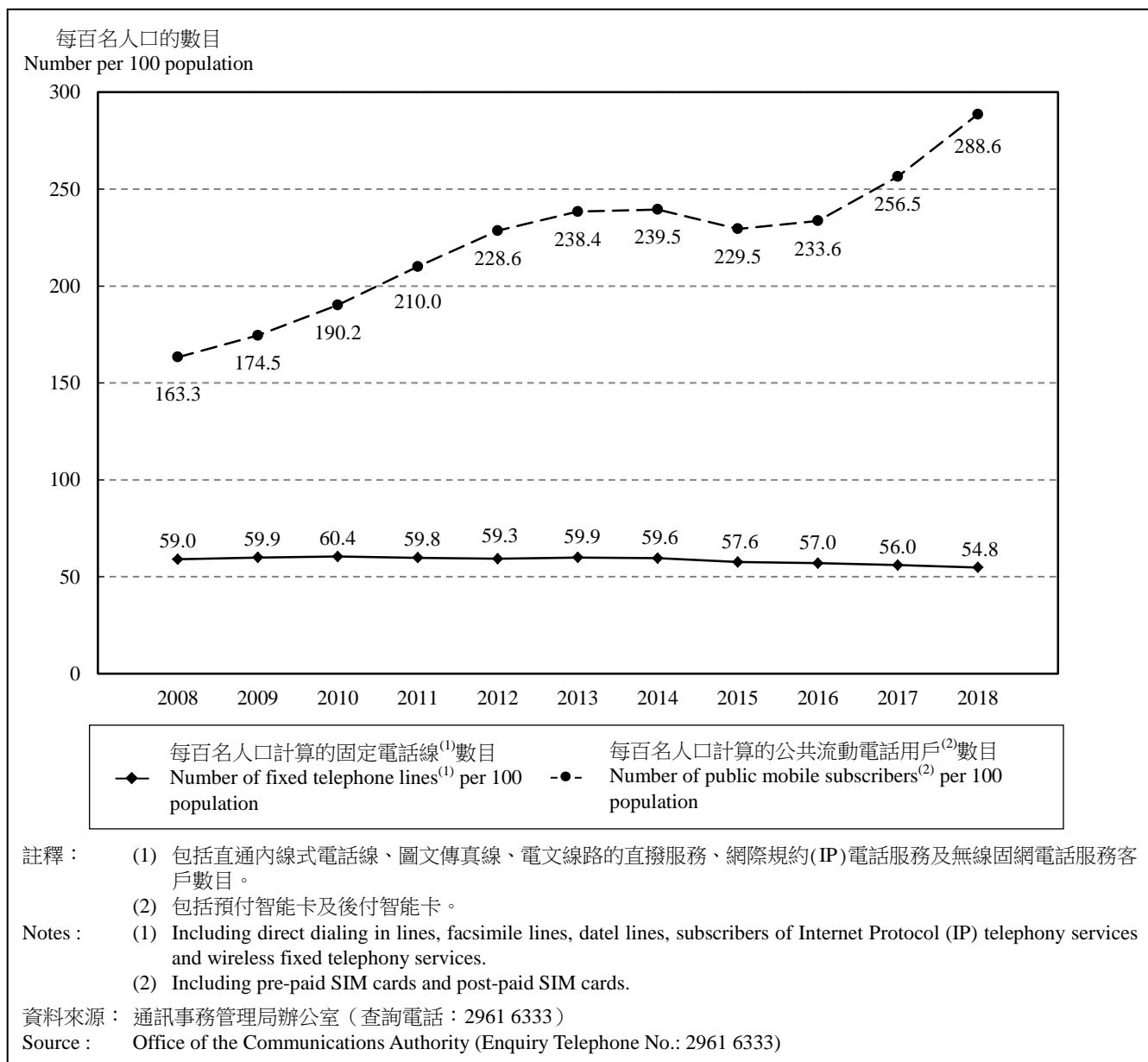
| 與資訊及通訊科技相關的因素 Factors relating to ICT | 統計指標 Statistical indicators |
|--|---|
| <p>資訊及通訊科技的基礎建設：透過資訊及通訊科技以獲取資訊及知識的就緒程度</p> <p>ICT infrastructure: readiness of access to information and knowledge through ICT</p> | <ol style="list-style-type: none"> 1. 按每百名人口計算的固定電話線數目和公共流動電話用戶數目 Number of fixed telephone lines and public mobile subscribers per 100 population 2. 按每百名人口計算的固定互聯網用戶數目 Number of fixed Internet subscribers per 100 population 3. 按每百名人口計算的流動寬頻用戶數目 Number of mobile broadband subscribers per 100 population |
| <p>資訊及通訊科技在社會的普及程度：住戶及個人利用資訊及通訊科技獲取和交換資訊及知識</p> <p>Diffusion of ICT in the community: household and individual usages of ICT for access to and exchange of information and knowledge</p> | <ol style="list-style-type: none"> 1. 家中有個人電腦的住戶／家中有個人電腦接駁互聯網的住戶／家中有接駁互聯網的住戶佔所有住戶的百分比 Percentage of households with PC at home/households with PC at home connected to the Internet/households with access to the Internet at home among all households 2. 在統計前 12 個月內曾使用個人電腦／擁有智能手機的 10 歲及以上人士的百分比 Percentage of persons aged 10 and over who had used PC during the 12 months before enumeration/had smartphone 3. 按曾使用的上網設備類別劃分的在統計前 12 個月內曾使用互聯網的 10 歲及以上人士的百分比 Percentage of persons aged 10 and over who had used the Internet during the 12 months before enumeration by type of web device used for connection to the Internet 4. 在統計前 12 個月內曾為個人事務而使用網上購物服務的 15 歲及以上人士的百分比 Percentage of persons aged 15 and over who had used online purchasing services for personal matters during the 12 months before enumeration |
| <p>資訊及通訊科技在工商機構的普及程度：工商機構利用資訊及通訊科技獲取和交換資訊及知識</p> <p>Diffusion of ICT in the business sector: business usage of ICT for access to and exchange of information and knowledge</p> | <ol style="list-style-type: none"> 1. 有使用電腦、互聯網及具有網絡存在的工商機構單位的百分比 Percentage of business establishments which had used computers, the Internet and had a web presence 2. 有透過電腦網絡提交／獲取訂單的工商機構單位比例 Proportion of business establishments which had placed/received orders online |

| 與資訊及通訊科技相關的因素 Factors relating to ICT | 統計指標 Statistical indicators |
|---|---|
| <p>政府及工商業在資訊及通訊科技的投資：提升資訊及通訊科技基礎建設和使用</p> <p>Government and business investment in ICT: enhancement of ICT infrastructure and usage</p> | <ol style="list-style-type: none"> 1. 政府在資訊及通訊科技的開支相對公共開支總額／本地生產總值的比率 Government expenditure on ICT as a ratio to total public expenditure/GDP 2. 工商機構在資訊科技設備和軟件上的投資相對非住宅的本地固定資本形成總額的比率 Investment in IT equipment and software in the business sector as a ratio to non-residential gross domestic fixed capital formation 3. 工商機構的資訊科技總開支相對本地生產總值的比率 Total IT expenditure in the business sector as a ratio to GDP |
| <p>資訊及通訊科技業：生產和供應資訊及通訊科技產品及服務的效能</p> <p>ICT sector: capacity to produce and supply ICT goods and services</p> | <ol style="list-style-type: none"> 1. 按經濟活動劃分的資訊及通訊科技業的增加價值分布 Distribution of value added of the ICT sector by economic activity 2. 按經濟活動劃分的資訊及通訊科技業的機構單位數目和就業人數分布 Distribution of number of establishments and persons engaged in the ICT sector by economic activity |

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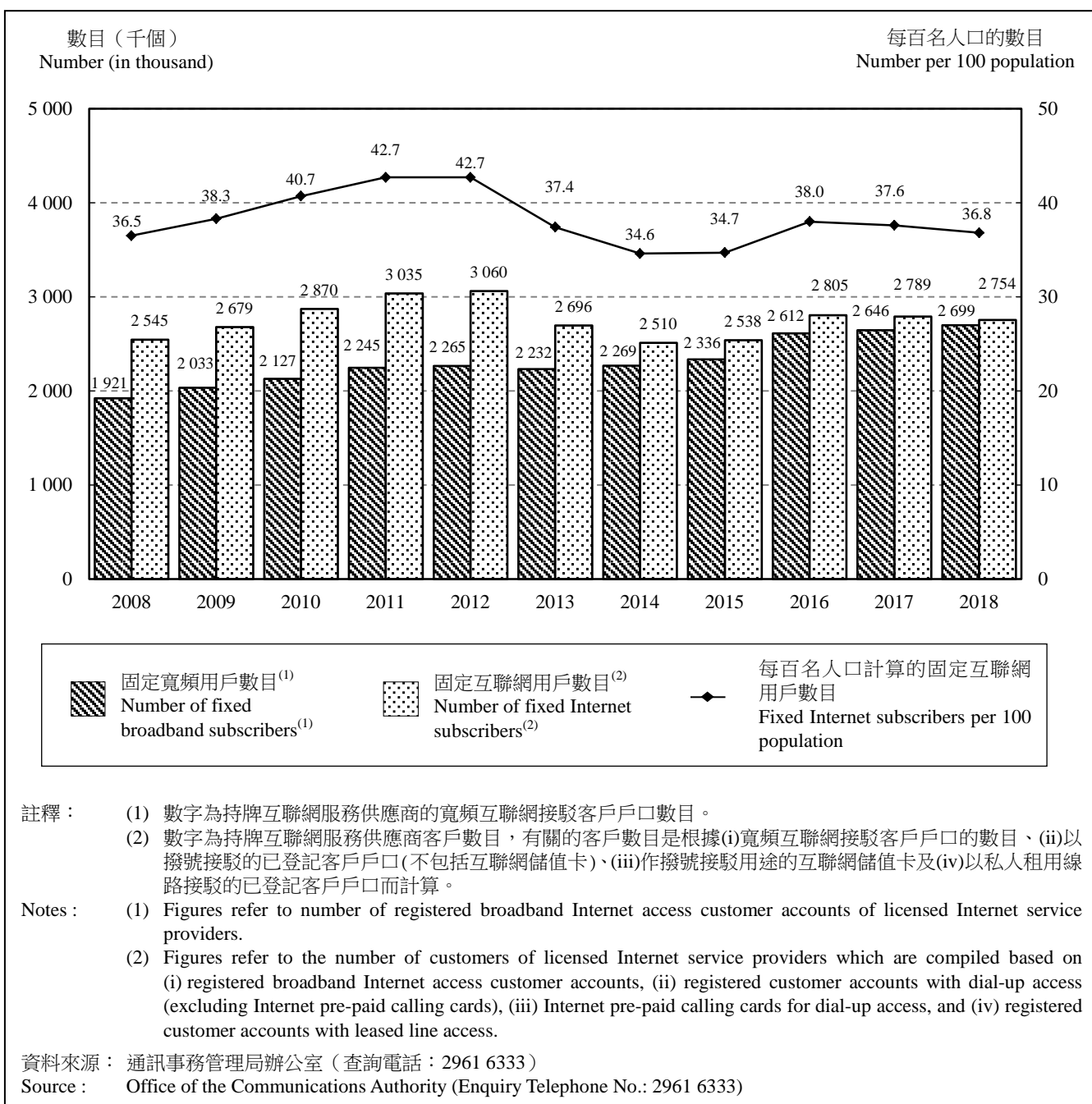
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圖 1.1 按每名人口計算的固定電話線數目和公共流動電話用戶數目
Chart 1.1 Number of fixed telephone lines and public mobile subscribers per 100 population



- ◆ 香港早已採用流動通訊裝置，公共流動電話用戶數目自 2000 年起已超越固網電話的用戶數目。在 2018 年，每百名人口中有 289 個公共流動電話用戶。
- ◆ Hong Kong is an early adopter of mobile devices. The number of public mobile subscribers had surpassed the number of fixed line subscribers since 2000. The number of public mobile subscribers per 100 population reached 289 in 2018.

圖 1.2 按每百名人口計算的固定互聯網用戶數目
Chart 1.2 Number of fixed Internet subscribers per 100 population

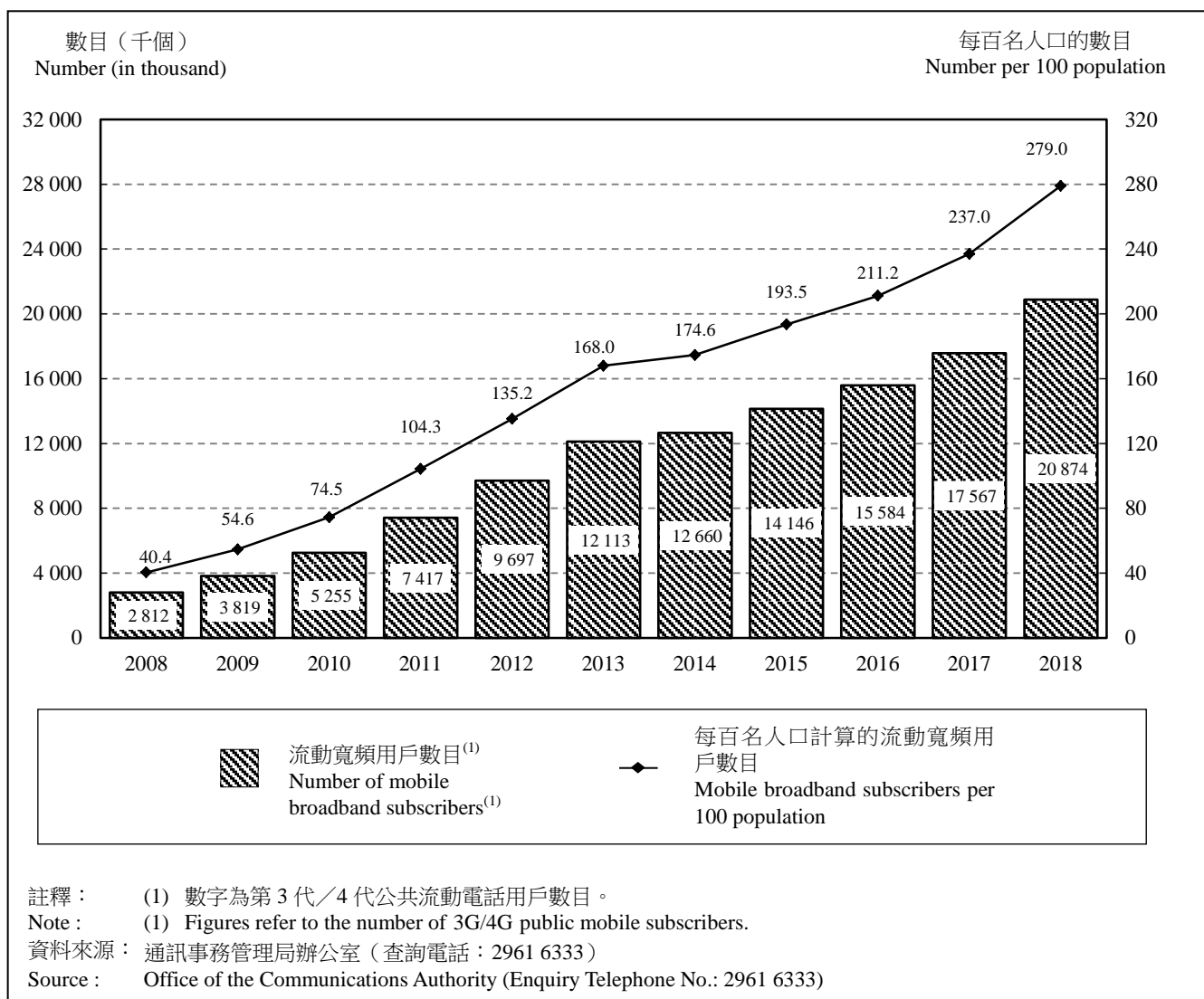


◆ 在 2018 年，固定寬頻互聯網用戶數目達 270 萬戶，較 2008 年上升 40%。固定寬頻用戶數目佔整體固定互聯網用戶數目的百分比由 2008 年的 76% 上升至 2018 年的 98%，反映本港對高速互聯網接達服務日益增長的需求。

◆ The number of fixed broadband Internet subscribers reached 2.70 million in 2018, which was 40% higher as compared with 2008. The percentage share of fixed broadband subscribers in the total number of fixed Internet subscribers went up from 76% in 2008 to 98% in 2018, reflecting the growing demand for high speed Internet access services in Hong Kong.

圖 1.3 按每百名人口計算的流動寬頻用戶數目

Chart 1.3 Number of mobile broadband subscribers per 100 population

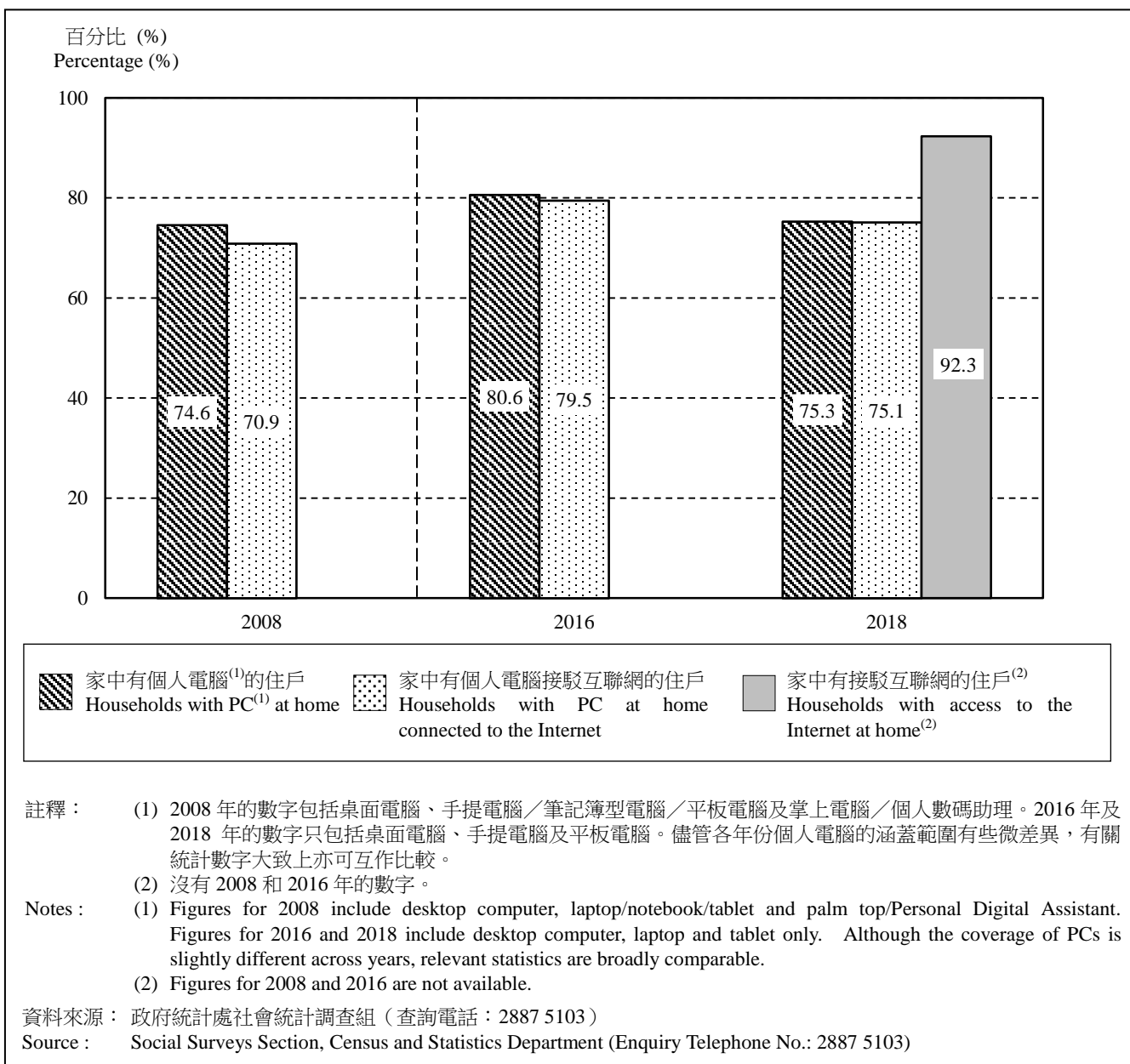


◆ 香港市民使用流動寬頻服務日趨普遍。在 2018 年，流動寬頻用戶數目達 2 087 萬戶，該數字約為 2008 年數字的 7 倍。每百名人口中有 279 個流動寬頻用戶。

◆ There is a rising trend in using mobile broadband service among Hong Kong people. The number of mobile broadband subscribers reached 20.87 million in 2018, which was about 7 times of the figure in 2008. The number of mobile broadband subscribers per 100 population reached 279.

圖 1.4 家中有個人電腦的住戶／家中有個人電腦接駁互聯網的住戶／家中有接駁互聯網的住戶佔所有住戶的百分比

Chart 1.4 Percentage of households with personal computer (PC) at home/households with PC at home connected to the Internet/households with access to the Internet at home among all households



◆ 由於智能手機的使用情況日趨普及，以致家中有個人電腦及家中有個人電腦接駁互聯網的住戶比例於近年均有所回落。

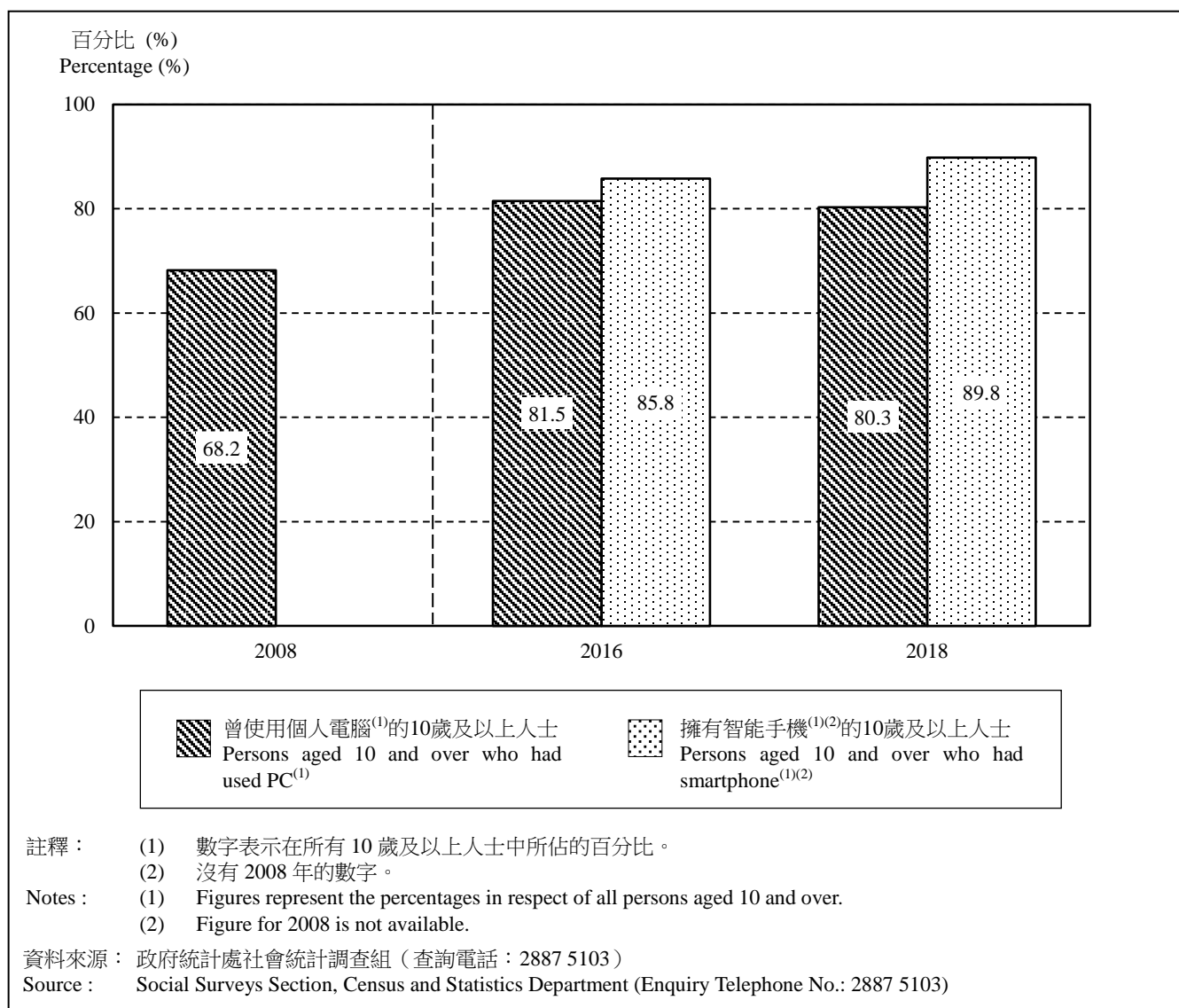
◆ 在2018年，92.3%的住戶有透過不同設備在家中接駁互聯網，包括個人電腦、智能手機及其他設備（如智能電視、電視盒等）。

◆ As the usage of smartphone has become more popular, both the proportions of households having PC at home and having PC at home connected to the Internet went down in recent years.

◆ In 2018, 92.3% of households had access to the Internet at home via various devices, including PCs, smartphones and other devices (e.g. SmartTVs, TV boxes, etc.).

圖 1.5 在統計前 12 個月內曾使用個人電腦／擁有智能手機的 10 歲及以上人士的百分比

Chart 1.5 Percentage of persons aged 10 and over who had used personal computer (PC) during the 12 months before enumeration/had smartphone

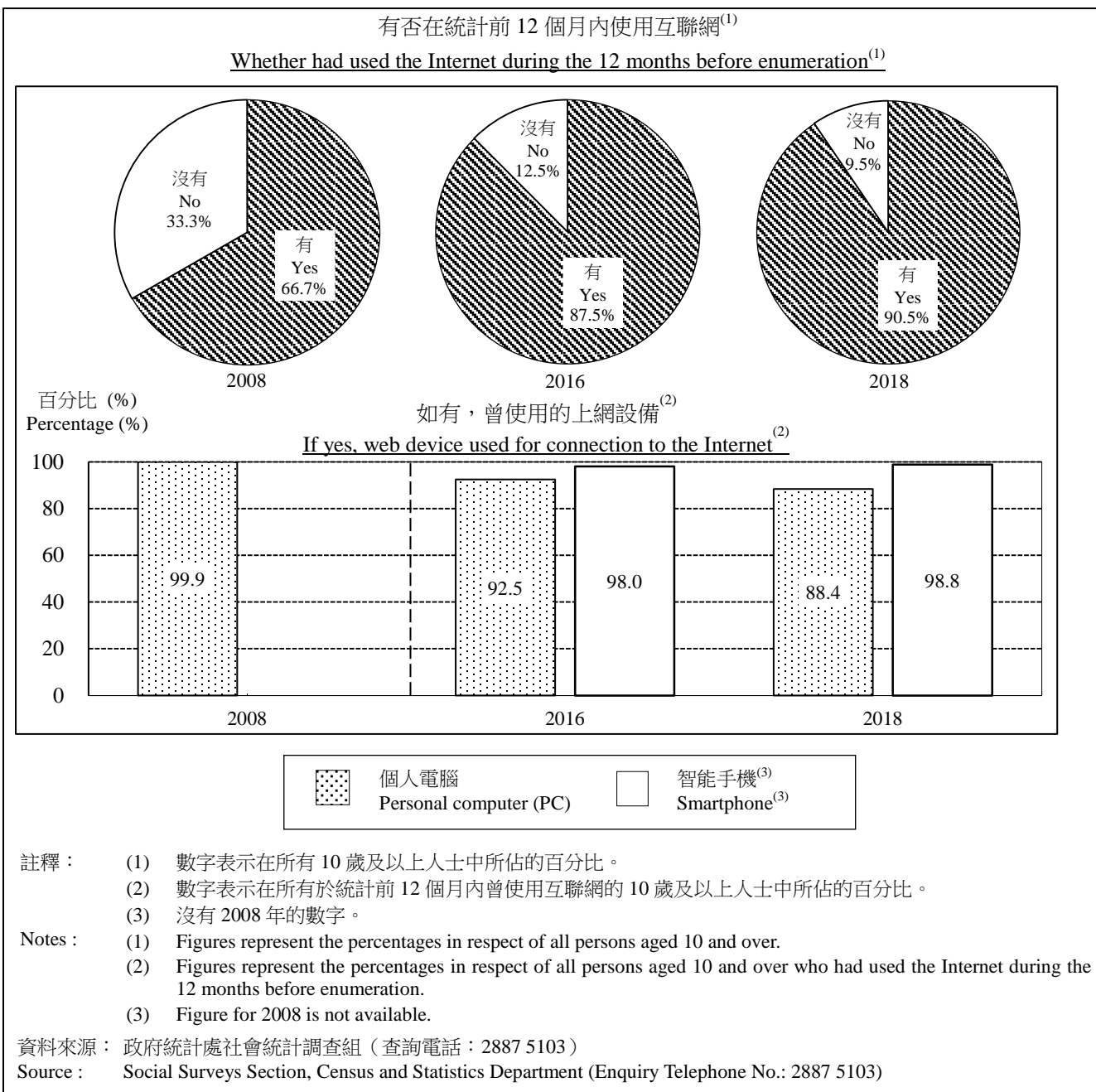


◆ 香港市民普遍熱衷使用資訊科技。在 2018 年，每百名 10 歲及以上的人口，便有 80 人在統計前 12 個月內曾使用個人電腦。此外，智能手機的使用情況日趨普及。在 10 歲及以上人士中，智能手機的滲透率近年不斷上升，由 2016 年的 85.8% 上升至 2018 年的 89.8%。

◆ People in Hong Kong are generally keen users of information technology. For every 100 persons aged 10 and over in 2018, 80 of them had used PC during the 12 months before enumeration. Moreover, the usage of smartphone has become more popular. The smartphone penetration rate among persons aged 10 and over rose continuously in recent years, from 85.8% in 2016 to 89.8% in 2018.

圖 1.6 按曾使用的上網設備類別劃分的在統計前 12 個月內曾使用互聯網的 10 歲及以上人士的百分比

Chart 1.6 Percentage of persons aged 10 and over who had used the Internet during the 12 months before enumeration by type of web device used for connection to the Internet

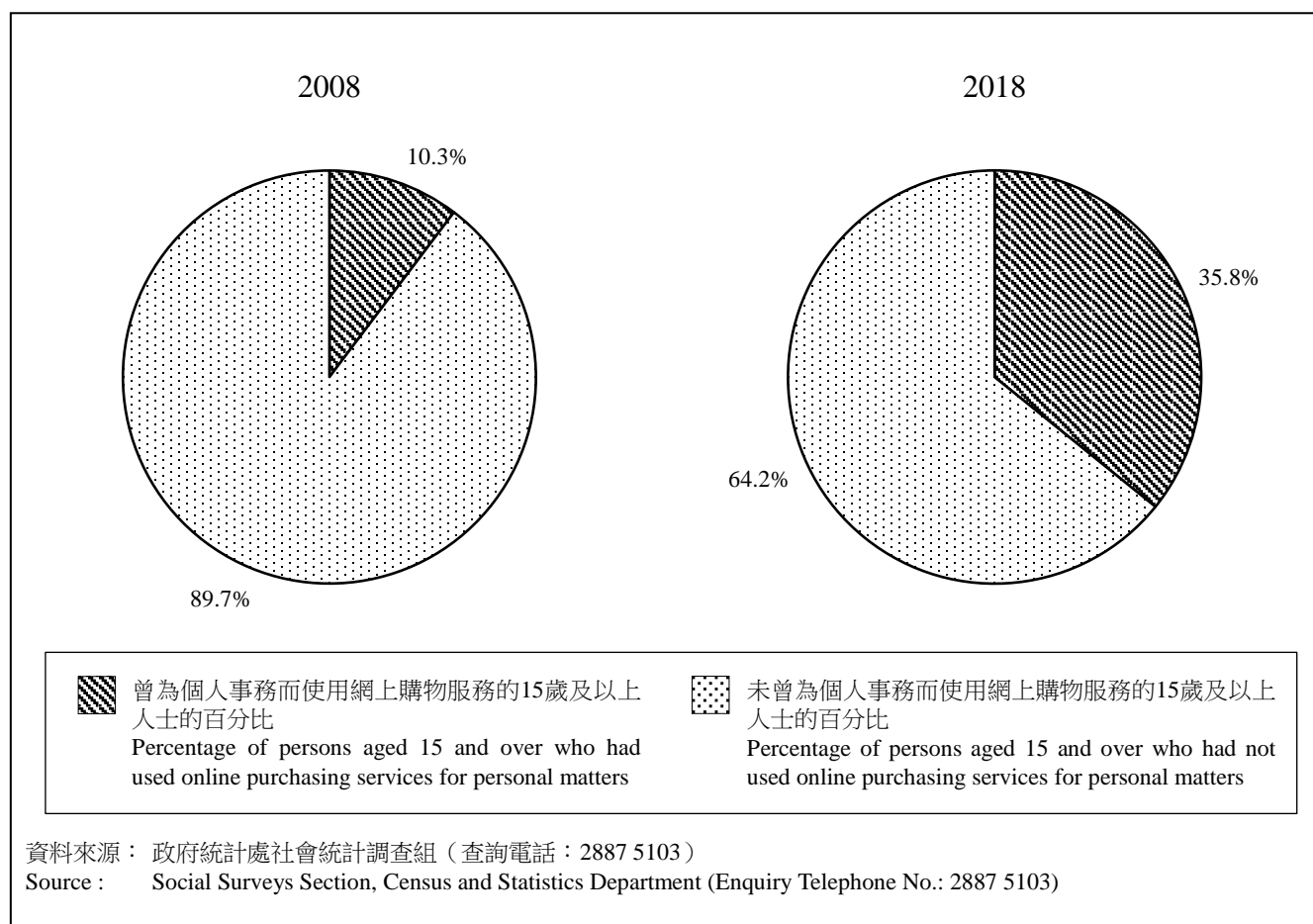


◆ 與2008年相比，2018年明顯有較多人士曾使用互聯網。在2018年，每百名10歲及以上的人口，便有91人在統計前12個月內曾使用互聯網。當中，分別有98.8%曾使用智能手機及88.4%曾使用個人電腦接駁互聯網。

◆ Significantly more people had used the Internet in 2018 when compared with 2008. For every 100 persons aged 10 and over in 2018, 91 of them had used the Internet during the 12 months before enumeration. Among them, 98.8% and 88.4% had used smartphone and PC for connection to the Internet respectively.

圖 1.7 在統計前 12 個月內曾為個人事務而使用網上購物服務的 15 歲及以上人士的百分比

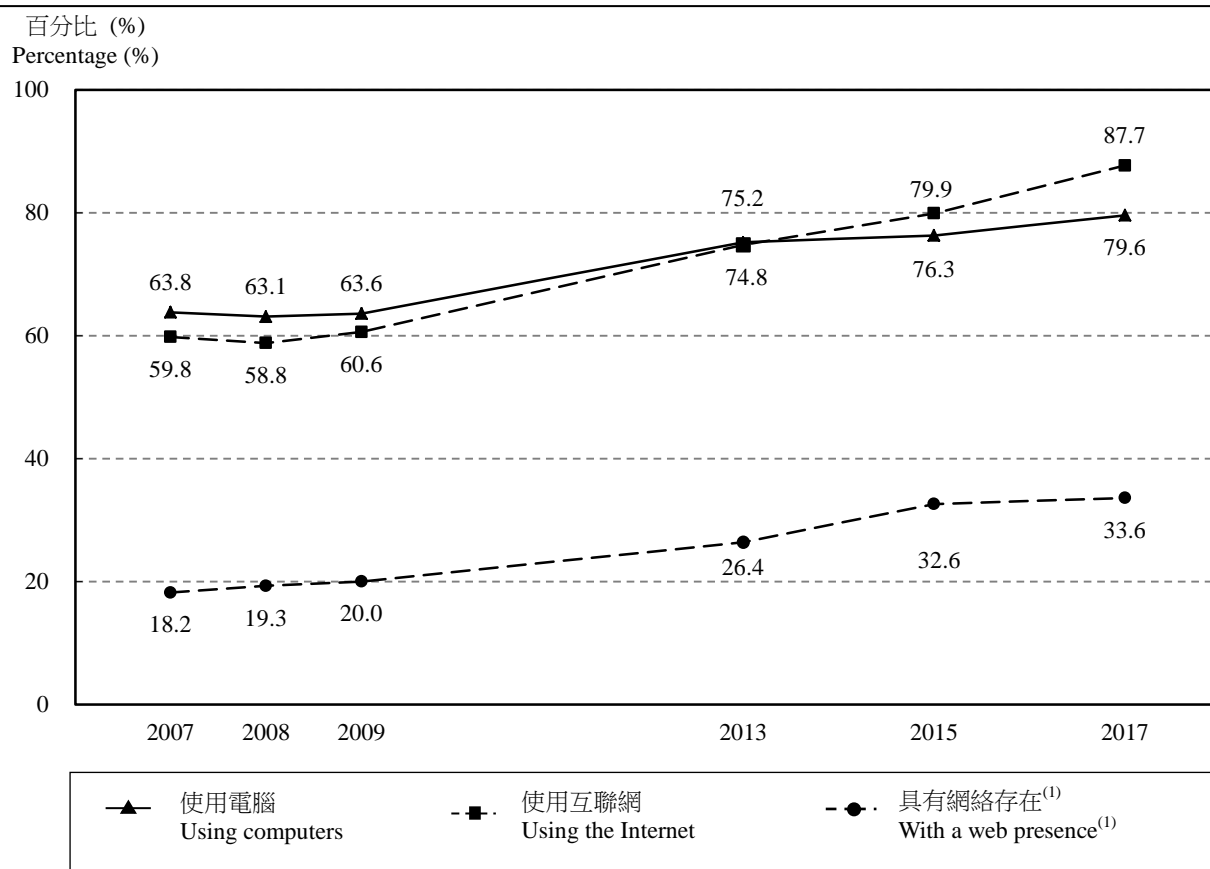
Chart 1.7 Percentage of persons aged 15 and over who had used online purchasing services for personal matters during the 12 months before enumeration



◆ 網上購物服務愈來愈為香港市民所接受。在2018年，有35.8%的15歲及以上人士在統計前12個月內曾為個人事務於互聯網上購買商品／服務。

◆ Online purchasing services have become more receptive to Hong Kong people. In 2018, 35.8% of persons aged 15 and over had made online purchases of products/services for personal matters during the 12 months before enumeration.

圖 1.8 有使用電腦、互聯網及具有網絡存在的工商機構單位的百分比
Chart 1.8 Percentage of business establishments which had used computers, the Internet and had a web presence



註釋： (1) 具有網絡存在的工商機構單位是指機構單位具有本身的網站／網頁或有顯示在另一個相關個體的網站／網頁內。若工商機構單位只列載於網上目錄或顯示在其他網站／網頁而並不能對有關網站／網頁的內容有相當控制權，則不視為具有網絡存在。

Note: (1) Business establishments with a web presence refer to those having a website/webpage or having a presence on another related entity's website/webpage. Business establishments simply listed in an online directory or having a presence on any other websites/webpages where the establishments do not have substantial control over the content of the websites/webpages concerned are excluded.

資料來源：政府統計處科技統計組（查詢電話：3903 7291）

Source: Science and Technology Statistics Section, Census and Statistics Department (Enquiry Telephone No.: 3903 7291)

◆ 資訊及通訊科技已改變我們生活、學習、營商及與人交往的模式。有使用電腦的工商機構單位的比例持續上升，由2007年的63.8%增加至2017年的79.6%。

◆ 在2017年，全港約有87.7%的工商機構單位有使用互聯網，較2007年上升27.9個百分點。

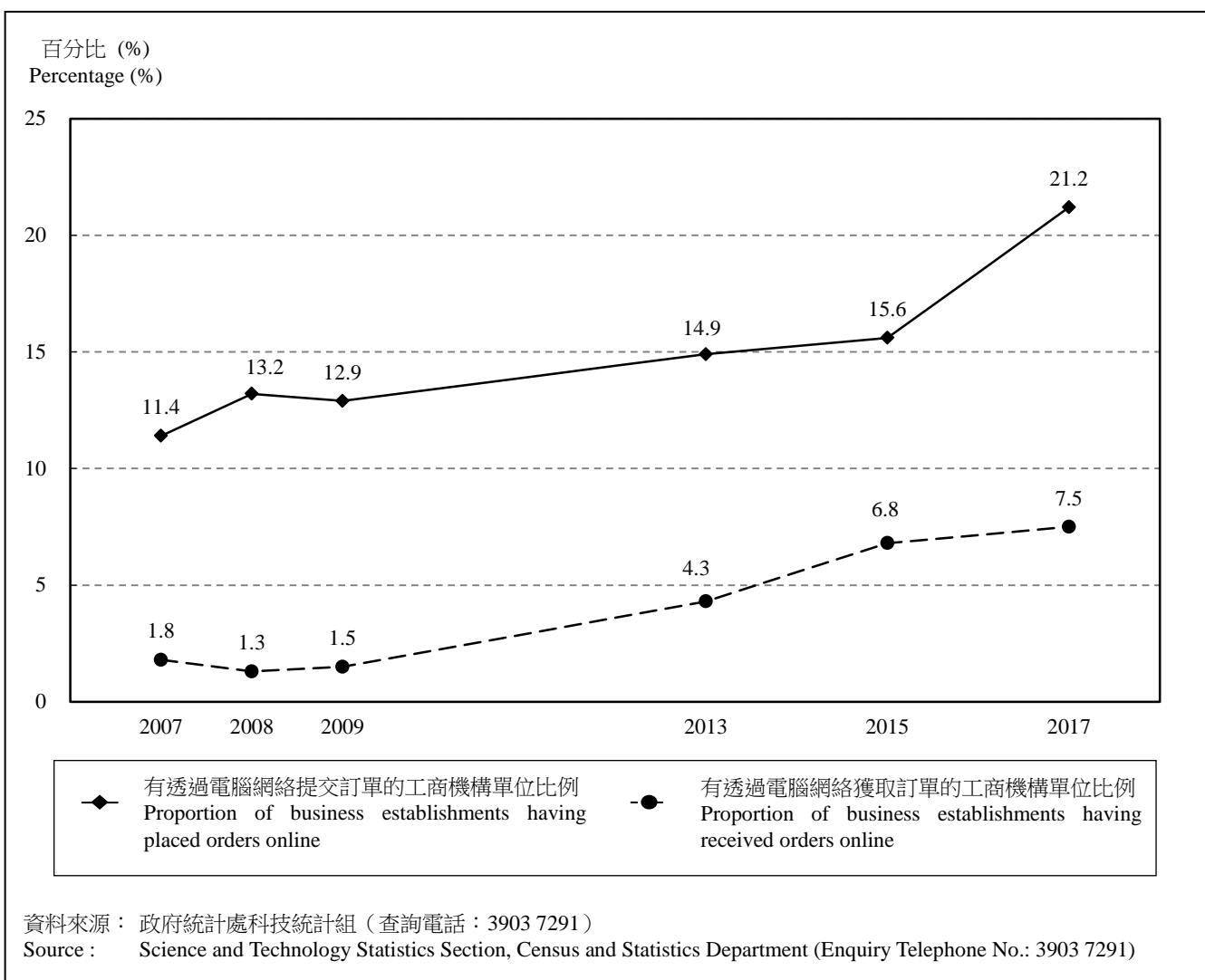
◆ 具有網絡存在的工商機構單位的百分比由2007年的18.2%逐步增加至2017年的33.6%。

◆ Information and communication technology as a tool has changed the way we live, learn, do business and interact with each other. The proportion of business establishments using computers had been increasing from 63.8% in 2007 to 79.6% in 2017.

