

香港 — 知識型經濟 統計透視

Hong Kong as a Knowledge-based Economy A Statistical Perspective

2013 年版
2013 Edition



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香港—知識型經濟 統計透視

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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，以及有關資料的局限。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2013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2013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以往期號所刊載的數字不同。

按行業組別劃分的統計數字

所有刊載於本刊內的按行業組別或經濟活動分類的統計數字是根據《香港標準行業分類2.0版》編製。該分類是以聯合國的《所有經濟活動的國際標準產業分類修訂本第4版》為藍本，配合本地的情況而制訂，並於2009年開始採用。

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由於四捨五入關係，統計表內個別項目的數字之和可能與總數略有出入。

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 2013, while population figures refer to the population estimates released in August 2013. Some previously released statistics have been revised accordingly and therefore they may be different from those published in previous editions of this publication.

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，尤其在先進的經濟體系內的經濟活動，均日益重視知識的應用。蘊藏在人才與科技中的知識，今天已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，大大影響經濟體系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。驅使知識型經濟體系出現的各種力量，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定合適的發展政策的核心。有鑑於此，編製反映經濟體系邁向知識型經濟進程的統計指標，有助制定合適的發展策略。

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 human capital and in technology, is now seen as 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 全球有不少經濟體系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系比較的基準，從而找出有待改善之處。

2.3 要了解一個經濟體系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，將一系列的統計指標按以下被廣泛認同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* – 反映經濟體系內知識和資訊傳遞／應用的效率和效能的指標。
- (b) *人力資源發展* – 反映經濟體系內能夠接觸及運用知識與資訊，從而進一步生產／創造／傳遞知識和資訊的人才的數量和素質的指標。
- (c) *創新系統* – 反映經濟體系內生產／創造／應用知識和資訊的數量、素質和速度的指標。
- (d) *營商環境* – 反映經濟體系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 resources 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源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) 經濟體系的社會及經濟特色，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，一個經濟體系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。經濟體系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系，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 resources is the key for carving out competitive advantage.
- (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。香港的工商機構和消費者均可享用高素質的電訊基礎建設。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、亞洲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）的先進經濟體系。

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。隨着政府和私營機構在2013年年中在全港約6 000個地點設置超過19 000個Wi-Fi熱點，香港在提供公共Wi-Fi服務上已佔前列地位，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（無線廣播電視節目的新方法）現已覆蓋差不多所有本港的人口。

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上網設施。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2012年年底，每百名人口中平均有228個公共流動電話用戶，是全球比率最高的地方之一。

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. With the installation of over 19 000 Wi-Fi hot spots at around 6 000 locations in the territory by both the Government and the private sector in mid 2013, Hong Kong is at the forefront 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, a new method of wireless broadcasting of television programmes, has currently 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 228 public mobile subscribers per 100 population in end 2012, being one of the places with the highest ratio in the world.

- (b) 在 2012 年年底，每百名人口中有 43 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 2012 年年底，固定寬頻互聯網用戶數目為 226 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 32 人。根據國際電信聯盟發表的數字，香港的寬頻用戶比率在 2012 年的排名為亞太區第 2 高。
- (c) 香港人口大多熱衷使用資訊科技。在 2012 年，約 78% 的住戶在家中擁有電腦並接駁上互聯網（較 2002 年時的 53% 顯著增加）。在 2012 年，每百名 10 歲及以上人口中在過去 12 個月曾使用互聯網服務的人數達 73 人（2002 年為 48 人）。
- (d) 香港的工商機構熱衷採用資訊及通訊科技以加強營運效率及競爭優勢。在 2009 年，約 61% 的工商機構有接駁互聯網，而約 20% 有設立網頁／網站。

4. 香港的人力資源發展

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，而人力資源的發展則是可持續發展的關鍵動力之一。教育是人力資源發展的基石，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 2002-03 年度的 556 億元上升至 2012-13 年度的 778 億元，增幅為 40%，顯示政府在投資於教育方面的承擔。在 2012-13 年度，政府在教育的開支佔政府整體開支的 20%。

- (b) As at end 2012, the number of fixed Internet subscribers per 100 population reached 43. With the advance in technology, the use of Internet with broadband connection has become popular. In end 2012, about 2.26 million customers subscribed fixed broadband Internet service, representing 32 fixed broadband Internet subscribers per 100 population. Internationally, Hong Kong was ranked the second highest in the Asia Pacific region in terms of broadband subscription rate by the International Telecommunication Union in 2012.
- (c) Hong Kong has an information technology-savvy population. Among all households, some 78% had their personal computers at home connected to Internet in 2012 (markedly up from 53% in 2002). The number of individuals aged 10 and over having used Internet service in the past 12 months per 100 population reached 73 in 2012 (48 in 2002).
- (d) The business establishments in Hong Kong are keen to adopt ICT to enhance their operational efficiency and competitive edges. In 2009, some 61% of all business establishments had Internet connection, and about 20% had established their webpages/websites.

4. Human resources development in Hong Kong

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

- (a) Government expenditure on education in Hong Kong rose by 40% from \$56.6 billion in 2002-03 to \$77.8 billion in 2012-13, indicating the Government's commitment to investing in education. In 2012-13, government expenditure on education as a percentage of total government expenditure reached 20%.

(b) 政府一直在專上教育作出龐大投資。在 2012-13 年度，政府在專上教育的開支達 304 億元，佔政府整體教育開支的 39%。

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，社會人士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／深造課程）的人士所佔比例由 2002 年的 26% 上升至 2012 年的 34%。
- (b) 在 2012 年的就業人士中，專業人員及輔助專業人員所佔的比例為 27%。

4.3 簡而言之，人力資源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系不可缺少的部分。

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。這些都是推動創新經濟體系以助經濟持續發展的元素。

5.2 我們採用多角度分析有關創新的指標。除了協助制定政策和評估計劃成效外，創新和科技的統計指標在反映一個經濟體系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 2012-13, government expenditure on post-secondary education amounted to \$30.4 billion, accounting for 39% 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 in the following figures:

- (a) The proportion of labour force with post-secondary education (i.e. having attended non-degree/degree/postgraduate courses) rose from 26% in 2002 to 34% in 2012.
- (b) The proportion of employed persons who worked as professionals and associate professionals was 27% in 2012.

4.3 In a nutshell, development of human resources essentially comprises education, skill training and retraining, lifelong learning and sourcing of global talent. 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系相比，香港在研究及發展（研發）活動的投資水平不算高，但其研發活動日漸增加，本地研發總開支相對本地生產總值的比率由 2001 年的 0.54% 上升至 2011 年的 0.72%。
 - (b) 2011 年的本地研發總開支達 139 億元，較 2001 年上升 97%。值得注意的是越來越多工商機構傾向進行研發活動，工商機構的研發開支佔本地研發總開支的比例由 2001 年的 29% 大幅上升至 2011 年的 44%。
 - (c) 由於香港是以服務業為主的經濟體系，工商機構一直積極進行不直接涉及研發的其他各類型創新活動，這些活動有助改善業務表現。在 2011 年，有 22% 的工商機構曾進行一項或以上創新活動。
- (a) Although the level of investment in research and development (R&D) is not as high as that in other advanced economies, R&D activities in Hong Kong have generally been on an uptrend over the years, with gross domestic expenditure on R&D (GERD) as a ratio to GDP going up from 0.54% in 2001 to 0.72% in 2011.
 - (b) GERD in 2011 amounted to \$13.9 billion, 97% higher than that recorded in 2001. A noteworthy feature is the growing propensity of business establishments in undertaking R&D, with the expenditure on R&D performed in the business sector occupying a share of 44% in the GERD in 2011 (markedly up from 29% in 2001).
 - (c) With Hong Kong being a service oriented economy, business establishments have been keen to carry out various other innovation activities that are not directly related to R&D but are yet conducive to enhancing business performance. Of all business establishments in 2011, 22% had undertaken one or more types of innovation activities.

5.3 雖然香港的研發基礎不及一些先進經濟體系，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，香港必須繼續好好發揮現有的實力、充分配合研究能力和業界需要，並且借助珠江三角洲的生產基地。有鑑於此，政府實施了推動創新及科技發展的策略性架構，並在這個架構之下於 2006 年成立了 5 所研發中心，推動及協調選定的重點科技範疇的應用研發工作。

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 leverage on the production base in the Pearl River Delta region. In view of this, the Government has adopted a strategic framework for innovation and technology development under which 5 R&D centres were set up in 2006 to drive and coordinate applied R&D in selected technology focus areas.

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系之一，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經濟及制度狀況：

- (a) 在 2002 年至 2012 年期間，香港的人均本地生產總值平均按年實質增長約 4%。
- (b) 香港的經濟結構持續從製造業向服務業轉移。整體服務業對以基本價格計算的本地生產總值的貢獻因而進一步增加，由 2001 年的 88% 上升至 2011 年的 93%。
- (c) 在全球經濟一體化下，香港的工商機構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 2011 年，從事知識型行業的人數達 580 400 人，佔整體就業人數的 16%。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 24%。

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 2002 and 2012, per capita GDP of Hong Kong increased at an average annual growth rate of around 4% in real terms.
- (b) The structure of the Hong Kong economy continued to shift from manufacturing to services. This led to a further rise in the contribution of the services sector as a whole to GDP at basic prices from 88% in 2001 to 93% in 2011.
- (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 estates services)). In 2011, there were 580 400 persons engaged in the KBI, accounting for 16% of the total employment. The value added of the KBI as a percentage of GDP at basic prices was 24% during the same year.

6.3 香港屬開放型的經濟體系，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，2012 年的商品整體出口貨值為 34,343 億元。在 2002 年至 2012 年期間，平均按年增長率為 8%。商品進口方面同樣強勁，2012 年的貨值達 39,122 億元。在無形貿易方面，服務輸出的金額以平均每年 11% 的增長率上升，由 2002 年的 3,497 億元增加至 2012 年的 9,979 億元。服務輸入的金額也以 8% 的平均按年增長率上升，由 2002 年的 2,044 億元增加至 2012 年的 4,481 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 2012 年，駐港的地區總部數目為 1 367 間，而駐港的地區辦事處數目為 2 516 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系的表現。折衷的辦法是運用描述式的框架，以一組指標來量度香港作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 \$3,434.3 billion in 2012. This represented an average annual growth rate of 8% between 2002 and 2012. Imports of goods were likewise robust, reaching \$3,912.2 billion in 2012. On invisible trade, the value of exports of services grew at an average annual rate 11% from \$349.7 billion in 2002 to \$997.9 billion in 2012. The value of imports of services also increased at an average annual rate of 8%, from \$204.4 billion in 2002 to \$448.1 billion in 2012.
- (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 2012, the number of regional headquarters in Hong Kong stood at 1 367 while that of regional offices was 2 516.

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 Hong Kong as a KBE.

7.2 從知識型經濟的一般特點來看，香港在許多方面都表現不俗。香港擁有優良的資訊及通訊技術基礎建設，而有利的營商環境給予營商者莫大的信心。香港人不斷進取，增進知識和技能。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，無論個人還是機構都要不斷追求完善、自強不息。

7.2 Generally, Hong Kong positions well on many of the general characteristics of a KBE. We have excellent ICT infrastructure and our favourable business environment provides confidence to businesses. Our people are increasingly equipped in terms of knowledge and skills. 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 the individual and the 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 KBE

	2002	2007	2008	2009	2010	2011	2012
I. 資訊及通訊科技 Information and communication technology (ICT)							
每百名人口計算的公共流動電話用戶數目 Public mobile subscribers per 100 population	92.5	152.6	163.3	174.5	190.2	209.9	228.4
每百名人口計算的固定互聯網用戶數目 Fixed Internet subscribers per 100 population	35.4	35.9	36.5	38.3	40.7	42.7	42.6
家中擁有個人電腦並接駁互聯網的住戶佔所有住戶的百分比(%) Percentage of households with PCs at home connected to the Internet (%)	52.5	70.1	70.9	73.3	76.4	—	77.9
每百名10歲及以上人口中在過去12個月曾使用互聯網服務的數目 Number of individuals having used the Internet service in the past 12 months per 100 population aged 10 and over	48.2	64.8	66.7	69.4	—	—	72.9
有接駁互聯網的工商機構的百分比(%) Percentage of business establishments having Internet connection (%)	44.2	59.8	58.8	60.6	—	—	—
有設立網頁／網站的工商機構的百分比(%) Percentage of business establishments having webpages/websites (%)	11.8	18.2	19.3	20.0	—	—	—
II. 人力資源發展 Human resources development							
政府的教育開支(十億港元) (指統計年4月1日至翌年3月31日的財政年度底的數字) Government expenditure on education (HK\$ billion) (Figure refers to the end of the financial year from 1 April of the reference year to 31 March of the following year)	55.6	53.8	75.0	58.2	60.7	67.9	77.8
政府的專上教育開支(十億港元) (指統計年4月1日至翌年3月31日的財政年度底的數字) Government expenditure on post-secondary education (HK\$ billion) (Figure refers to the end of the financial year from 1 April of the reference year to 31 March of the following year)	16.9	16.8	34.3	16.3	17.6	22.4	30.4
曾受專上教育的勞動人口的百分比(%) Percentage of labour force with post-secondary educational attainment (%)	26.3	30.5	31.4	31.7	32.0	33.4	34.3
從事專業／輔助專業職級的就業人口百分比(%) Percentage of employed population working as professionals/associate professionals (%)	23.9	26.2	26.1	26.4	25.8	26.8 ⁽¹⁾	26.8 ⁽¹⁾
III. 創新系統 Innovation system							
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 GDP (%)	0.58	0.75	0.72	0.77	0.75	0.72	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 (%)	33.2	48.8	42.8	42.7	43.3	44.4	N.A.
曾進行創新活動的工商機構的百分比(%) Percentage of business establishments having undertaken innovation activities (%)	21.8	42.2	42.8	39.3	34.2	21.5	N.A.