◆ Some 87.7% of all business establishments had used the Internet in 2017, an increase of 27.9 percentage points as compared with 2007.

◆ The percentage of business establishments with a web presence increased progressively from 18.2% in 2007 to 33.6% in 2017.

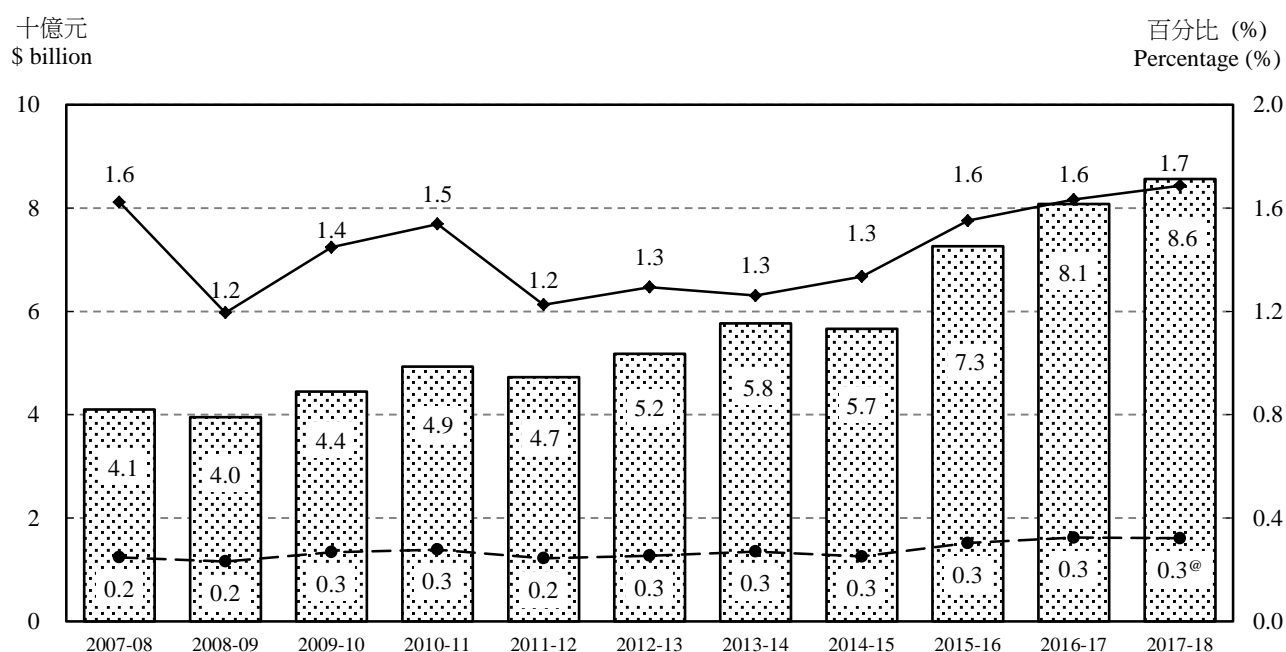
圖 1.9 有透過電腦網絡提交／獲取訂單的工商機構單位比例
Chart 1.9 Proportion of business establishments which had placed/received orders online



◆ 工商機構單位透過電腦網絡提交／獲取訂單的情況日趨普遍。在 2017 年，有 21.2% 的工商機構單位曾透過電腦網絡提交訂單，及 7.5% 曾透過電腦網絡獲取訂單。

◆ There is a rising trend in placing/receiving orders online among the business establishments. In 2017, 21.2% of business establishments had placed orders online, and 7.5% had received orders online.

圖 1.10 政府在資訊及通訊科技的開支相對公共開支總額／本地生產總值的比率
Chart 1.10 Government expenditure on information and communication technology (ICT) as a ratio to total public expenditure/Gross Domestic Product (GDP)



政府的資訊及通訊科技開支⁽¹⁾
 Government expenditure on ICT⁽¹⁾

政府的資訊及通訊科技開支相對公共開支總額的比率
 Government expenditure on ICT as a ratio to total public expenditure

政府的資訊及通訊科技開支相對本地生產總值的比率
 Government expenditure on ICT as a ratio to GDP

註釋：(1) 開支包括房屋委員會及醫院管理局的資訊及通訊科技支出。由 2015-16 年度開始，政府資訊及通訊科技開支包括個人薪酬、部門開支及基本工程的所有支出。

Note: (1) The figures include ICT expenditure in Housing Authority and Hospital Authority. Starting from 2015-16, figures on ICT expenditure includes full spending under personal emoluments, departmental expenses and capital projects.

資料來源：政府資訊科技總監辦公室（查詢電話：2582 4520）

Source: Office of the Government Chief Information Officer (Enquiry Telephone No.: 2582 4520)

◆ 由 2015-16 年度開始，政府資訊及通訊科技開支包括個人薪酬、部門開支及基本工程的所有支出。

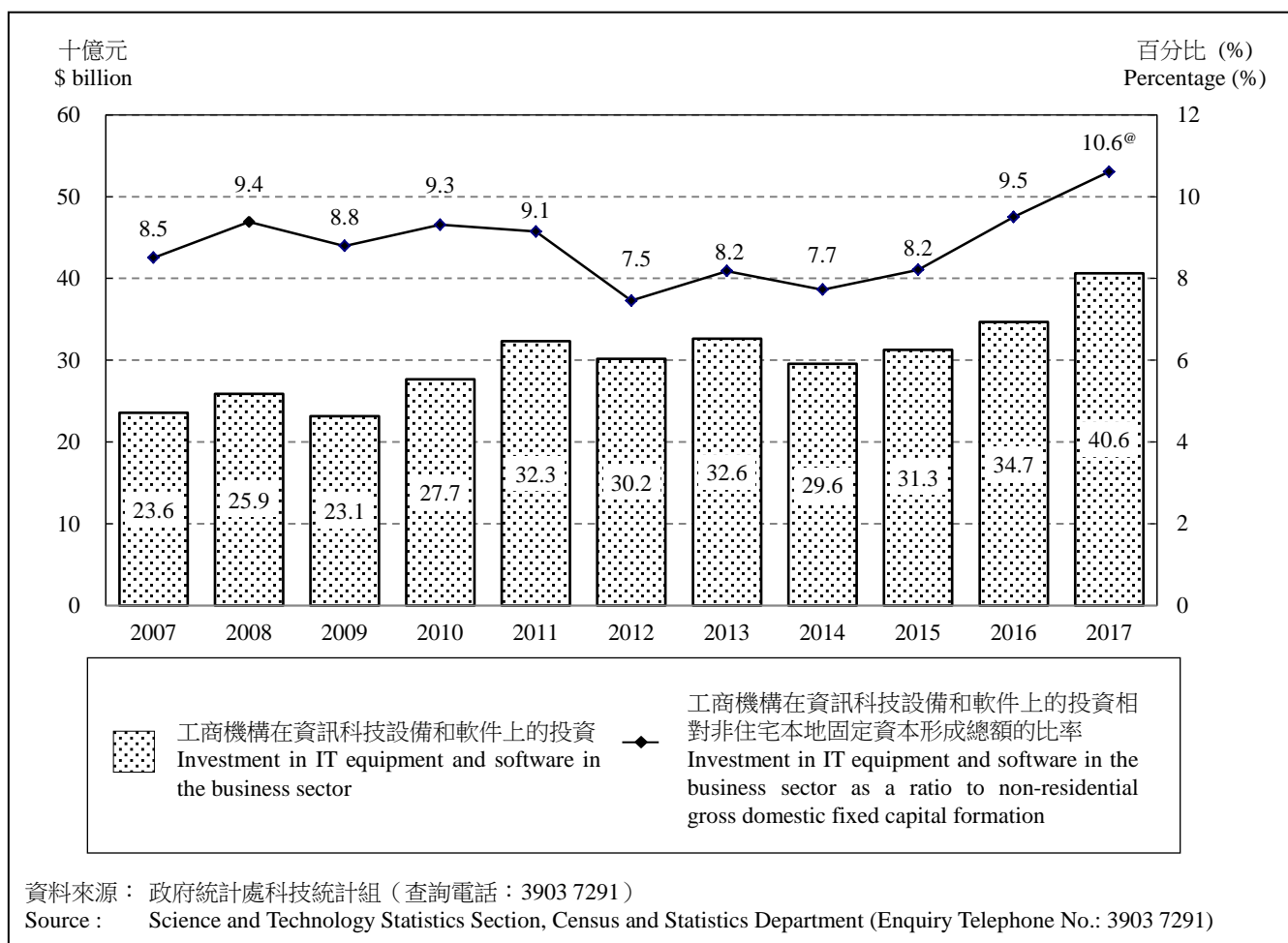
◆ 在 2017-18 年度，政府用於資訊及通訊科技的支出達 86 億元。

◆ Starting from 2015-16, figures on ICT expenditure includes full spending under personal emoluments, departmental expenses and capital projects.

◆ Government spending on ICT amounted to \$8.6 billion in 2017-18.

圖 1.11 工商機構在資訊科技設備和軟件上的投資相對非住宅的本地固定資本形成總額的比率

Chart 1.11 Investment in information technology (IT) equipment and software in the business sector as a ratio to non-residential gross domestic fixed capital formation

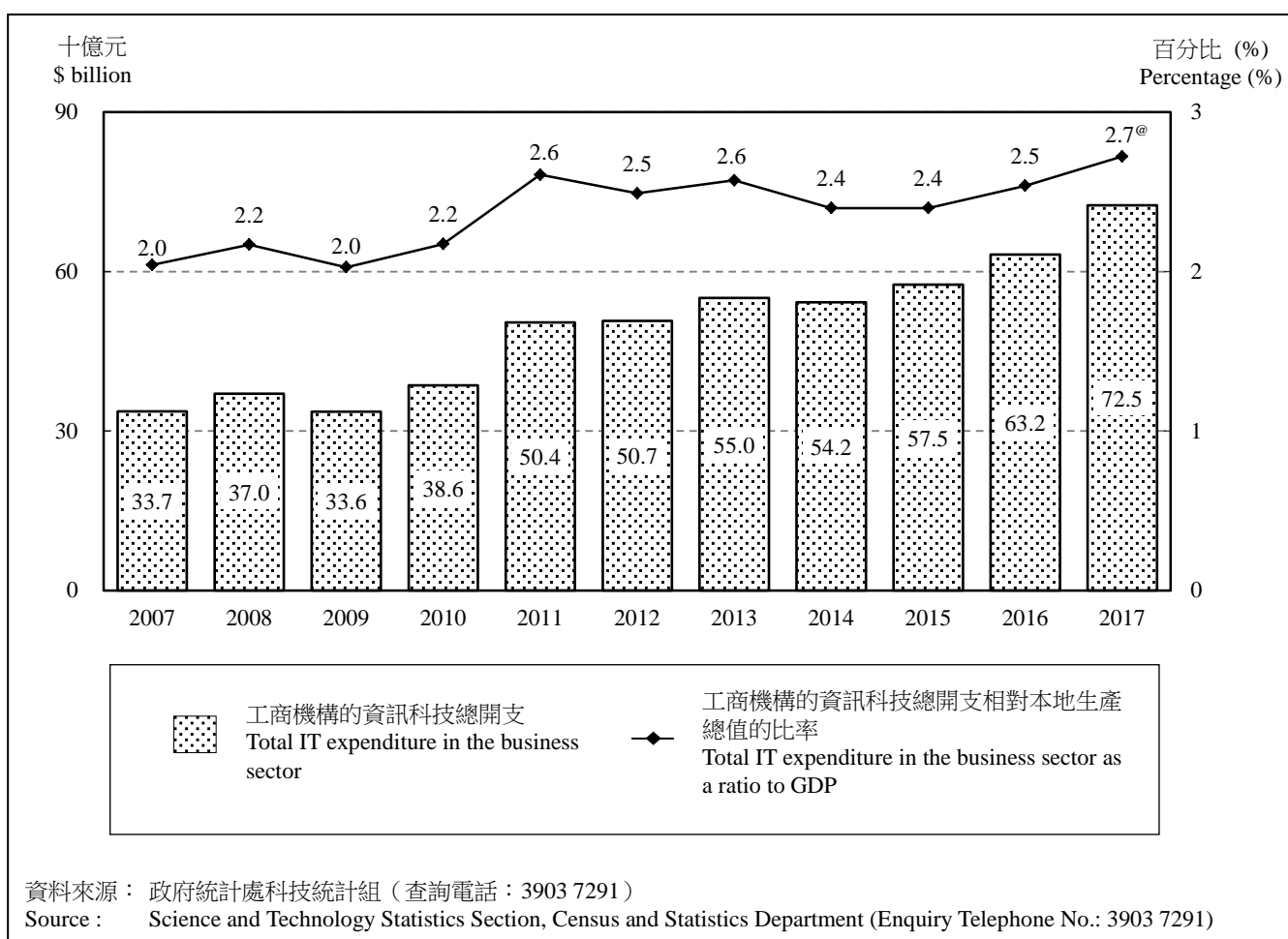


◆ 在 2017 年，工商機構在資訊科技設備和軟件上的投資達 406 億元，其相對非住宅的本地固定資本形成總額的比率為 10.6%。

◆ Investment in IT equipment and software in the business sector amounted to \$40.6 billion in 2017, accounting for 10.6% of non-residential gross domestic fixed capital formation.

圖 1.12 工商機構的資訊科技總開支相對本地生產總值的比率

Chart 1.12 Total information technology (IT) expenditure in the business sector as a ratio to Gross Domestic Product (GDP)

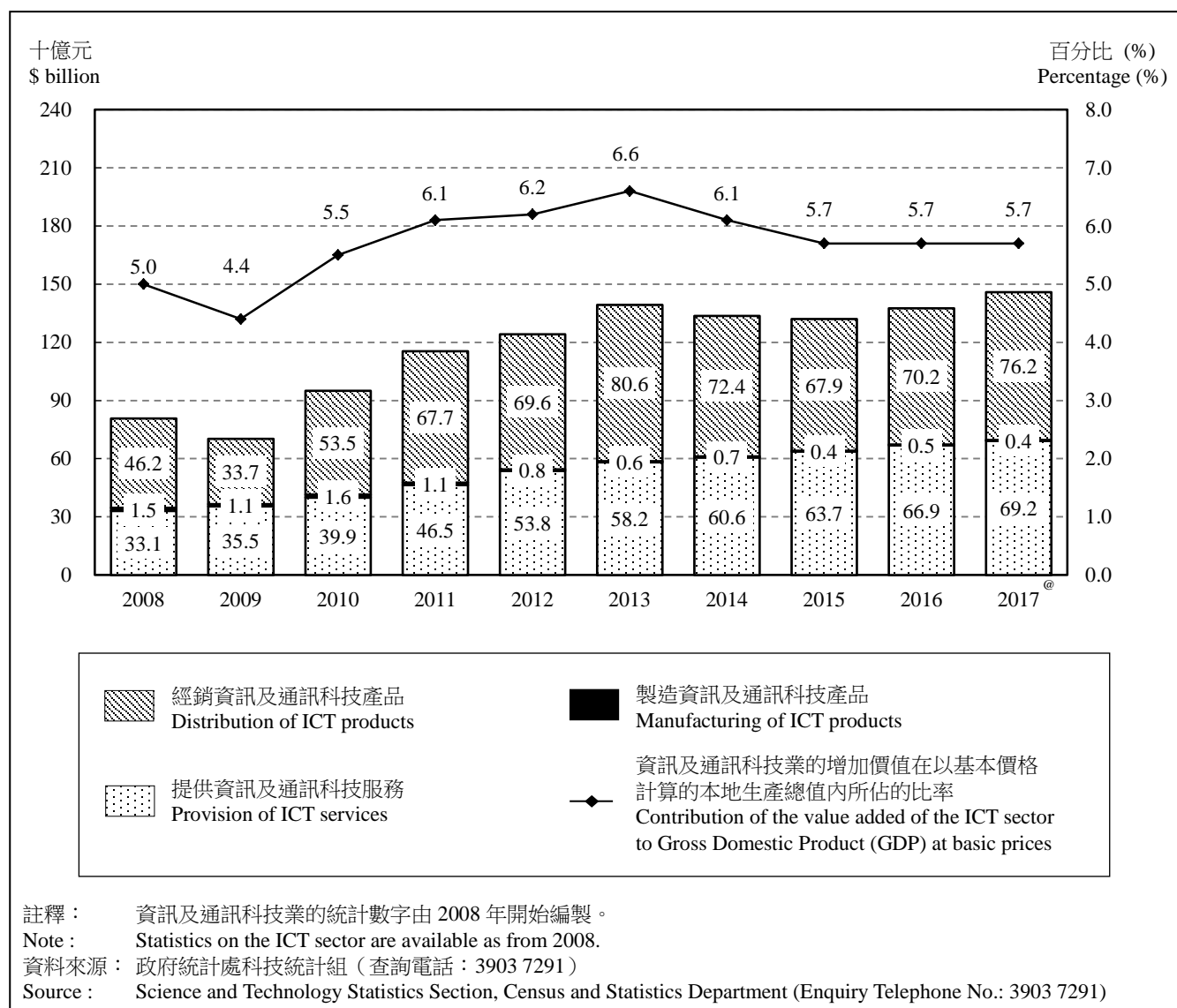


◆ 工商機構的資訊科技總開支由 2007 年的 337 億元上升至 2017 年的 725 億元，增幅約 115.0%。在 2007 年至 2017 年期間，工商機構的資訊科技總開支相對本地生產總值的比率大約為 2.0% 至 2.7%。

◆ The total expenditure on IT in the business sector increased from \$33.7 billion in 2007 to \$72.5 billion in 2017, up by 115.0%. The total IT expenditure in the business sector as a ratio to GDP was around 2.0% to 2.7% during the period from 2007 to 2017.

圖 1.13 按經濟活動劃分的資訊及通訊科技業的增加價值分布

Chart 1.13 Distribution of value added of the information and communication technology (ICT) sector by economic activity

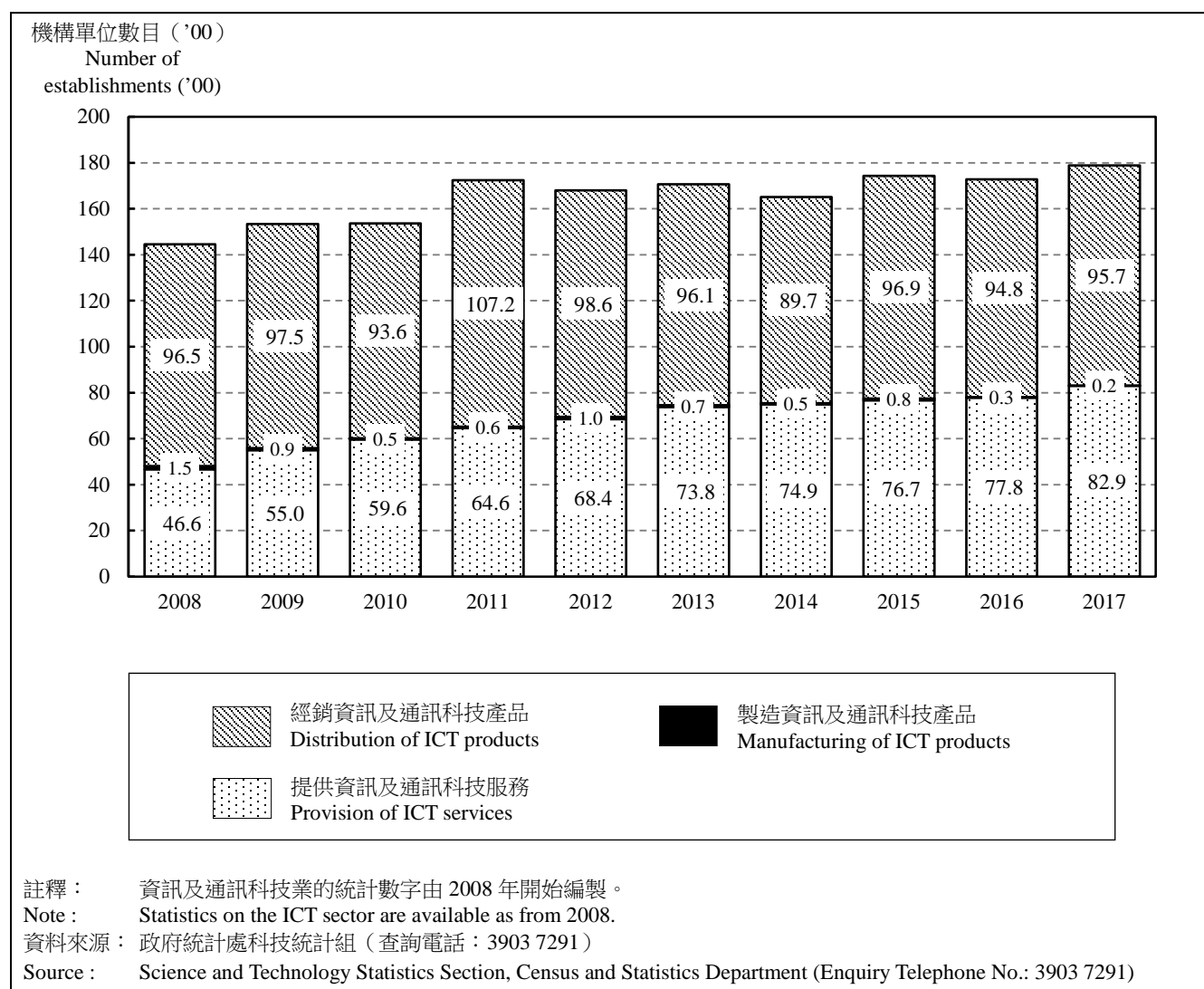


◆ 在 2017 年，資訊及通訊科技業的增加價值達 1,459 億元，佔以基本價格計算的本地生產總值的 5.7%（2008 年為 5.0%）。

◆ The value added of the ICT sector amounted to \$145.9 billion in 2017, accounting for 5.7% of GDP at basic prices (5.0% in 2008).

圖 1.14 按經濟活動劃分的資訊及通訊科技業的機構單位數目分布

Chart 1.14 Distribution of number of establishments in the information and communication technology (ICT) sector by economic activity

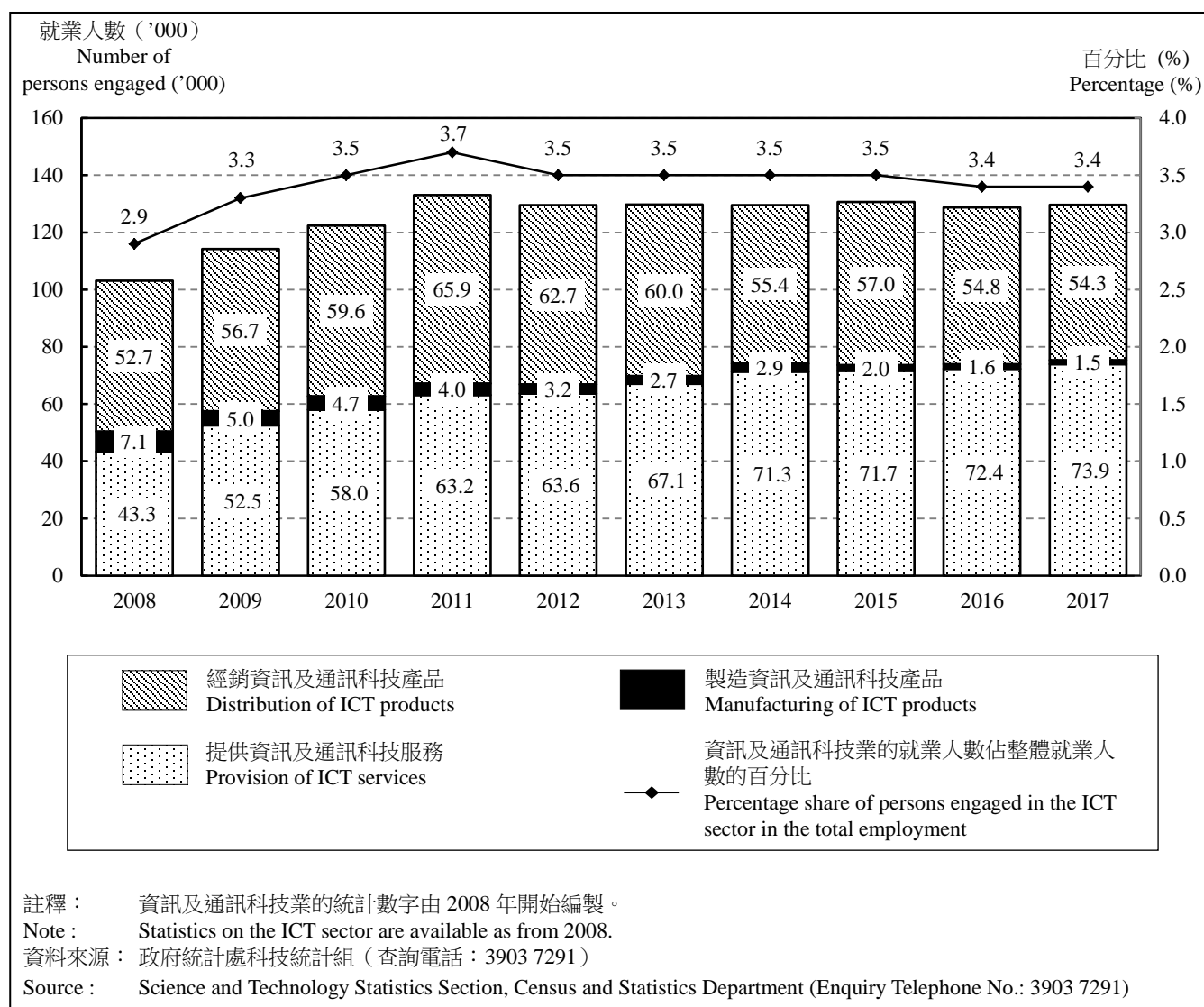


◆ 在 2017 年，約有 17 900 間機構單位從事資訊及通訊科技業。當中 54% 為經銷資訊及通訊科技產品的機構單位。

◆ In 2017, there were about 17 900 establishments engaging in the ICT sector. Among them, 54% were engaged in distribution of ICT products.

圖 1.15 按經濟活動劃分的資訊及通訊科技業的就業人數分布

Chart 1.15 Distribution of number of persons engaged in the information and communication technology (ICT) sector by economic activity



◆ 在 2017 年，資訊及通訊科技業的總就業人數約為 129 600 人。其中 57% 在提供資訊及通訊科技服務的機構單位工作。

◆ In 2017, there were about 129 600 persons engaged in the ICT sector. Among them, 57% were working in the establishments providing ICT services.

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第 2 章 人力資本發展

Chapter 2 Human Capital Development

人力資本發展在知識型經濟的重要性

2.1 人力資本涉及勞動人口的知識、技能及才能，是知識型經濟的一項關鍵元素。一般而言，知識型經濟的發展會帶來新產品及服務的需求，加快科技發展的步伐，以及加劇市場的競爭。面對不斷變化的經濟環境，工商機構單位需擁有合適的組織結構、有效的管理及高技能的工作人員，以保持其競爭力。然而，這些轉變亦對工作人員的能力要求具有深遠影響。

2.2 知識型經濟的其中一個特徵是對高學歷及高技能的勞動力的需求增加，這點可從專業、技術、行政及管理人員的職位數目大幅增加反映出來。為了滿足這些人力需求，須透過教育、培訓及在有需要時向外招攬各方人才，以確保經濟體內合適的勞動人力的供應充裕。

香港的人力資本發展情況

2.3 具高學歷及專業知識的人力資本對科技發展、創新以及經濟增長非常重要。這些資源對香港推行創新及增強創新及科技能力是不可缺少的。評估香港的人力資本發展情況的統計指標載列於表 2.1，而以下段落則扼要描述香港人力資本發展的最新概況。

Importance of human capital development in a knowledge-based economy (KBE)

2.1 Human capital which relates to knowledge, skills and competence of the labour force is a crucial element of a KBE. In general, the development of a KBE will come along with a growing demand for new products and services, acceleration in the pace of technological development, and intensification of market competition. To maintain competitiveness in response to the changing economic environment, business establishments need an appropriate organisational structure, effective management and a skilled workforce. These changes also impose a significant impact on the requirements for workers' competence.

2.2 One of the features of a KBE is a growing demand for highly-educated and highly-skilled labour usually reflected by an increase in the number of professional, technical, administrative and managerial occupations. To meet such manpower requirement, adequate supply of qualified labour in the economy should be ensured through education, training and, in some cases, sourcing of global talents.

Human capital development in Hong Kong

2.3 Human capital with high educational attainment and professional knowledge are vital to technological development, innovation and economic growth. They are essential for generating innovation and expanding the innovation and technology capacity of Hong Kong. The statistical indicators for gauging the human capital development in Hong Kong are listed in Table 2.1. The latest developments in human capital in Hong Kong are highlighted in the following paragraphs.

人力資本的投資

2.4 在知識型經濟中，人力資本的基本要求不單需具備讀寫能力，還需擁有收集、處理和創造資訊的才能。教育系統及政府政策對培育人才發揮重要的作用。在過去 10 年，香港政府投放大量資源發展教育。在 2018-19 年度，政府的教育開支達 1,105 億元，較 2008-09 年度的 750 億元上升 47%。(圖 2.1)

2.5 香港在專上教育的投資亦很可觀。在 2018-19 年度，政府的專上教育開支達 402 億元，佔政府整體教育開支的 36%。(圖 2.2)

2.6 教育對提升市民的知識及技能極其重要。與以往比較，香港所提供的專上教育機會有所增加。雖然中學的學生人數由 2008/09 學年的 489 400 人下降至 2018/19 學年的 327 000 人，但大學教育資助委員會資助的大學學生人數則由 2008/09 學年的 147 400 人顯著增加至 2018/19 學年的 194 300 人。(圖 2.3)

勞動人口的教育程度及職業概況

2.7 一個經濟體人口的知識及技能水平與其教育程度息息相關。在現今知識主導的社會中，大多數人都會不斷充實自己，因此擁有高等教育學歷的人士數目一直上升。香港的 15 歲及以上的人口中，曾受專上教育人士的比例由 2008 年的 24.9% 增加至 2018 年的 33.1%。(圖 2.4)

2.8 具知識的勞動人口是增強競爭力及維持經濟發展的動力。過去 10 年，香港勞動人口的教育水平逐步提升。曾受專上教育的勞動人口百分比從 2008 年的 31.4% 提升至 2018 年的 40.8%。(圖 2.5)

Investment in human capital

2.4 The literacy skills as well as the ability of people to gather, process and produce information are basic requirements of human capital in a KBE. The education system and government policy play a key role in nurturing talents. In Hong Kong, the Government had devoted enormous resources to education over the past decade. Government expenditure on education in 2018-19 amounted to \$110.5 billion, 47% higher than that in 2008-09 (\$75.0 billion). (Chart 2.1)

2.5 Investment in post-secondary education in Hong Kong remains substantial. In 2018-19, government expenditure on post-secondary education amounted to \$40.2 billion, accounting for 36% of the Government's total expenditure on education. (Chart 2.2)

2.6 Education is crucial to enhancing knowledge and skills of people. The post-secondary education opportunities in Hong Kong have increased over the past years. While the student enrolment in secondary schools decreased from around 489 400 in 2008/09 academic year to 327 000 in 2018/19 academic year, the student enrolment in the universities funded by the University Grants Committee (UGC) increased significantly from around 147 400 in 2008/09 academic year to 194 300 in 2018/19 academic year. (Chart 2.3)

Educational attainment and occupational profile of the labour force

2.7 The levels of knowledge and skills in the population of an economy are highly related to their educational attainment. In the knowledge-driven society nowadays, people in general are keen to better equip themselves and thus the number of individuals with higher education is expanding. In Hong Kong, the proportion of the population aged 15 and over with post-secondary education increased from 24.9% in 2008 to 33.1% in 2018. (Chart 2.4)

2.8 As a knowledgeable labour force is the thrust for enhancing competitiveness and sustaining economic development, there has been a progressive upward shift in the educational level of the labour force in Hong Kong over the past decade. The percentage of labour force with post-secondary education went up from 31.4% in 2008 to 40.8% in 2018. (Chart 2.5)

2.9 在 2016 年曾受專上教育的勞動人口中，有 37.5% 修讀與科學有關的科目（即自然科學、工程及科技和醫學），而 2006 年的百分比為 38.9%。（圖 2.6）

2.10 香港以提供高質素的專業服務見稱。在整體勞動人口中，屬於專業人員及輔助專業人員的就業人士的比例在 2018 年為 28.5%。（圖 2.7）

2.11 香港作為國際金融中心及區內的服務業樞紐，專業人員及輔助專業人員主要從事金融、保險、地產、專業及商用服務業，以及公共行政、社會及個人服務業。在 2018 年，超過半數（61.7%）的專業人員及輔助專業人員投身這些行業。（圖 2.8）

2.12 一個經濟體要在環球知識型經濟下有競爭力及蓬勃發展的能力，有賴資訊科技人才的質素和技能。在 2018 年，約 95 800 人從事與資訊科技有關的工作，佔勞動人口的 2.4%。與 2008 年的 66 700 人相比，錄得 43.6% 的顯著增長。（圖 2.9）

向外招攬人才

2.13 香港作為一個國際城市，樂意接納各方人才，善用他們的技能及專門知識，以加強香港在環球知識型經濟中的競爭力。政府一直致力吸引及挽留非本地專才。非本地專才獲准來港就業的人數從 2008 年約 36 500 人增加至 2018 年約 66 100 人。（圖 2.10）

2.9 As regards the labour force with post-secondary education, 37.5% of them had attended science-related fields of study (i.e. natural sciences, engineering and technology, and medical sciences) in 2016, compared with 38.9% in 2006. (Chart 2.6)

2.10 Hong Kong is renowned for the high quality of its professional services. Within the total labour force, the proportion of employed population who worked as professionals and associate professionals was 28.5% in 2018. (Chart 2.7)

2.11 With Hong Kong being an international financial centre and a service hub in the region, persons working as professionals and associate professionals were mainly engaged in the financing, insurance, real estate, professional and business services sector as well as the public administration, social and personal services sector, accounting for more than half (61.7%) of the total number of professionals and associate professionals in 2018. (Chart 2.8)

2.12 The ability of an economy to compete and flourish in the global knowledge economy hinges on the quality and skills of the information technology (IT) manpower. In 2018, about 95 800 persons were engaged in IT-related work, constituting 2.4% of the labour force. This represented a significant increase of 43.6% as compared to 66 700 persons in 2008. (Chart 2.9)

Global sourcing of talents

2.13 Being an international city, Hong Kong is open to global talents, leveraging on their skills and expertise in enhancing the competitiveness of Hong Kong in the global knowledge economy. The Government has endeavoured to attract and retain non-local talents and professionals. The number of non-local talents and professionals approved for employment in Hong Kong increased from around 36 500 in 2008 to about 66 100 in 2018. (Chart 2.10)

結語

2.14 勞動人口的才能及技能水平不斷改變，以配合不同階段的經濟發展。提升勞動人口的教育基礎、讀寫能力以及資訊及通訊科技的知識，對發展以知識及創新為本的經濟極其重要。

Concluding remarks

2.14 The competence and skill levels of labour force are changing to suit different stages of economic development. Improving the educational foundation, literacy skills and information and communication technology literacy of the labour force is essential to the development of a knowledge-based and innovation-driven economy.

表 2.1 量度知識型經濟中有關人力資本發展範疇的統計指標一覽

Table 2.1 List of statistical indicators for measuring the human capital development aspect of a KBE

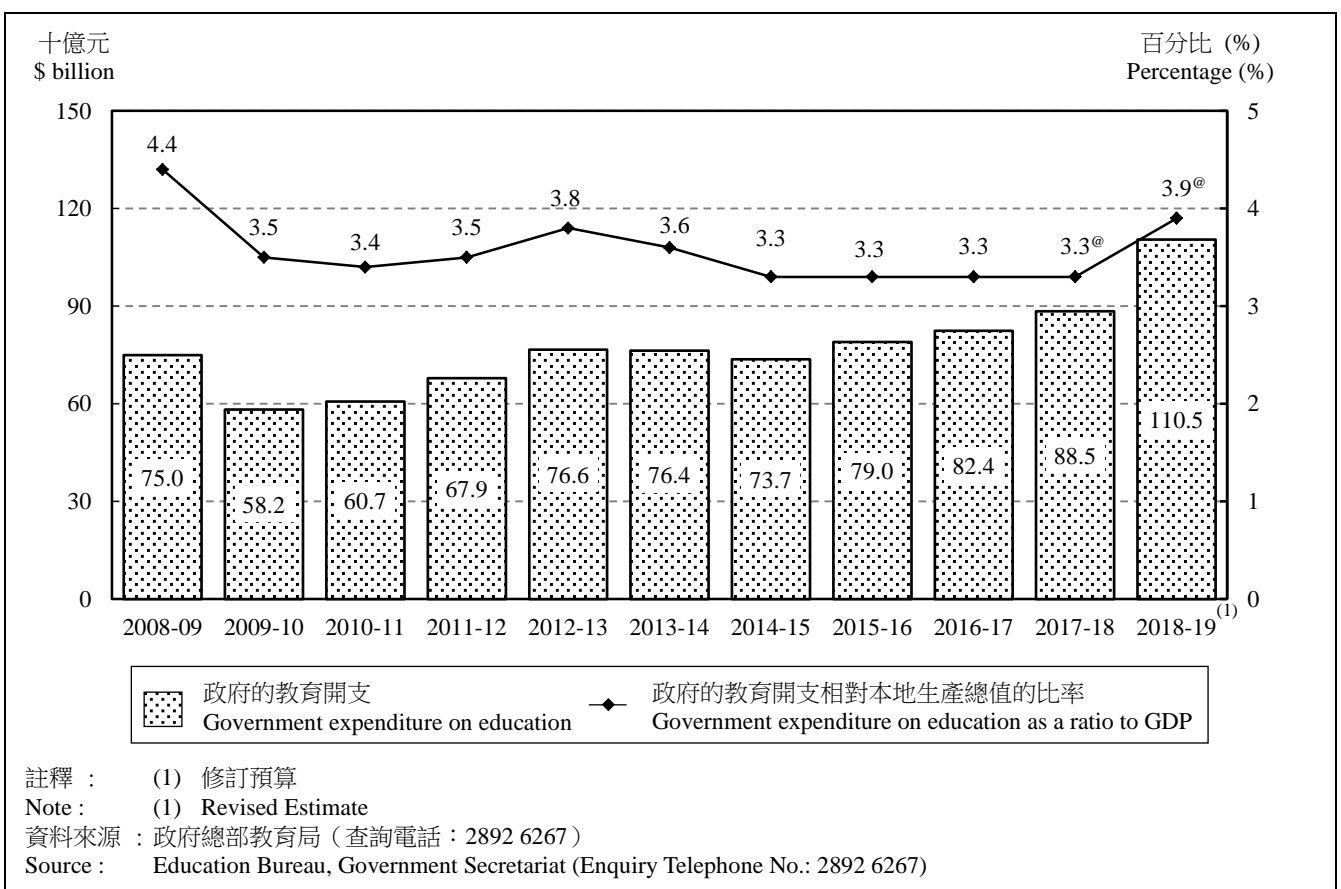
| 與人力資本發展相關的因素 Factors relating to human capital development | 統計指標 Statistical indicators |
|---|--|
| 政府透過投資教育以培育人才 Government investment in education for nurturing of talents | <ol style="list-style-type: none"> 1. 政府的教育開支相對本地生產總值的比率 Government expenditure on education as a ratio to Gross Domestic Product (GDP) 2. 政府的專上教育開支相對本地生產總值的比率 Government expenditure on post-secondary education as a ratio to GDP |
| 透過教育培育勞動人口的知識及技能 Development of knowledge and skills of the labour force through education | <ol style="list-style-type: none"> 1. 中學的學生人數 Student enrolment in secondary schools 2. 大學教育資助委員會資助的大學的學生人數 Student enrolment in the universities funded by UGC |
| 勞動人口的知識密集程度 Knowledge intensity of the labour force | <ol style="list-style-type: none"> 1. 15 歲及以上人口的教育程度分布 Distribution of population aged 15 and over by educational attainment 2. 曾受專上教育的勞動人口的百分比 Percentage of labour force with post-secondary education 3. 按修讀科目類別劃分的曾受專上教育的勞動人口 Labour force with post-secondary education by field of education 4. 按職業劃分的就業人數分布 Distribution of employed persons by occupation 5. 按行業組別劃分的專業人員及輔助專業人員數目的百分比 Percentage of persons working as professionals and associate professionals by industry grouping 6. 資訊科技人員佔勞動人口的百分比 Percentage of IT workers in the labour force |
| 一個經濟體就向外招攬人才的開放程度 Openness of an economy in regard to global sourcing of talents | <ol style="list-style-type: none"> 1. 非本地專才獲准來港就業的人數 Number of non-local talents and professionals approved for employment in Hong Kong |

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圖 2.1 政府的教育開支相對本地生產總值的比率

Chart 2.1 Government expenditure on education as a ratio to Gross Domestic Product (GDP)

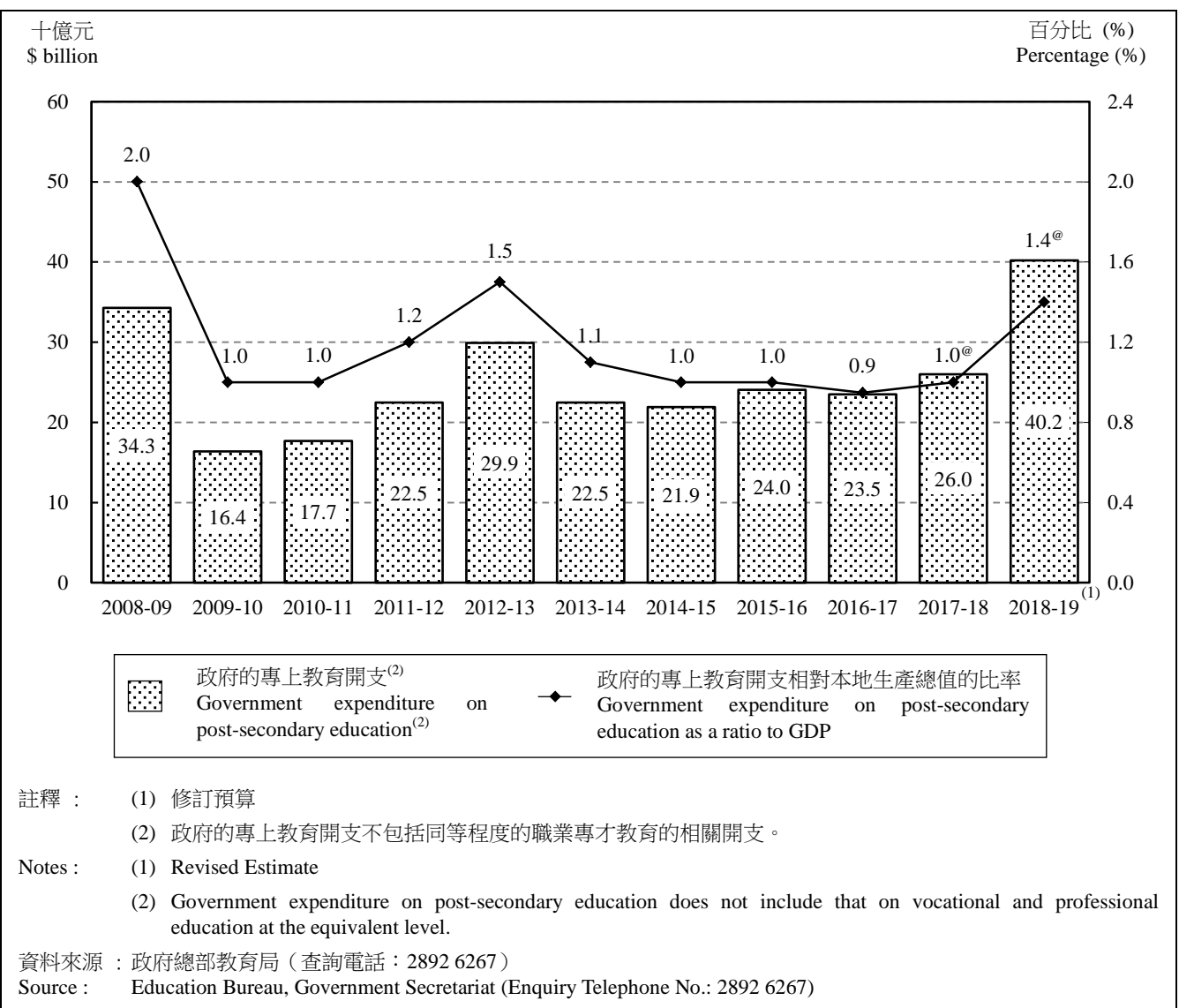


- ◆ 政府在 2018-19 年度的教育開支（修訂預算）為 1,105 億元，相對本地生產總值的比率為 3.9%。
- ◆ 政府在 2008-09 年度的教育開支較大，主要是由於成立了一個 180 億元的研究基金以加強高等教育院校的研究效能和培育更多研究人才。

- ◆ Government expenditure on education in 2018-19 (Revised Estimate) amounted to \$110.5 billion, representing a ratio of 3.9% to GDP.
- ◆ The higher government expenditure on education in 2008-09 was mainly attributable to the establishment of the Research Endowment Fund of \$18.0 billion to strengthen the research capacity of the higher education institutions and nurture more research talents.