		2002	2007	2008	2009	2010	2011	2012
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\$)	192,367	238,676	245,406	237,960	252,952	273,783	285,403
	(美元) (US\$)	24,666	30,596	31,515	30,697	32,559	35,173	36,798
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 (%)		88.9	92.9	92.6	92.7	93.0	93.1	N.A.
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	13.9	14.9	15.8	16.2	N.A.
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 (%)		–	27.2	24.4	23.9	24.4	24.3	N.A.
商品整體出口貨值(十億港元) Value of total exports of goods (HK\$ billion)		1,560.5	2,687.5	2,824.2	2,469.1	3,031.0	3,337.3	3,434.3
商品進口貨值(十億港元) Value of imports of goods (HK\$ billion)		1,619.4	2,868.0	3,025.3	2,692.4	3,364.8	3,764.6	3,912.2
服務輸出金額(十億港元) Value of exports of services (HK\$ billion)		349.7	664.1	720.8	672.8	829.5	942.7	997.9
服務輸入金額(十億港元) Value of imports of services (HK\$ billion)		204.4	334.2	367.0	339.3	398.1	438.6	448.1
駐港的地區總部及地區辦事處的總數 (指統計年六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)		3 119	3 890	3 882	3 580	3 638	3 752	3 883

註釋： (1) 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。因此，2011 年及 2012 年的數字不能與較早年份的數字作嚴格比較。

Note: (1) 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. Figures for 2011 and 2012 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提升更可促進一個經濟體系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多用途的技術，並透過以下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。本刊選取一系列反映資訊及通訊科技在社會及經濟各方面的普及程度的統計指標，以助評估香港發展為知識型經濟的進度。被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 in a KBE

1.1 While the wider use of information and communication technology (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 businesses 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 2012 年，每百名人口中，平均有 228 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 2012 年，每百名人口中便有 43 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 2002 年的 99 萬上升至 2012 年的 226 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 2012 年的排名為亞太區第二高。（圖 1.2）

資訊及通訊科技在社區的普及程度

1.7 香港在不同方面的經濟活動中應用資訊科技都走在最前列。社區內使用資訊科技的情況日趨普遍。個人電腦在住戶中的普及率由 2002 年的 62.1% 上升至 2012 年的 80.0%；而住戶的互聯網普及率亦由 2002 年的 52.5% 上升至 2012 年的 77.9%。（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 228 public mobile subscribers per 100 population in 2012, 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 2012, the number of fixed Internet subscribers per 100 population reached 43. With the advance in technology and competitive pricing offered by telecommunications network operators, the number of fixed broadband Internet subscribers rose from 0.99 million in 2002 to 2.26 million in 2012. 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 2012. (Chart 1.2)

Diffusion of ICT in the community

1.7 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. The penetration rate of personal computers (PCs) in households increased from 62.1% in 2002 to 80.0% in 2012; whereas the household Internet penetration rate proportion of household also increased from 52.5% in 2002 to 77.9% in 2012. (Chart 1.3)

1.8 香港人普遍熱衷使用資訊科技。在 2012 年，每百名 10 歲及以上人口當中，曾使用個人電腦的人士有 73 名（2002 年為 54 名）。使用互聯網服務方面的相應人數於在 2012 年亦達至 73 人（2002 年為 48 人）。此外，電子商貿越來越為香港市民所接受。在 2012 年，有 24.4% 的 15 歲及以上人士在過去 12 個月內曾為個人事務於互聯網上購買產品／服務。（圖 1.4 及 1.5）

工商界採用資訊及通訊科技的普及程度

1.9 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 2009 年，超過一半（60.6%）的工商機構已連接互聯網，而有設立網頁／網站的工商機構則佔 20.0%（在 2000 年的數字分別為 37.3% 及 7.3%）。然而，電子商貿在經濟上的重要性依然較小。在 2009 年，只有 12.9% 的工商機構曾透過電子途徑購買貨品、服務或資料。而有透過電子途徑售賣貨品、服務或資料的比率則相當低（1.5%）。在 2008 年，所有選定行業內透過電子途徑售賣貨品、服務或資料所帶來的業務收益只佔業務收益總額的 1.7%。（圖 1.6 至 1.8）

政府及工商機構對資訊及通訊科技的投資

1.10 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 年在資訊科技的開支亦顯著上升。在 2011-12 年度，政府用於資訊科技的支出相等於公共開支總額的 1.2% 或本地生產總值的 0.2%。（圖 1.9）

1.8 People in Hong Kong are generally keen users of IT. The number of individuals aged 10 and over having used PCs in the past 12 months per 100 population reached 73 in 2012 (54 in 2002). As regards the use of Internet service, the corresponding figure was also 73 in 2012 (48 in 2002). Besides, electronic commerce has become more receptive to Hong Kong people. In 2012, 24.4% of Hong Kong population aged 15 and over had made online purchases of products/services for personal matters over the past 12 months. (Charts 1.4 and 1.5)

Diffusion of ICT in the business sector

1.9 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 2009, over one half (60.6%) of business establishments had Internet connection, whereas 20.0% had webpages/websites (37.3% and 7.3% respectively in 2000). However, the economic importance of electronic commerce is still small. Only 12.9% of business establishments had purchased goods, services or information through electronic means in 2009. The corresponding proportion is much lower for selling through electronic means (1.5%). In 2008, the value of business receipts by establishments from selling of goods, services or information through electronic means accounted for only 1.7% of total business receipts in all selected sectors. (Charts 1.6 to 1.8)

Investment in ICT by the Government and business establishments

1.10 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 IT increased significantly over the past decade. In 2011-12, government spending on IT represented 1.2% of total public expenditure or 0.2% of GDP. (Chart 1.9)

1.11 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 2011 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 9.2%，數字於過往 5 年間保持在相若的水平。在 2005 年至 2011 年期間，工商機構在資訊科技的總開支相對本地生產總值的比率大約為 2 至 3%。(圖 1.10 及 1.11)

資訊及通訊科技業的經濟貢獻

1.12 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）在過去 10 年有顯著的增長。然而，該行業的業務表現較易受經濟波動的影響。在 2011 年，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 6.1%，與運輸及倉庫業（6.0%）以及專業及商用服務業（5.7%）的百分比相若。(圖 1.12)

1.13 資訊及通訊科技業的就業人數亦可作為衡量該行業對經濟重要性的一個指標。在 2011 年，資訊及通訊科技業的就業人數約為 133 100 人，佔整體就業人數的 3.7%。(圖 1.13)