圖 2.2 政府的專上教育開支相對本地生產總值的比率

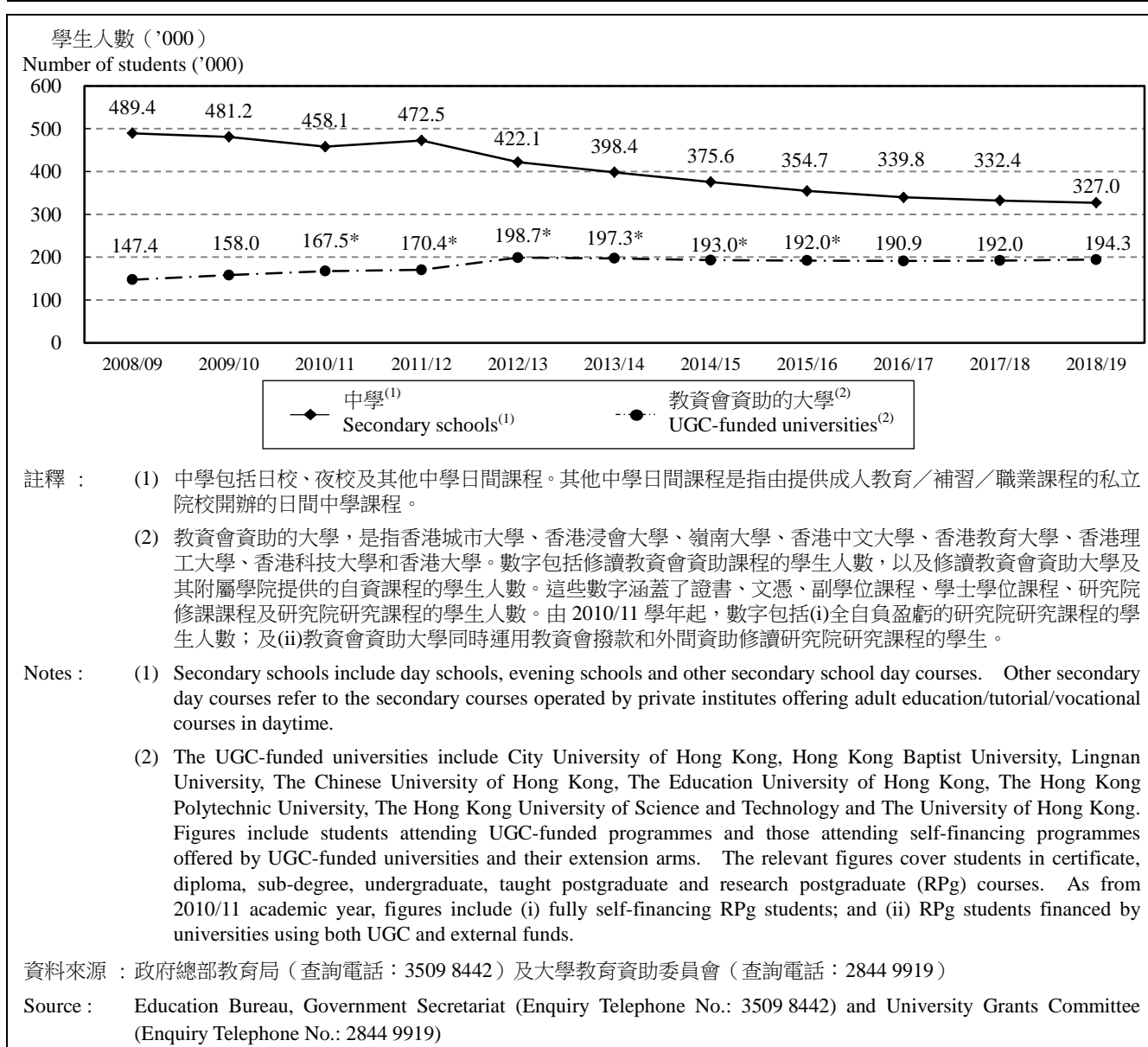
Chart 2.2 Government expenditure on post-secondary education as a ratio to Gross Domestic Product (GDP)



- ◆ 政府在 2018-19 年度的專上教育開支（修訂預算）達 402 億元，較 2008-09 年度增加了 17%。
- ◆ 政府在 2008-09 年度專上教育的開支較大，主要原因是成立了一個 180 億元的研究基金。
- ◆ 政府的專上教育開支在 2012-13 年度的增長，主要是政府對數個基金，包括研究基金、香港特別行政區政府獎學基金及自資專上教育基金，提供合共 70 億元的一次性注資。

- ◆ Government expenditure on post-secondary education in 2018-19 (Revised Estimate) amounted to \$40.2 billion, representing an increase of 17% over 2008-09.
- ◆ The higher government expenditure on post-secondary education in 2008-09 was mainly attributable to the establishment of the Research Endowment Fund of \$18.0 billion.
- ◆ The increase in government expenditure on post-secondary education in 2012-13 was mainly due to the one-off injections into various funds, viz. the Research Endowment Fund, the Hong Kong Special Administrative Region Government Scholarship Fund and the Self-financing Post-secondary Education Fund, totalling \$7.0 billion.

圖 2.3 中學及大學教育資助委員會（教資會）資助的大學的學生人數
Chart 2.3 Student enrolment in secondary schools and universities funded by the University Grants Committee (UGC)

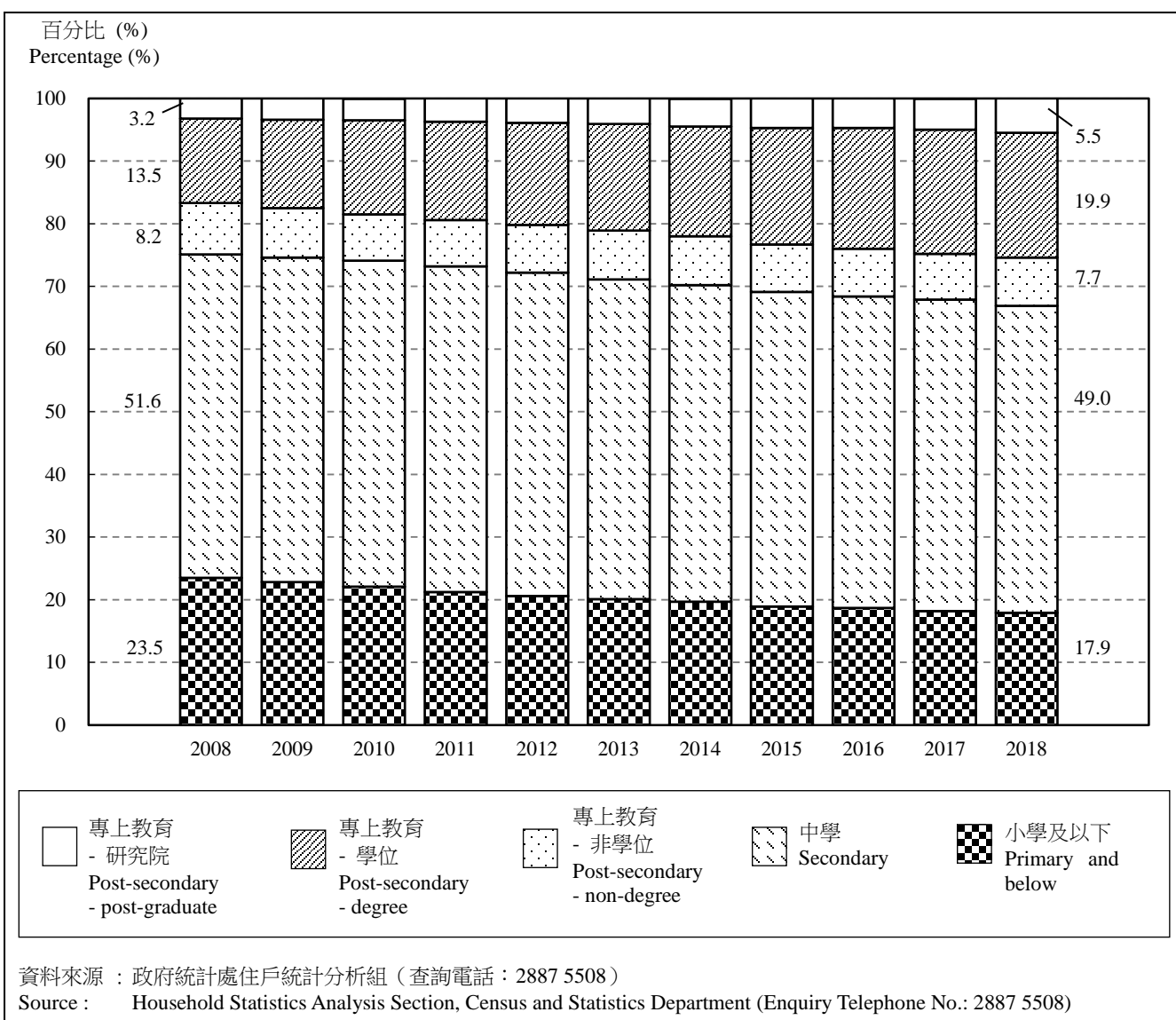


- ◆ 隨着適齡的學童人口下跌，中學的學生人數由 2011/12 學年的 472 500 人，顯著下降至 2018/19 學年的 327 000 人。
- ◆ 教資會資助的大學學生人數由 2011/12 學年的 170 400 人大幅上升至 2012/13 學年的 198 700 人。引致這轉變的部分原因是本港已於 2011/12 學年全面實施新學制：三年初中、三年高中及四年大學教育。在 2018/19 學年，教資會資助的大學學生人數為 194 300 人。

- ◆ Alongside with the decrease in school-age population, number of students enrolled in secondary schools declined significantly from 472 500 in 2011/12 academic year to 327 000 in 2018/19 academic year.
- ◆ The student enrolment in UGC-funded universities surged from 170 400 in 2011/12 academic year to 198 700 in 2012/13 academic year. The change was partly attributable to the full implementation of the New Academic Structure in 2011/12 academic year. The New Academic Structure covers three years of junior secondary education, three in senior secondary and four at university. The student enrolment in UGC-funded universities stood at 194 300 in 2018/19 academic year.

圖 2.4 15 歲及以上人口的教育程度分布

Chart 2.4 Distribution of population aged 15 and over by educational attainment



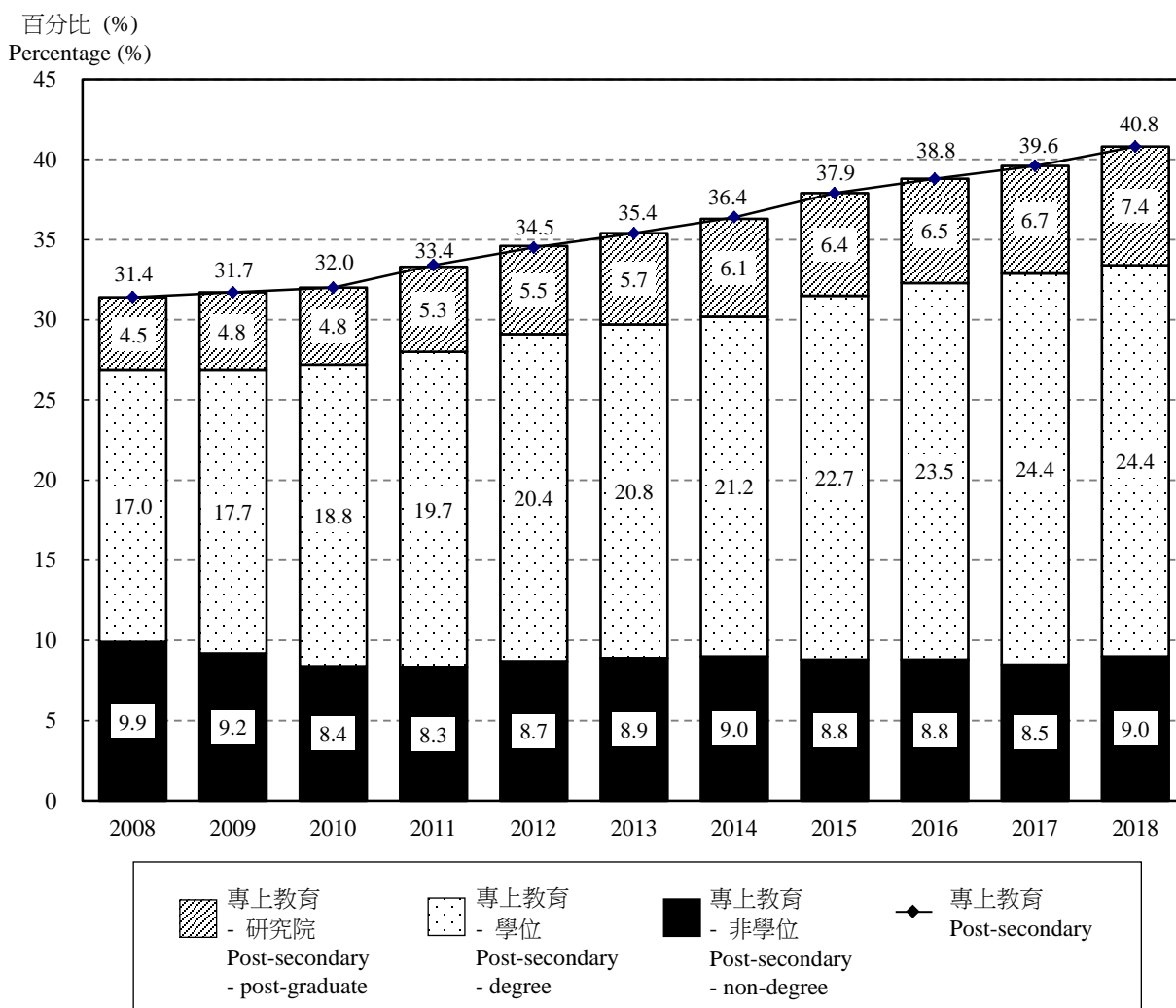
◆ 過去 10 年，香港人口的教育程度一直有所提高。具有研究院學歷的 15 歲及以上人士比例由 2008 年的 3.2% 增加至 2018 年的 5.5%。至於具有專上教育學歷（學位及非學位）的 15 歲及以上人士比例亦由 2008 年的 21.8% 上升至 2018 年的 27.6%。

◆ 在 2018 年，15 歲及以上人士當中有 33.1% 擁有專上教育程度的學歷。

◆ The educational attainment of the Hong Kong population had been improving over the past decade. The proportion of the population aged 15 and over having post-graduate education went up from 3.2% in 2008 to 5.5% in 2018. The corresponding proportion for post-secondary (degree and non-degree) education also rose from 21.8% in 2008 to 27.6% in 2018.

◆ In 2018, 33.1% of the population aged 15 and over had post-secondary educational attainment.

圖 2.5 曾受專上教育的勞動人口的百分比
Chart 2.5 Percentage of labour force with post-secondary education



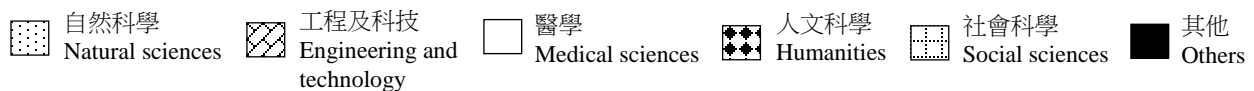
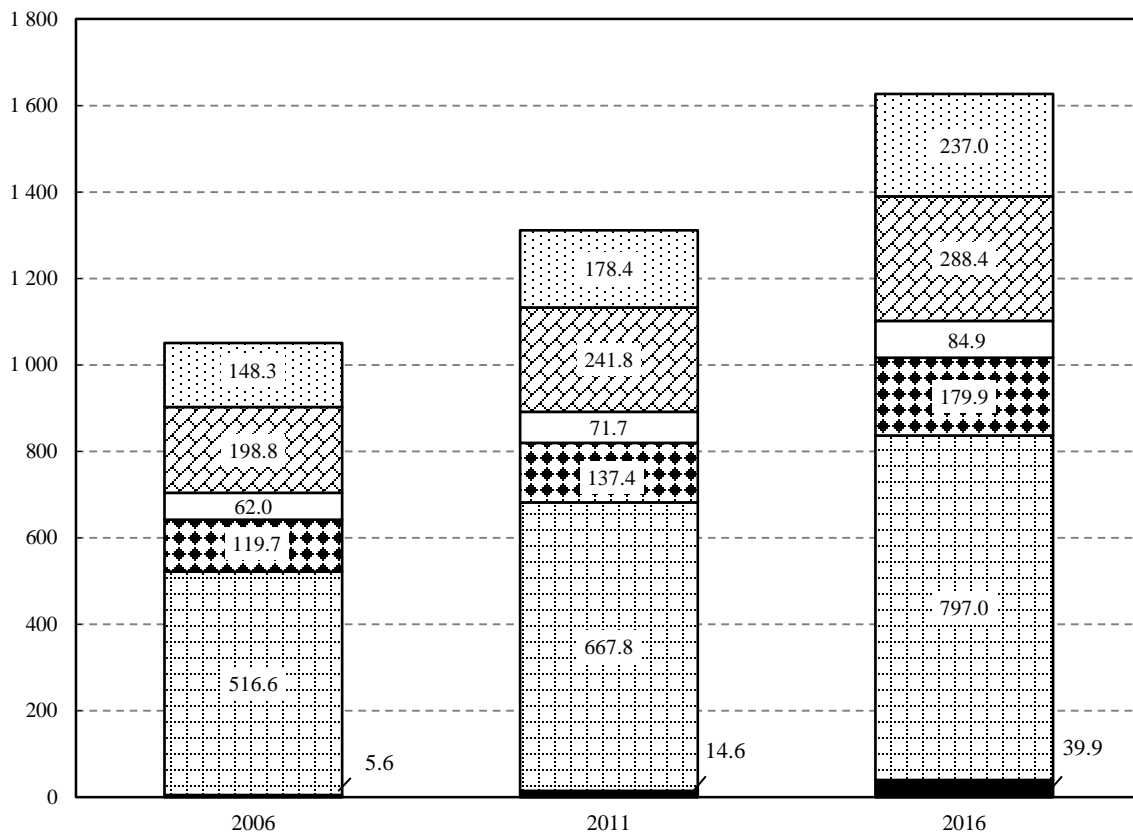
資料來源：政府統計處住戶統計分析組（查詢電話：2887 5508）

Source: Household Statistics Analysis Section, Census and Statistics Department (Enquiry Telephone No.: 2887 5508)

- ◆ 勞動人口與整體人口的教育程度概況很相近。
- ◆ 曾受專上教育的勞動人口百分比在近年有上升的趨勢，尤其具有研究院學歷的勞動人口比例由 2008 年的 4.5% 增加至 2018 年的 7.4%。
- ◆ The educational attainment profile of the labour force is similar to that of the population at large.
- ◆ The percentage of labour force with post-secondary education has been trending up over the past years. In particular, the proportion of labour force with post-graduate educational attainment rose from 4.5% in 2008 to 7.4% in 2018.

圖 2.6 按修讀科目類別劃分的曾受專上教育的勞動人口
Chart 2.6 Labour force with post-secondary education by field of education

人數（'000）
 Number of persons ('000)



註釋：數字是根據 2011 年人口普查，以及 2006 年及 2016 年中期人口統計的結果編製。

Note: Figures are compiled based on results of the 2011 Population Census and the 2006 and 2016 Population By-censuses.

資料來源：政府統計處人口統計組（查詢電話：3903 6944）

Source: Demographic Statistics Section, Census and Statistics Department (Enquiry Telephone No.: 3903 6944)

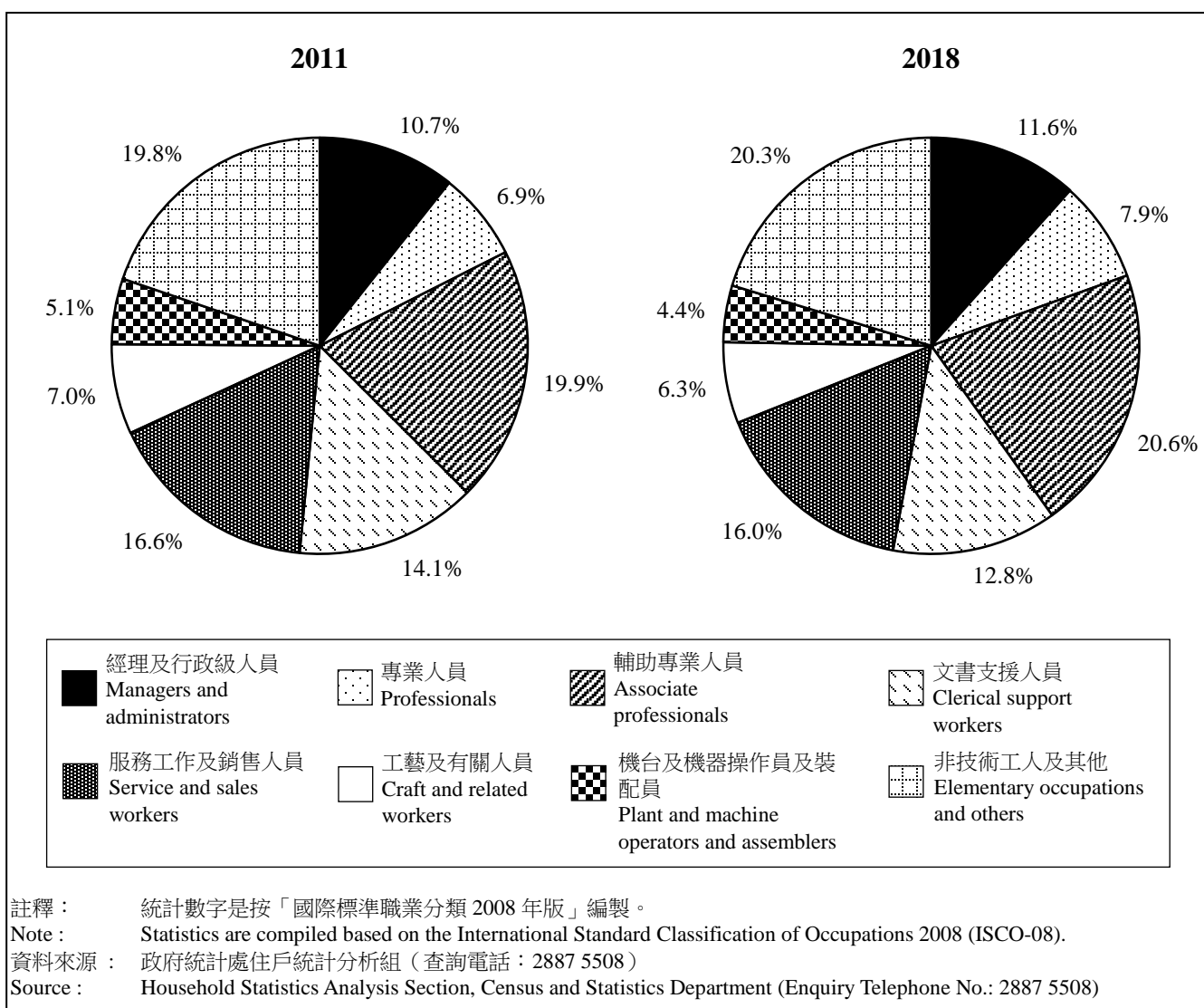
- ◆ 曾修讀與科學有關的科目（即自然科學、工程及科技和醫學）的勞動人口，由 2006 年的 41 萬人增加至 2016 年的 61 萬人，顯著增長 49.2%。

- ◆ The size of labour force having attended science-related fields of study (i.e. natural sciences, engineering and technology, and medical sciences) increased remarkably by 49.2% from 0.41 million in 2006 to 0.61 million in 2016.

- “ 相對而言，曾修讀社會科學課程的勞動人口的增幅更為顯著，由 2006 年的 52 萬人增加至 2016 年的 80 萬人，上升 54.3%。

- “ In comparison, the increase in the size of labour force having attended social sciences courses was more remarkable, up by 54.3% from 0.52 million in 2006 to 0.80 million in 2016.

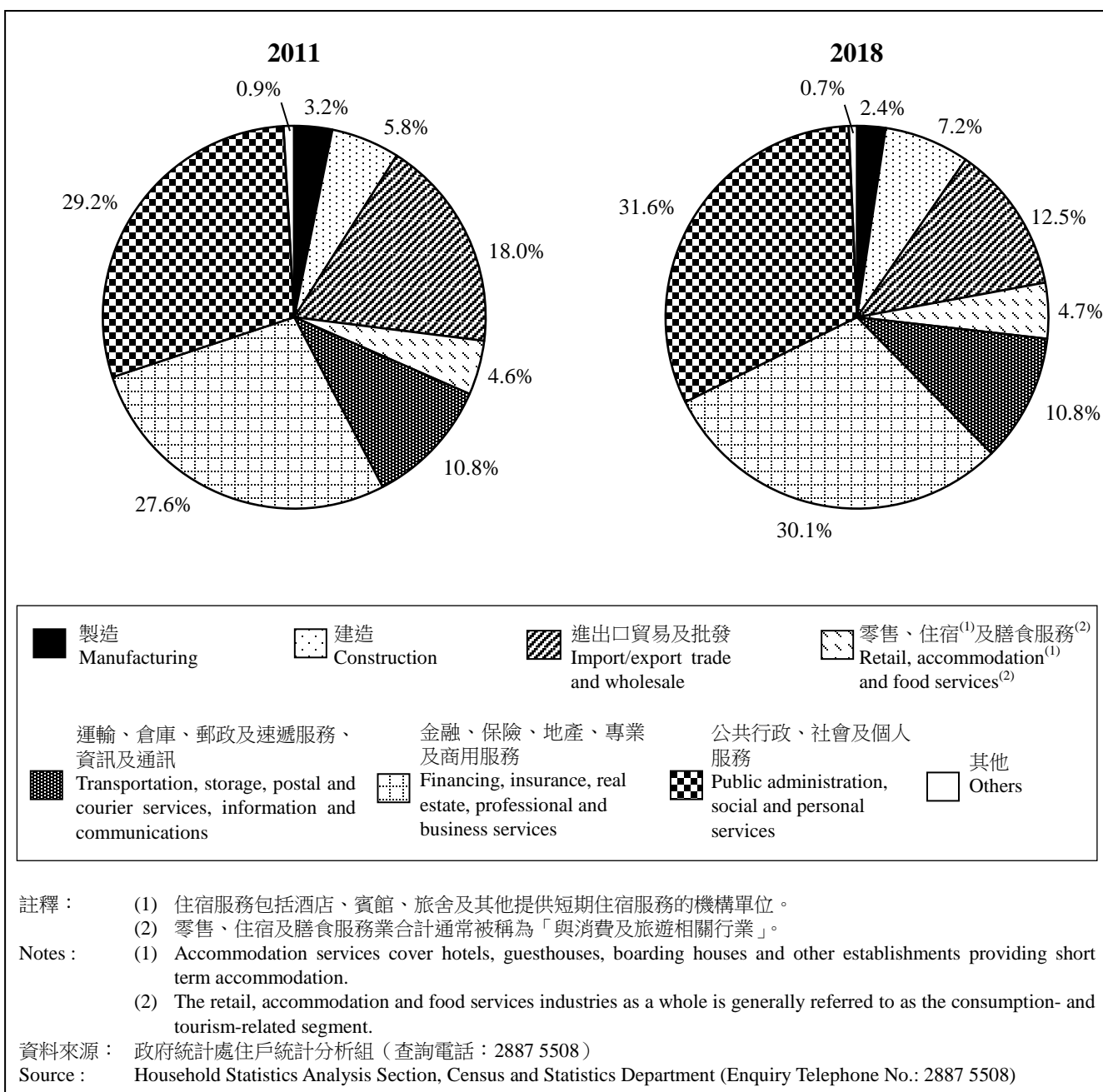
圖 2.7 按職業劃分的就業人數分布
Chart 2.7 Distribution of employed persons by occupation



◆ 在 2018 年，約四成的就業人士從事管理或專業職級，包括：經理及行政級人員（11.6%）、專業人員（7.9%）及輔助專業人員（20.6%）。

◆ In 2018, about 40% of the employed persons worked in the managerial or professional grades, including managers and administrators (11.6%), professionals (7.9%) and associate professionals (20.6%).

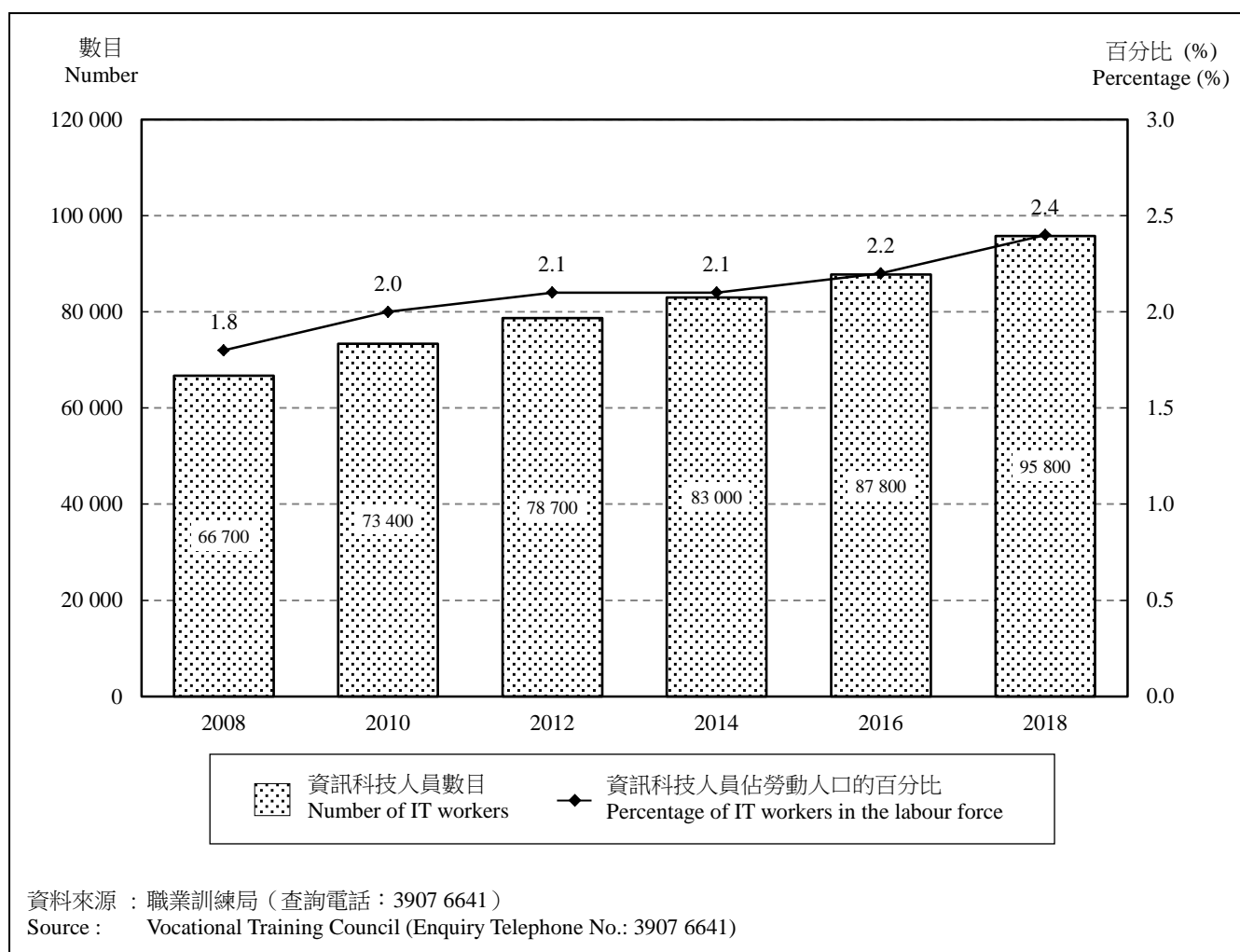
圖 2.8 按行業組別劃分的專業人員及輔助專業人員數目的百分比
Chart 2.8 Percentage of persons working as professionals and associate professionals by industry grouping



◆ 專業人員及輔助專業人員普遍從事金融、保險、地產、專業及商用服務業，以及公共行政、社會及個人服務業。在 2018 年，這些行業內的專業人員及輔助專業人員佔香港的專業人員及輔助專業人員總數約 61.7%。

◆ Professionals and associate professionals are prevalent in the financing, insurance, real estate, professional and business services sector as well as the public administration, social and personal services sector. These sectors took up around 61.7% of the professionals and associate professionals in Hong Kong in 2018.

圖 2.9 資訊科技人員佔勞動人口的百分比
Chart 2.9 Percentage of information technology (IT) workers in the labour force

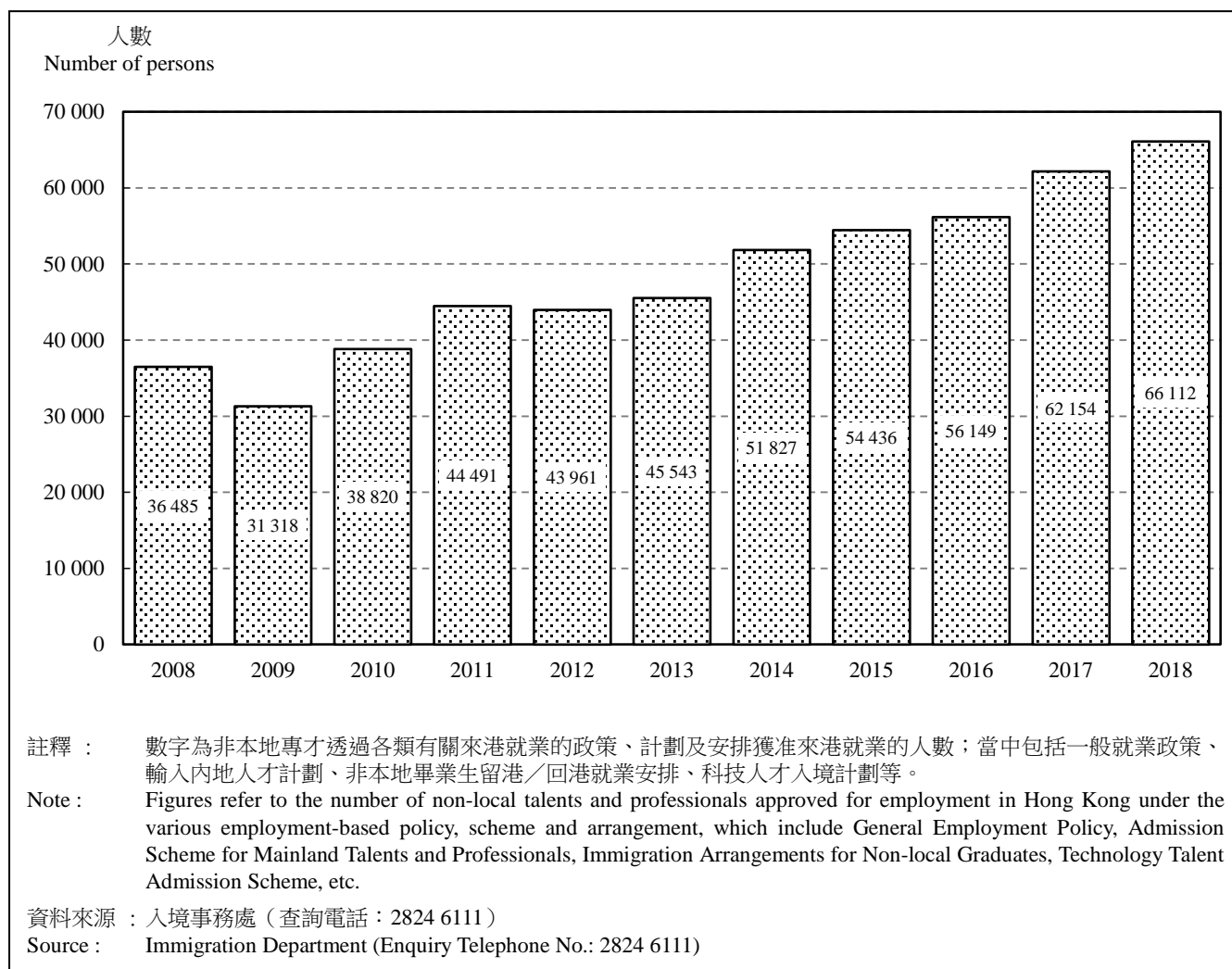


◆ 根據最新的資訊科技人力統計調查結果，於 2018 年約有 95 800 人從事與資訊科技有關的工作，佔勞動人口的 2.4%。

◆ According to the findings from the latest round of IT manpower survey, about 95 800 persons were engaged in IT-related work in 2018, representing 2.4% of the labour force.

圖 2.10 非本地專才獲准來港就業的人數

Chart 2.10 Number of non-local talents and professionals approved for employment in Hong Kong



- ◆ 在 2018 年，非本地專才獲准來港就業的人數約 66 100 人。在 2008 年至 2018 年期間，非本地專才獲准來港就業人數的平均按年增長率為 6.1%。

- ◆ The number of non-local talents and professionals approved for employment in Hong Kong reached some 66 100 in 2018, representing an average annual growth rate of 6.1% during the period from 2008 to 2018.

第 3 章 創新系統

Chapter 3 Innovation System

創新科技在知識型經濟的重要性

3.1 創新活動是決定一個經濟體的競爭力、生產力及經濟增長的關鍵因素，亦是迎接全球挑戰及實現可持續發展的一項重要元素。一般而言，一個經濟體的創新系統是由工商機構單位、公共科技支援機構及高等教育機構所組成的網絡進行創新項目，並致力推廣創新活動，以及融入新科技。一個有效的創新系統可吸取日益壯大的環球知識，緊貼知識的變革，並因應經濟體內的不同需要而融入新的知識。這是發展知識型經濟不可缺少的元素。

3.2 創新活動大致包括科學、科技、組織及商業上所有能令創新概念得以實踐的行為。創新可分為四個類別：產品創新、程序創新、組織創新及市場推廣創新。前兩者包括發展嶄新或經顯著改良的產品及程序，而這些項目被統稱為技術創新項目。技術創新項目不單涵蓋研究及發展（研發）活動，亦涉及工商機構單位把研發成果轉化成具商業價值的產品，以及進行投產與傳送相關產品的活動。組織創新（例如組織架構的改變、實施嶄新的機構策略、採用先進的管理技術等）以及市場推廣創新（包括產品外觀上的改變、採用不同的市場推廣策略等）則統稱為非技術創新項目。

Importance of innovation and technology in a knowledge-based economy (KBE)

3.1 Innovation activity is a crucial determinant of competitiveness, productivity and economic growth of an economy. It is also a key factor to address global challenges and achieve sustainable development. In general, the innovation system of an economy represents the network of organisations comprising business establishments, public technology support organisations and higher education institutions to produce and diffuse innovations and assimilate new technologies. Development of a KBE is not possible without an effective innovation system that taps into the growing stock of global knowledge, keeps up with the knowledge revolution and assimilates new knowledge to meet the changing needs of an economy.

3.2 Broadly speaking, innovation activities include all scientific, technological, organisational and commercial steps which lead to the implementation of innovations. There are essentially four types of innovation: product innovation, process innovation, organisational innovation and marketing innovation. The first two categories relate to the development of new or significantly improved products and processes which are collectively referred to as technological innovation (TI). TI covers not only research and development (R&D) activities but also activities required for implementation and commercialisation of R&D output into products of commercial values and practical production and delivery processes to be adopted by business establishments. Organisational innovation (e.g. change in organisational structure, implementation of new corporate strategy, use of advanced management techniques, etc.) and marketing innovation (e.g. change in aesthetic appearance of products, adoption of different marketing strategies, etc.) are collectively referred to as non-TI.

3.3 一個經濟體發展其創新能力的進程通常涉及本土的研發成果及從境外引進的技術。有些工商機構單位不是獨自進行創新活動，而是與公共科技支援機構或高等教育機構合作以開發新商品和服務。這加強了工商機構單位、政府及高等教育機構進行創新活動的相互效應。

3.4 總括而言，創新及技術變革改變了生產方法、商貿形式以及經濟體的結構，從而推動知識型經濟的發展。

香港的創新系統

3.5 一系列與創新程序有著密切關係的統計指標已被選定（表 3.1），以反映香港在創新方面的表現。相關的統計分析摘要提供如下。

研究效能

3.6 一個經濟體的創新能力取決於投放在研發活動的資源的水平及深度。雖然香港沒有很強大的研發基礎，但本地研發總開支已由 2007 年的 124 億元增加至 2017 年的 213 億元，足以證明香港的研究文化日益深厚。本地研發總開支相對本地生產總值的比率在 2017 年為 0.80%。（圖 3.1）

3.7 香港的研發活動主要涉及自然科學和工程及科技，分別佔 2017 年本地研發總開支的 33.6% 及 31.5%，其次是醫療及衛生科學（17.8%）。（圖 3.2）

3.3 The process of innovation capacity building in an economy generally involves indigenous R&D efforts and acquisition of foreign technologies. Some business establishments do not innovate alone and they collaborate with public technology support organisations or higher education institutions to develop new products and services. This reinforces the interactions among business establishments, government and higher education institutions in conducting innovation activities.

3.4 Overall speaking, innovation and technological changes drive the development of a KBE through their effects on production methods, business practices and the structure of economies.

Innovation system in Hong Kong

3.5 To reflect the innovation performance of Hong Kong, a suite of statistical indicators which are closely related to the innovation process are selected (Table 3.1). A summary of relevant statistical analyses is presented below.

Research capacity

3.6 A key determinant of the innovation capability of an economy is the level and intensity of resources deployed to R&D activities. Although Hong Kong does not have a very strong R&D base, the deepening research culture is evidenced by the increase in gross domestic expenditure on R&D (GERD) from \$12.4 billion in 2007 to \$21.3 billion in 2017. GERD as a ratio to Gross Domestic Product (GDP) was 0.80% in 2017. (Chart 3.1)

3.7 In Hong Kong, R&D activities were mainly related to natural science as well as engineering and technology which accounted for 33.6% and 31.5% respectively of the GERD in 2017, followed by medical and health sciences (17.8%). (Chart 3.2)

3.8 工商機構的研發活動主要由市場主導，而高等教育機構則專注於基礎及應用研究。這些基礎及應用研究有助一個經濟體加強研發效能及發展新科技、產品及程序。香港的研發活動以工商機構及高等教育機構為主要參與者。在 2017 年，工商機構及高等教育機構的研發開支分別佔本地研發總開支的 44.2% 及 50.9%。政府主要發揮促進研發活動的作用，為工商機構單位、高等教育機構及公共科技支援機構提供基礎建設及資金援助。(圖 3.3)

3.9 工商機構的研發開支由 2007 年的 61 億元上升至 2017 年的 94 億元，反映工商機構單位不斷透過研發活動開發產品／程序創新項目，藉以提升其競爭力。(圖 3.4)

3.10 近年高等教育機構在研發活動的參與亦顯著增加。高等教育機構的研發開支由 2007/08 學年的 61 億元增加至 2017/18 學年的 108 億元。香港的高等教育機構所進行的研發活動主要受政府資助。(圖 3.5)

3.11 政府的研發開支相對較少，僅由 2007 年的 3 億元增加至 2017 年的 10 億元。然而政府一直擔當推動者的角色，透過提供資金援助及科技基礎建設，致力提升香港的技術與創新水平。按資金來源分析，在 2007 年至 2017 年期間的本地研發總開支中，約一半的資金是來自政府。自 1999 年起，政府已成立了創新及科技基金以支持工商機構單位進行應用研發。除設立香港科學園、香港應用科技研究院有限公司，以及 5 所研發中心外，政府更為企業在 2018 年 4 月 1 日或以後的合資格研發活動產生的開支，提供額外稅務扣減，以鼓勵企業在港作更多研發投資及推動本地研發活動，反映政府致力提供有利環境，扶植研發工作。(圖 3.6 及 3.7)

3.8 The R&D activities in the business sector are largely market-driven, whereas those in the higher education sector include both basic and applied research activities which contribute to building up the R&D capacity of the economy and development of new technologies, products and processes. In Hong Kong, both the business and the higher education sectors are the major R&D performers. In 2017, the business and higher education sectors accounted for 44.2% and 50.9% respectively of GERD. The Government mainly plays a facilitating role, providing infrastructural and funding support to business establishments, higher education institutions and public technology support organisations. (Chart 3.3)

3.9 R&D expenditure in the business sector rose from \$6.1 billion in 2007 to \$9.4 billion in 2017, reflecting the increasing R&D efforts made by the business establishments to explore product/process innovations for improving their competitiveness. (Chart 3.4)

3.10 Stepping up of R&D activities in the higher education sector was also phenomenal in recent years. The R&D expenditure in the higher education sector increased from \$6.1 billion in 2007/08 academic year to \$10.8 billion in 2017/18 academic year. In Hong Kong, R&D activities in the higher education sector are mainly financed by the Government. (Chart 3.5)

3.11 The R&D expenditure in the government sector was relatively small, just increased from \$0.3 billion in 2007 to \$1.0 billion in 2017. While the Government mainly plays the role of a facilitator in driving the economy's technology and innovation upgrading through provision of funding support and technological infrastructure. Analysed by source of funds, about half of the total GERD was financed by the Government during 2007 to 2017. Since 1999, the Government has set up the Innovation and Technology Fund to support business establishments for carrying out applied R&D. Apart from setting up of the Hong Kong Science Park, Hong Kong Applied Science and Technology Research Institute Limited, and 5 R&D centres, the Government provides enterprises with enhanced tax deduction for expenditure incurred in qualifying R&D activities as from 1 April 2018 to encourage enterprises to invest more in local R&D and promote local R&D activities, which reflects the Government's commitment to providing an environment conducive to R&D activities. (Charts 3.6 and 3.7)

3.12 在研發及人才方面的投資（分別以研發開支及參與研發活動的人員計算）反映一個經濟體現時的研究效能水平。在 2017 年，相當於全日制人數的研發人員數目約為 29 800 人，較 2007 年上升 26.2%。大部分的研發人員就業於高等教育機構和工商機構，他們分別佔 2017 年研發人員總數的 54.1% 和 42.9%。（圖 3.8）

3.13 大部分研發人員為研究員，在 2017 年，相當於全日制人數的研究員數目約為 25 100 人。近年，每千名勞動人口中，研究員數目維持在約 6 人的水平。（圖 3.9）

工商機構的創新活動

3.14 工商機構的技術創新活動開支由 2009 年的 140 億元大幅上升至 2017 年的 295 億元。（圖 3.10）

3.15 在 2017 年，資訊及通訊業用於技術創新活動的金額最多，佔技術創新開支總額的 48.3%。其次是進出口貿易、批發及零售業以及住宿及膳食服務業，以及金融及保險、地產、專業及商用服務業（分別佔 23.8% 和 15.4%）。（圖 3.11）

研發成果

3.16 發明及創新項目的知識產權可透過申請專利而獲得保障。因此，專利活動的統計數字在一定程度上能反映一個經濟體的研發成果。香港的專利申請數目由 2008 年的 14 150 項上升至 2018 年的 16 777 項，增幅為 18.6%。同期，香港的獲批予專利數目由 2008 年的 4 436 項增加至 2018 年的 10 414 項。（圖 3.12）

3.12 Investment in R&D (in terms of expenditure on R&D) and human capital (in terms of personnel to carry out R&D activities) are reflection of the present level of research capacity of an economy. In 2017, the total number of R&D personnel expressed in full-time equivalent were about 29 800, up by 26.2% when compared with 2007. Most of them were engaged in the higher education and business sectors, which accounted for 54.1% and 42.9% respectively of the total number of R&D personnel in 2017. (Chart 3.8)

3.13 Most of the R&D personnel were researchers. The total number of researchers expressed in full-time equivalent were about 25 100 in 2017. The number of researchers per 1 000 persons in the labour force maintained at the level of around 6 in recent years. (Chart 3.9)

Business innovation activities

3.14 Business expenditure on TI rose markedly from \$14.0 billion in 2009 to \$29.5 billion in 2017. (Chart 3.10)

3.15 The information and communications sector spent most on TI activities, constituting 48.3% of the total TI expenditure in 2017. It was followed by the import/export, wholesale and retail trades, and accommodation and food services sectors; and financing and insurance, real estate, professional and business services sectors (23.8% and 15.4% respectively). (Chart 3.11)

Output of R&D

3.16 Intellectual property rights of inventions and innovations are protected through patents. Thus, statistics on patenting activities reflect to a certain extent the output of R&D in an economy. The number of patent applications in Hong Kong rose by 18.6% from 14 150 in 2008 to 16 777 in 2018. During the same period, the number of patents granted in Hong Kong increased from 4 436 in 2008 to 10 414 in 2018. (Chart 3.12)

3.17 美國是香港和其他經濟體的主要市場之一。因此，在美國專利制度下批予各地的專利數目可在比較不同經濟體的研發成果時提供有用的參考。美國批予香港居民的專利數目由 2007-08 年度的 738 項上升至 2017-18 年度的 972 項，升幅達 31.7%。(圖 3.13)

3.18 高等教育機構以進行基礎及應用研究為主，其研究成果總數可作為量化其研發的產出。在 2007/08 至 2017/18 學年期間，研究成果數目每年約在 24 000 項至 27 000 項之間。(圖 3.14)

國際間的技術轉移

3.19 高科技產品對外貿易及技術國際收支平衡是量度科技及專門技術在國際間的轉移的有效指標，並反映一個經濟體吸取科技的能力。在 2008 年至 2018 年期間，高科技產品的整體出口貨值的平均按年增長率為 8.8%，顯著高於香港商品整體出口貨值的相應增長率（3.9%）。在高科技產品整體出口貨值錄得強勁表現的同時，高科技產品的進口貨值亦平均按年增長 8.8%，同樣高於香港商品進口貨值的相應增長率（4.6%）。(圖 3.15)

3.20 香港的高科技產品的整體出口貨值佔商品整體出口貨值的比例由 2008 年的 39.5% 大幅上升至 2018 年的 62.2%，反映高科技產品在國際貿易的位置日益重要。同樣地，高科技產品的整體出口貨值相對本地生產總值的比率在同期亦由 65.3% 飆升至 90.9%。(圖 3.16 及 3.17)

3.17 The United States (US) is one of the major markets for Hong Kong as well as for other economies. The number of patents granted under the US patent system also provides a useful reference for comparison of R&D output of different economies. The number of US patents granted to Hong Kong residents increased by 31.7% from 738 in 2007-08 to 972 in 2017-18. (Chart 3.13)

3.18 The total number of research output items is also regarded as a quantitative measure of R&D output of the higher education institutions, engaging in basic research as well as applied research. The number of research output items ranged from around 24 000 to 27 000 each year during the academic years 2007/08 to 2017/18. (Chart 3.14)

International transfer of technology

3.19 External trade in high technology (high-tech) products and technology balance of payments (TBP) are useful indicators for gauging international transfer of technology and know-how as well as reflecting an economy's capability of assimilating technology. Between 2008 and 2018, the value of total exports of high-tech products increased at an average annual growth rate of 8.8%, which was distinctly faster than the corresponding rate for the total exports of goods of Hong Kong (3.9%). In tandem with the robust export trade in high-tech products, the value of imports of high-tech products increased at an average annual growth rate of 8.8%, also at a faster pace than the corresponding rate for the imports of goods of Hong Kong (4.6%). (Chart 3.15)

3.20 The share of total exports of high-tech products in Hong Kong's total exports of goods also went up markedly from 39.5% in 2008 to 62.2% in 2018, reflecting the growing importance of high-tech products in international trade. In tandem, the value of total exports of high-tech products as a ratio to GDP surged from 65.3% to 90.9% during the same period. (Charts 3.16 and 3.17)

3.21 技術國際收支平衡記錄與國際間技術轉移相關的商業交易，涉及量度使用專利權、特許證、專門技能、商標、設計、圖案、技術服務以及向海外研發活動提供資金等交易的收入和支出。香港的技術國際收支平衡表在 2007 年至 2017 年間每年均錄得赤字。在知識資本及服務的交易中錄得赤字，正好反映香港的工商機構單位為了滿足本地大量創新及科技活動的需求而積極從境外引進技術，從而加強香港的競爭力。（圖 3.18）

結語

3.22 香港的工商機構單位、政府及高等教育機構之間頻繁的交流與合作有助創造及傳遞新知識，以及營造有利發展創新科技的環境。這種以創新為主導的環境有利國際間科技及專門技術的轉移，強化香港作為一個知識型經濟的地位。

3.21 TBP registers commercial transactions related to international transfer of technology, as measured by receipts and payments for the use of patents, licences, know-how, trademarks, designs, patterns, technical services and for the financing of R&D activities carried out abroad etc. Hong Kong had been recording a deficit in its TBP account each year throughout the period from 2007 to 2017. The deficit in the transactions of intellectual capital and services reflected that the business establishments in Hong Kong were active in assimilating imported technology to meet the rising local needs for more innovative and technological activities, thereby enhancing the competitiveness of the Hong Kong economy. (Chart 3.18)

Concluding remarks

3.22 Increased interactions among business establishments, government and higher education institutions in Hong Kong have facilitated the creation and dissemination of new knowledge, as well as the establishment of an environment conducive to innovation and technology diffusion. Such innovation-led environment is favourable to international transfer of technology and technical know-how which in turn reinforces the position of Hong Kong as a KBE.

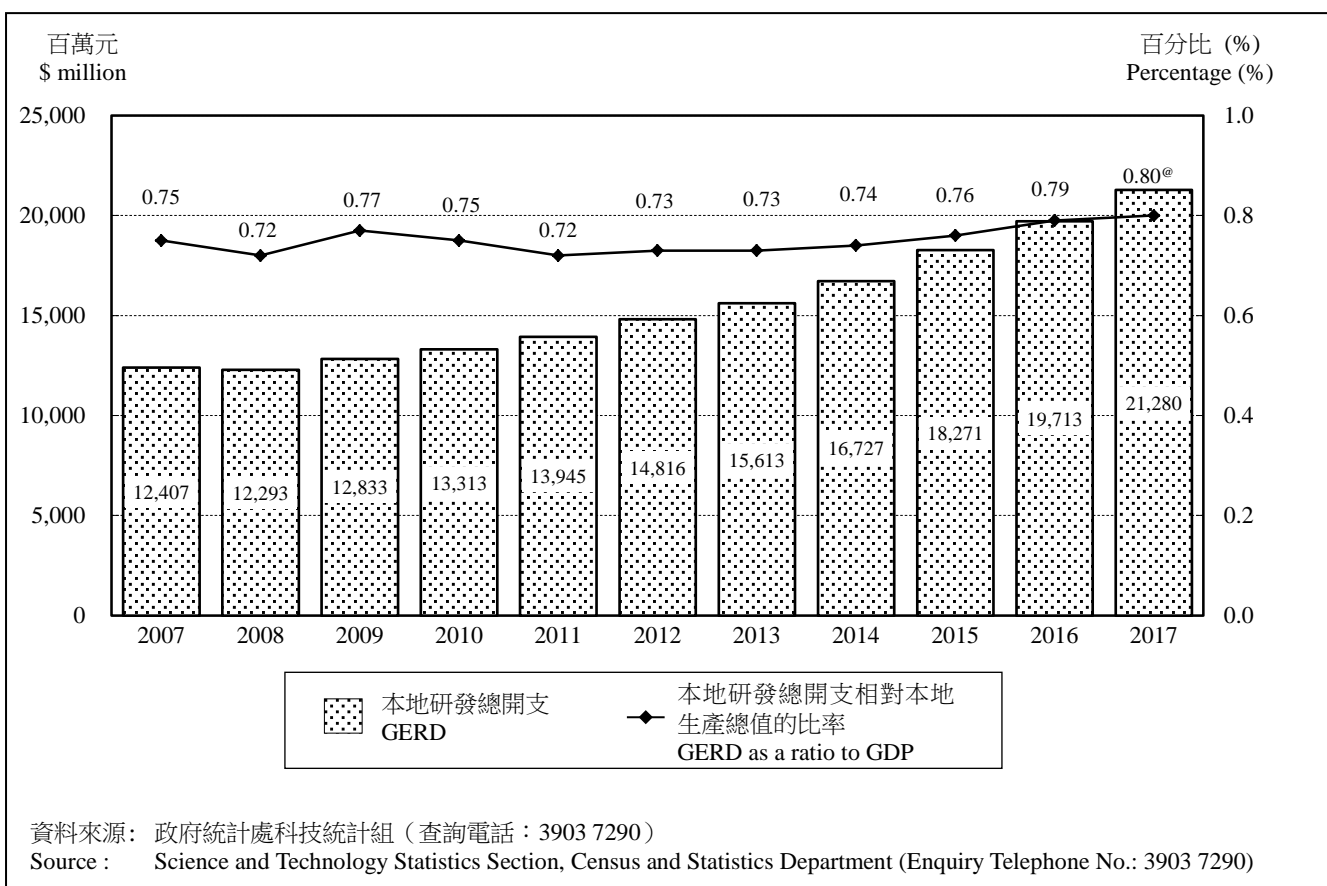
表 3.1 量度知識型經濟中有關創新系統範疇的統計指標一覽

Table 3.1 List of statistical indicators for measuring the innovation system aspect of a KBE

| 與創新系統有關的因素 Factors relating to innovation system | 統計指標 Statistical indicators |
|---|---|
| <p>不同界別的研究效能及進行研發活動的深度 Research capacity and intensity of R&D activities performed by different institutional sectors</p> | <ol style="list-style-type: none"> 1. 本地研發總開支相對本地生產總值的比率 GERD as a ratio to GDP 2. 按研發活動範疇劃分的本地研發總開支分布 Distribution of GERD by field of R&D activity 3. 按進行研發的機構類別劃分的本地研發總開支分布 Distribution of GERD by R&D performing sector 4. 工商機構的研發開支相對本地生產總值的比率 Business expenditure on R&D as a ratio to GDP 5. 高等教育機構的研發開支相對本地生產總值的比率 Higher education expenditure on R&D as a ratio to GDP 6. 政府機構的研發開支相對本地生產總值的比率 Government expenditure on R&D as a ratio to GDP 7. 按資金來源劃分的本地研發總開支分布 Distribution of GERD by source of funds 8. 按進行機構類別劃分的研發人員分布 Distribution of R&D personnel by performing sector 9. 每千名勞動人口中的研究員數目 Number of researchers per 1 000 persons in the labour force |
| <p>工商機構的創新活動 Business innovation activities</p> | <ol style="list-style-type: none"> 1. 工商機構的技術創新活動開支 Business TI expenditure 2. 按選定行業組別劃分的工商機構的技術創新活動開支分布 Distribution of business TI expenditure by selected industry grouping |
| <p>研發成果 Output of R&D</p> | <ol style="list-style-type: none"> 1. 在香港申請專利及獲批予專利的數目 Number of patent applications and patents granted in Hong Kong 2. 獲美國專利及商標局批予香港居民的專利數目 Number of patents granted to Hong Kong residents by the United States Patent and Trademark Office 3. 按每百萬名人口計算的高等教育研究成果數目 Higher education research output items per million population |

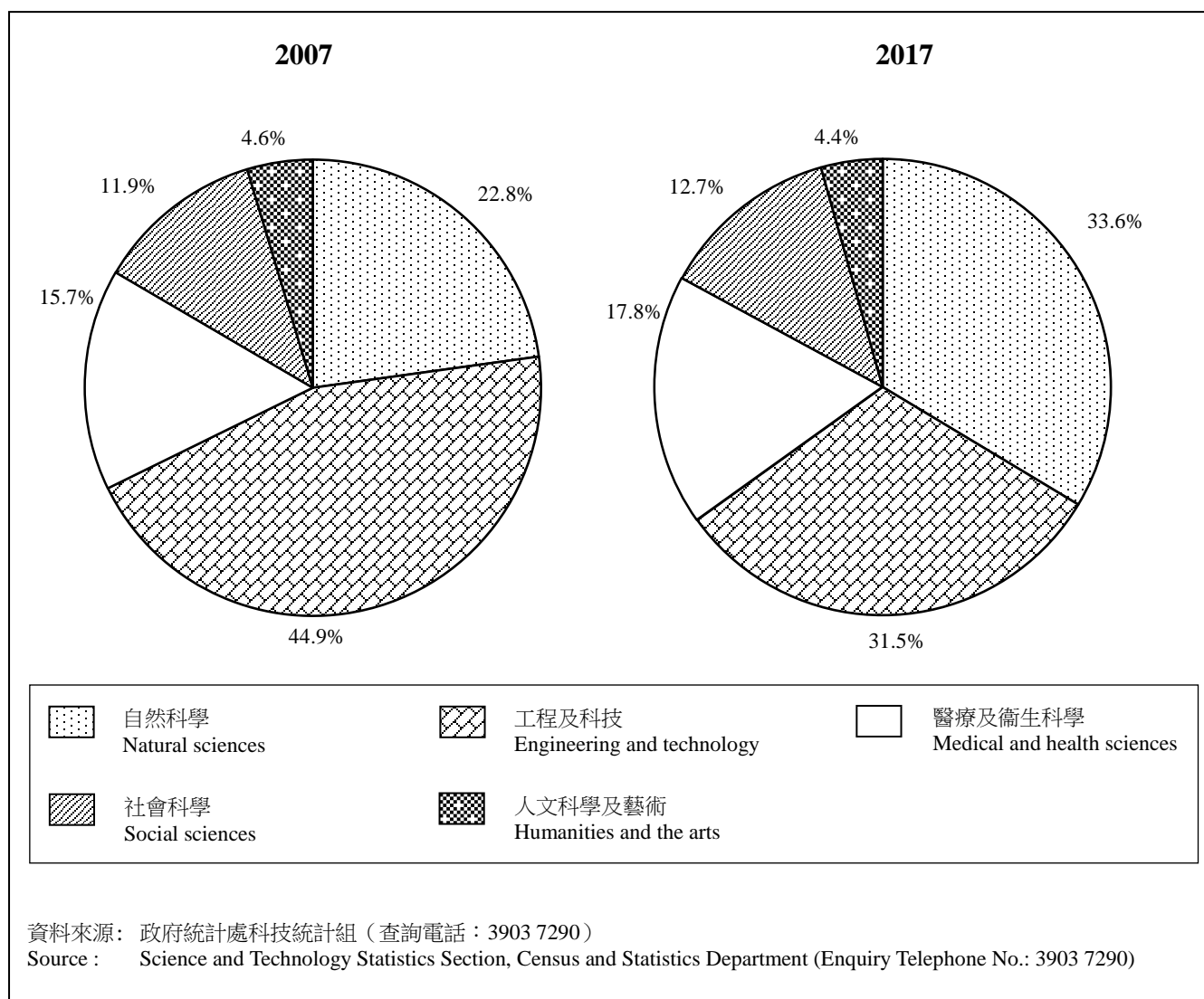
| 與創新系統有關的因素 Factors relating to innovation system | 統計指標 Statistical indicators |
|--|---|
| <p>一個經濟體對國際間的技術轉移，以及知識資本和服務轉移的開放程度</p> <p>Openness of an economy towards international transfer of technology, intellectual capital and services</p> | <ol style="list-style-type: none"> 1. 高科技產品進口及整體出口貨值佔商品整體貿易貨值的百分比 Percentage of value of imports and total exports of high-tech products in the total value of overall merchandise trade 2. 高科技產品整體出口貨值佔商品整體出口貨值的百分比 Value of total exports of high-tech products as a percentage of value of total merchandise exports 3. 高科技產品整體出口貨值相對本地生產總值的比率 Value of total exports of high-tech products as a ratio to GDP 4. 技術國際收支平衡表流向／結餘相對本地生產總值的比率 TBP flows/balance as a ratio to GDP |

圖 3.1 本地研究及發展總開支（本地研發總開支）相對本地生產總值的比率
Chart 3.1 Gross domestic expenditure on research and development (GERD) as a ratio to Gross Domestic Product (GDP)



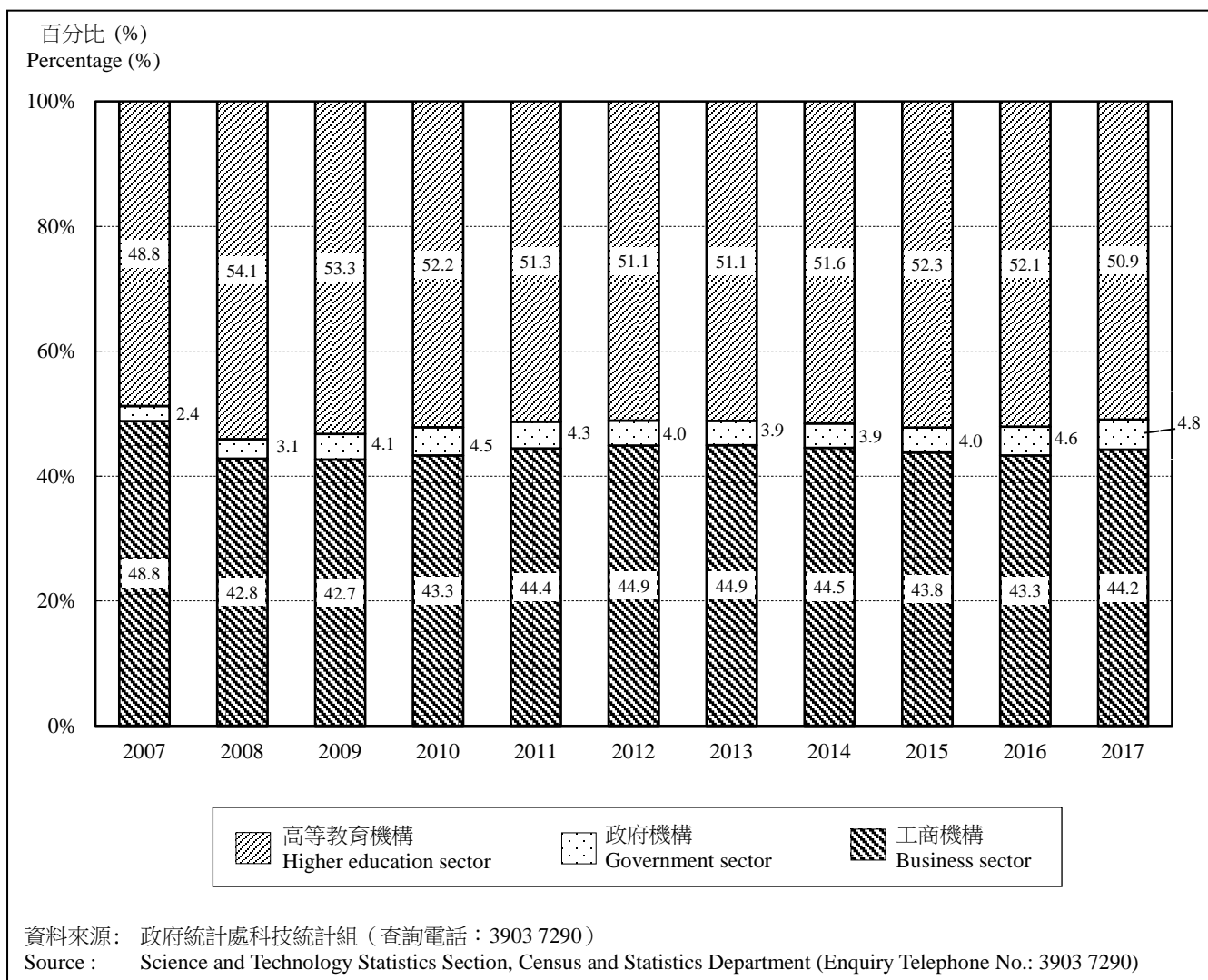
- ◆ 本地研發總開支由2007年的124億元逐年增加至2017年的213億元。
- ◆ GERD increased incrementally from \$12.4 billion in 2007 to \$21.3 billion in 2017.
- ◆ 本地研發總開支相對本地生產總值的比率由2011年的0.72%增加至2017年的0.80%。
- ◆ GERD as a ratio to GDP increased from 0.72% in 2011 to 0.80% in 2017.

圖 3.2 按研究及發展（研發）活動範疇劃分的本地研發總開支分布
Chart 3.2 Distribution of gross domestic expenditure on research and development (R&D) by field of R&D activity



- ◆ 香港的研發活動主要涉及自然科學和工程及科技，分別佔 2017 年本地研發總開支的 33.6%及 31.5%，其次是醫療及衛生科學（17.8%）。
- ◆ In Hong Kong, R&D activities were mainly related to natural science as well as engineering and technology which accounted for 33.6% and 31.5% respectively of the gross domestic expenditure on R&D (GERD) in 2017, followed by medical and health sciences (17.8%).
- ◆ 涉及社會科學和人文科學及藝術的研發活動主要由高等教育機構進行。在 2017 年，有關範疇的研發開支佔本地研發總開支的 17.1%。
- ◆ R&D activities on social sciences, and humanities and the arts, which accounted for 17.1% of GERD in 2017, were predominantly undertaken by higher education institutions.

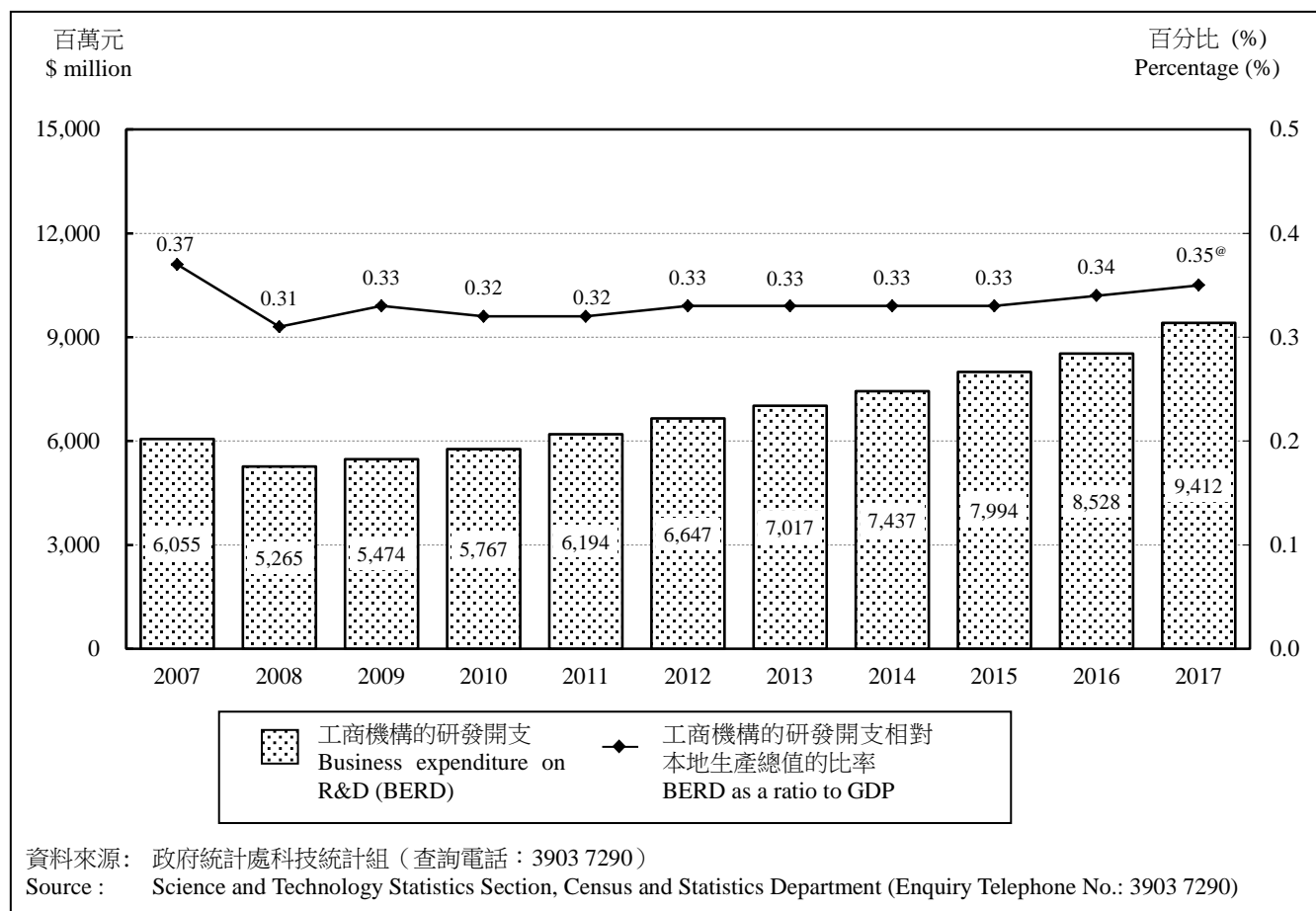
圖 3.3 按進行研究及發展（研發）的機構類別劃分的本地研發總開支分布
Chart 3.3 Distribution of gross domestic expenditure on research and development (R&D) by R&D performing sector



◆ 自 2008 年下旬開始，工商機構的研發開支在環球金融海嘯後有所整固。工商機構的研發開支佔本地研發總開支的比例由 2009 年的 42.7% 輕微上升至 2017 年的 44.2%。

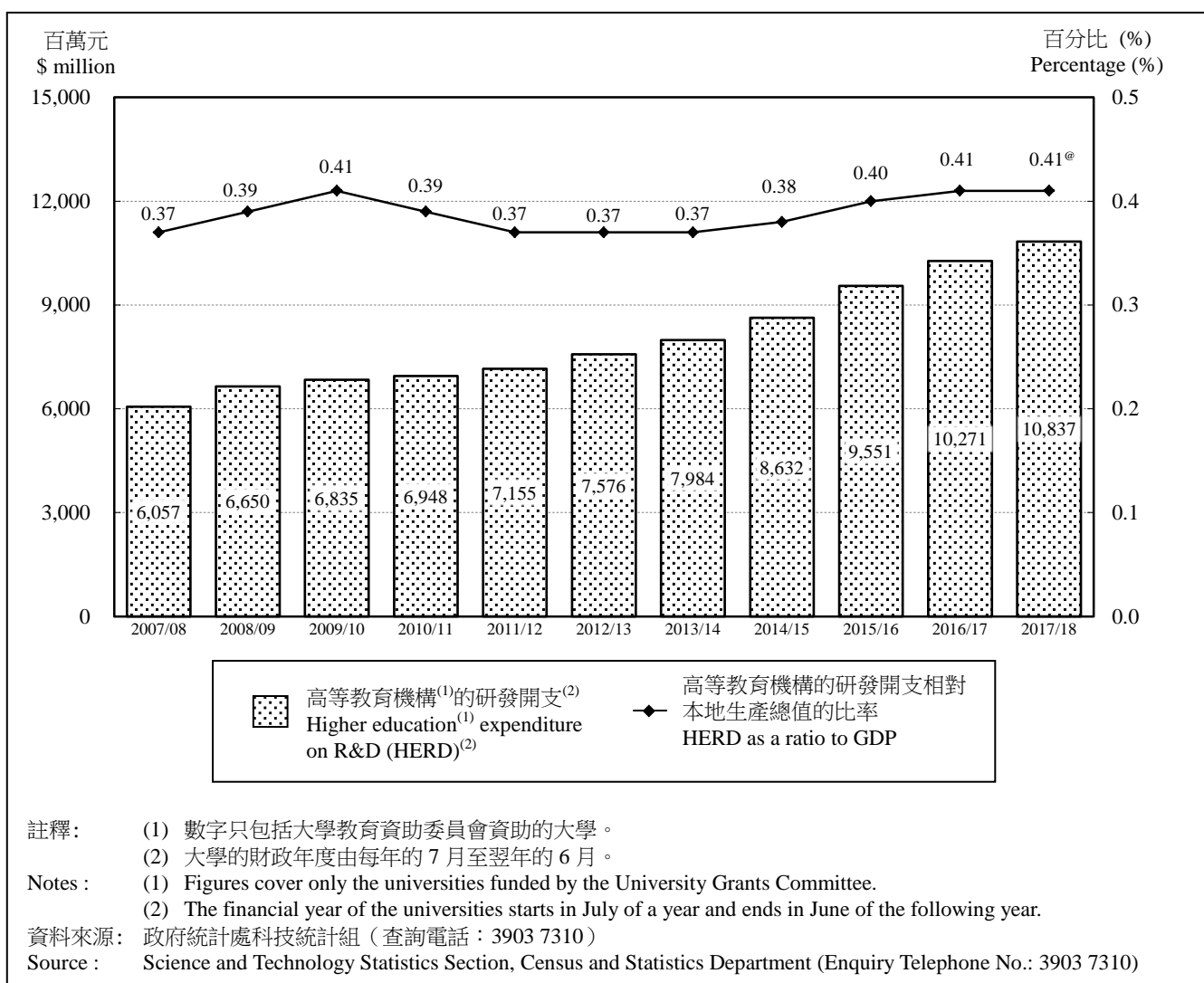
◆ Business expenditure on R&D consolidated in the latter half of 2008, in the aftermath of the global financial tsunami. The share of the business expenditure on R&D in GERD rose marginally from 42.7% in 2009 to 44.2% in 2017.

圖 3.4 工商機構的研究及發展（研發）開支相對本地生產總值的比率
Chart 3.4 Business expenditure on research and development (R&D) as a ratio to Gross Domestic Product (GDP)



- ◆ 工商機構的研發開支由 2007 年的 61 億元增加至 2017 年的 94 億元。
- ◆ Expenditure on R&D performed in the business sector increased from \$6.1 billion in 2007 to \$9.4 billion in 2017.
- ◆ 工商機構的研發費用往往受經濟狀況所影響。在環球金融海嘯影響下，營商環境轉差，工商機構的研發開支在 2008 年及 2009 年分別下降至 53 億元及 55 億元。
- ◆ Business outlay on R&D was usually sensitive to the general economic conditions. BERD consolidated to \$5.3 billion and \$5.5 billion respectively in 2008 and 2009 as business conditions turned gloomy amidst the global financial tsunami.

圖 3.5 高等教育機構的研究及發展（研發）開支相對本地生產總值的比率
Chart 3.5 Higher education expenditure on research and development (R&D) as a ratio to Gross Domestic Product (GDP)



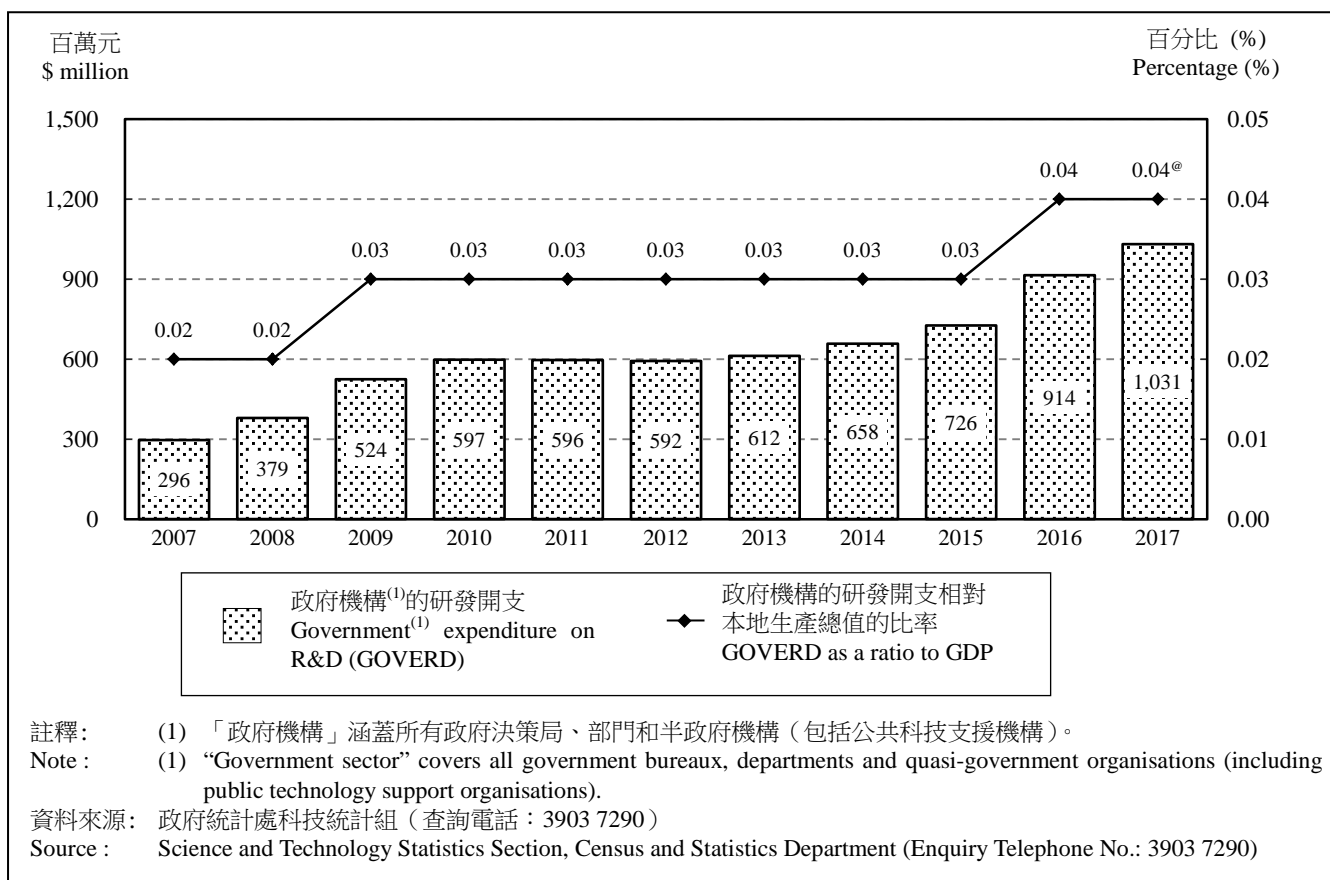
◆ 在 2017/18 學年，高等教育機構的研發開支達 108 億元，較 2007/08 學年上升 78.9%。

◆ 高等教育機構的研究資金主要由政府提供。

◆ In 2017/18 academic year, expenditure on R&D in the higher education sector amounted to \$10.8 billion, 78.9% higher than that recorded in 2007/08 academic year.

◆ Research funds of the higher education sector are mainly provided by the Government.