結語

1.14 政府一直致力於建立一個有利資訊及通訊科技擴散的環境。相應地，香港的工商機構及個人熱衷使用資訊及通訊科技。資訊及通訊科技的持續發展有賴於政府、工商機構以及個人的共同努力，令香港成功邁向為知識型的經濟體系。

1.11 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 9.2% of non-residential gross domestic fixed capital formation in 2011, maintaining at a similar level over the past 5 years. The total expenditure on IT in the business sector as ratio to GDP was around 2 to 3% between 2005 and 2011. (Charts 1.10 and 1.11)

Economic contribution of the ICT sector

1.12 The ICT sector (a cluster of industries engaged in the production and distribution of ICT products and provision of services related to ICT) has grown significantly in the past decade. However, its business performance has also been sensitive to economic fluctuation. In 2011, the value added of the ICT sector accounted for 6.1% of GDP at basic prices, broadly comparable to that of the transportation and storage sector (6.0%) as well as the professional and business services sector (5.7%). (Chart 1.12)

1.13 The employment size of the ICT sector also serves as an indicator of the economic importance of the sector concerned. In 2011, there were some 133 100 persons engaged in the ICT sector, accounting for 3.7% of the total employment. (Chart 1.13)

Concluding remarks

1.14 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.

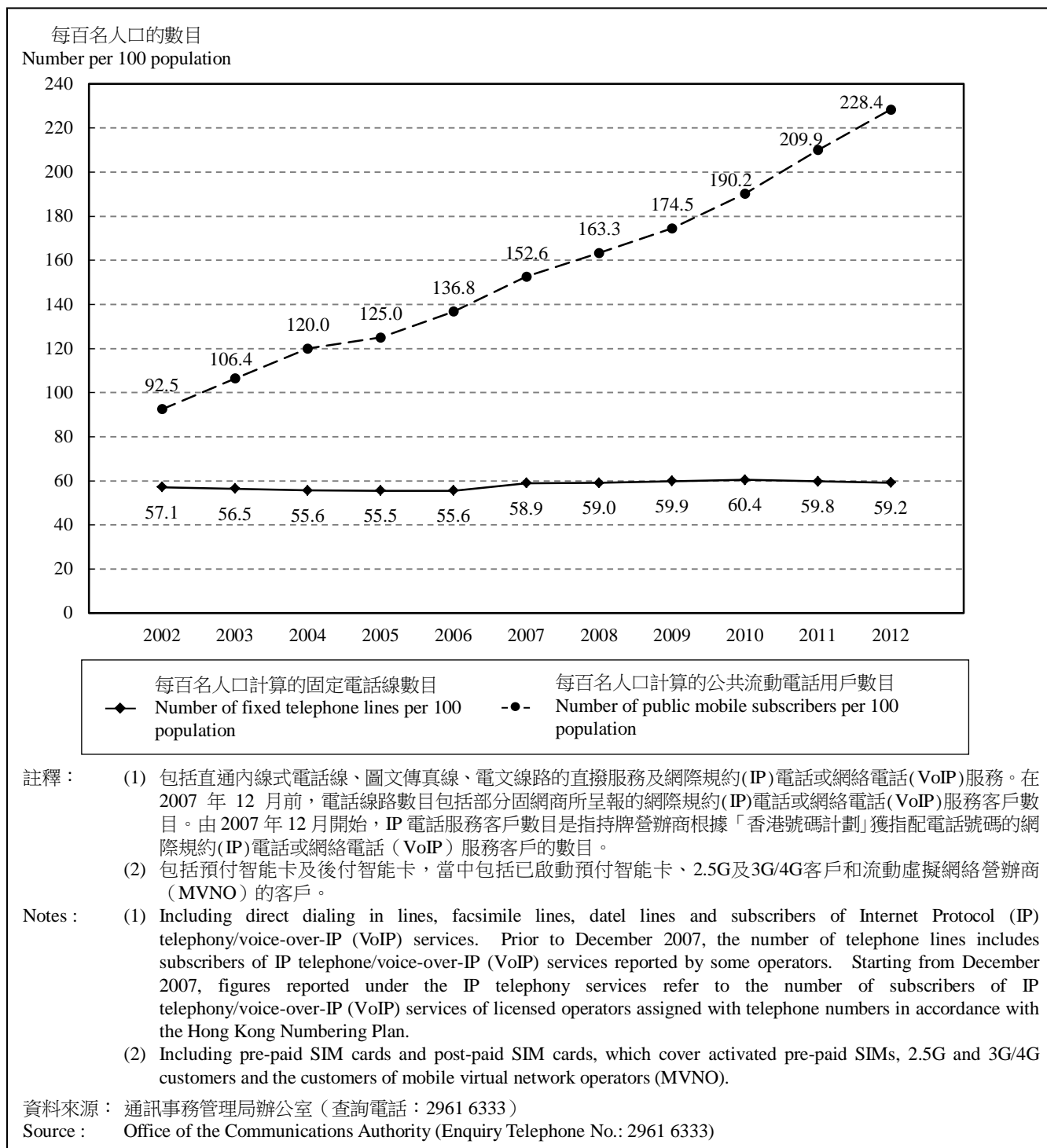
表 1.1 量度知識型經濟中有關資訊及通訊科技範疇的統計指標一覽

Table 1.1 List of statistical indicators for measuring the information and communication technology (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. 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. 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
<p>資訊及通訊科技在社區的普及程度：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. 家中有個人電腦或家中有個人電腦並接駁互聯網的住戶佔所有住戶的百分比 Percentage of households with personal computers (PCs) at home or households with PCs at home connected to the Internet among all households 2. 在過去 12 個月內曾使用個人電腦或互聯網服務的 10 歲及以上人士的百分比 Percentage of persons aged 10 and over who had used PCs or Internet service in the past 12 months 3. 在過去 12 個月內曾使用網上購物服務的 15 歲及以上人士的百分比 Percentage of population aged 15 and over who had used online purchasing services in the past 12 months
<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. 有使用個人電腦、連接互聯網及設立網頁／網站的工商機構的百分比 Percentage of business establishments having used PCs, Internet connection and webpages/websites 2. 有透過電子途徑買／賣貨品、服務或資料的工商機構的百分比 Percentage of business establishments having purchased/sold goods, services or information through electronic means 3. 透過電子途徑售賣貨品、服務或資料所帶來的業務收益 Business receipts from selling goods, services or information through electronic means
<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 information technology (IT) 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

與資訊及通訊科技相關的因素 Factors relating to ICT	統計指標 Statistical indicators
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 ICT sector: capacity to produce and supply ICT goods and services	<ol style="list-style-type: none"> <li data-bbox="635 188 1461 259">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 <li data-bbox="635 286 1461 398">2. 按經濟活動劃分的資訊及通訊科技業的機構數目和就業人數分布 Distribution of number of establishments and persons engaged in the ICT sector by economic activity