圖 3.6 政府機構的研究及發展（研發）開支相對本地生產總值的比率
Chart 3.6 Government expenditure on research and development (R&D) as a ratio to Gross Domestic Product (GDP)



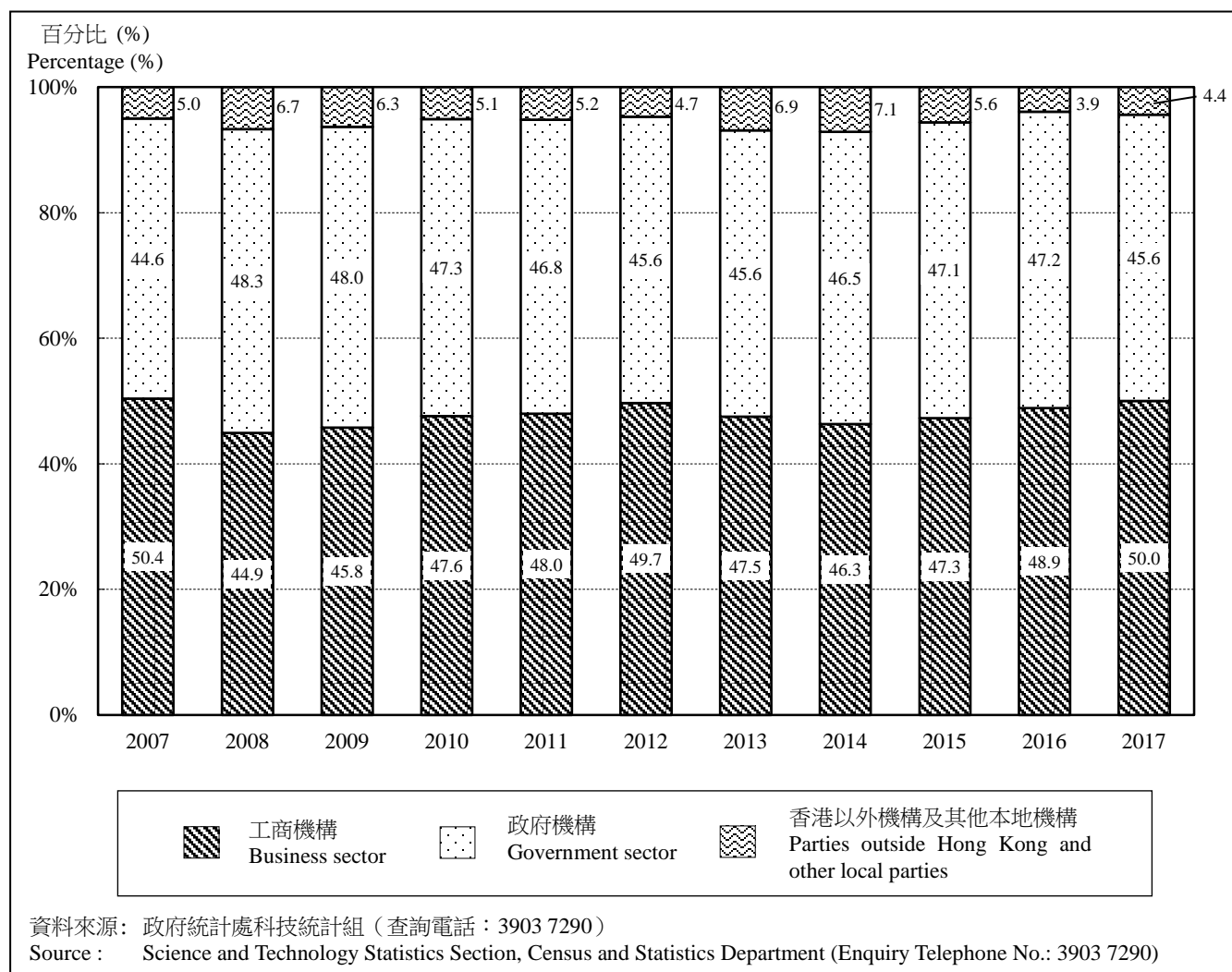
◆ 政府機構的研發開支由 2007 年的 3 億元增加至 2017 年的 10 億元。

◆ 香港的政府機構並不是研發活動的主要參與者。政府一直發揮推動研發活動的作用，提供資金及基礎建設的支援。

◆ Expenditure on R&D performed in the government sector increased from \$0.3 billion in 2007 to \$1.0 billion in 2017.

◆ In Hong Kong, the government sector itself is not a major performer of R&D activities. Instead, the Government has been playing the role of a facilitator by providing funding and infrastructural support to R&D activities.

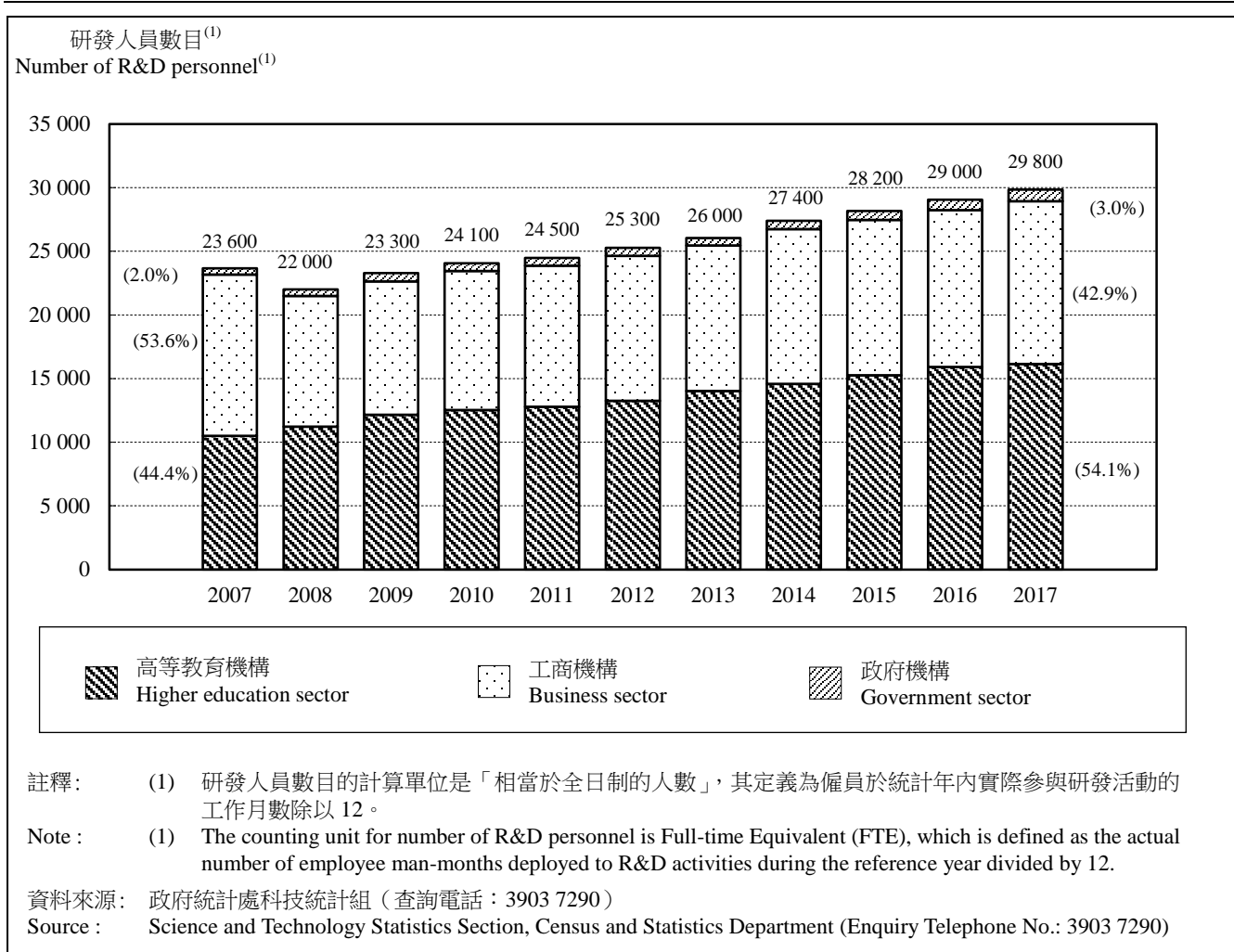
圖 3.7 按資金來源劃分的本地研究及發展（研發）總開支分布
Chart 3.7 Distribution of gross domestic expenditure on research and development (R&D) by source of funds



◆ 政府一直以來透過提供研究設備、基礎建設和資金援助，致力推動工商機構及高等教育機構在研發、提升科技以及創新等方面的發展。按資金來源分析，在2017年的本地研發總開支中，政府提供了97億元，佔研發總開支的45.6%。

◆ The Government had been playing an instrumental role in facilitating R&D, technology upgrading and innovation through the provision of research facilities, infrastructure as well as funding support to business and higher education sectors. Analysed by source of funds, R&D expenditure financed by the Government amounted to \$9.7 billion or 45.6% of the total GERD in 2017.

圖 3.8 按進行機構類別劃分的研究及發展（研發）人員分布
Chart 3.8 Distribution of research and development (R&D) personnel by performing sector

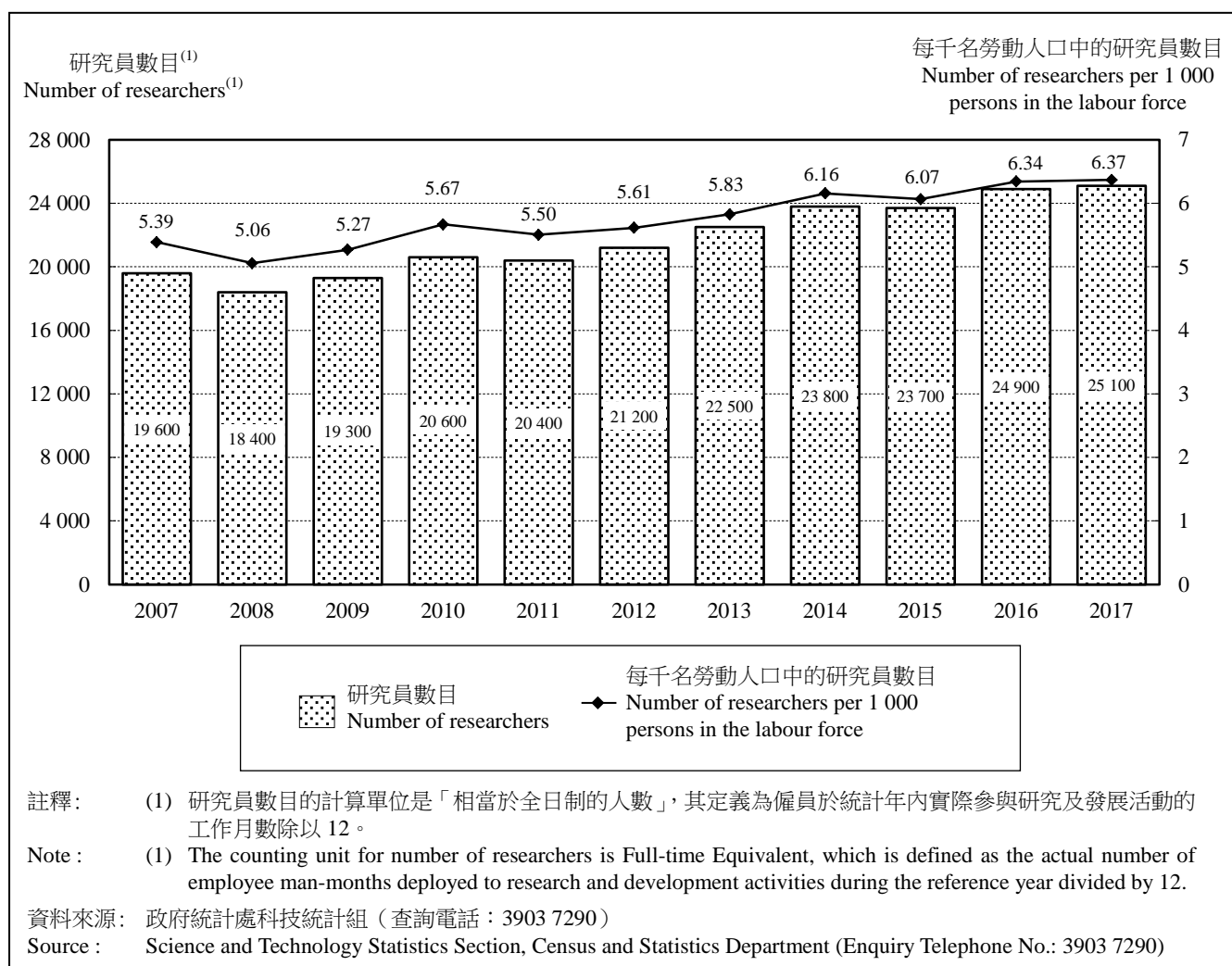


◆ 在 2017 年，研發人員總數（以相當於全日制的人數計算）約為 29 800 人，較 2007 年上升 26.2%。大部分的研發人員就業於高等教育機構和工商機構，他們分別佔 2017 年研發人員總數的 54.1% 和 42.9%。

◆ A total of about 29 800 R&D personnel (in FTE) were recorded in 2017, up by 26.2% when compared with 2007. Most of them were engaged in the higher education and business sectors, which accounted for 54.1% and 42.9% respectively of the total number of R&D personnel in 2017.

圖 3.9 每千名勞動人口中的研究員數目

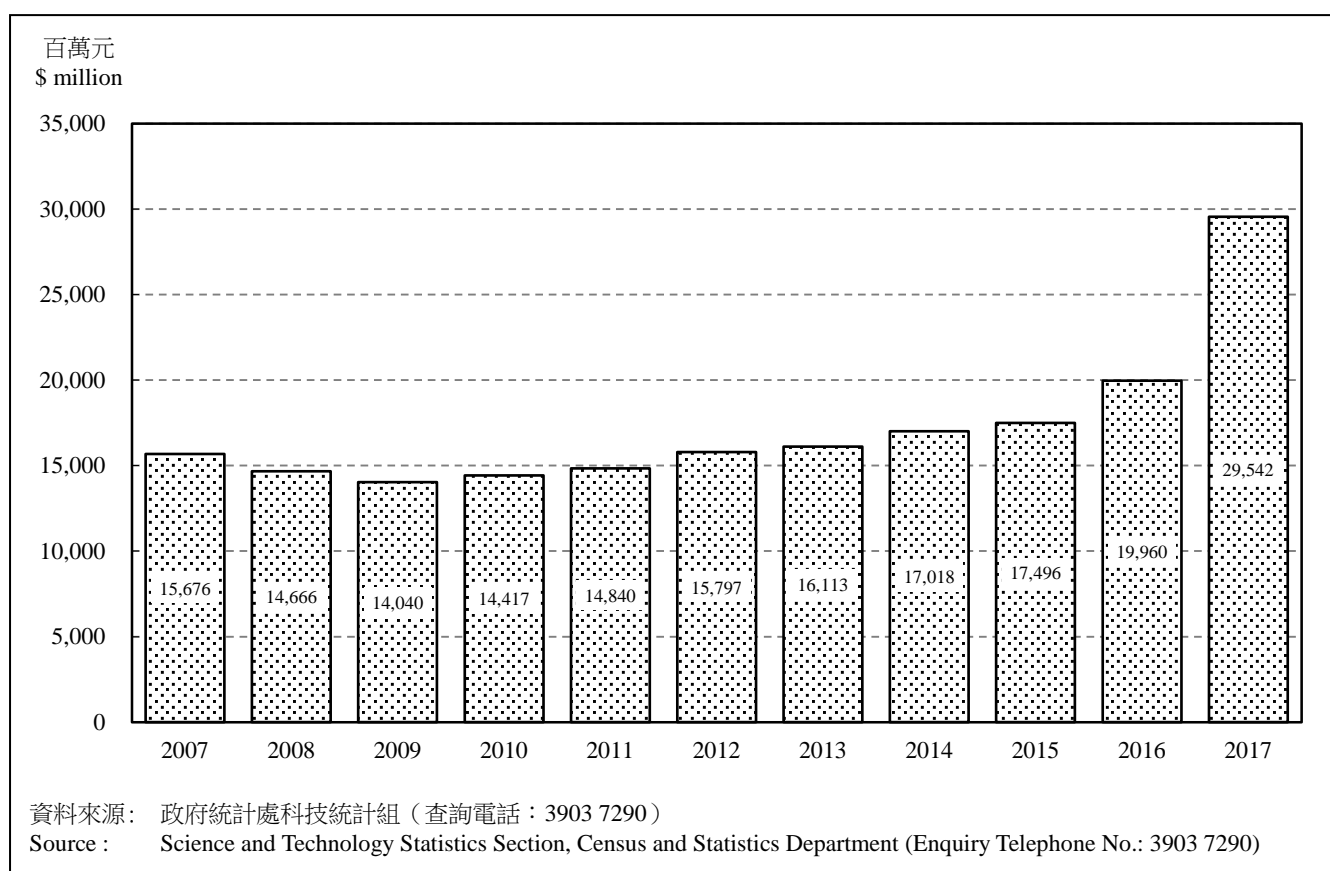
Chart 3.9 Number of researchers per 1 000 persons in the labour force



◆ 每千名勞動人口計算，研究員數目由 2007 年的 5.39 人上升至 2017 年的 6.37 人。

◆ The number of researchers per 1 000 persons in the labour force increased from 5.39 in 2007 to 6.37 in 2017.

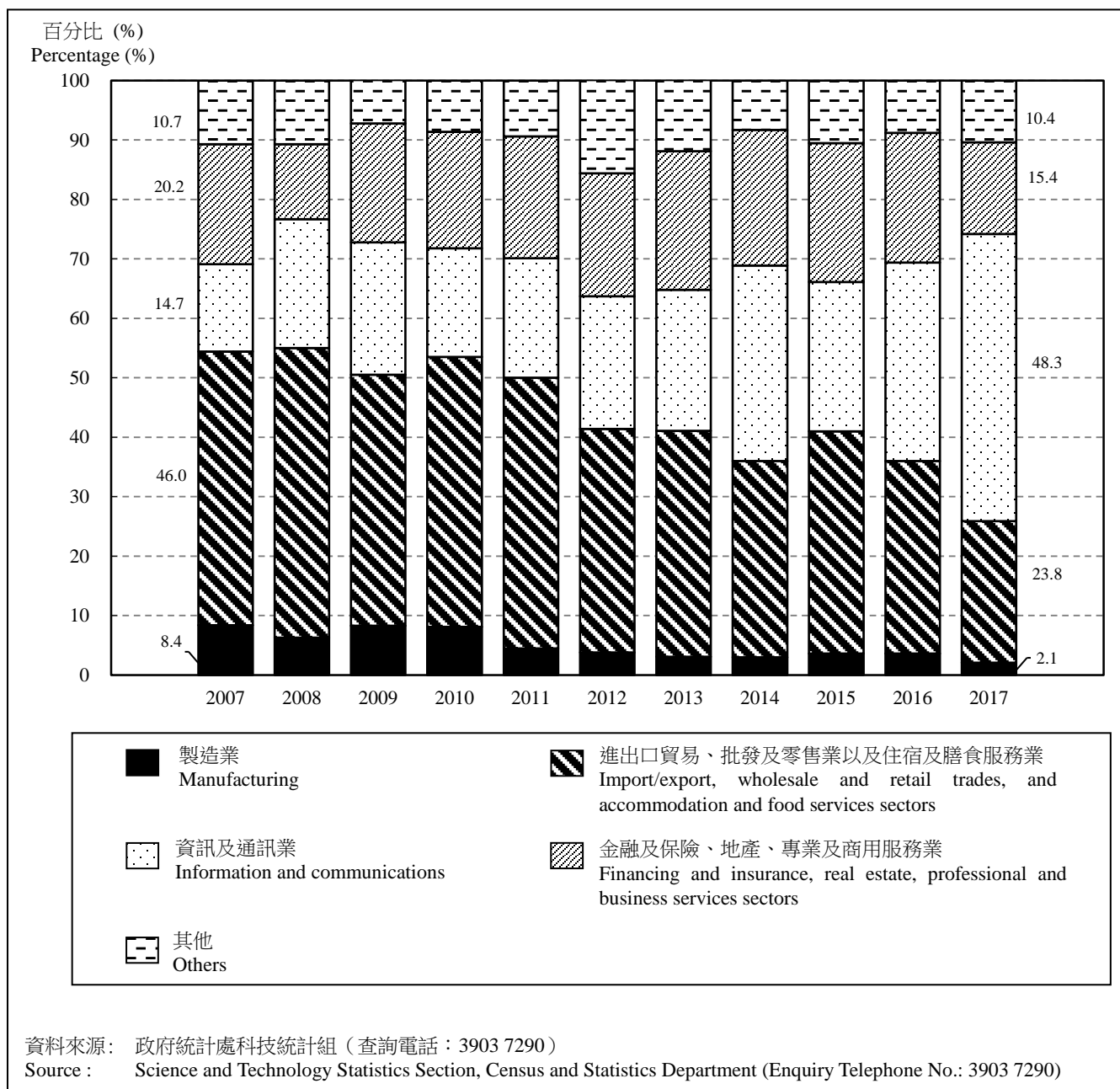
圖 3.10 工商機構的技術創新活動開支
Chart 3.10 Business technological innovation (TI) expenditure



- ◆ 工商機構的技術創新活動開支由 2009 年的 140 億元大幅上升至 2017 年的 295 億元。
- ◆ Business expenditure on TI rose markedly from \$14.0 billion in 2009 to \$29.5 billion in 2017.

圖 3.11 按選定行業組別劃分的工商機構的技術創新活動開支分布

Chart 3.11 Distribution of business technological innovation (TI) expenditure by selected industry grouping

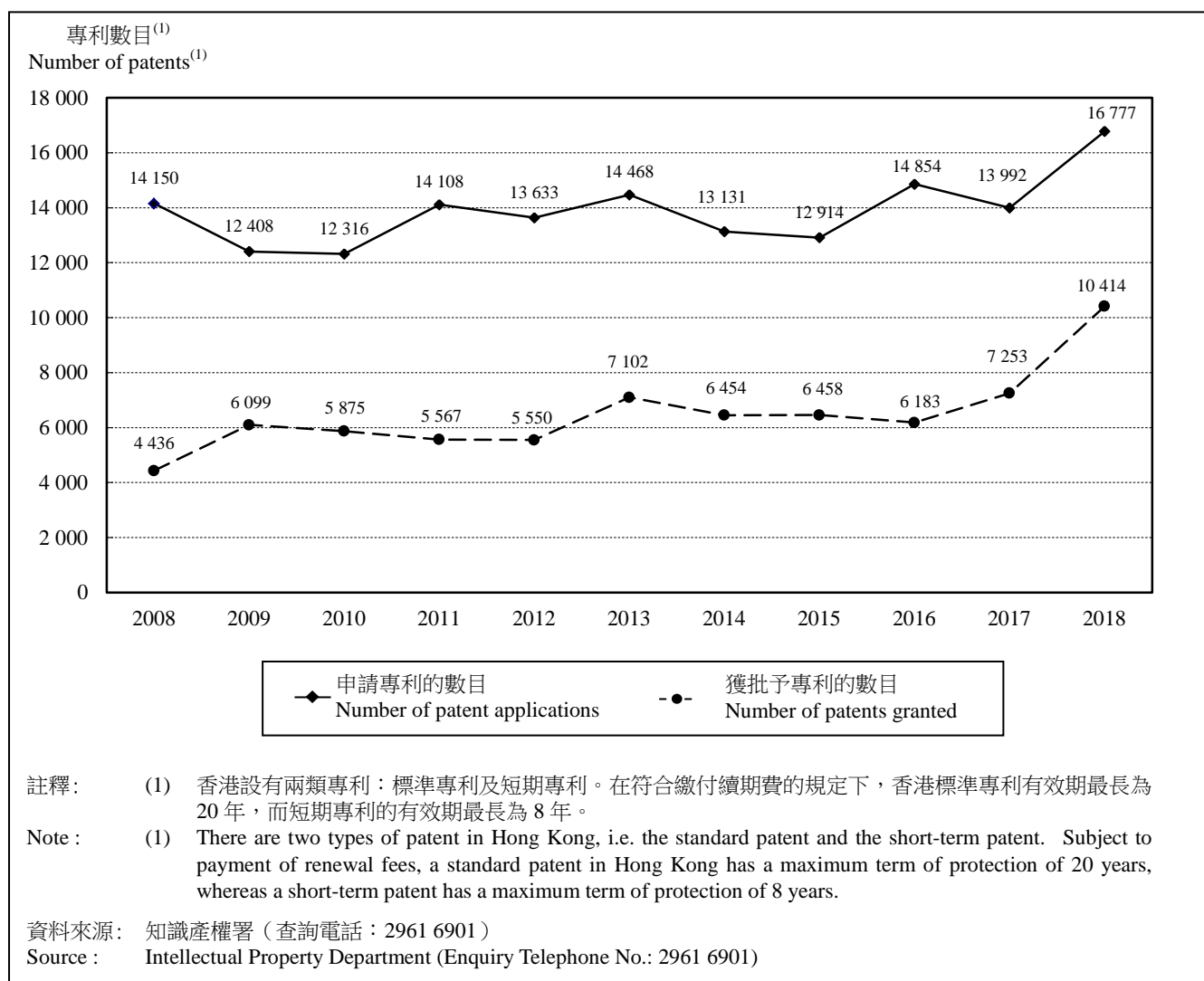


◆ 在 2017 年，資訊及通訊業用於技術創新活動的金額最多，佔技術創新開支總額的 48.3%。其次是進出口貿易、批發及零售業以及住宿及膳食服務業，以及金融及保險、地產、專業及商用服務業（分別佔 23.8% 和 15.4%）。

◆ The information and communications sector spent most on TI activities, constituting 48.3% of the total TI expenditure in 2017. It was followed by the import/export, wholesale and retail trades, and accommodation and food services sectors; and financing and insurance, real estate, professional and business services sectors (23.8% and 15.4% respectively).

圖 3.12 在香港申請專利及獲批予專利的數目

Chart 3.12 Number of patent applications and patents granted in Hong Kong



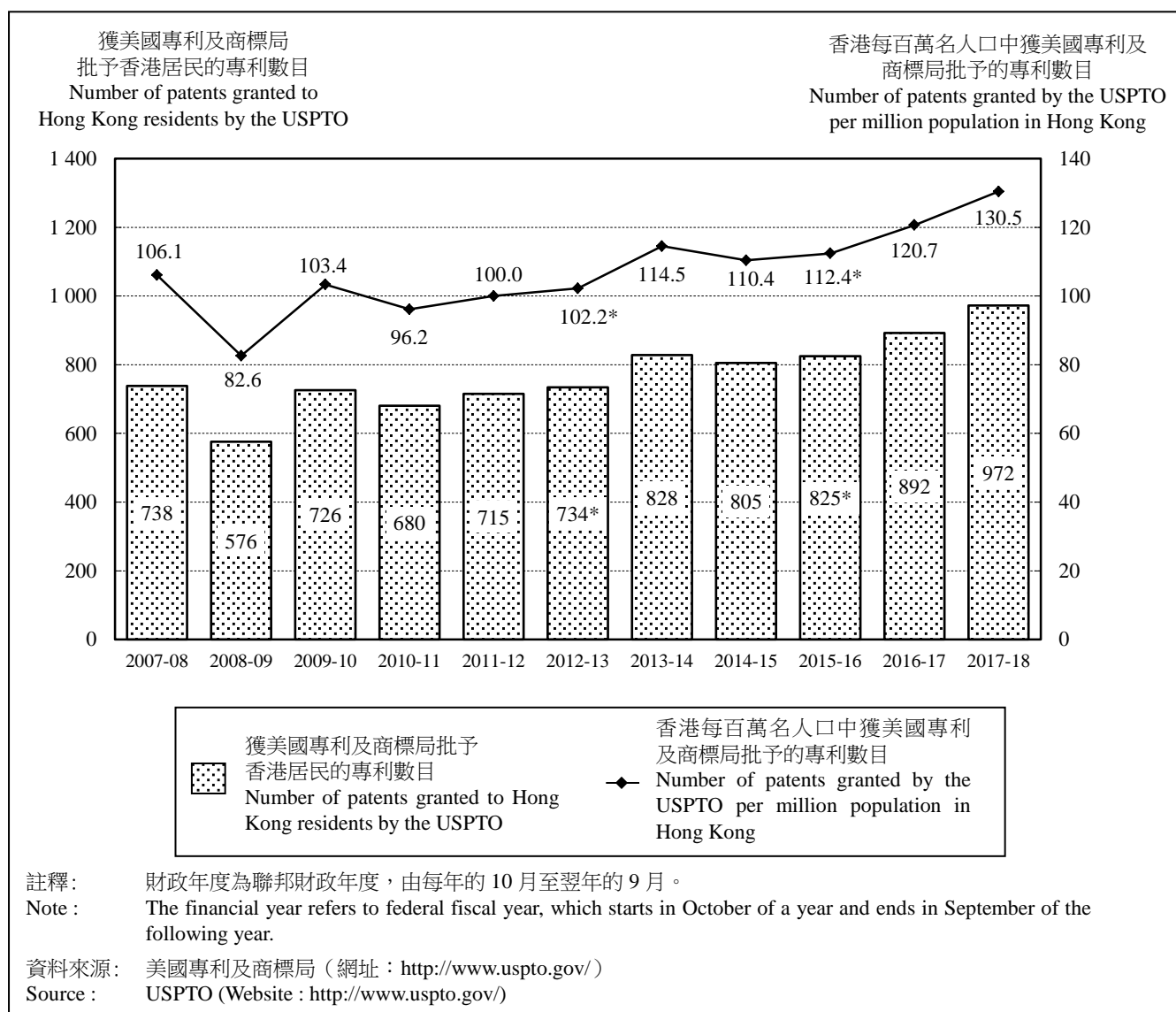
◆ 香港的申請專利數目由 2008 年 14 150 項上升至 2018 年 16 777 項。

◆ The total number of patent applications in Hong Kong increased from 14 150 in 2008 to 16 777 in 2018.

◆ 在香港獲批予專利的數目由 2008 年 4 436 項上升至 2018 年 10 414 項。

◆ The number of patents granted in Hong Kong increased from 4 436 in 2008 to 10 414 in 2018.

圖 3.13 獲美國專利及商標局批予香港居民的專利數目
Chart 3.13 Number of patents granted to Hong Kong residents by the United States Patent and Trademark Office (USPTO)

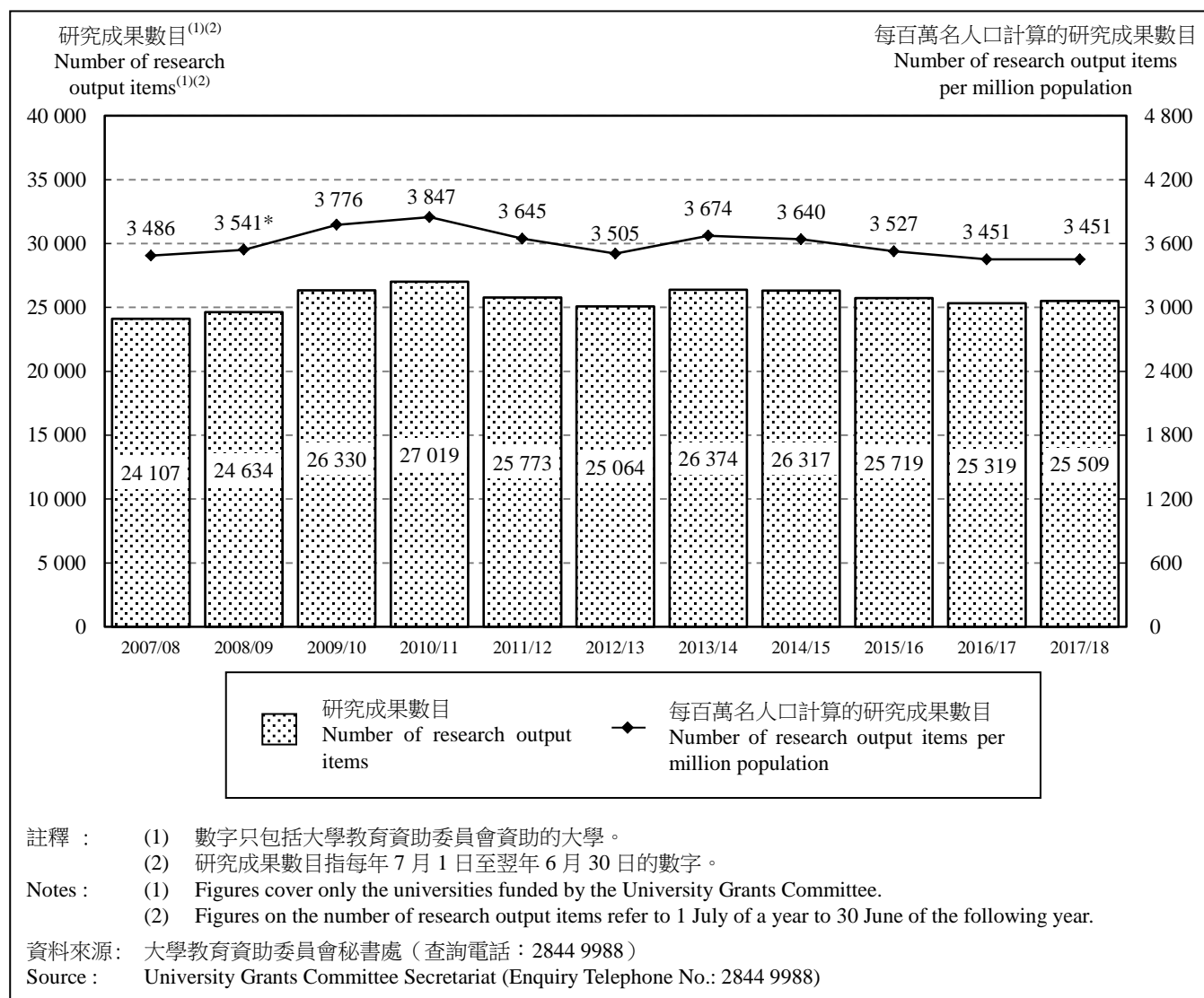


◆ 美國專利及商標局批予香港居民的專利數目由 2008-09 年度的 576 項低位上升至 2017-18 年度的 972 項。

◆ The number of patents granted by the USPTO to Hong Kong residents increased from the trough of 576 in 2008-09 to 972 in 2017-18.

圖 3.14 按每百萬名人口計算的高等教育研究成果數目

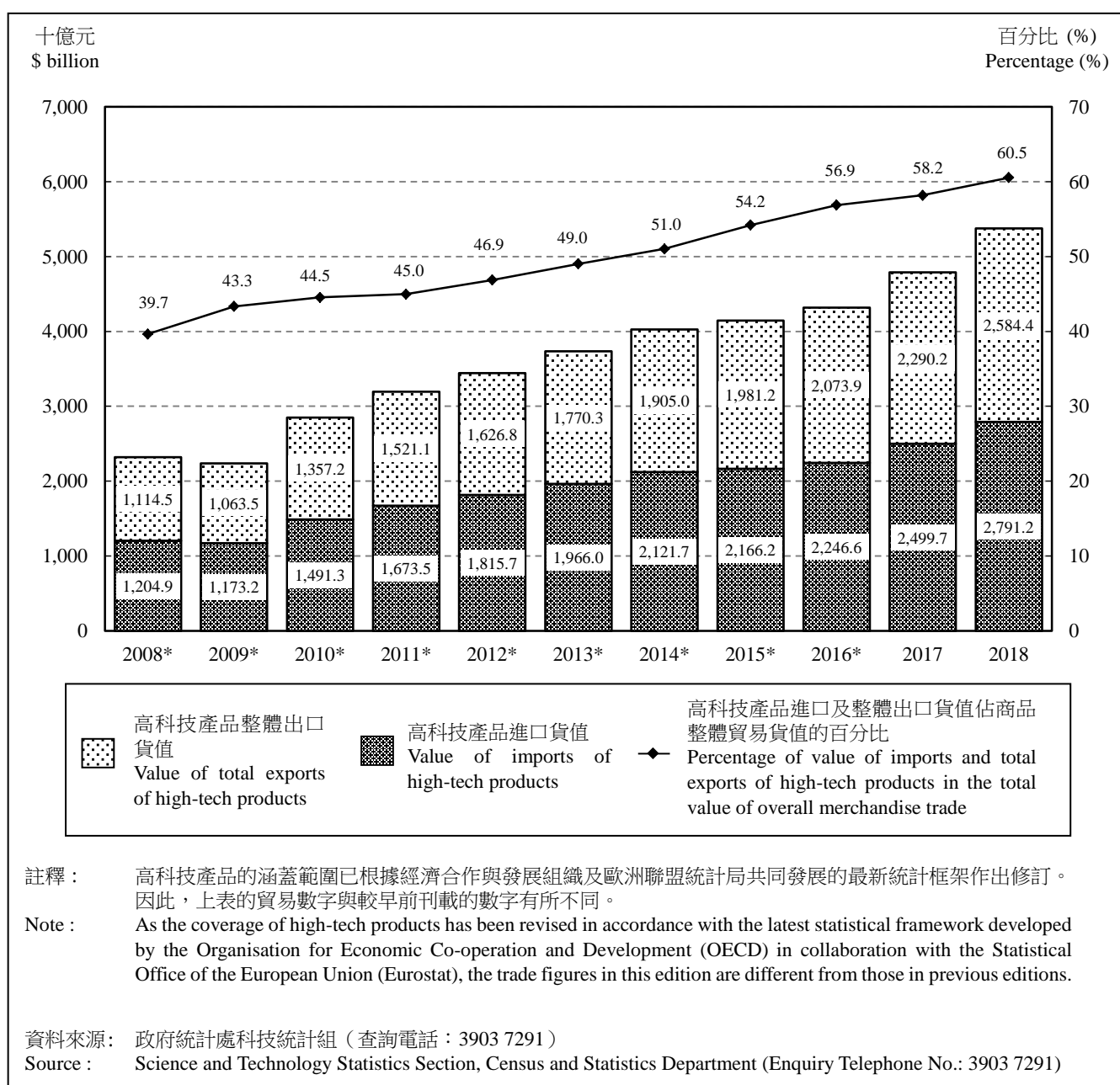
Chart 3.14 Higher education research output items per million population



◆ 大學教育資助委員會資助的大學的研究成果數目由 2007/08 學年的 24 107 項增加至 2017/18 學年的 25 509 項。在 2017/18 學年期間，以每百萬名人口計算的高等教育研究成果數目達 3 451 項。

◆ The number of research output items by the universities funded by the University Grants Committee increased from 24 107 in 2007/08 academic year to 25 509 in 2017/18 academic year. Higher education research output items per million population was 3 451 in 2017/18 academic year.

圖 3.15 高科技產品進口及整體出口貨值佔商品整體貿易貨值的百分比
Chart 3.15 Percentage of value of imports and total exports of high technology (high-tech) products in the total value of overall merchandise trade

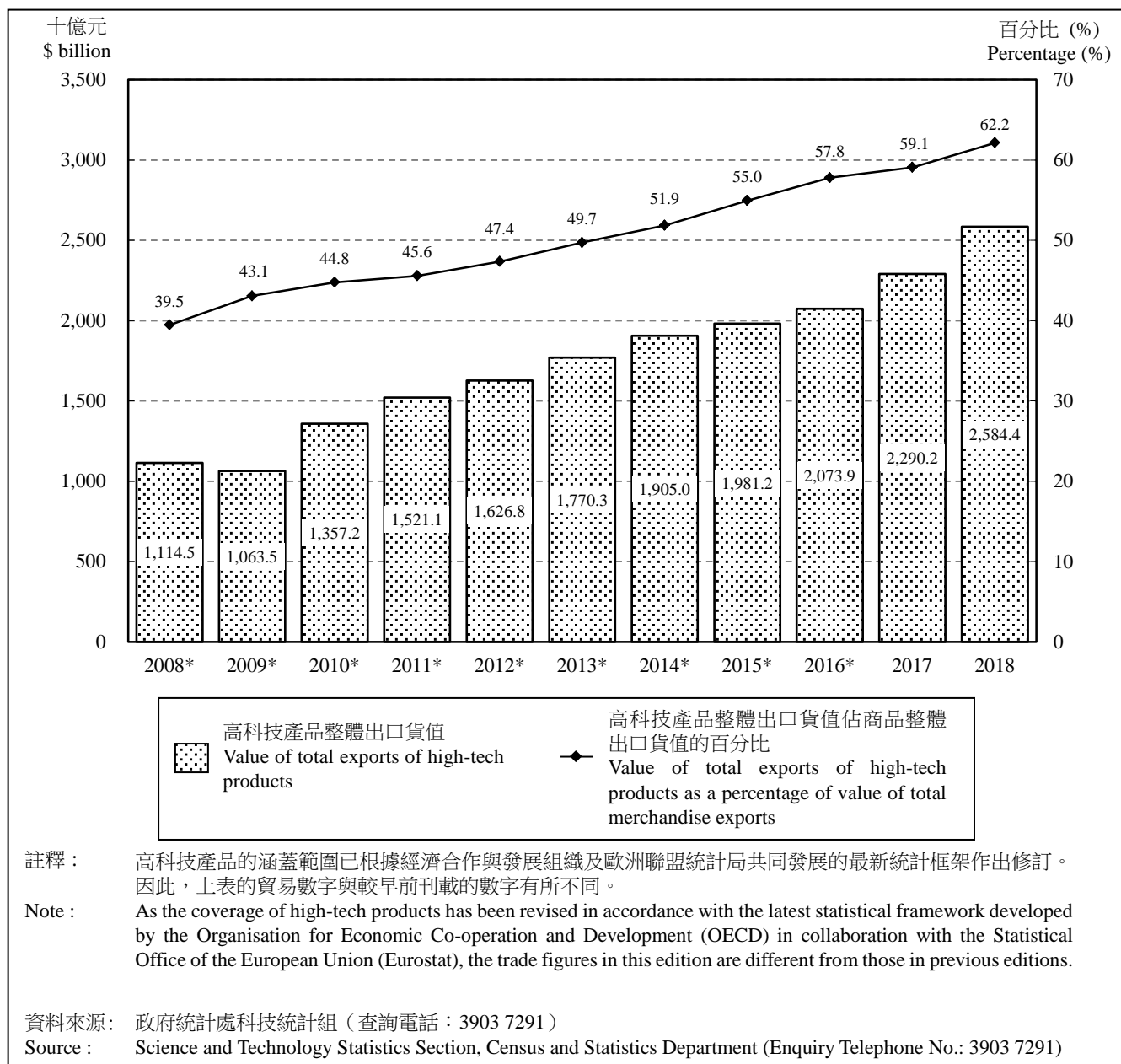


◆ 在 2018 年，高科技產品的貿易總貨值（整體出口及進口）達 53,756 億元，佔商品整體貿易貨值的 60.5%。

◆ In 2018, total value of merchandise trade (total exports plus imports) in respect of high-tech products amounted to \$5,375.6 billion, accounting for 60.5% of the total value of overall merchandise trade.

圖 3.16 高科技產品整體出口貨值佔商品整體出口貨值的百分比

Chart 3.16 Value of total exports of high technology (high-tech) products as a percentage of value of total merchandise exports



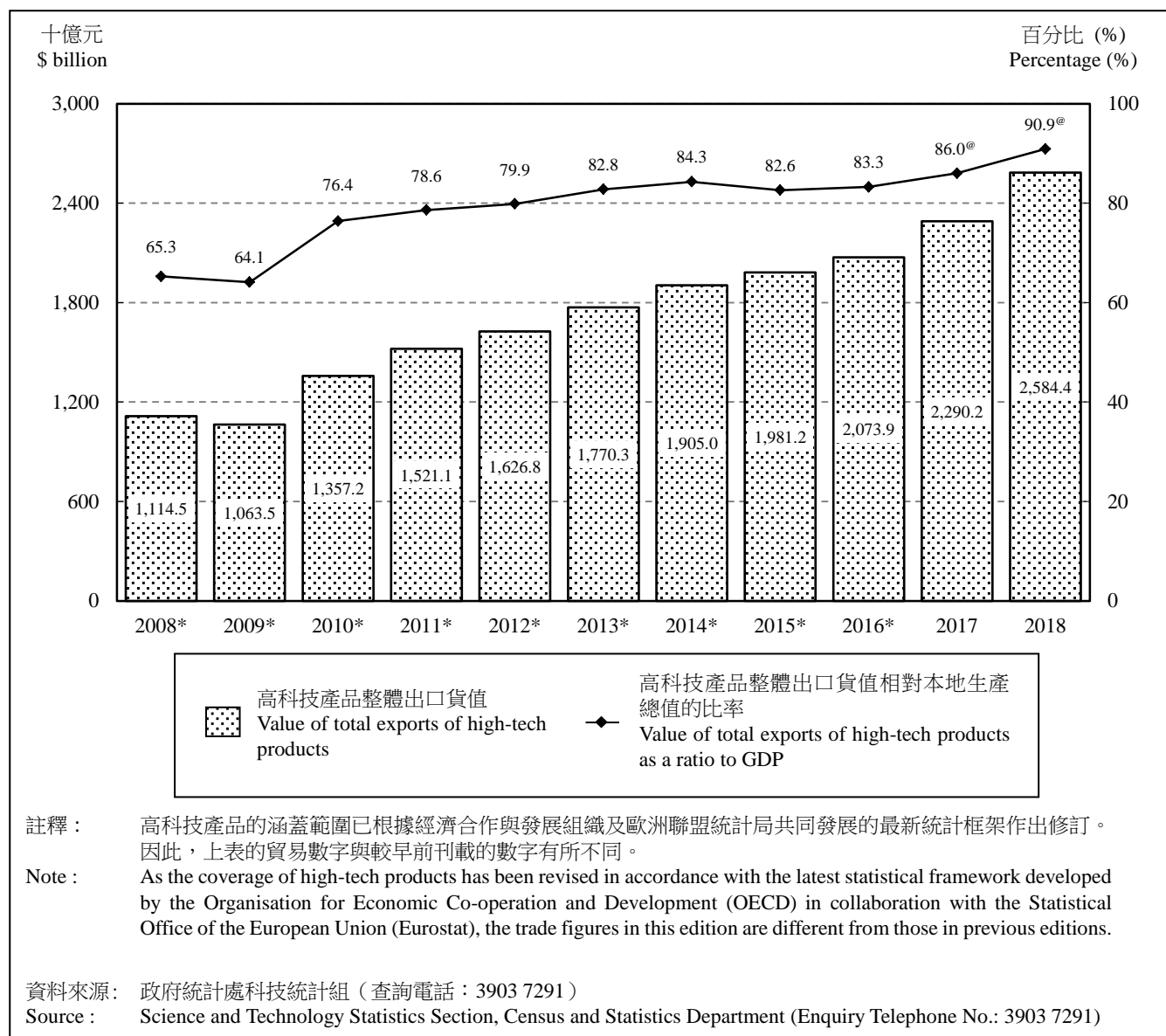
◆ 高科技產品的整體出口貨值（包括本地出口及轉口）在 2018 年為 25,844 億元。

◆ 香港的高科技產品出口大多屬於電訊及聲音收錄和重播器具及設備類別。

◆ The value of total merchandise exports (comprising domestic exports and re-exports) of high-tech products was \$2,584.4 billion in 2018.

◆ Most of Hong Kong's exports of high-tech products belonged to the category of telecommunications and sound recording, and reproducing apparatus and equipment.

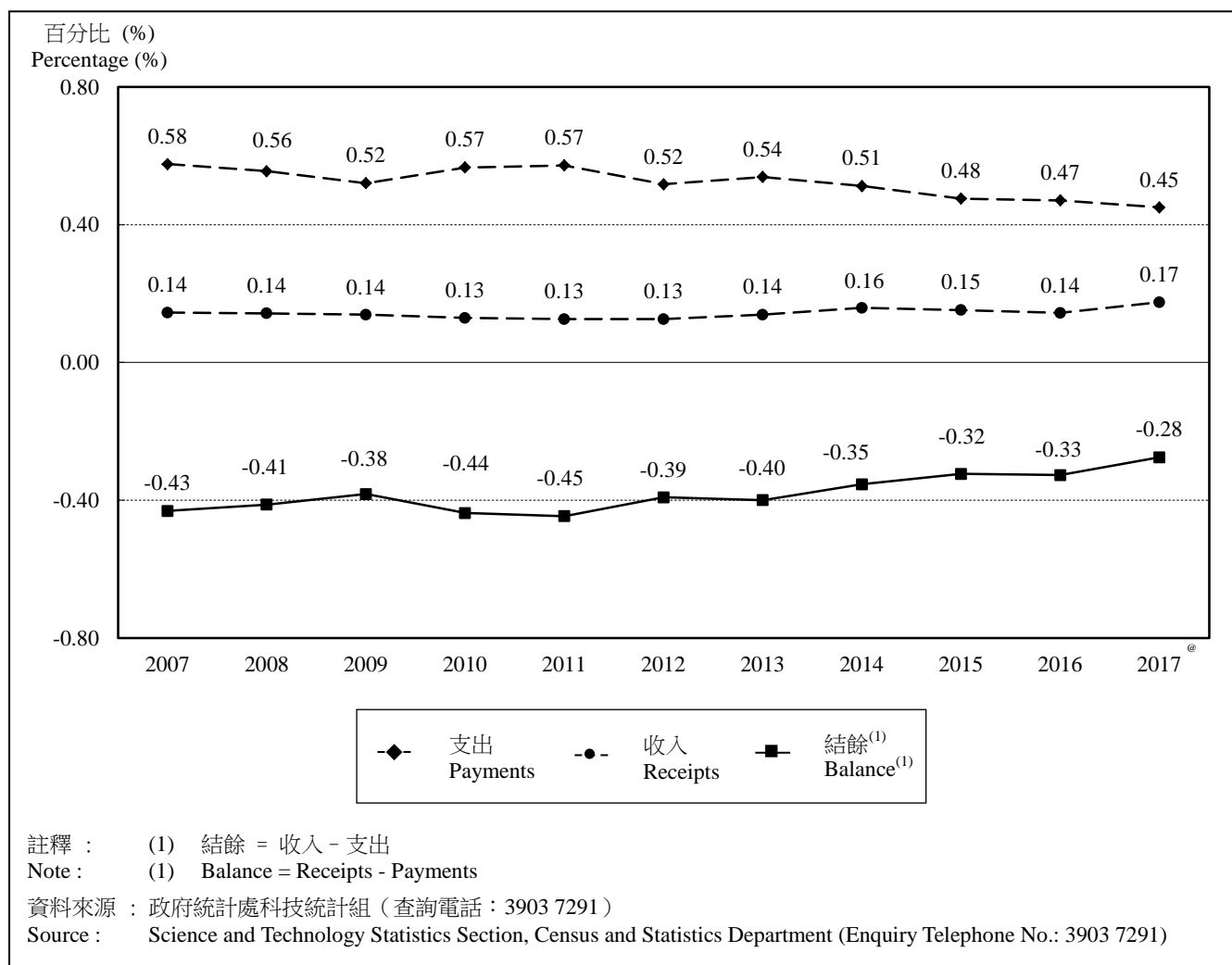
圖 3.17 高科技產品整體出口貨值相對本地生產總值的比率
Chart 3.17 Value of total exports of high technology (high-tech) products as a ratio to Gross Domestic Product (GDP)



- ◆ 隨高科技產品對外貿易迅速增長的同時，高科技產品整體出口貨值相對本地生產總值的比率在 2018 年為 90.9%。
- ◆ 香港的高科技產品出口受惠於中國內地的蓬勃經濟增長。過去 10 年，中國內地持續是香港高科技產品最主要的輸出地，其佔本地高科技產品整體出口總貨值的比重在 2018 年為 62.9%。

- ◆ In tandem with the rapid growth in external trade of high-tech products, the value of total exports of high-tech products as a ratio to GDP was 90.9% in 2018.
- ◆ Hong Kong's exports of high-tech products had benefited from the robust economic growth in the mainland of China. The mainland of China remained as Hong Kong's largest export destination for high-tech products in the past decade, with its share in total export value of high-tech products of Hong Kong was 62.9% in 2018.

圖 3.18 技術國際收支平衡表流向／結餘相對本地生產總值的比率
Chart 3.18 Technology balance of payments (TBP) flows/balance as a ratio to Gross Domestic Product (GDP)



◆ 香港的技術國際收支平衡表在 2007 年至 2017 年間每年均錄得赤字。在 2017 年，從知識資本及服務的交易中錄得 73 億元（相當於本地生產總值的 0.28%）的赤字，反映香港工商機構單位需要從境外引進技術及專門技能以保持其競爭力。

◆ Hong Kong recorded a deficit in its TBP account each year throughout the period from 2007 to 2017. In 2017, the deficit in the transactions of intellectual capital and services amounted to \$7.3 billion (or 0.28% of GDP), reflecting the need of business establishments in Hong Kong for import of technology and know-how to maintain their competitiveness.

第 4 章 營商環境

Chapter 4 Business Environment

有利發展知識型經濟的營商環境

4.1 知識型經濟的蓬勃發展有賴營商環境及制度框架能有效地掌握資訊及通訊科技、培育高學歷及高技能的勞動力，以及建立一個有效益的創新系統。營造一個富競爭及有公平規管機制的商貿環境能鼓勵企業家探索新商機及發掘創新的意念。具備專業才能的知識型工作者則有利發展高增值的產業。此外，一個開放型的經濟體有助吸引外來的投資，以及人才與技術的流入。

香港的營商環境

4.2 有利營商的環境可促進創造、獲取及運用知識，這有助以知識為主導的經濟發展。本刊物選取一系列統計指標以描述香港的營商環境如何有利其發展為知識型經濟。選定的統計指標載列於表 4.1，而以下段落則扼要描述香港最新的社會及經濟情況。

經濟結構

4.3 香港是一個知名的國際商業城市，並發展為國際金融中心及區內的貿易樞紐。在 2017 年，香港的服務業佔以基本價格計算的本地生產總值的 92.4%，可見其在經濟方面的重大貢獻。（圖 4.1）

Business environment conducive to the development of a knowledge-based economy (KBE)

4.1 A KBE flourishes under a business environment and institutional framework which promote efficient access to information and communication technology, development of highly-educated and highly-skilled workforce and establishment of an effective innovation system. The nurturing of a competitive and fair regulatory environment for business fosters entrepreneurs to explore new business opportunities and generate ideas for innovation. The availability of intellectual workers with professional knowledge is beneficial to the growth of high value added industries. Also, an open economy helps to attract the inflow of foreign investment, talents and technology.

Business environment in Hong Kong

4.2 A business friendly environment facilitates the creation, acquisition and use of knowledge which in turn contribute to the knowledge-led economic development. A suite of statistical indicators is selected to portray how conducive is the business environment of Hong Kong to its development towards a KBE. The selected indicators are listed in Table 4.1. The latest socio-economic conditions of Hong Kong are summarised in the following paragraphs.

Economic structure

4.3 Hong Kong is a renowned international city of commerce. The economy has emerged into an international financial centre and trading hub in the region. The economic contribution of the services sector is very significant in Hong Kong, accounting for 92.4% of the Gross Domestic Product (GDP) at basic prices in 2017. (Chart 4.1)

4.4 香港經濟結構持續朝高增值活動轉型，加上資訊科技的進步，因而加快香港經濟轉向以知識為本的活動，這情況可從知識型行業的擴張顯現出來。知識型行業是指一群需大量應用高科技及／或高技能工作人員的產業。在 2017 年，在香港從事知識型行業的人數為 656 200 人，佔整體就業人數的 17.2%。同年，知識型行業的增加價值達 6,942 億元，佔以基本價格計算的本地生產總值的 27.2%。(圖 4.2 及 4.3)

經濟體對外開放的程度

4.5 香港是最能與全球聯繫的經濟體之一，奉行自由貿易、資訊及資金自由流通，以及出入境不受限制。香港商品貿易總值是本地生產總值的三倍多。商品貿易總值在 2018 年達 88,795 億元，相當於本地生產總值的 312.3%。同年，香港的商品貿易總值在世界排名第 7 位。(圖 4.4)

4.6 除了商品貿易外，服務貿易的價值亦十分龐大。在 2018 年，服務輸出及輸入價值分別達 8,914 億元及 6,353 億元。服務貿易總額佔本地生產總值的比率為 53.7%。(圖 4.5)

4.7 根據聯合國貿易及發展會議的最新報告，香港在 2018 年，在全球接受外來直接投資的地區中名列第 3 位。截止 2018 年年底，按市值計算的直接投資資產及負債頭寸分別為 164,693 億元及 174,650 億元，而相對本地生產總值的比率分別為 579% 及 614%。(圖 4.6)

4.8 作為一個國際商業城市，香港從全球各地吸引大量企業來港發展業務。在 2018 年，駐港的地區總部及地區辦事處合共有 3 955 間。(圖 4.7)

4.4 The ongoing structural transformation of the Hong Kong economy towards high value added activities and the advancement of information technology had stepped up the transition to more knowledge-based activities in the economy, as manifested by an expansion of the knowledge-based industries (KBI). KBI refers to a cluster of industries with intensive use of high technology and/or having highly skilled workforce. In Hong Kong, the employment size of the KBI was 656 200 in 2017, accounting for 17.2% of the total employment. In the same year, the value added of KBI amounted to \$694.2 billion, contributing to 27.2% of the GDP at basic prices. (Charts 4.2 and 4.3)

Openness of the economy

4.5 Hong Kong is one of the most globally connected economies with free trade, free flow of information and capital, as well as unrestricted access to the territory. The value of Hong Kong's total merchandise trade was more than triple the value of GDP. In 2018, the value of total merchandise trade reached \$8,879.5 billion, equivalent to 312.3% of GDP. In the same year, Hong Kong ranked the seventh in the world in terms of the value of total merchandise trade. (Chart 4.4)

4.6 Apart from trade in goods, the value of trade in services is also huge. In 2018, the value of exports and imports of services amounted to \$891.4 billion and \$635.3 billion respectively. The ratio of total value of trade in services to GDP stood at 53.7%. (Chart 4.5)

4.7 According to the latest report from the United Nations Conference on Trade and Development, Hong Kong came third in global recipient of foreign direct investment in 2018. As at the end of 2018, the positions of direct investment (DI) assets and liabilities at market value were \$16,469.3 billion and \$17,465.0 billion respectively. Their respective ratios to GDP were 579% and 614%. (Chart 4.6)

4.8 As an international business city, Hong Kong attracts quite a number of enterprises from all around the world to set up business in the city. In 2018, there were a total of 3 955 regional headquarters (RHQs) and regional offices (ROs) in Hong Kong. (Chart 4.7)

經濟表現

4.9 香港的經濟經歷環球經濟波動後往往能迅速復原。環球金融海嘯後，香港的實質本地生產總值在 2009 年錄得 2.5% 的按年負增長。在 2018 年，實質本地生產總值按年上升 3.0%，而按人口平均計算的實質本地生產總值亦錄得 2.2% 的溫和按年增長。（圖 4.8 及 4.9）

4.10 在 2018 年，以本地固定資本形成總額計算的固定資產（例如樓宇及建造以及機械及設備等投資）投資達 6,116 億元，佔本地生產總值的比率為 21.5%。（圖 4.10）

勞動市場

4.11 香港的勞動人口就業水平頗高。在 2018 年，失業率處於 2.8% 的低位。（圖 4.11）

4.12 香港的勞工市場一般頗具彈性。女性勞動人口參與率由 2008 年的 53.1% 增加至 2018 年的 55.1%。同期，男性勞動人口參與率則由 69.7% 下降至 68.5%。（圖 4.12）

4.13 勞工生產力是一個經濟體可持續增長的其中一個主要因素。勞工生產力指數反映投入的勞動力如何有效地運用在實質生產上。在 2008 年至 2018 年期間，香港的整體勞工生產力指數錄得 2.3% 的平均按年增幅。（圖 4.13）

居民的社會及經濟狀況

4.14 香港的住戶普遍比 10 年前較為富裕。每月入息少於 4,000 元的住戶比例由 2008 年的 7.4% 下降至 2018 年的 5.5%。同期，入息在 80,000 元及以上的住戶則由 5.0% 增加至 11.2%。在 2018 年，住戶每月入息中位數達 28,000 元。（圖 4.14 及 4.15）

Economic performance

4.9 The Hong Kong economy is generally resilient to volatility in the global economy. In 2009, the GDP of Hong Kong recorded a negative annual growth of 2.5% in real terms in the aftermath of the global financial tsunami. In 2018, an annual growth of 3.0% was registered for GDP in real terms, while per capita GDP in real terms also recorded a mild annual growth of 2.2%. (Charts 4.8 and 4.9)

4.10 Investment in fixed assets such as building and construction as well as machinery and equipment, as measured by the gross domestic fixed capital formation (GDFCF), amounted to \$611.6 billion (or 21.5% of GDP) in 2018. (Chart 4.10)

The labour market

4.11 The level of utilisation of labour is generally high in Hong Kong. The unemployment rate stood at a low level of 2.8% in 2018. (Chart 4.11)

4.12 The labour market is generally flexible. The female labour force participation rate went up from 53.1% in 2008 to 55.1% in 2018. Over the same period, the male labour force participation rate dropped from 69.7% to 68.5%. (Chart 4.12)

4.13 Labour productivity is one of the key determinants of the sustainable growth of an economy. The Labour Productivity Indices (LPIs) reflect how efficiently labour input is used for generating real output. In Hong Kong, the overall LPI increased at an average annual growth rate of 2.3% during the period from 2008 to 2018. (Chart 4.13)

Socio-economic profile of residents

4.14 The households in Hong Kong had generally become more affluent over the last decade. The proportion of households with monthly income under \$4,000 dropped from 7.4% in 2008 to 5.5% in 2018, while that with \$80,000 and over increased from 5.0% to 11.2% during the same period. In 2018, the median monthly household income reached \$28,000. (Charts 4.14 and 4.15)

4.15 香港是世界上人煙最稠密的都市之一。2018 年的年中人口是 745 萬人，人口密度達每平方公里 6 890 人（不包括水上人口及水塘區域）。過去 10 年，人口平均按年增長 0.7%。（圖 4.16）

4.16 香港的人口正在老化。年齡中位數由 2008 年的 40.3 歲增加至 2018 年的 44.2 歲。造成這個趨勢的各項因素中，人口的生育率持續偏低和死亡情況改善是其中兩個主因。（圖 4.17）

結語

4.17 概括而言，香港的營商環境有助其發展一個知識型經濟。政府一貫實施以市場為導向的政策，為所有市場參與者提供一個公平競爭的環境，促進創業精神及創造力。

4.15 Hong Kong is one of the most densely populated cosmopolitans in the world. The mid-2018 population was 7.45 million, with a density of 6 890 persons per square kilometer (excluding marine population and area of reservoirs). The size of the population increased by an average of 0.7% per annum in the past decade. (Chart 4.16)

4.16 Hong Kong's population is ageing. The median age rose from 40.3 in 2008 to 44.2 in 2018. The trend is mainly attributable to the continuously low fertility rate and improvement in mortality experienced by the population, among other factors. (Chart 4.17)

Concluding remarks

4.17 The business environment in Hong Kong is generally conducive to nurturing the development of Hong Kong towards a KBE. The market-oriented policies implemented by the Government also provide a level playing field for all market participants, promoting entrepreneurship and creativity.

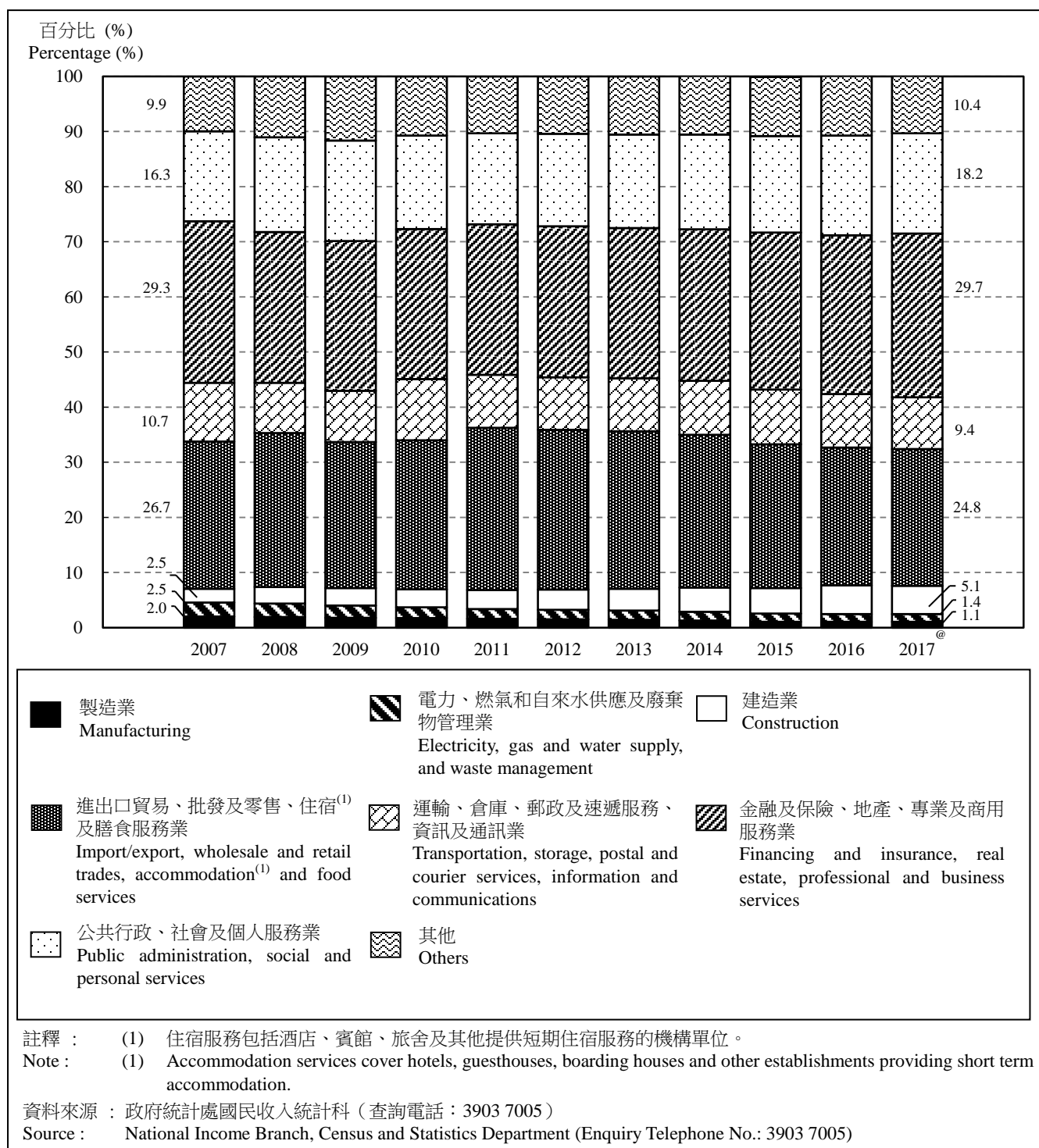
表 4.1 量度知識型經濟中有關營商環境範疇的統計指標一覽

Table 4.1 List of statistical indicators for measuring the business environment aspect of a KBE

| 與營商環境相關的因素 Factors relating to business environment | 統計指標 Statistical indicators |
|---|--|
| 經濟結構 Economic structure | <ol style="list-style-type: none"> 1. 各經濟活動在以基本價格計算的本地生產總值內所佔的百分比 Percentage contribution of economic activities to GDP at basic prices 2. 知識型行業的機構單位數目及就業人數 Number of establishments and persons engaged in KBI 3. 知識型行業的增加價值佔以基本價格計算的本地生產總值的百分比 Value added of KBI as a percentage of GDP at basic prices |
| 經濟體對外開放程度 Openness of the economy | <ol style="list-style-type: none"> 1. 商品貿易總值相對本地生產總值的比率 Total value of trade in goods as a ratio to GDP 2. 服務貿易總額相對本地生產總值的比率 Total value of trade in services as a ratio to GDP 3. 直接投資資產及負債頭寸相對本地生產總值的比率 Positions of DI assets and liabilities as a ratio to GDP 4. 駐港的地區總部及地區辦事處的數目 Number of RHQs and ROs in Hong Kong |
| 經濟表現 Economic performance | <ol style="list-style-type: none"> 1. 本地生產總值的每年實質增長 Annual growth of GDP in real terms 2. 按人口平均計算的本地生產總值的每年實質增長 Annual growth of per capita GDP in real terms 3. 本地固定資本形成總額佔本地生產總值的比率 GDFCF as a ratio of GDP |
| 勞動市場 The labour market | <ol style="list-style-type: none"> 1. 失業率 Unemployment rate 2. 按年齡組別及性別劃分的勞動人口參與率 Labour force participation rate by age group and sex 3. 整體經濟及選定主要經濟活動的勞工生產力指數 LPIs for the whole economy and selected major economic activities |

| 與營商環境相關的因素 Factors relating to business environment | 統計指標 Statistical indicators |
|--|--|
| 居民的社會及經濟狀況 Socio-economic profile of residents | <ol style="list-style-type: none"> 1. 按住戶每月入息劃分的家庭住戶分布 Distribution of domestic households by monthly household income 2. 家庭住戶每月入息中位數 Median monthly household income of domestic households 3. 年中人口及按年增長率 Mid-year population and annual growth rate 4. 人口金字塔 Population pyramids |

圖 4.1 各經濟活動在以基本價格計算的本地生產總值內所佔的百分比
Chart 4.1 Percentage contribution of economic activities to Gross Domestic Product (GDP) at basic prices

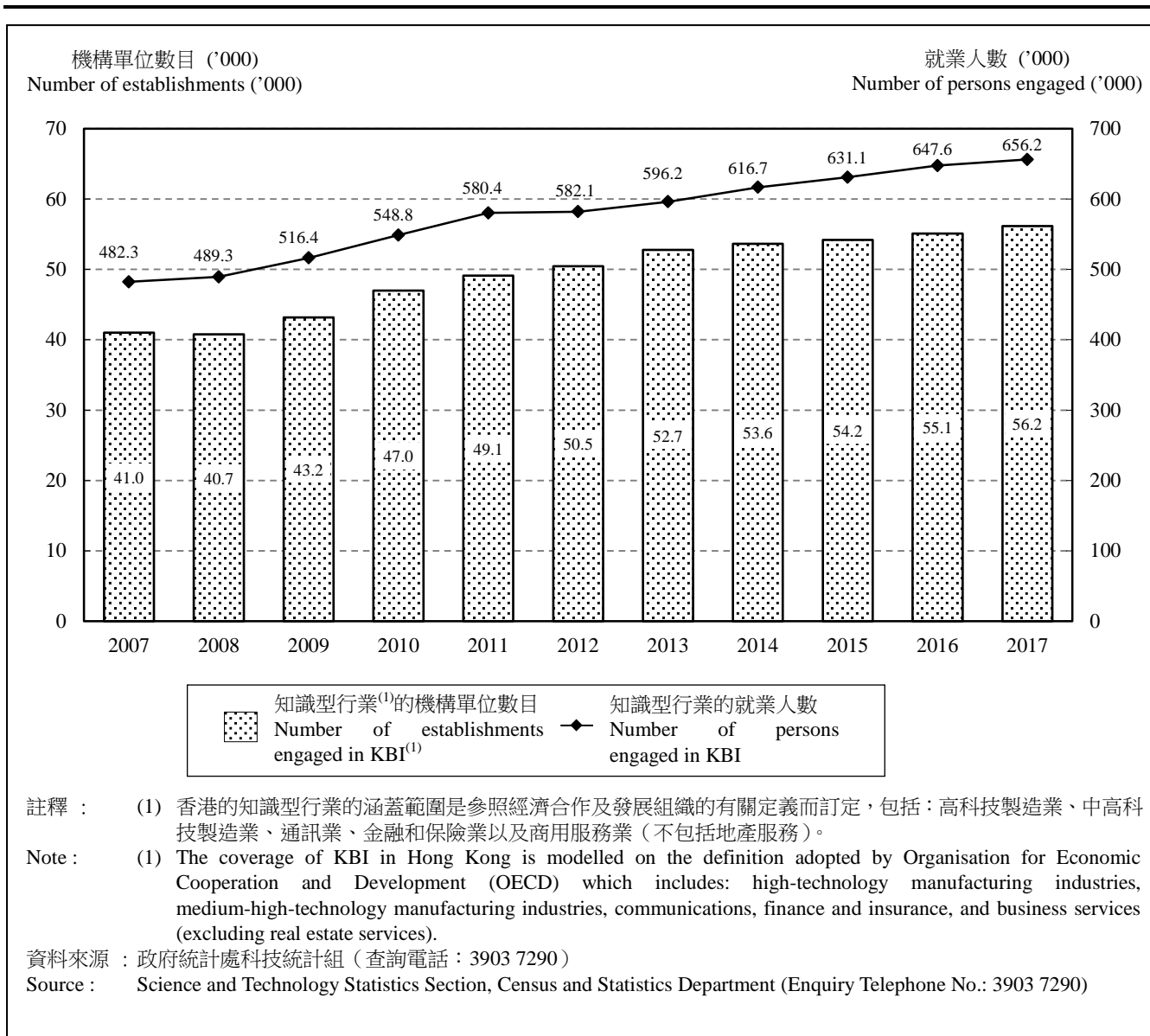


◆ 在 2017 年，服務業對以基本價格計算的本地生產總值的貢獻為 92.4%。

◆ In 2017, the contribution of the services sector to GDP at basic prices was 92.4%.

圖 4.2 知識型行業的機構單位數目及就業人數

Chart 4.2 Number of establishments and persons engaged in knowledge-based industries (KBI)



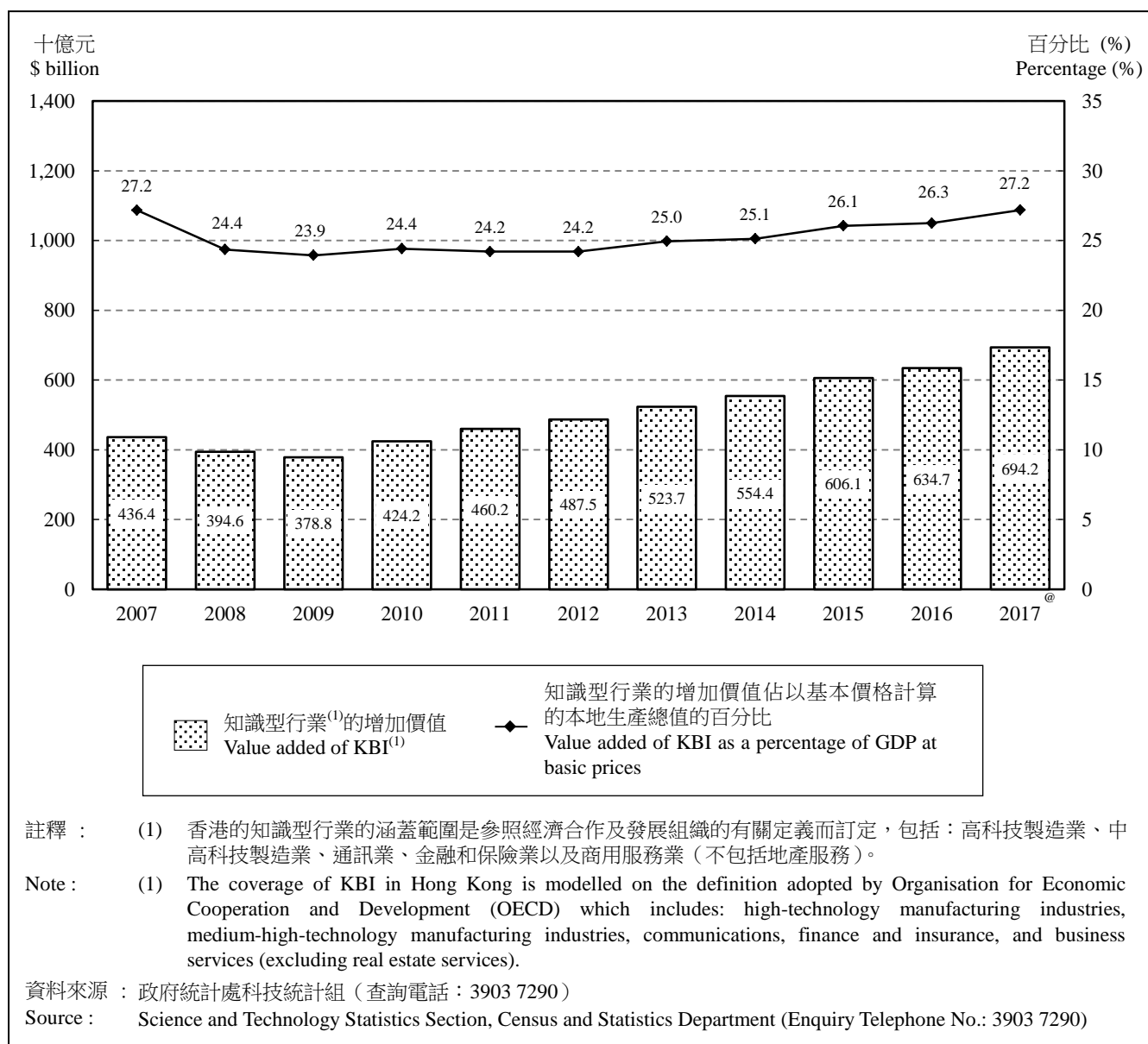
◆ 知識型行業的規模持續增長。在香港從事知識型行業的機構單位數目由 2007 年的 41 000 間上升至 2017 年的 56 200 間，升幅為 37.0%。

◆ 同期，知識型行業的就業人數上升 36.1%，反映知識密集的活動在香港日漸重要。

◆ The size of the KBI has been expanding. The number of establishments engaged in KBI in Hong Kong increased by 37.0% from 41 000 in 2007 to 56 200 in 2017.

◆ The number of persons engaged in the KBI surged by 36.1% over the same period, reflecting the growing importance of knowledge intensive activities in Hong Kong.

圖 4.3 知識型行業的增加價值佔以基本價格計算的本地生產總值的百分比
Chart 4.3 Value added of knowledge-based industries (KBI) as a percentage of Gross Domestic Product (GDP) at basic prices



◆ 知識型行業的增加價值由 2007 年的 4,364 億元增加至 2017 年的 6,942 億元。

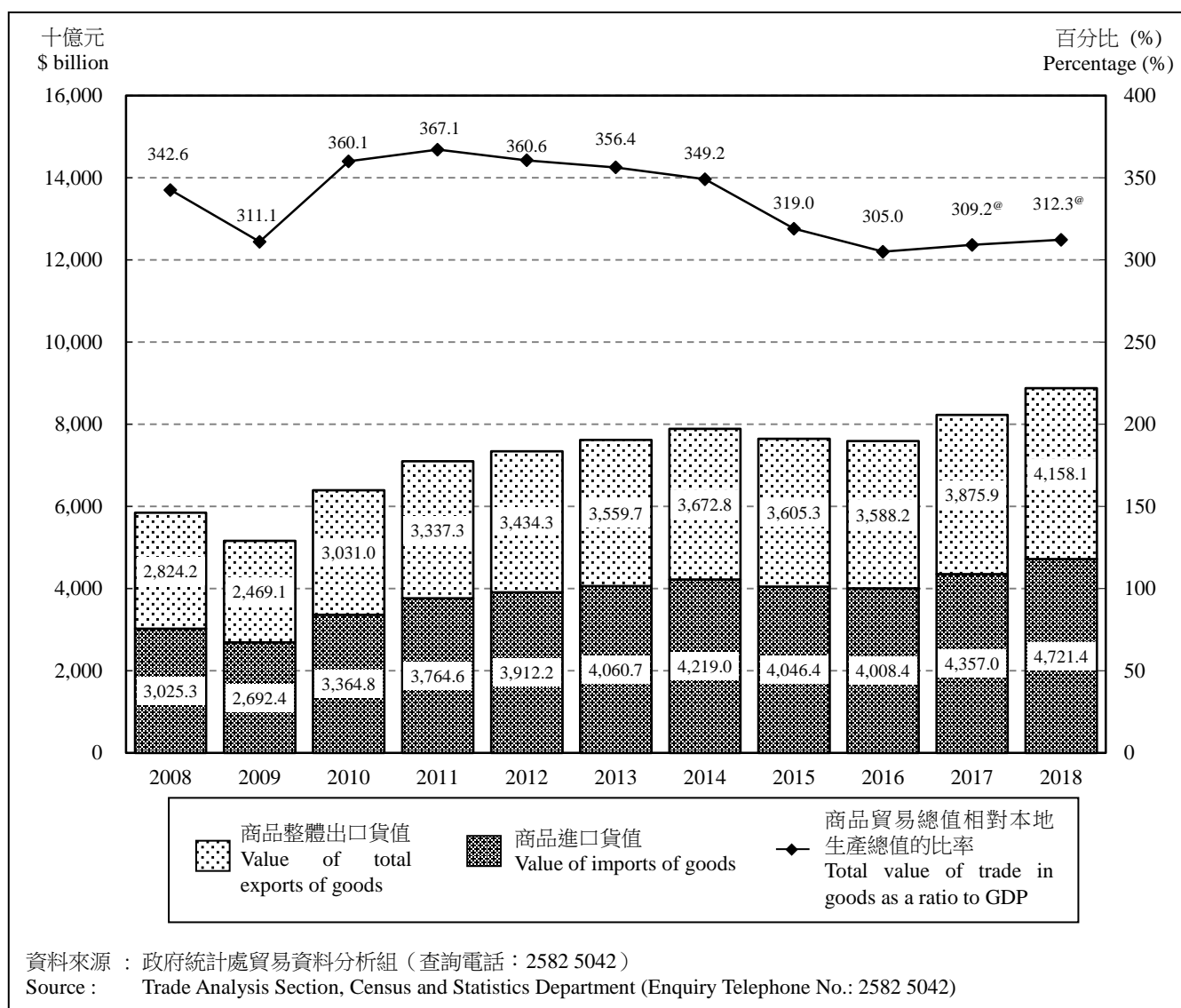
◆ 在 2007 年至 2017 年期間，知識型行業的增加價值佔以基本價格計算的本地生產總值的百分比徘徊於 23.9% 至 27.2% 之間。

◆ The value added of the KBI increased from \$436.4 billion in 2007 to \$694.2 billion in 2017.

◆ During the period from 2007 to 2017, the value added of the KBI as a percentage of GDP at basic prices fluctuated between 23.9% and 27.2%.

圖 4.4 商品貿易總值相對本地生產總值的比率

Chart 4.4 Total value of trade in goods as a ratio to Gross Domestic Product (GDP)

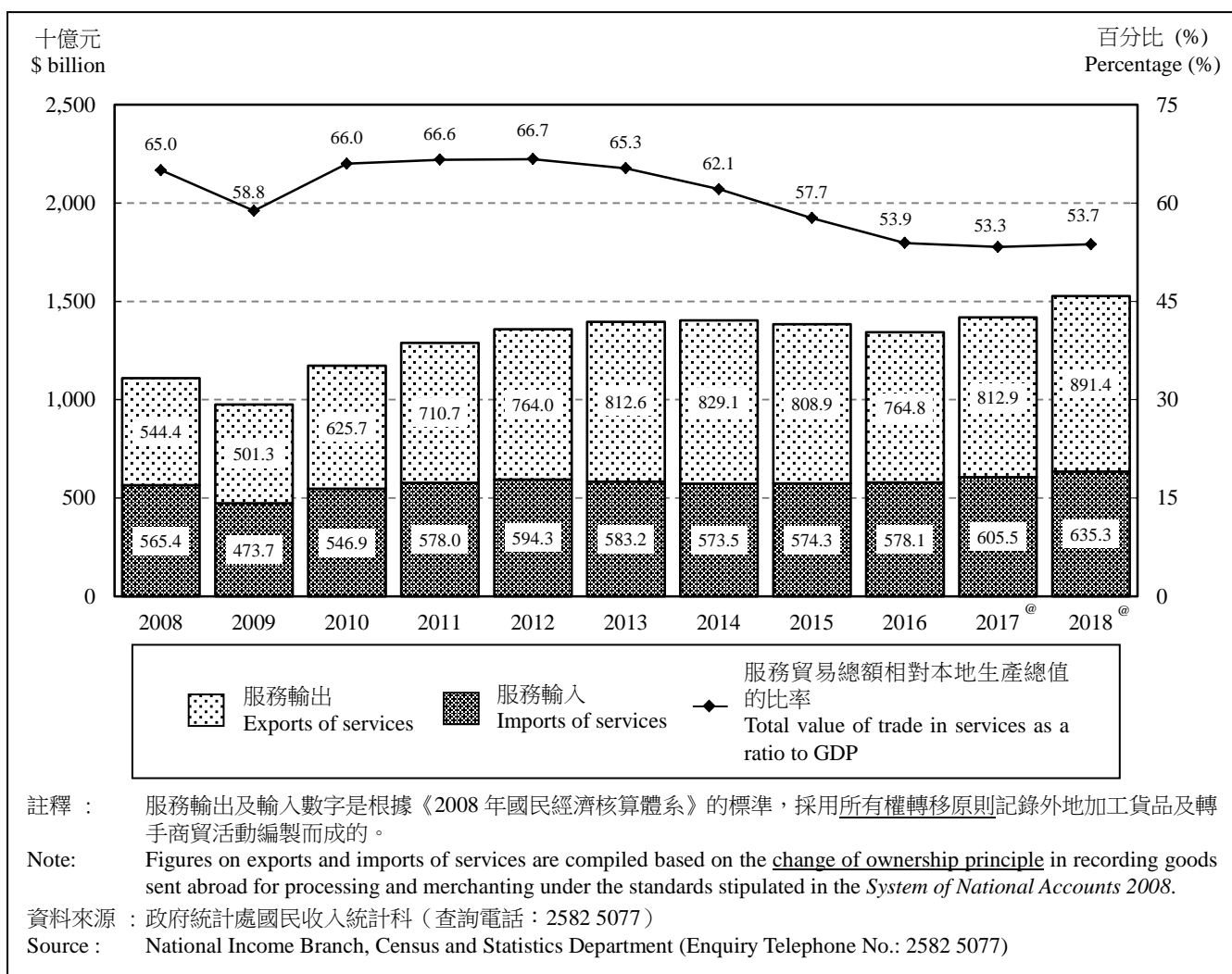


◆ 在 2018 年，香港商品貿易總值相對本地生產總值的比率為 312.3%，顯示香港在經濟上持續對外開放。

◆ The degree of openness of the Hong Kong economy sustained, with the ratio of total value of trade in goods to GDP at 312.3% in 2018.