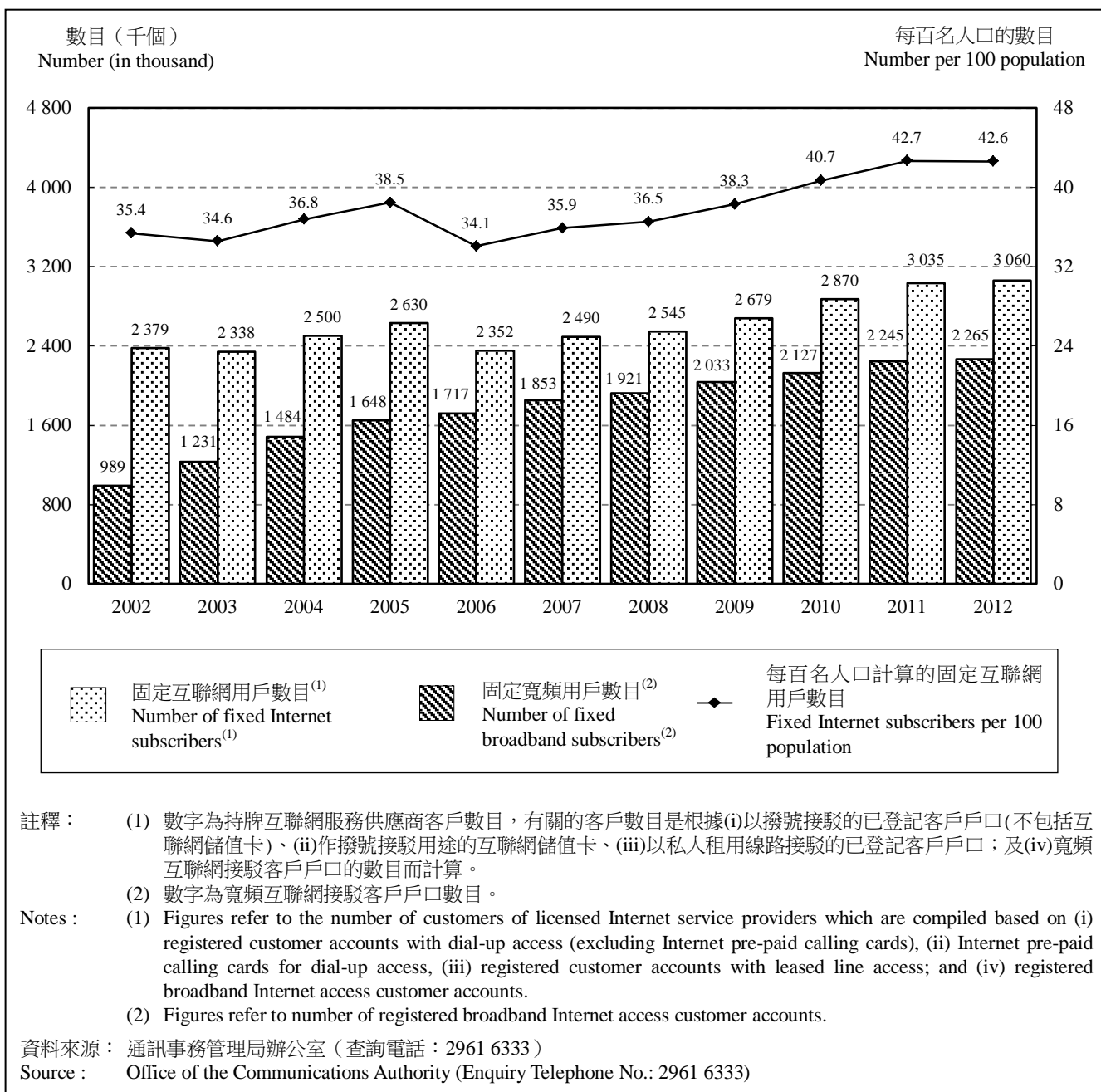
圖 1.1 按每名人口計算的固定電話線⁽¹⁾數目和公共流動電話用戶⁽²⁾數目
Chart 1.1 Number of fixed telephone lines⁽¹⁾ and public mobile subscribers⁽²⁾ per 100 population



◆ 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2012年年底，每百名人口中有228個公共流動電話用戶，是2002年年底數目(93)的兩倍多。

◆ 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 228 in end 2012, which was more than double that in end 2002 (93).

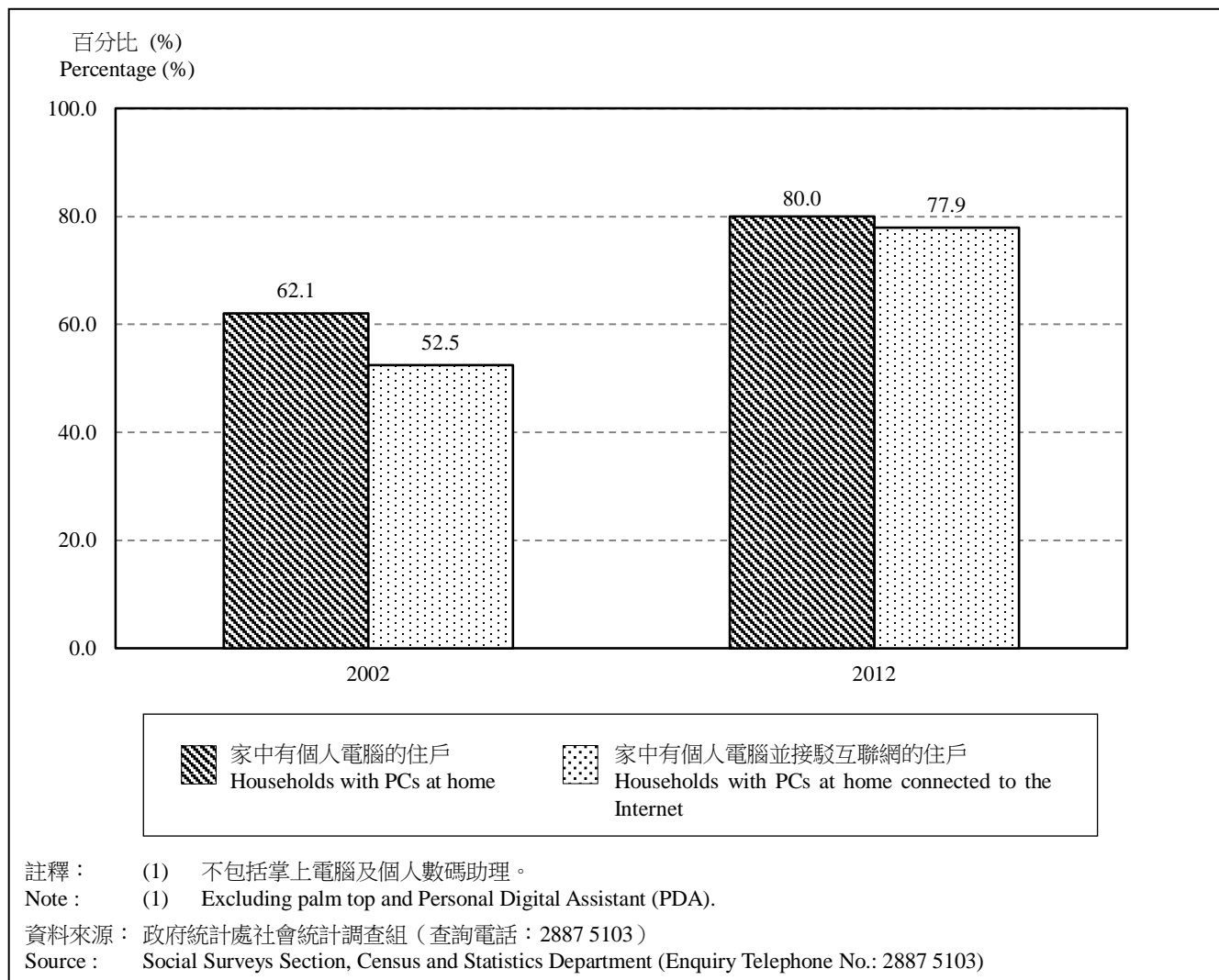
圖 1.2 按每百名人口計算的固定互聯網用戶數目
Chart 1.2 Number of fixed Internet subscribers per 100 population



◆ 在 2012 年，固定互聯網用戶數目達 306 萬戶，較 2002 年上升 29%。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 2002 年的 42% 上升至 2012 年的 74%，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 Internet subscribers reached 3.06 million in 2012, which was higher by 29% compared with 2002. The percentage share of fixed broadband subscribers in the total number of fixed Internet subscribers went up from 42% in 2002 to 74% in 2012, reflecting the growing demand for high speed Internet access services in Hong Kong.

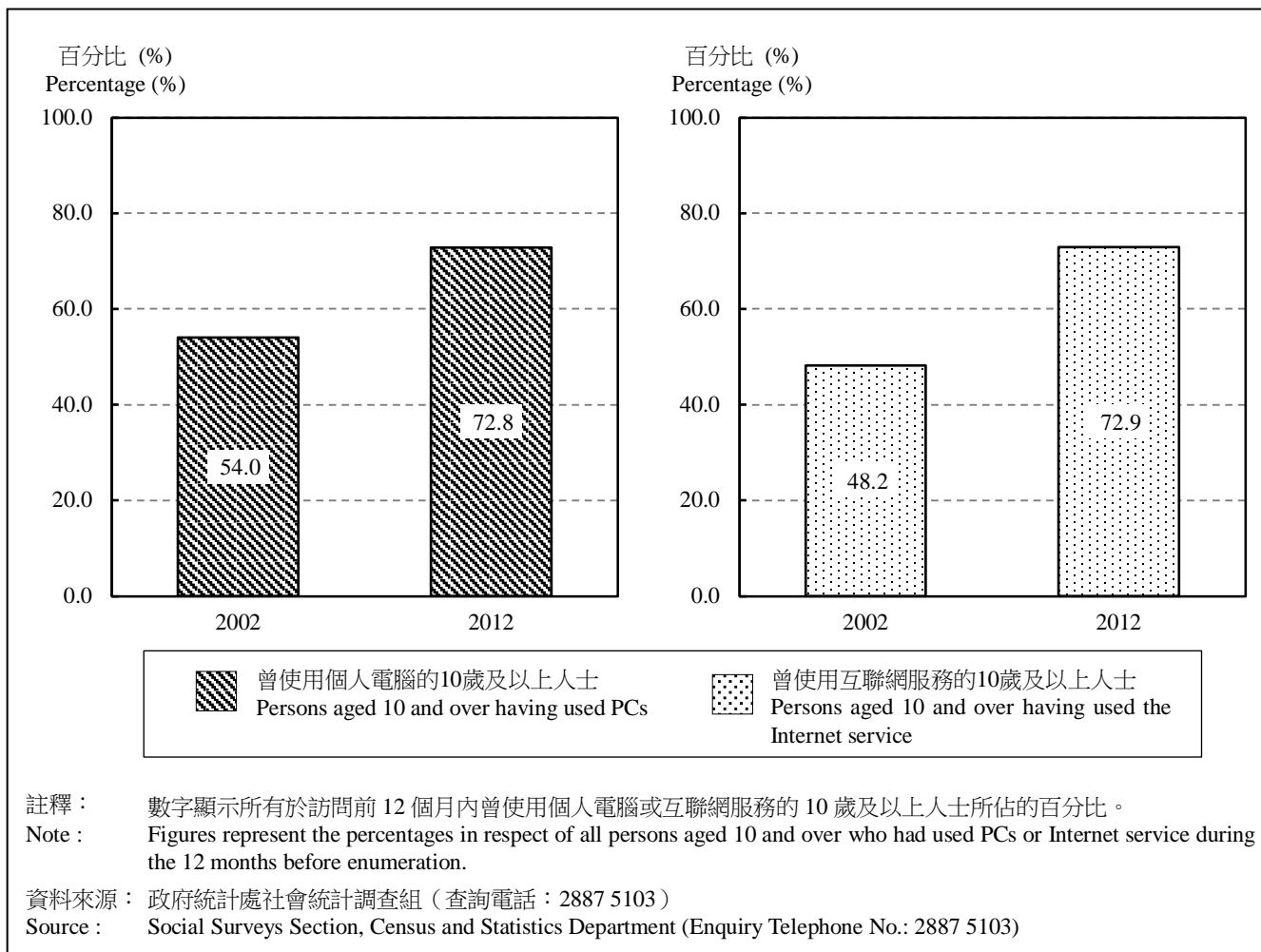
圖 1.3 家中有個人電腦或家中有個人電腦⁽¹⁾並接駁互聯網的住戶佔所有住戶的百分比
Chart 1.3 Percentage of households with personal computers (PCs) at home or households with PCs⁽¹⁾ at home connected to the Internet among all households



◆ 住戶家中電腦有接駁互聯網的普及率持續上升，升幅較住戶擁有個人電腦的普及率為大。住戶家中電腦有接駁互聯網的普及率，由2002年的52.5%上升至2012年的77.9%。

◆ The household Internet penetration rate is going up at a faster pace than the household PC penetration rate. The household Internet penetration rate went up from 52.5% in 2002 to 77.9% in 2012.