圖 4.5 服務貿易總額相對本地生產總值的比率

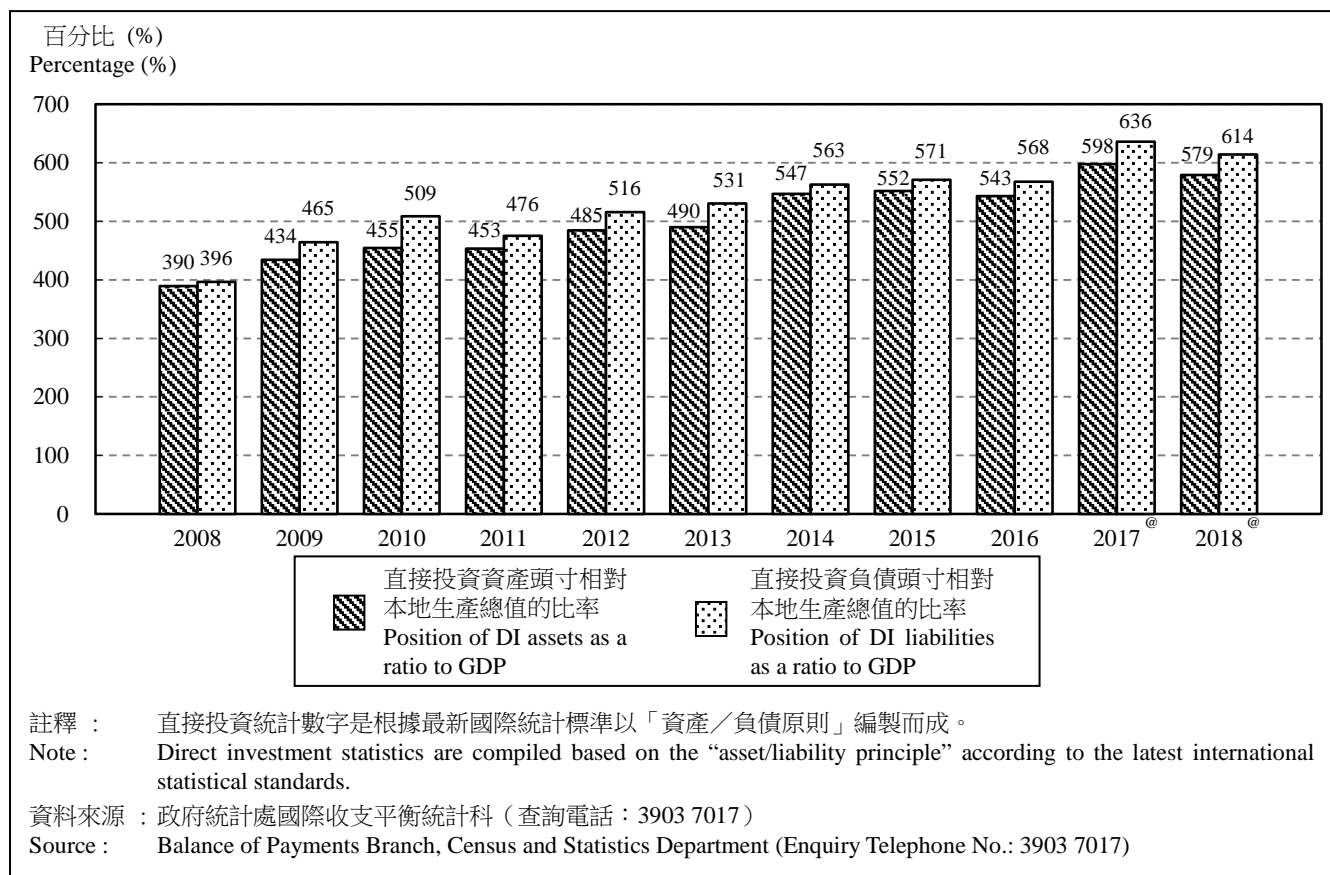
Chart 4.5 Total value of trade in services as a ratio to Gross Domestic Product (GDP)



◆ 服務貿易總額佔本地生產總值的比率由 2012 年的 66.7% 下跌至 2018 年的 53.7%。

◆ The ratio of total value of trade in services to GDP fell from 66.7% in 2012 to 53.7% in 2018.

圖 4.6 直接投資資產及負債頭寸相對本地生產總值的比率
Chart 4.6 Positions of direct investment (DI) assets and liabilities as a ratio to Gross Domestic Product (GDP)

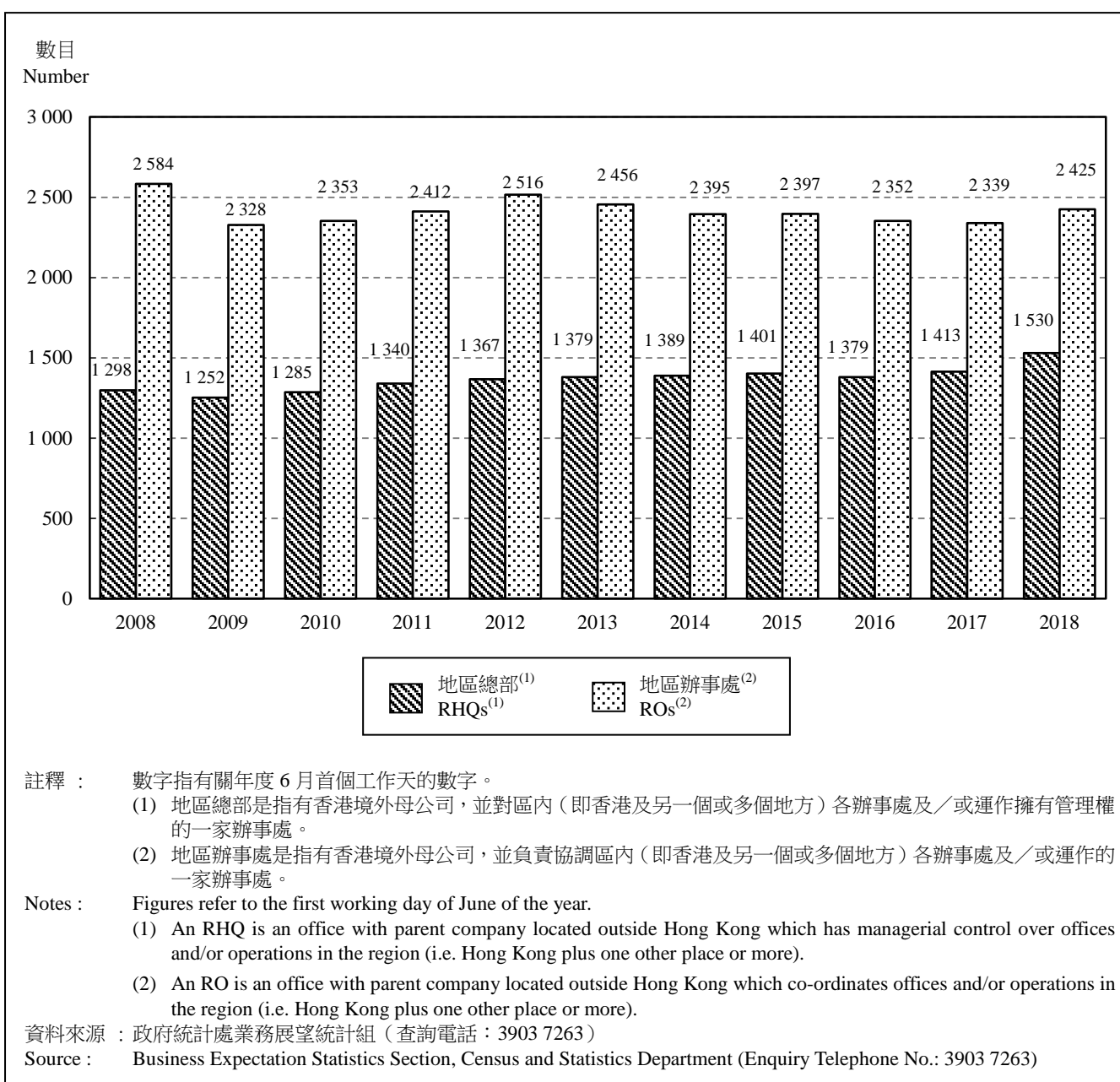


◆ 在 2018 年年底，直接投資資產及負債頭寸分別是 164,693 億元及 174,650 億元。直接投資資產及負債頭寸相對 2018 年本地生產總值的比率分別為 579% 及 614%，顯示香港是一個高度外向型的經濟體及在區內擁有龐大跨境投資的重要商業中心。

◆ At the end of 2018, the positions of direct investment assets and liabilities were \$16,469.3 billion and \$17,465.0 billion respectively. The ratios of the positions of DI assets and liabilities to GDP in 2018 were 579% and 614% respectively, reflecting that Hong Kong is a highly externally oriented economy and an important business centre in the region with substantial amounts of cross-boundary investment.

圖 4.7 駐港的地區總部及地區辦事處的數目

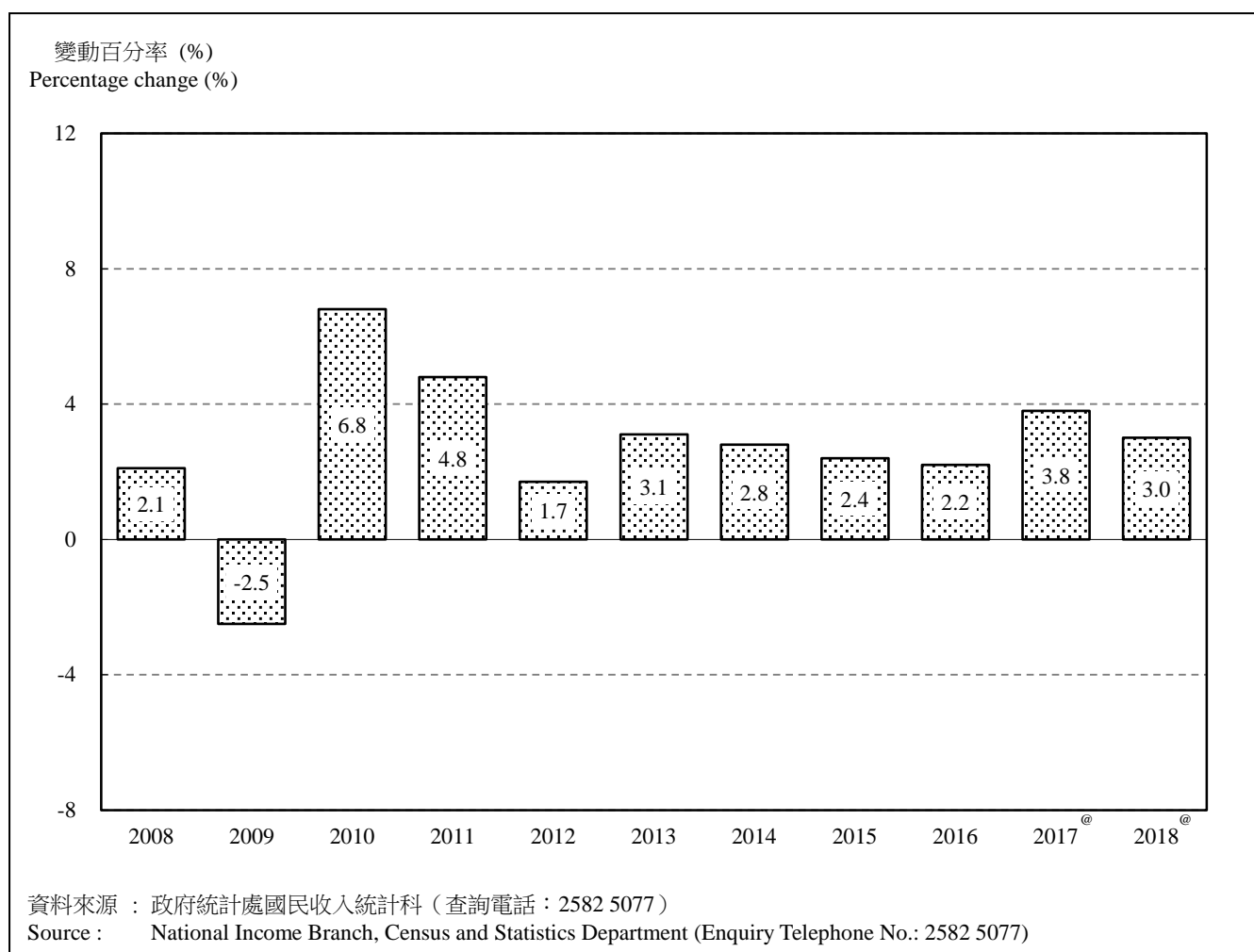
Chart 4.7 Number of regional headquarters (RHQs) and regional offices (ROs) in Hong Kong



◆ 在 2018 年，駐港的地區總部數目有 1 530 間，而駐港的地區辦事處數目則有 2 425 間。

◆ In 2018, the number of RHQs in Hong Kong stood at 1 530 while that of ROs was 2 425.

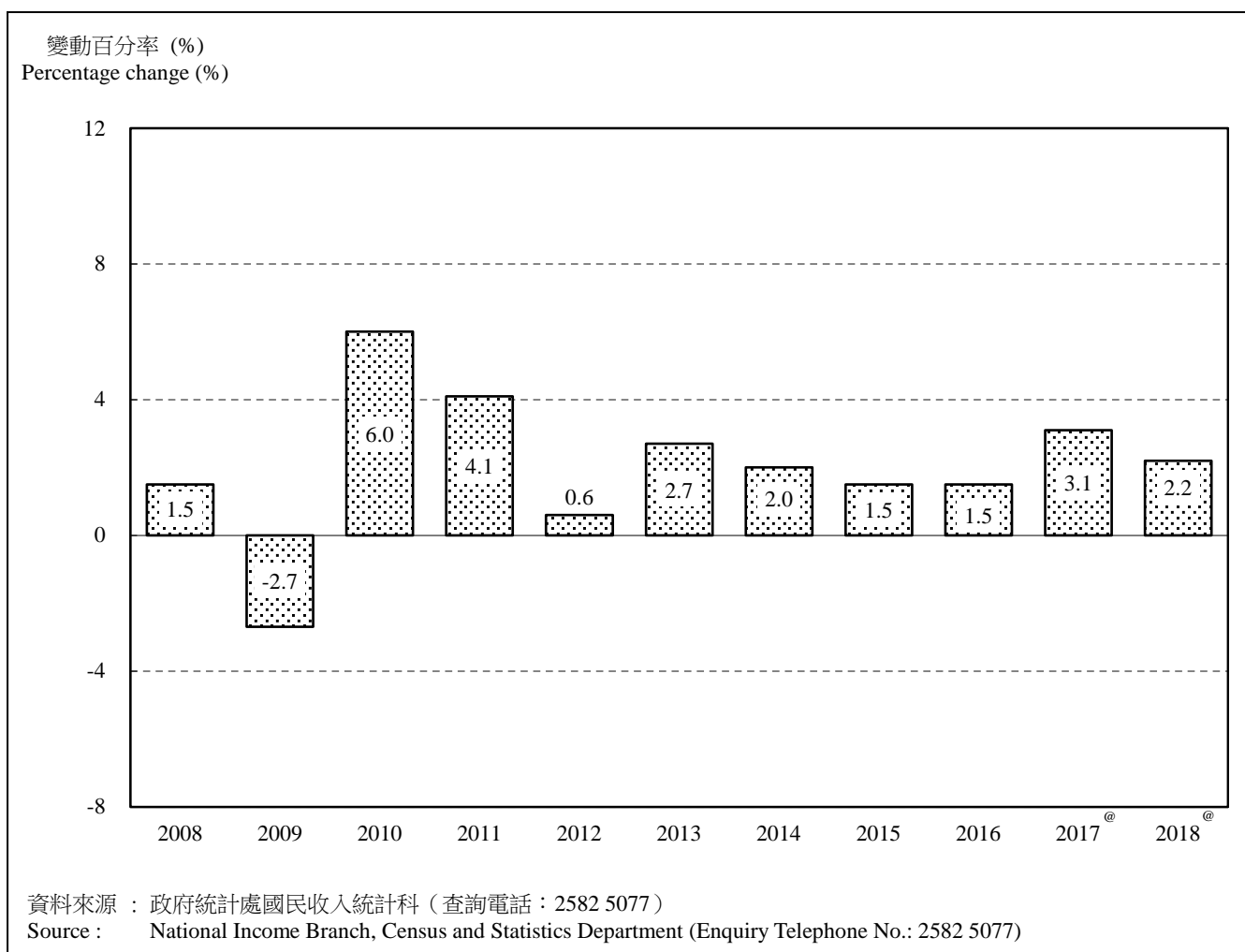
圖 4.8 本地生產總值的每年實質增長
Chart 4.8 Annual growth of Gross Domestic Product (GDP) in real terms



◆ 香港是個細小的開放型經濟體，因此其經濟表現會受到環球經濟的發展所影響。環球金融海嘯後，世界經濟受到嚴重打擊。雖然實質本地生產總值在 2009 年錄得 2.5% 的按年負增長，香港經濟隨後迅速復原及回穩。本地生產總值在 2018 年較對上一年實質上升 3.0%。

◆ Being a small open economy, the economic performance of Hong Kong is affected by the developments in the global economy. The GDP recorded a negative annual growth of 2.5% in real terms in 2009 when the world economy was hard hit amidst the global financial tsunami. Nevertheless, the Hong Kong economy was rather resilient and rebounded afterwards. In 2018, the GDP of Hong Kong increased by 3.0% in real terms over the preceding year.

圖 4.9 按人口平均計算的本地生產總值的每年實質增長
Chart 4.9 Annual growth of per capita Gross Domestic Product (GDP) in real terms

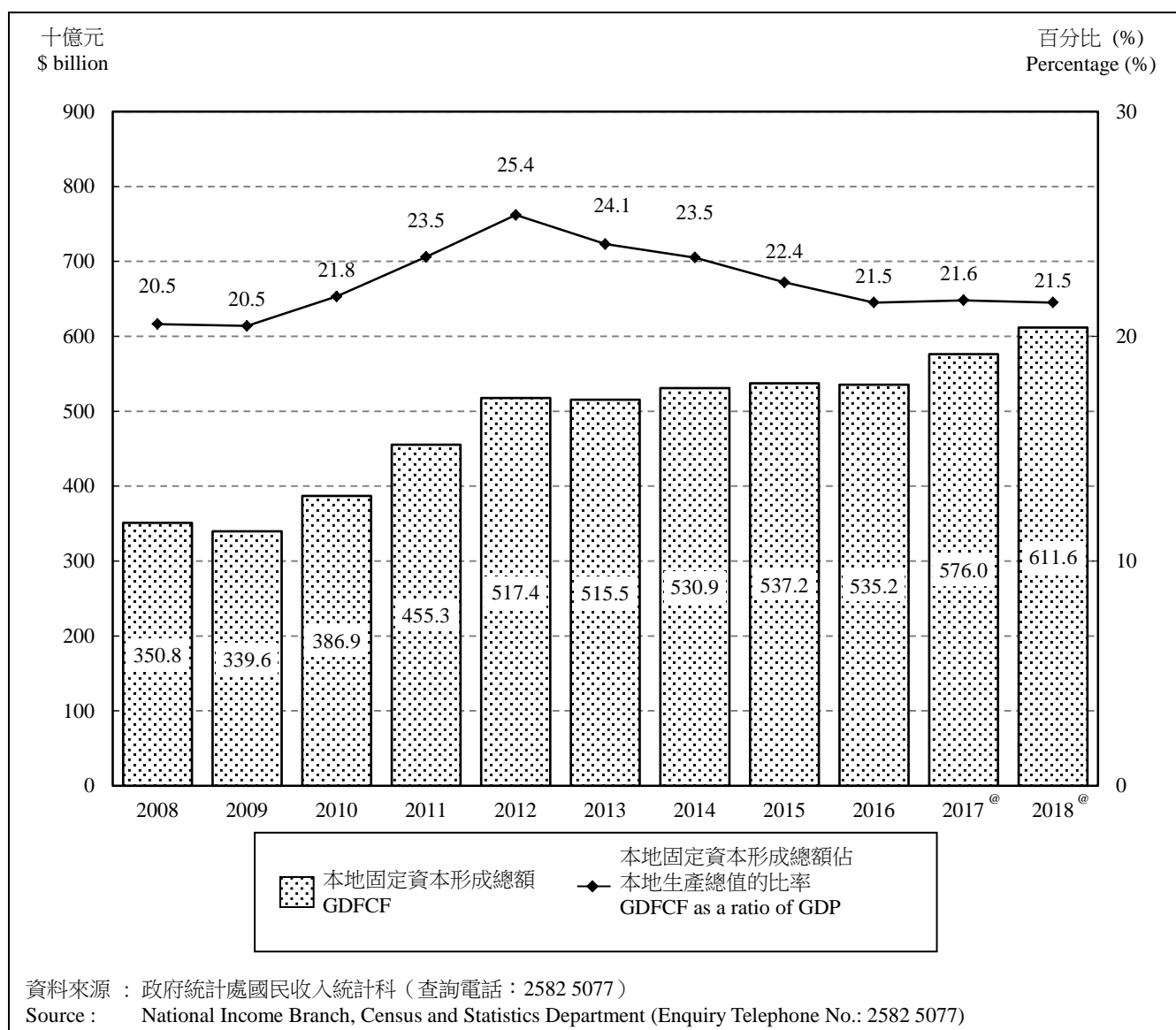


◆ 香港按人口平均計算的本地生產總值在 2018 年較對上一年實質上升 2.2%。

◆ Per capita GDP of Hong Kong grew by 2.2% in real terms in 2018 over the preceding year.

圖 4.10 本地固定資本形成總額佔本地生產總值的比率

Chart 4.10 Gross domestic fixed capital formation (GDFCF) as a ratio of Gross Domestic Product (GDP)



◆ 本地固定資本形成總額佔本地生產總值的比率在 2008 年為 20.5%，在 2012 年上升至 25.4% 後逐漸回落至 2018 年的 21.5%。

◆ The ratio of GDFCF to GDP was 20.5% in 2008. It rose to 25.4% in 2012 and then fell gradually to 21.5% in 2018.

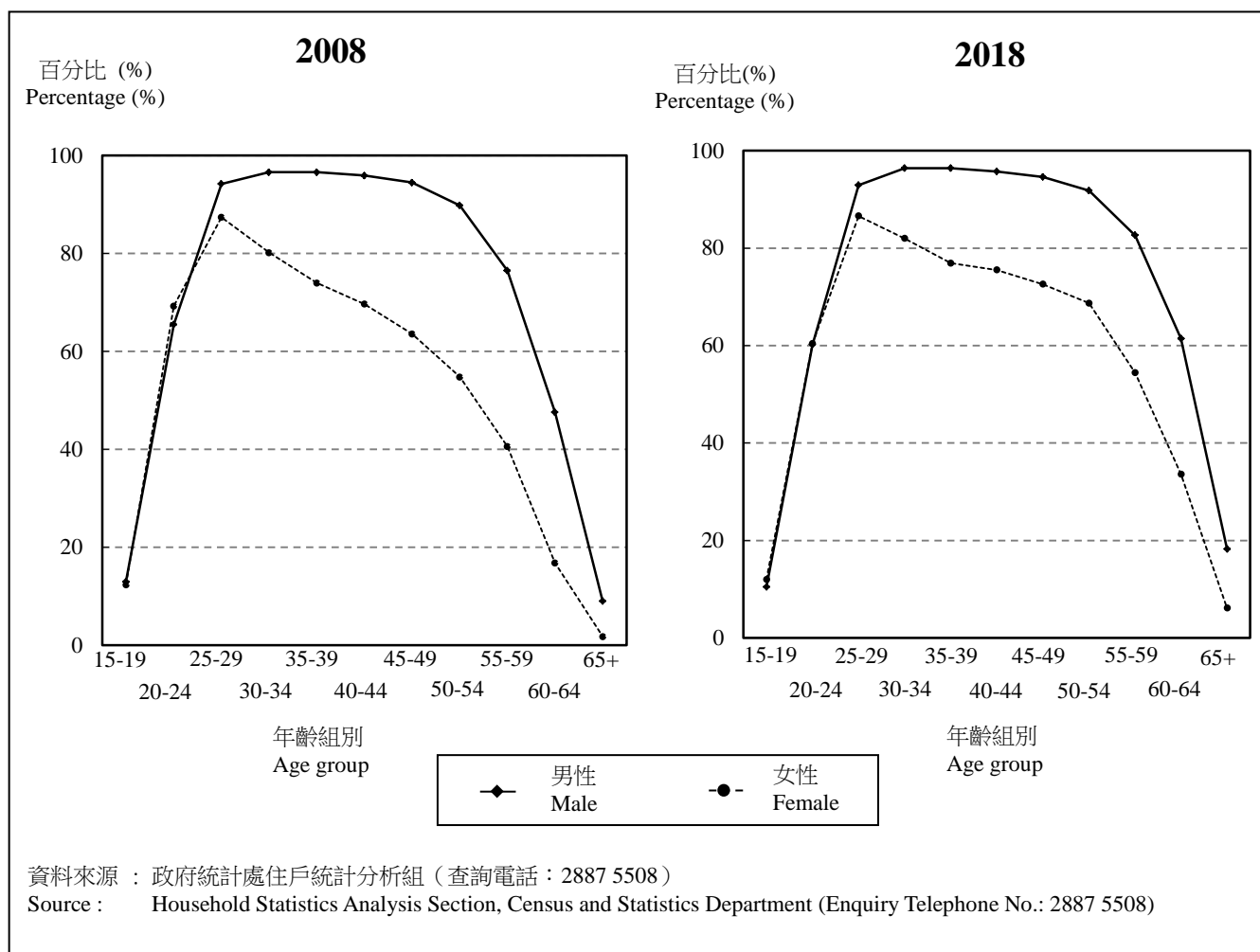
圖 4.11 失業率
Chart 4.11 Unemployment rate



◆ 受環球金融海嘯所影響，失業率由 2008 年的 3.5% 上升至 2009 年的 5.3%。隨着香港經濟復蘇，失業率在 2011 年下降至 3.4%，隨後再下降至 2017 年的 3.1%，更在 2018 年處於 2.8% 的低位。

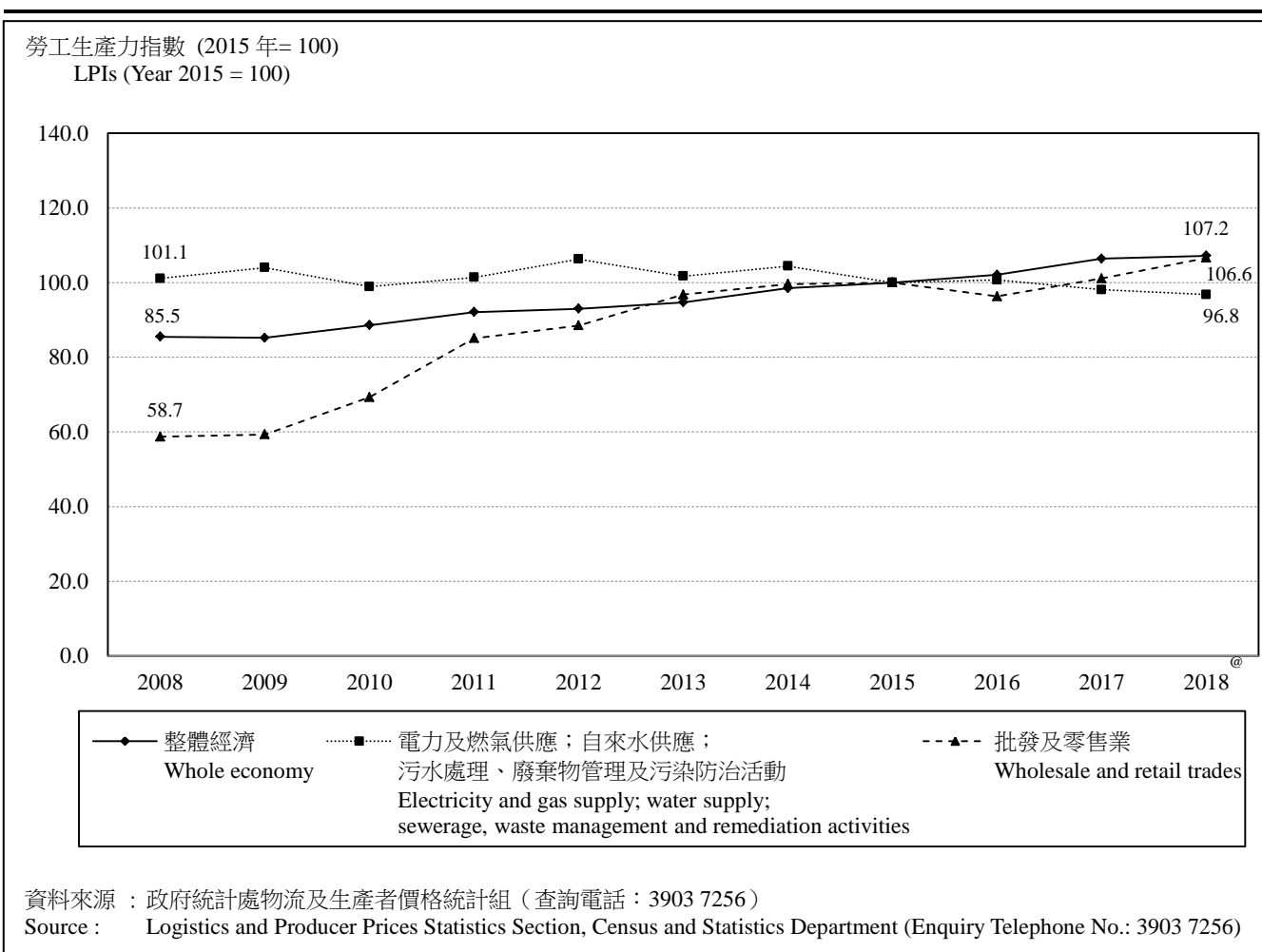
◆ Affected by the global financial tsunami, the unemployment rate increased from 3.5% in 2008 to 5.3% in 2009. With the recovery of the Hong Kong economy, the unemployment rate fell to 3.4% in 2011 and then further fell to 3.1% in 2017. It also stood at a low level of 2.8% in 2018.

圖 4.12 按年齡組別及性別劃分的勞動人口參與率
Chart 4.12 Labour force participation rate by age group and sex



- ◆ 香港的勞動人口由 2008 年的 364 萬人穩步增加至 2018 年的 398 萬人，同期的勞動人口參與率則由 60.9% 輕微上升至 61.2%。換言之，屬於工作年齡的人口（即 15 歲及以上的人口）的增長較同期的勞動人口增長為慢。
- ◆ The labour force of Hong Kong increased steadily from 3.64 million in 2008 to 3.98 million in 2018. The labour force participation rate rose slightly from 60.9% to 61.2% during the same period. This means that the growth in population of working age (i.e. population aged 15 and over) was slower than the growth in the labour force during this period.
- ◆ 55 至 59 歲及更高年齡組別的勞動人口參與率在 2008 年至 2018 年期間均有明顯的增長。
- ◆ The labour force participation rates of the age groups 55 to 59 and higher showed notable growth between 2008 and 2018.

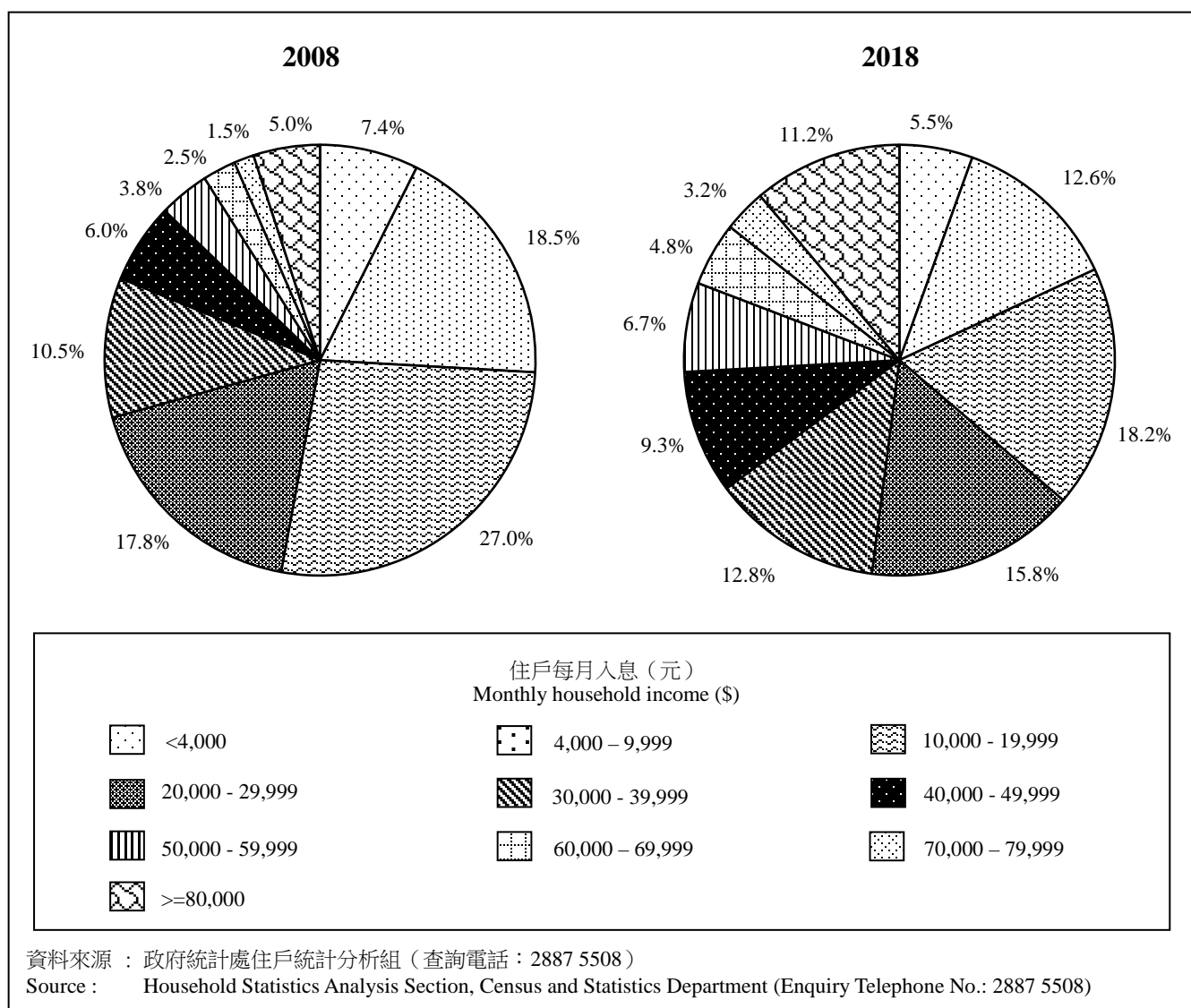
圖 4.13 整體經濟及選定主要經濟活動的勞工生產力指數
Chart 4.13 Labour Productivity Indices (LPIs) for the whole economy and selected major economic activities



- ◆ 在 2008 年至 2018 年期間，整體勞工生產力指數錄得 2.3% 的平均按年增幅。
- ◆ 不同經濟活動的勞工生產力變動各有差異，當中以批發及零售業的升幅最大，在 2008 年至 2018 年期間平均每年的增長率達 6.1%。然而，電力及燃氣供應；自來水供應；污水處理、廢棄物管理及污染防治活動在同期的相關比率則錄得輕微跌幅 (-0.4%)。
- ◆ The LPI for the whole economy increased at an average annual growth rate of 2.3% during the period from 2008 to 2018.
- ◆ Variations in labour productivity changes among different economic activities were observed, with the largest increase recorded in the wholesale and retail trades, at an average annual growth rate of 6.1% from 2008 to 2018. However, a slight drop was recorded in the electricity and gas supply; water supply; sewerage, waste management and remediation activities (-0.4%) over the same period.

圖 4.14 按住戶每月入息劃分的家庭住戶分布

Chart 4.14 Distribution of domestic households by monthly household income

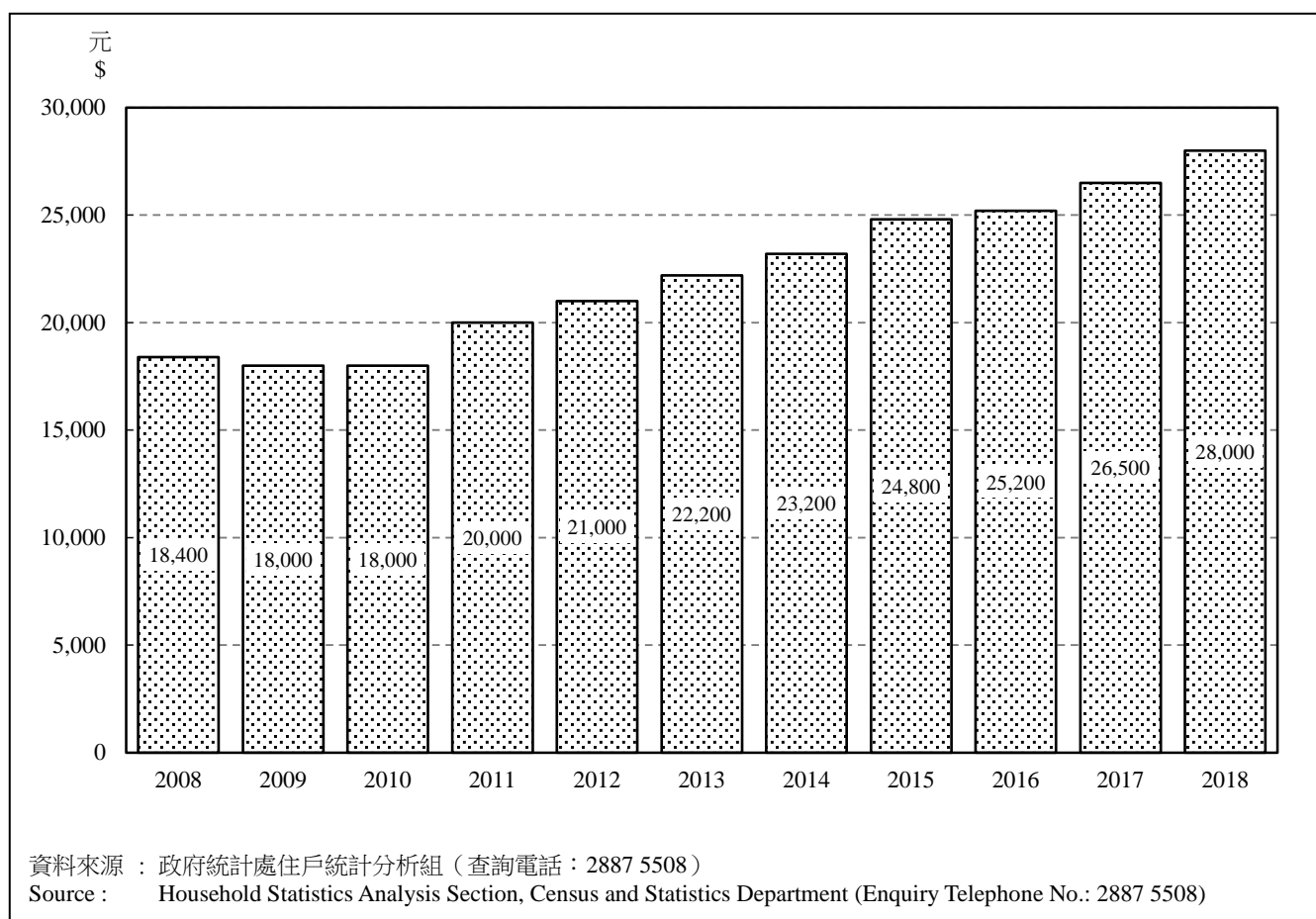


◆ 在 2018 年，香港約有 257 萬個家庭住戶，其中約 46.8% 的住戶每月住戶入息介乎 10,000 元至 39,999 元。

◆ Among some 2.57 million domestic households in Hong Kong in 2018, about 46.8% of them had monthly household income ranging from \$10,000 to \$39,999.

圖 4.15 家庭住戶每月入息中位數

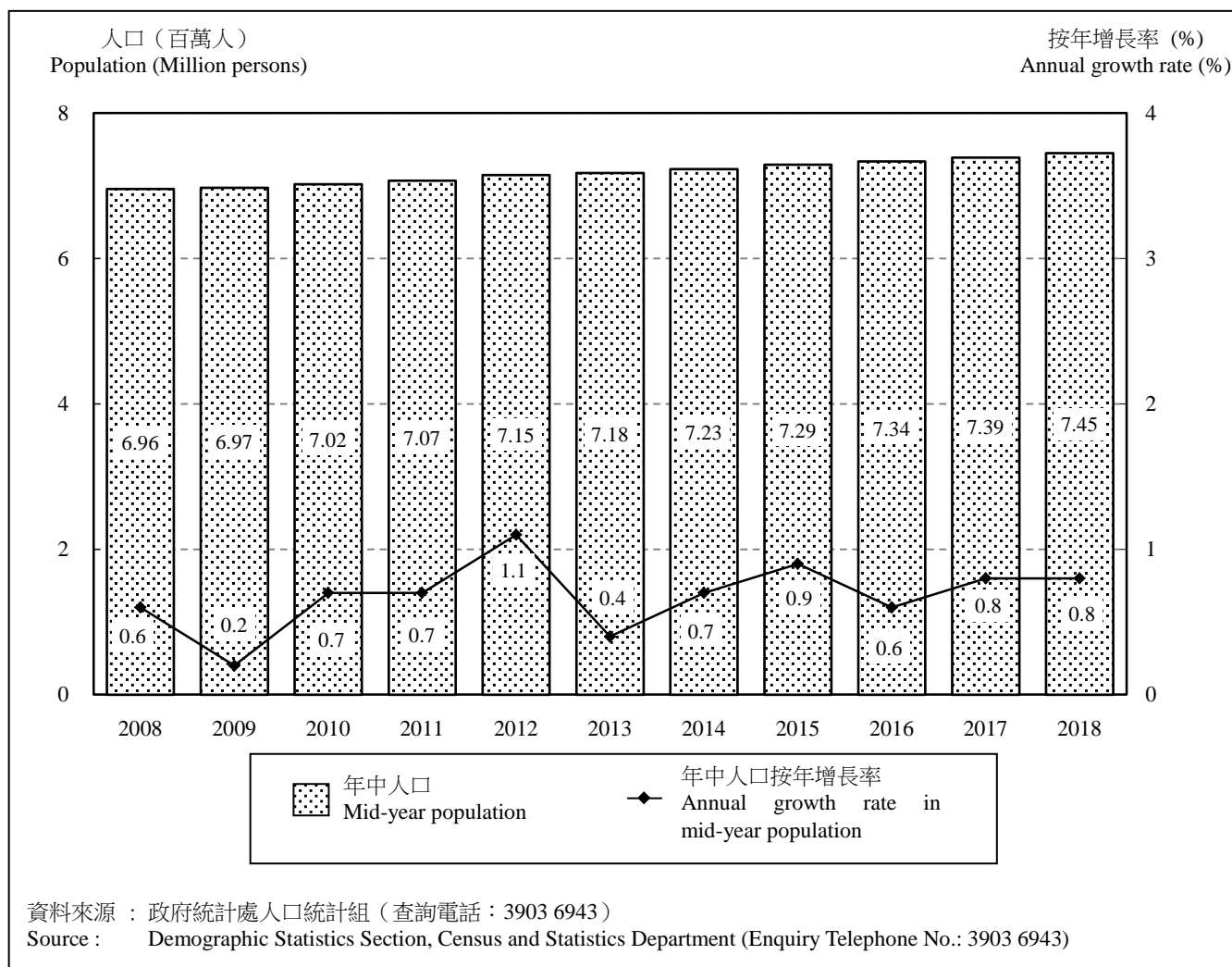
Chart 4.15 Median monthly household income of domestic households



◆ 住戶每月入息中位數由 2008 年的 18,400 元升至 2018 年的 28,000 元。

◆ The median monthly household income increased from \$18,400 in 2008 to \$28,000 in 2018.