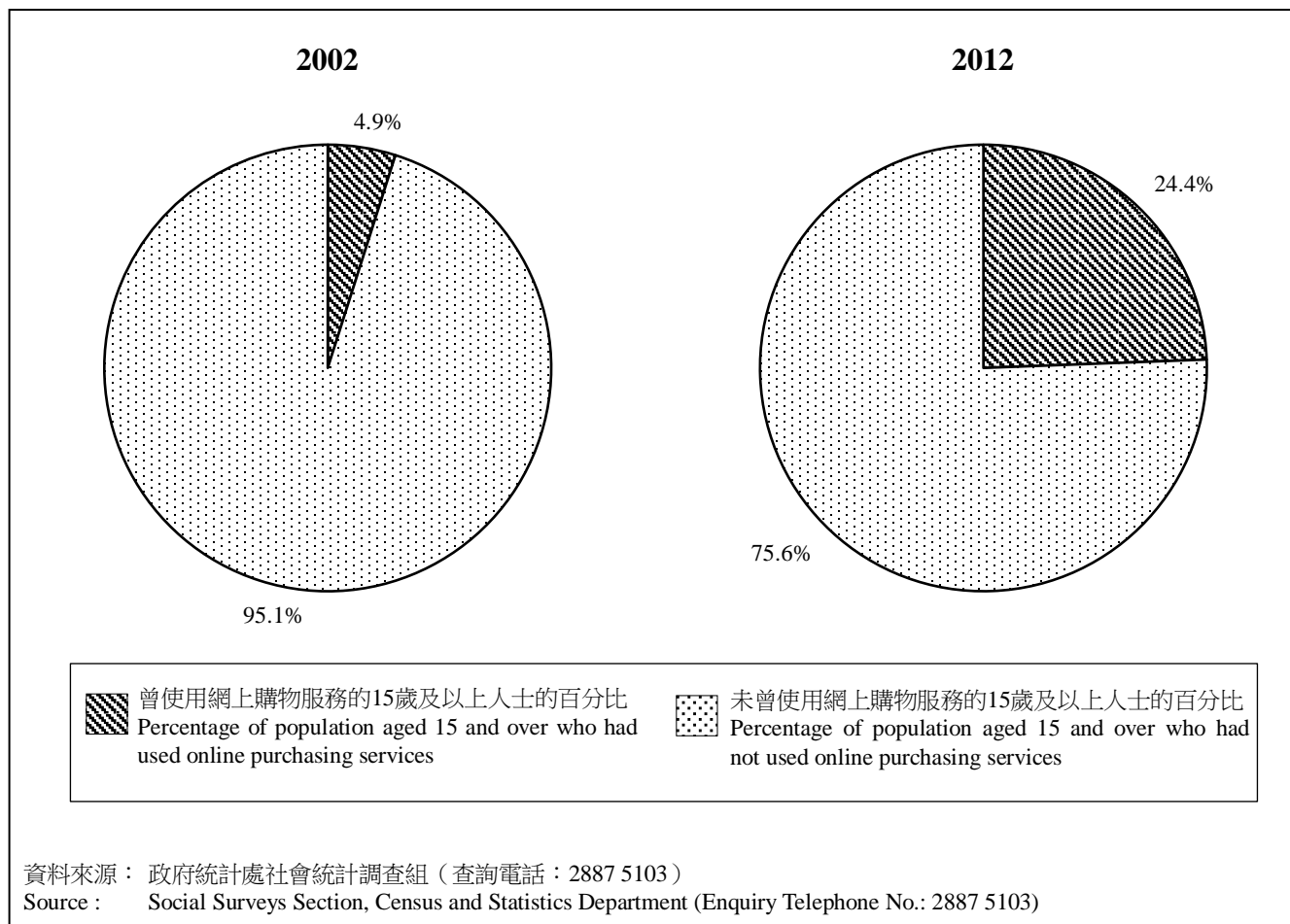
圖 1.4 在過去 12 個月內曾使用個人電腦或互聯網服務的 10 歲及以上人士的百分比
Chart 1.4 Percentage of persons aged 10 and over who had used personal computers (PCs) or Internet service in the past 12 months



◆ 香港人普遍熱衷使用資訊科技。在2012年，每百名10歲及以上的人口，便有73名人士在過去12個月內曾使用個人電腦和互聯網服務。

◆ People in Hong Kong are keen users of information technology. For every 100 persons aged 10 and over in 2012, around 73 of them had used PCs and Internet service in the past 12 months.

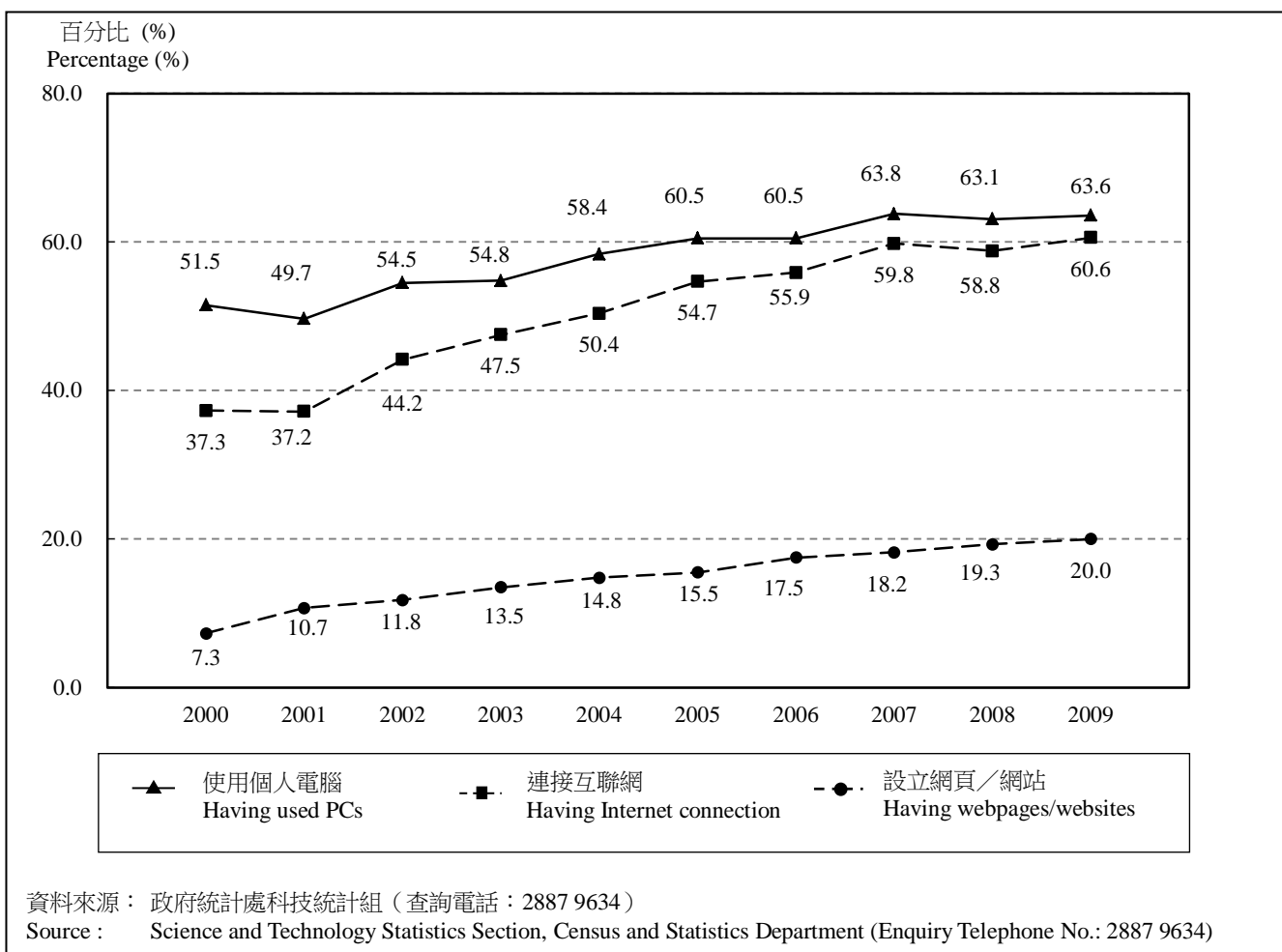
圖 1.5 在過去 12 個月內曾使用網上購物服務的 15 歲及以上人士的百分比
Chart 1.5 Percentage of population aged 15 and over who had used online purchasing services in the past 12 months