圖 4.16 年中人口及按年增長率
Chart 4.16 Mid-year population and annual growth rate



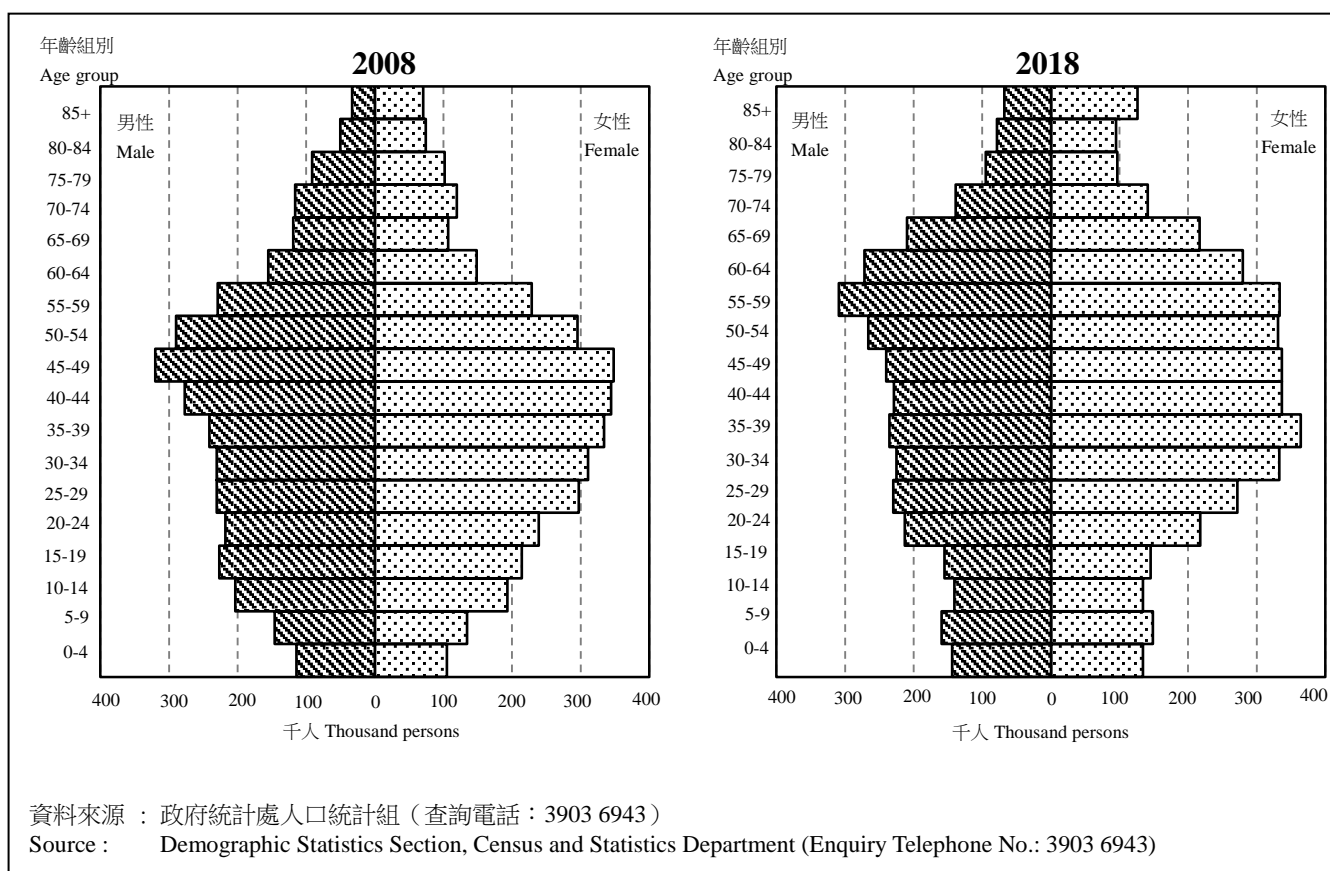
◆ 過去 10 年，香港的人口平均按年增長 0.7%。

◆ 生育率是影響人口增長的其中一個主要因素。根據總和生育率，2018 年每千名婦女一生中平均只生育 1 072（臨時數字）名子女，遠低於每千名婦女一生中生育 2 100 名子女的更替水平。

◆ The size of the population in Hong Kong increased at an average annual growth rate of 0.7% in the past decade.

◆ The fertility rate is one of the main factors influencing population growth. The total fertility rate indicated that in 2018, every 1 000 women would bear, on average, only 1 072 (provisional figure) children during their lifetime, which was well below the replacement level of 2 100 children per 1 000 women during their lifetime.

圖 4.17 人口金字塔
Chart 4.17 Population pyramids



- ◆ 年齡中位數由 2008 年的 40.3 歲升至 2018 年的 44.2 歲，反映人口正在老化的趨勢。
- ◆ 過去 10 年，人口的性別組成有所改變。在 2008 年年中，每千名女性有 897 名男性，但至 2018 年年中，每千名女性的男性數目已減少至 844 名。雖然在初生嬰兒中男嬰的數目持續略高於女嬰，但是女性的死亡率較男性的死亡率相對較低，而且從中國內地來港定居的單程通行證持有人之中，女性人數遠超過男性，加上大量女性外籍家庭傭工來港工作，都是造成性別比率轉變的主因。
- ◆ The population is on an ageing trend, as revealed by the increase in median age of the population from 40.3 in 2008 to 44.2 in 2018.
- ◆ The gender composition of the population had changed in the past decade. In mid-2018, there were 844 males per 1 000 females, recording a decline as compared with 897 males per 1 000 females in mid-2008. Although there was a consistently moderate excess of boys over girls among the new-born babies, the relatively lower mortality rate of females compared with males, the large excess of females over males among the one-way permit holders from the mainland of China, and the considerable number of female foreign domestic helpers coming to work in Hong Kong were the major reasons for the shift in sex ratios.

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寬頻 是指傳送速度由每秒數個至每秒千個兆比特 (Mbps) 的上網服務，使用者可以透過它進入互聯網並使用互聯網的相關服務。採用有線調解器、以太網、非對稱數碼用戶線路 (ASDL)、其他種類的數字式用戶線路／數碼用戶線路 (DSL) 及光纖到樓 (FTTB) 都是常用的上網方式。

透過電腦網絡提交訂單的工商機構單位 是指工商機構單位透過專門為提交訂單而設計的方法，經電腦網絡訂購貨品或服務。縱使透過這種方法訂購貨品或服務，但付款及最後貨品或服務的遞送可以不是在網上進行。

透過電腦網絡獲取訂單的工商機構單位 是指工商機構單位透過專門為獲取訂單而設計的方法，經電腦網絡獲取貨品或服務的訂單。縱使透過這種方法訂購貨品或服務，但付款及最後貨品或服務的遞送可以不是在網上進行。

直接投資 指某經濟體的投資者對另一經濟體內的企業所作的對外投資，並對該企業擁有持久利益及在其管理上具有相當程度的影響力或話語權。就統計計算而言，若投資者持有某企業 10% 或以上的表決權，便視作對該企業的管理具話語權。

直接投資包括股權及投資基金份額，以及債務工具。股權及投資基金份額包括所持有的分行股本、附屬公司及聯營公司的股票、投資基金份額，以及收益再投資（即投資者應得但有關企業的分紅、附屬公司、聯營公司或投資基金沒有分發的利潤）。債務工具主要涉及公司之間的債務交易，包括母公司與其分行、附屬公司及聯營公司之間的短期及長期借貸。

Broadband refers to Internet access service, which allows user to access the Internet and Internet related services, with transmission speed from several Mbps (Megabits per second) to thousand Mbps. Cable modems, Ethernet, ADSL (asymmetric digital subscriber line), other types of DSL (digital subscriber line) and FTTB (Fibre-to-the-building) are technologies commonly used for provision of broadband connection.

Business establishments placing orders online refer to business establishments which place orders over computer networks by methods specifically designed for the purpose of placing orders of goods or services. The goods or services are ordered by these methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online.

Business establishments receiving orders online refer to business establishments which receive orders over computer networks by methods specifically designed for the purpose of receiving orders of goods or services. The goods or services are ordered by these methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online.

Direct investment (DI) refers to external investment in which an investor of an economy acquires a lasting interest and a significant degree of influence or an effective voice in the management of an enterprise located in another economy. For statistical purpose, an effective voice is taken as being equivalent to a holding of 10% or more of the voting power in an enterprise.

DI comprises equity and investment fund shares and debt instruments. Equity and investment fund shares include equity in branches, shares in subsidiaries and associates, investment fund shares and reinvestment of earnings (which refers to the investors' share of earnings not distributed by branches, subsidiaries, associates or investment funds). Debt instruments mainly involve inter-company debt transactions. These include short-term and long-term borrowing and lending of funds between parent companies and their branches, subsidiaries and associates.

直接投資資產指香港居民投資者持有境外企業的直接投資債權。直接投資負債指境外居民持有香港居民企業的直接投資債權。

家庭住戶 是指一群住在一起及分享生活所需的人士，他們之間不一定有親戚關係。自己單獨安排生活所需的個別人士亦當為一戶，即「單人住戶」。成員只有非香港居民或「流動居民」的住戶並不會被界定為家庭住戶。統計期為2001年及以後的家庭住戶統計數字並不包括成員只有「流動居民」的住戶。

教育程度 是指某人在學校或其他教育機構修讀達到的最高教育水平，不論他／她有否完成該課程。計算教育程度時只包括正式課程。正式課程須最少為期一個學年，入學須具備指定的學歷資格（香港公開大學的非學位、副學位、學位及研究院課程除外），並設有考試或指定評核成績的程序。

- (a) 未受教育：包括從未修讀過正式課程的人士。
- (b) 學前教育：包括所有幼稚園及幼兒中心班級。
- (c) 小學：包括所有小學的一至六年級。
- (d) 中學：包括所有中學舊學制下的一至七年級及新學制下的一至六年級或同等程度，毅進計劃／毅進文憑以及工藝程度教育。
- (e) 專上教育 - 非學位：包括(1)本地及非本地教育機構的證書及文憑程度課程；及(2)本地及非本地教育機構的高級證書、高級文憑、專業文憑、副學士、副學士先修、增修證書、院士銜或同等課程及其他非學位課程。
- (f) 專上教育 - 學位：包括本地及非本地教育機構的學士學位課程。

DI assets refer to DI claims by a Hong Kong resident on a non-resident enterprise. DI liabilities refer to DI claims by a non-Hong Kong resident on a Hong Kong resident enterprise.

Domestic household consists of a group of persons who live together and make common provision for essentials for living. These persons need not be related. If a person makes provision for essentials for living without sharing with other persons, he/she is also regarded as a household. In this case, the household is a one-person household. Households comprising only non-Hong Kong residents or “Mobile Residents” are not classified as domestic households. Figures on domestic households for reference periods starting from 2001 and thereafter do not include households comprising “Mobile Residents” only.

Educational attainment refers to the highest level of education ever attained by a person in school or other educational institution, regardless of whether he/she had completed the course. Only formal courses are counted as educational attainment. A formal course must last for at least one academic year, require specific academic qualifications for entrance (except sub-degree, associate degree, degree and post-graduate courses offered by the Open University of Hong Kong) and include examinations or specific academic assessment procedures.

- (a) No schooling: including those who had never attended a formal course.
- (b) Pre-primary: including all classes in kindergartens and child care centres.
- (c) Primary: including Primary 1-6 in all educational institutions.
- (d) Secondary: including Secondary 1-7 of old academic structure, Secondary 1-6 of new academic structure or equivalent in all educational institutions, Project Yi Jin/Yi Jin Diploma and craft level.
- (e) Post-secondary - non-degree: including (1) Certificate and Diploma level courses in local or non-local institutions; and (2) Higher Certificate, Higher Diploma, Professional Diploma, Associate Degree, Pre-Associate Degree, Endorsement Certificate, Associateship or equivalent courses and other non-degree level courses in local or non-local institutions.
- (f) Post-secondary - degree: including all first degree courses in local or non-local institutions.

- (g) 專上教育 – 研究院：包括本地及非本地教育機構的修課形式及研究形式研究院程度課程。

研究及發展(研發)活動範疇 有助一間機構根據研究的領域，即在哪方面進行研究，劃分研發資源的分配。研發活動的範疇可分為五大類別：

- (a) 自然科學包括數學及電腦學、物理學、化學、地球科學及有關的環境科學、生物科學以及農業科學。
- (b) 工程及科技包括土木工程、電機工程、電子學以及其他工程學（例如化學工程、機械工程、冶金學及材料工程、紡織技術和其他有關學科）。
- (c) 醫療及衛生科學包括基本醫學、臨床醫學及衛生科學。
- (d) 社會科學包括心理學、經濟學、教育學和其他社會科學（例如工商管理、法律、政治學、社會學）。
- (e) 人文科學及藝術包括歷史、語言文學、藝術和其他人文科學（例如哲學、音樂學、神學）。

本地研究及發展(研發)總開支 是指在某段期間在一個國家或地區內進行的內部研發開支總額，包括由境外機構資助在該國家或地區內進行的研發活動，但不包括支付給境外機構進行的研發活動的開支。根據上述定義，本地研發總開支是全面計算一個國家或地區的研發活動的量數，涵蓋下列機構類別的研發開支：

- (a) 工商機構；
- (b) 高等教育機構；及
- (c) 政府機構。

本地固定資本形成總額 包括樓宇及建造，以及機器、設備及知識產權產品（包括電腦軟件、資料庫和研究及發展）的投資開支總值和擁有權轉讓費用。

- (g) Post-secondary - post-graduate: including taught and research postgraduate courses in local or non-local institutions.

Field of research and development (R&D) activity allows an organisation to classify their R&D resource allocation according to the area of research i.e. what area of research is being performed. Five major fields of R&D activity are identified as follows:

- (a) Natural sciences cover mathematics and computer sciences; physical sciences; chemical sciences; earth and related environmental sciences; biological sciences and agricultural sciences.
- (b) Engineering and technology cover civil engineering; electrical engineering; electronics; and other engineering sciences (such as chemical, mechanical, metallurgical and materials engineering, textile technology, and other allied subjects).
- (c) Medical and health sciences cover basic medicine, clinical medicine and health sciences.
- (d) Social sciences cover psychology; economics; educational sciences; and other social sciences (such as business management, law, political sciences, sociology).
- (e) Humanities and the arts cover history; languages and literature; arts and other humanities (such as philosophy, musicology, theology).

Gross domestic expenditure on research and development (GERD) is the total in-house research and development (R&D) expenditure performed within a country or territory during a given period. It includes R&D activities performed within a country or territory and funded from abroad but excludes payments made abroad for R&D activities. As implied by its definition, GERD is a comprehensive measure of R&D activities in a country or territory and it covers the following sectoral R&D expenditure:

- (a) Business sector;
- (b) Higher education sector; and
- (c) Government sector.

Gross domestic fixed capital formation covers the gross value of investment expenditure on building and construction as well as machinery, equipment and intellectual property products (including computer software, databases and research and development); and costs of ownership transfer.

本地生產總值 指一個經濟體的所有居民生產單位，在一個指定的期間內（一般是1年或1季），未扣除固定資本消耗的生產總值。

高科技產品 包括航天設備、辦公室機器及自動資料處理機、電訊及聲音收錄及重播器具及設備、醫療及藥用產品、科學儀器、電動機械設備、化學材料及產品，以及非電動機械設備。

香港的**資訊及通訊科技業** 包括三個組別的行業，分別從事以下的經濟活動：

- (a) 製造資訊及通訊科技產品；
- (b) 經銷資訊及通訊科技產品；及
- (c) 提供資訊及通訊科技服務。

在界定資訊及通訊科技業的行業涵蓋範圍時，參考了經濟合作及發展組織所倡議的指引。

資訊科技人員 包括從事資訊科技／軟件開發、資訊科技銷售、電訊及網絡、資訊科技教育及培訓、總資訊科技管理、實地支援、系統程式編製、資料庫、資訊科技保安，以及操作服務的員工。

資訊科技設備和軟件上的投資 涵蓋以下三種類別的開支：

- (a) 購買供自用的電腦硬件（例如個人電腦、主機電腦、筆記簿型電腦、儲存裝置及元件）及周邊設備（例如打印機和掃描器）的開支；
- (b) 購買供自用的電腦程式、軟件及資料庫的開支，包括市場上的標準電腦軟件和由其他機構單位專門設計／開發的電腦軟件；及
- (c) 自行開發供自用的軟件及資料庫的成本。

Gross Domestic Product is a measure of the total value of production of all resident producing units of an economy in a specific period (typically a year or a quarter), before deducting the consumption of fixed capital.

High technology products include aerospace equipment, office machines and automatic data processing machines, telecommunications and sound recording and reproducing apparatus and equipment, medicinal and pharmaceutical products, scientific instruments, electrical machinery, chemical materials and products, and non-electrical machinery.

Information and communication technology (ICT) sector in Hong Kong covers three groups of industries engaged in the following economic activities respectively:

- (a) manufacturing of ICT products;
- (b) distribution of ICT products; and
- (c) provision of ICT services.

In defining the industry coverage of ICT sector, reference has been made to the guidelines promulgated by the Organisation for Economic Co-operation and Development.

Information technology (IT) workers cover personnel working in areas of IT/software development; IT sales; telecommunications and networking; IT education and training; general IT management; field support; systems programming; database; IT security; and operation services.

Investment in information technology equipment and software covers the following three types of expenditure:

- (a) expenditure on purchases of computer hardware (e.g. personal computers, mainframes, notebook computers, storage devices and components) and peripherals (e.g. printers and scanners) for own use;
- (b) expenditure on purchases of computer programs, software and databases for own use, including both standard ones available in the market and those specifically designed/developed by other establishments; and
- (c) cost of in-house development of computer programs and databases for own use.

知識型行業 包括高科技製造業(包括製造藥物、電腦、電子及光學產品、飛機及太空船); 中高科技製造業(包括製造藥物以外的化學品、機器及設備、電動器材、汽車及拖車、鐵路以及運輸設備); 通訊業; 金融和保險業以及商用服務業(不包括地產服務)。香港的知識型行業分類是根據經濟合作及發展組織的有關行業分類所訂定。

勞動人口 是指 15 歲及以上陸上非住院人口，並符合就業人口或失業人口定義的人士。公共機構／社團院舍的住院人士及水上居民並不包括在內。

- (a) 就業人口由所有就業人士構成。一名 15 歲或以上人士如符合下列情況，可界定為就業人士：
- (i) 統計前 7 天內從事一些工作賺取薪酬或利潤；或
 - (ii) 有一份正式工作（即該人士持續支取工資或薪金；或已獲保證或已有既定日期返回工作崗位或所經營之業務；或正支取補償費而無須接受其他工作）。無酬家庭從業員及在統計前 7 天內正休假的就業人士亦包括在內。
- (b) 失業人口由所有失業人士構成。一名 15 歲或以上人士如符合下列情況，便界定為失業人士：
- (i) 在統計前 7 天內並無職位，且並無為賺取薪酬或利潤而工作；及
 - (ii) 在統計前 7 天內隨時可工作；及
 - (iii) 在統計前 30 天內有找尋工作。

Knowledge-based industries (KBI) cover high-technology manufacturing industries (including manufacture of such products as pharmaceuticals, computer, electronic and optical products; aircraft and spacecraft); medium-high-technology manufacturing industries (including manufacture of such products as chemicals other than pharmaceuticals, machinery and equipment, electrical equipment, motor vehicles and trailers, railroad and other transport equipment); communications; finance and insurance; and business services (excluding real estate services). The classification of KBI in Hong Kong is modelled on the relevant industry classification of the Organisation for Economic Co-operation and Development.

Labour force refers to the land-based non-institutional population aged 15 and over who satisfy the criteria for being classified as employed population or unemployed population. Inmates of institutions and persons living on board vessels are excluded.

- (a) The employed population comprises all employed persons. For a person aged 15 or over to be classified as employed, that person should:
- (i) be engaged in performing work for pay or profit during the 7 days before enumeration; or
 - (ii) have formal job attachment (i.e. that the person has continued receipt of wage or salary; or has an assurance or an agreed date of return to job or business; or is in receipt of compensation without obligation to accept another job). Unpaid family workers and employed persons who were on leave/holiday during the 7 days before enumeration are also included.
- (b) The unemployed population comprises all unemployed persons. For a person aged 15 or over to be classified as unemployed, that person should:
- (i) not have had a job and should not have performed any work for pay or profit during the 7 days before enumeration; and
 - (ii) have been available for work during the 7 days before enumeration; and
 - (iii) have sought work during the 30 days before enumeration.

不過，一名 15 歲或以上的人士，如果符合上述(i)和(ii)的條件，但沒有在統計前 30 天內找尋工作的原因為相信沒有工作可做，則仍會被界定為失業，即所謂「因灰心而不求職的人士」。

除上述情況外，下列人士亦視作失業人士：

- (i) 並無職位，有找尋工作，但由於暫時生病而不能工作的人士；及
- (ii) 並無職位，且隨時可工作，但由於下列原因並無找尋工作的人士：
 - 已為於稍後時間擔當的新工作或開展的業務作出安排；或
 - 正期待返回原來的工作崗位（例如散工在有需要時通常會獲通知開工）。

勞動人口參與率 是指勞動人口佔所有 15 歲及以上陸上非住院人口的比例。

勞工生產力指數 的計算方法是將實質生產指數除以勞工投入指數。概念上，勞工生產力指數的計算方法如下：

$$\frac{VA_t/VA_0}{HW_t/HW_0} \cdot 100$$

其中 VA_t = t 期內以環比物量計算的增加價值；
 VA_0 = 0 期內以環比物量計算的增加價值；
 HW_t = t 期內的總工作人時；及
 HW_0 = 0 期內的總工作人時。

用以編製各行業類別的勞工生產力指數中的實質生產，是以國民經濟核算架構中按環比物量計算的增加價值來量度。勞工投入是以工作人時量度，即把就業人數乘以平均實際工作時數計算。

However, if a person aged 15 or over fulfils the conditions (i) and (ii) above but has not sought work during the 30 days before enumeration because he/she believes that work is not available, he/she is still classified as unemployed, being regarded as a so-called “discouraged worker”.

Notwithstanding the above, the following types of persons are also classified as unemployed:

- (i) persons without a job, have sought work but have not been available for work because of temporary sickness; and
- (ii) persons without a job, have been available for work but have not sought work because they:
 - have made arrangements to take up a new job or to start business on a subsequent date; or
 - were expecting to return to their original jobs (e.g. casual workers are usually called back to work when service is needed).

Labour force participation rate refers to the proportion of labour force in the total land-based non-institutional population aged 15 and over.

Labour Productivity Index (LPI) is compiled by dividing a real output index by an index of labour input. Conceptually, it is compiled as:

$$\frac{VA_t/VA_0}{HW_t/HW_0} \cdot 100$$

where VA_t = chain volume estimate of value added in period t;
 VA_0 = chain volume estimate of value added in period 0;
 HW_t = total person-hours worked in period t; and
 HW_0 = total person-hours worked in period 0.

For sectoral LPIs, real output is measured by the chain volume estimates of value added as compiled in the national accounting framework. Labour input is measured by the person-hours worked, which is calculated as the product of the number of persons engaged and the average actual hours of work.

就編製整個經濟體的勞工生產力指數而言，所採用的實質生產數字是指以環比物量計算的本地生產總值。至於勞工投入數字，則根據整體的就業綜合估計數字，以及來自「綜合住戶統計調查」的平均實際工作時數計算。

非住宅的本地固定資本形成總額 是本地固定資本形成總額減去住宅樓宇的投資開支總值所得的數字。

職業 指在統計前 7 天內某人所從事的主要工作種類、性質及主要職務，按「國際標準職業分類」，把就業人士從事的職業及失業人士以前從事的職業撥歸不同的職業類別。現行分類基本上是按照「國際標準職業分類 2008 年版」或簡稱 ISCO-08 的主要組別劃分，並因應本港情況作出修訂。

- (a) 經理及行政級人員：包括政府的行政人員、專員及署／處長、領事、議員；工商界、進出口貿易、批發和零售業、飲食及旅店業、運輸、電力、燃氣、水務及其他服務、以及漁農業中的董事、執行總監、總裁、總經理、專職經理、分行經理及小型機構經理。
- (b) 專業人員：包括合資格的專業科學家、醫生、牙醫及其他醫療專業人員；建築師、測量師及工程師；大學及專上學院的校長、院長、教職員及行政人員；中學校長及教師；統計師、數學家、電腦系統分析員及程序編寫員；律師及法官；會計師；商界顧問及分析員；社會工作者；社會工作助理；翻譯員及傳譯員；新聞編輯及新聞記者；作家；圖書館管理員及宗教活動專業人員。

For compiling the LPI for the economy as a whole, the real output used is the chain volume measure of GDP, while labour input is based on the Composite Employment Estimates of the whole economy together with the average actual hours of work based on the General Household Survey.

Non-residential gross domestic fixed capital formation refers to the value of gross domestic fixed capital formation less the gross value of investment expenditure on residential buildings.

Occupation refers to the kind of work, nature of duties and main task performed by a person in his/her main job during the 7 days before enumeration. The classification follows the International Standard Classification of Occupations (ISCO) to classify the occupation of an employed person or the previous occupation of an unemployed person. The current classification adopted basically follows the major groups of the International Standard Classification of Occupations 2008 or ISCO-08 for abbreviation, with local adaptation for Hong Kong.

- (a) Managers and administrators: including administrators, commissioners and directors in government service; consuls; councillors; directors, chief executive officers, presidents, general managers, functional managers, branch managers and small business managers in industry, commerce, import and export trades, wholesale and retail trades, catering and lodging services, transport, electricity, gas, water and other services and agricultural and fishery sectors.
- (b) Professionals: including qualified professional scientists, doctors, dentists and other medical professionals; architects, surveyors and engineers; vice-chancellors, directors, academic staff and administrators of university and post-secondary college; principals and teachers of secondary school; statisticians; mathematicians; system analysts and computer programmers; lawyers and judges; accountants; business consultants and analysts; social workers; social work assistants; translators and interpreters; news editors and journalists; writers; librarians and members of religious orders.

- (c) 輔助專業人員：包括科學技術員、護士及助產士、牙科助理及其他保健輔助專業人員；建築、測量及工程技術員；光學及電子儀器控制員；船隻領航員及空中交通指揮員；小學及幼稚園／幼兒院校長及教師；統計助理；電腦操作員；法律文員；會計督導員；公共關係主任；營業代表；室內設計家；屋邨經理；警隊及其他紀律部隊的警司、督察及主任；藝人及運動員。
- (d) 文書支援人員：包括速記員、秘書及打字員；簿記、金融、船務、存案及人事部文員；出納員及銀行櫃位員；接待員及查詢文員。
- (e) 服務工作及銷售人員：包括空中小姐及導遊；管家；廚師及侍應生；保姆；理髮師及美容師；警隊及其他紀律部隊的員佐級人員；運輸指導員及其他服務工作人員；批發及零售商店推銷員；店員及時裝模特兒。
- (f) 工藝及有關人員：包括礦工及採石工人；砌磚工人、木匠及其他建造業工人；金屬模工；鐵匠；機械、電器及電子儀器技工；珠寶工人及手錶製造工人；製陶工人；排字工人；麵包師傅、食品及飲品處理工人；油漆工人；紡織、成衣、皮革、橡膠和塑膠行業的工人及其他工藝工人。
- (g) 機台及機器操作員及裝配員：包括鑽井工人及鏟床操作員；礦熔爐操作員；磚及磁磚燒窯工人；鋸木廠鋸工；造紙工人；化學處理機台操作員；發電廠及鍋爐操作員；石棉水泥產品製造工人；金屬整理工人及電鍍工人；牛奶製品及其他食品處理機器操作員；印刷機操作員；生產紡織、橡膠及塑膠製品的機器操作員；裝配員；司機；海員及其他工廠及機器操作員。
- (h) 非技術工人：包括小販；家務助理及清潔工人；信差；私人護衛員；看更；貨運工人；電梯操作員；建造業雜工；包裝工人；漁農業雜工。
- (c) Associate professionals: including science technicians, nurses and midwives, dental assistants and other health associate professionals; architectural, surveying and engineering technicians; optical and electronic equipment controllers; ship pilots and air traffic controllers; principals and teachers of primary school and kindergarten/nursery; statistical assistants; computer operators; law clerks; accounting supervisors; public relation officers; sales representatives; interior designers; estate managers; superintendents, inspectors and officers of the police and other discipline services; performers and sportsmen.
- (d) Clerical support workers: including stenographers, secretaries and typists; bookkeeping, finance, shipping, filing and personnel clerks; cashiers and tellers; receptionists and information clerks.
- (e) Service and sales workers: including air hostesses and travel guides; house stewards; cooks and waiters; baby-sitters; hairdressers and beauticians; rank and file of the police and other discipline services; transport conductors and other service workers; wholesale and retail salesmen in shops; shop assistants and fashion models.
- (f) Craft and related workers: including miners and quarrymen; bricklayers, carpenters and other construction workers; metal moulders; blacksmiths; machinery, electric and electronic instrument mechanics; jewellery workers and watch makers; potters; typesetters; bakers, food and beverage processors; painters; craft workers in textile, garment, leather, rubber and plastic trades; and other craft workers.
- (g) Plant and machine operators and assemblers: including well drillers and borers; ore smelting furnace operators; brick and tile kilnmen; sawmill sawyers; paper makers; chemical processing plant operators; power-generating plant and boiler operators; asbestos cement products makers; metal finishers and electroplaters; dairy and other food processing machine operators; printing machine operators; machine operators for production of textile, rubber and plastic products; assemblers; drivers; seamen and other plant and machine operators.
- (h) Elementary occupations: including street vendors; domestic helpers and cleaners; messengers; private security guards; watchmen; freight handlers; lift operators; construction labourers; hand packers; agricultural and fishery labourers.

- (i) 其他：包括農夫、畜牧業工人及漁夫、及報稱的職業不能分類或描述不足。

專利 保障機構或個人的創新產物。專利是由一個國家或地區的官方機構賦予發明者的法律權利。專利擁有人在限定期間和地區內，可享有有關發明的專用權，並可就有關發明進行工業或商業方面的開發。專利的全部或部分可供買賣或經特許作轉讓。

按人口平均計算的本地生產總值 是把某一統計年的本地生產總值除以同年的年中人口總數而得的數字。

個人電腦 包括桌面電腦、手提電腦及平板電腦，但不包括掌上電腦／個人數碼助理、電子日記簿及電子詞典。

專上教育 包括非學位課程、學位課程及深造課程。

專業職級及輔助專業職級的人士 是指從事下列各類職業的人士：

- (a) 自然科學及工程專業人員；
- (b) 資訊及通訊科技專業人員；
- (c) 保健專業人員；
- (d) 教學專業人員；
- (e) 商業、行政及有關專業人員；
- (f) 法律、社會科學及文化專業人員；
- (g) 自然科學、數學及工程輔助專業人員；
- (h) 資訊及通訊科技輔助專業人員；
- (i) 保健輔助專業人員；
- (j) 教學輔助專業人員；
- (k) 商業、行政及有關輔助專業人員；或
- (l) 法律、社會科學、文化及有關輔助專業人員。

- (i) Others: including farm workers, animal husbandry workers and fishermen, and occupations unidentifiable and inadequately described.

Patent protects innovations developed by organisations or individuals. A patent is a right in law conferred by a national or territorial official agency to an inventor. It gives the patent owner a monopoly of the invention and its industrial or commercial exploitation for a limited period and within a given territory. A patent can be bought/sold or transferred under a licence, either in whole or in part.

Per capita Gross Domestic Product (GDP) is obtained by dividing total GDP in a year by the mid-year population in the same year.

Personal computer includes desktop computer, laptop and tablet, but excludes palm top/Personal Digital Assistant (PDA), digital diary and electronic dictionary.

Post-secondary education includes non-degree courses, degree courses and postgraduate courses.

Professionals and associate professionals refer to persons engaged in the following categories of occupation:

- (a) science and engineering professionals;
- (b) information and communications technology professionals;
- (c) health professionals;
- (d) teaching professionals;
- (e) business, administration and related professionals;
- (f) legal, social science and cultural professionals;
- (g) science, mathematical and engineering associate professionals;
- (h) information and communication technology associate professionals;
- (i) health associate professionals;
- (j) teaching associate professionals;
- (k) business, administration and related associate professionals; or
- (l) legal, social science, cultural and related associate professionals.

公共科技支援機構 包括下列機構：

- 香港生產力促進局(汽車零部件研究及發展中心)；
- 香港應用科技研究院有限公司
(香港資訊及通訊技術研發中心)；
- 物流及供應鏈多元技術研發中心；
- 香港紡織及成衣研發中心有限公司；以及
- 納米及先進材料研發院有限公司

這些公共機構參與研究、開發和技術轉移的活動，並由香港特別行政區政府資助部分或全部經費。

研究及發展(研發)活動 是指具創造性及有系統性的工作。這些工作的目的是為增進知識以發明新產品、設計新程序或開拓現有產品或程序的新用途，以及改進現有的產品、程序或其相關的用途。

研發活動和類似活動的分別，是前者帶有相當的新穎或創新元素，以及能夠解決科學及／或技術方面的疑難，即擁有有關方面的常識和技術的人也不知如何解決的問題。

Public technology support organisations include the following:

- Hong Kong Productivity Council (Automotive Parts and Accessory Systems R&D Centre);
- Hong Kong Applied Science and Technology Research Institute Company Limited (Hong Kong R&D Centre for Information and Communications Technologies);
- Logistics and Supply Chain MultiTech R&D Centre;
- The Hong Kong Research Institute of Textiles and Apparel Limited; and
- Nano and Advanced Materials Institute Limited

These public organisations engaged in research, development and technology transfer activities. They are partly or wholly financed by the Hong Kong Special Administrative Region Government.

Research and development (R&D) activities refer to creative and systematic work undertaken so as to increase the stock of knowledge for devising new and improved products/processes/applications and improve existing products/processes/applications.

The way to distinguish R&D from similar activities is the presence of an appreciable element of novelty or innovation and the resolution of scientific and/or technological uncertainty, i.e. when the solution to a problem is not readily apparent to someone familiar with the stock of commonly used knowledge and techniques in the area concerned.

研究成果數目 涵蓋大學教育資助委員會(教資會)資助大學在指定統計期內(即每年7月1日至翌年6月30日)與教學無直接關係的所有創意作品數目。至於在統計期內獲期刊接納但並未出版的作品則不包括在內。根據教資會所制定的定義,研究成果類別一般包括:學術書籍、專題論文及章節、雜誌期刊、會議論文、創意及文學作品、顧問報告及個案研究,以及專利、許可證協議、知識產權及註冊公司。共同著作的作品亦包括在內,其計算方法是根據作者人數按比例分攤。例如由四名作者共同著作的一篇文章,每名作者算作各佔0.25篇。至於表演、展覽及類似作品,亦採用同樣的計算方法。數字包括職員及研究院研究課程學生的研究成果項目。由2017/18學年開始,數字亦包括研究院研究課程以外的學生的研究成果項目。

研究員 是指曾接受科學或技術訓練(一般指完成包括自然科學、工程及技術、醫療及衛生科學、社會科學和人文科學及藝術等領域的專上教育),並有參與研究及發展(研發)活動的專業工作的人員,以及監督研發活動的行政人員及其他高層人員。

技術創新 是指一間機構單位在市場上推出一個技術嶄新或經顯著改良的產品(貨品或服務),或在機構單位內部實施一個技術嶄新或經顯著改良的程序。有關創新可以是源自新的技術發展、現有技術的重新結合或機構單位所汲取的其他知識的運用。技術創新活動包括任何內部或外判研究及發展活動。

Research output items cover the University Grants Committee (UGC)-funded universities' overall creative output items that are not directly related to teaching during the specified reference period (i.e. 1 July of a year to 30 June of the following year). Items accepted by journals but not yet published within the reference period are not included. According to the definition set out by the UGC, research output categories generally include: scholarly books, monographs and chapters; journal publications; conference papers; creative and literary works, consulting reports and case studies; and patents, agreements, assignments and companies. Written work with co-authorships is also included, and the counting rule is to pro-rata according to the number of authors. For example, a paper with 4 authors will be counted as 0.25 item for each author. For performance, exhibitions and similar items, the same counting method is adopted. Research output items of both staff and research postgraduate students are covered. Starting from 2017/18 academic year, research output items of students other than research postgraduate are also covered.

Researchers refer to persons with scientific or technological training (usually with completion of post-secondary education in such areas as natural sciences, engineering and technology, medical and health sciences, social sciences, and humanities and the arts) who are engaged in professional work of research and development (R&D) activities; and administrators and other high-level personnel who direct R&D activities.

Technological innovation (TI) refers to the introduction of a technologically new or significantly improved product (goods or service) to the market or implementation of a technologically new or significantly improved process within an establishment. The innovation is based on the results of new technological developments, new combinations of existing technology or utilisation of other knowledge acquired by the establishment. TI activities cover any in-house or contracted-out research and development activities.

技術國際收支平衡 統計數據是參考經濟合作與發展組織所頒布的建議而編製。一般而言，技術國際收支平衡統計數據記錄與國際間技術轉移相關的商業交易，涉及量度使用專利權、特許證、專門技能、商標、設計、圖案、技術服務以及向海外研究及發展（研發）活動提供資金等交易的收入和支出。具體而言，技術國際收支平衡可區分為下列四個主要類別：

- (a) 技術貿易（透過專利發明及非專利發明的轉移、發出特許專利及披露技術知識）；
- (b) 與商標、設計及圖案有關的交易；
- (c) 帶技術性的服務（包括技術及工程研究，以及技術支援）；及
- (d) 研發活動。

資訊科技總開支 涵蓋以下四種類別的開支：

- (a) 購買供自用的電腦硬件（例如個人電腦、主機電腦、筆記簿型電腦、儲存裝置及元件）及周邊設備（例如打印機和掃描器）的開支；
- (b) 購買供自用的電腦程式、軟件及資料庫的開支，包括市場上的標準電腦軟件和由其他機構單位專門設計／開發的電腦軟件；
- (c) 其他與資訊科技有關的服務（例如系統設計與開發、電腦培訓、互聯網頁設計、互聯網接駁服務、網站儲存、電腦設備租賃，以及電腦產品的維修保養）的開支；及
- (d) 自行開發供自用的軟件及資料庫的成本。

The **technology balance of payments (TBP)** statistics of Hong Kong are compiled with reference to the recommendations promulgated by the Organisation for Economic Co-operation and Development. Generally, TBP registers commercial transactions related to international transfer of technology, as measured by receipts and payments for the use of patents, licences, know-how, trademarks, designs, patterns, technical services and for the financing of research and development (R&D) activities carried out abroad etc. Specifically, TBP can be distinguished into four major categories as follows :

- (a) trade in techniques (through transfer of patents and non-patented inventions, patent licensing, and disclosure of know-how);
- (b) transactions involving trademarks, designs and patterns;
- (c) services with a technical content (including technical and engineering studies as well as technical assistance); and
- (d) R&D activities.

Total information technology (IT) expenditure is defined to cover the following four types of expenditure:

- (a) expenditure on purchases of computer hardware (e.g. personal computers, mainframes, notebook computers, storage devices and components) and peripherals (e.g. printers and scanners) for own use;
- (b) Expenditure on purchases of computer programs, software and databases for own use, including both standard ones available in the market and those specifically designed/developed by other establishments;
- (c) payments for other IT-related services (e.g. system design and development; computer training; Internet page design; Internet connection; website hosting; computer equipment leasing; and repair and maintenance of computer products); and
- (d) cost of in-house development of computer programs and databases for own use.

服務貿易 指服務輸出及服務輸入。即是一個經濟體的本地居民與非本地居民之間進行的交易。數字是根據《2008年國民經濟核算體系》的標準，採用所有權轉移原則編製而成的。服務組成部分包括運輸、旅遊、金融服務、製造服務，以及多種不同類別的服務，當中包括保險及退休金服務、與貿易相關的服務、商業及專業服務。

失業率 指失業人士在勞動人口中所佔的比例。

增加價值 量度某一經濟活動的淨產值，即生產總額減去中間投產消耗（即指在生產過程中所消耗的貨品及服務的價值）。

網頁 是一種可在互聯網上開啟的電子文件，提供文字、圖像或多媒體形式的資訊。

網站 是一組相關網頁的集合，通常以本頁為首頁。每個網站通常都有一個獨一無二的網址，以方便用戶尋找所需的本頁。

Trade in services refers to exports of services and imports of services. It represents transactions between residents and non-residents of an economy. Figures are compiled based on the change of ownership principle under the standards stipulated in the *System of National Accounts 2008*. The service components include transport, travel, financial services, manufacturing services and a wide variety of services including insurance and pension services; trade-related services; business and professional services.

Unemployment rate refers to the proportion of unemployed persons in the labour force.

Value added measures the net output of an economic activity, i.e. the value of gross output less the value of intermediate consumption (that is the value of goods and services used up in the course of production).

Webpage is an electronic document accessible on the Internet, which provides information in a textual, graphical or multimedia format.

Website is a collection of related webpages that includes a beginning page called home page. A website has an address (often unique) to facilitate users in accessing their intended home page.

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