◆ 在網上購物的人數日益增加。在 2012 年，約有 1 460 100 名 15 歲及以上人士（佔 15 歲及以上人口的 24.4%）在過去 12 個月內曾為個人事務於互聯網上購買產品／服務。

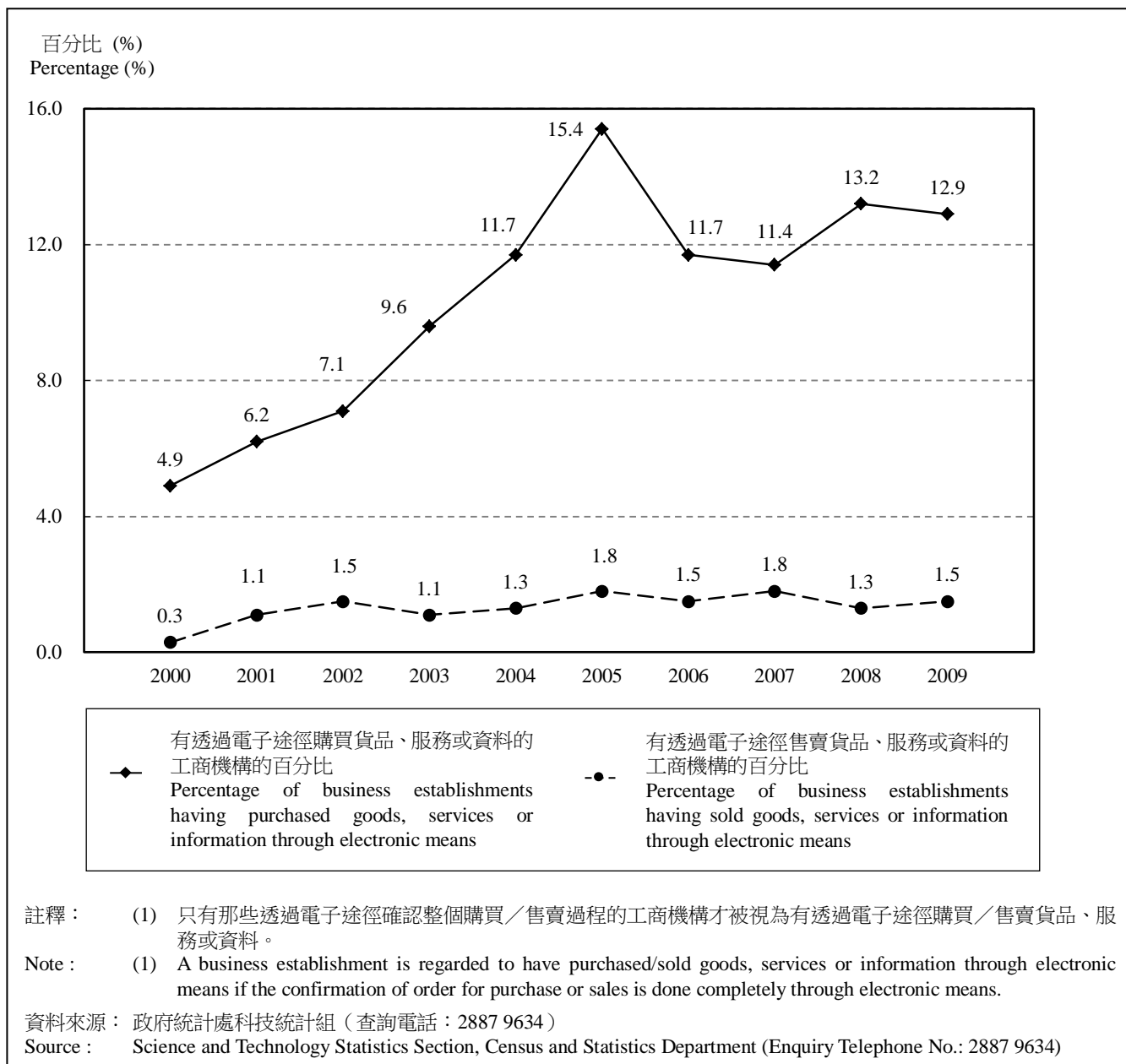
◆ The number of persons making purchases online is on the rise. In 2012, some 1 460 100 persons aged 15 and over (or 24.4% of the population aged 15 and over) had made online purchases of products/services for personal matters over the past 12 months.

圖 1.6 有使用個人電腦、連接互聯網及設立網頁／網站的工商機構的百分比
Chart 1.6 Percentage of business establishments having used personal computers (PCs), Internet connection and webpages/websites



- ◆ 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。有使用個人電腦的工商機構的比例持續上升，由2000年的51.5%增加至2009年的63.6%。
- ◆ 在2009年，全港約有60.6%的工商機構有連接互聯網，較2000年上升23.3個百分點。
- ◆ 有設立網頁／網站的工商機構的百分比由2000年的7.3%逐步增加至2009年的20.0%。
- ◆ ICT as a tool has changed the way we live, learn, do business and interact with each other. The proportion of business establishments having used PCs had been increasing from 51.5% in 2000 to 63.6% in 2009.
- ◆ Some 60.6% of all business establishments had Internet connection in 2009, an increase of 23.3 percentage points as compared with 2000.
- ◆ The percentage of business establishments having webpages/websites increased progressively from 7.3% in 2000 to 20.0% in 2009.

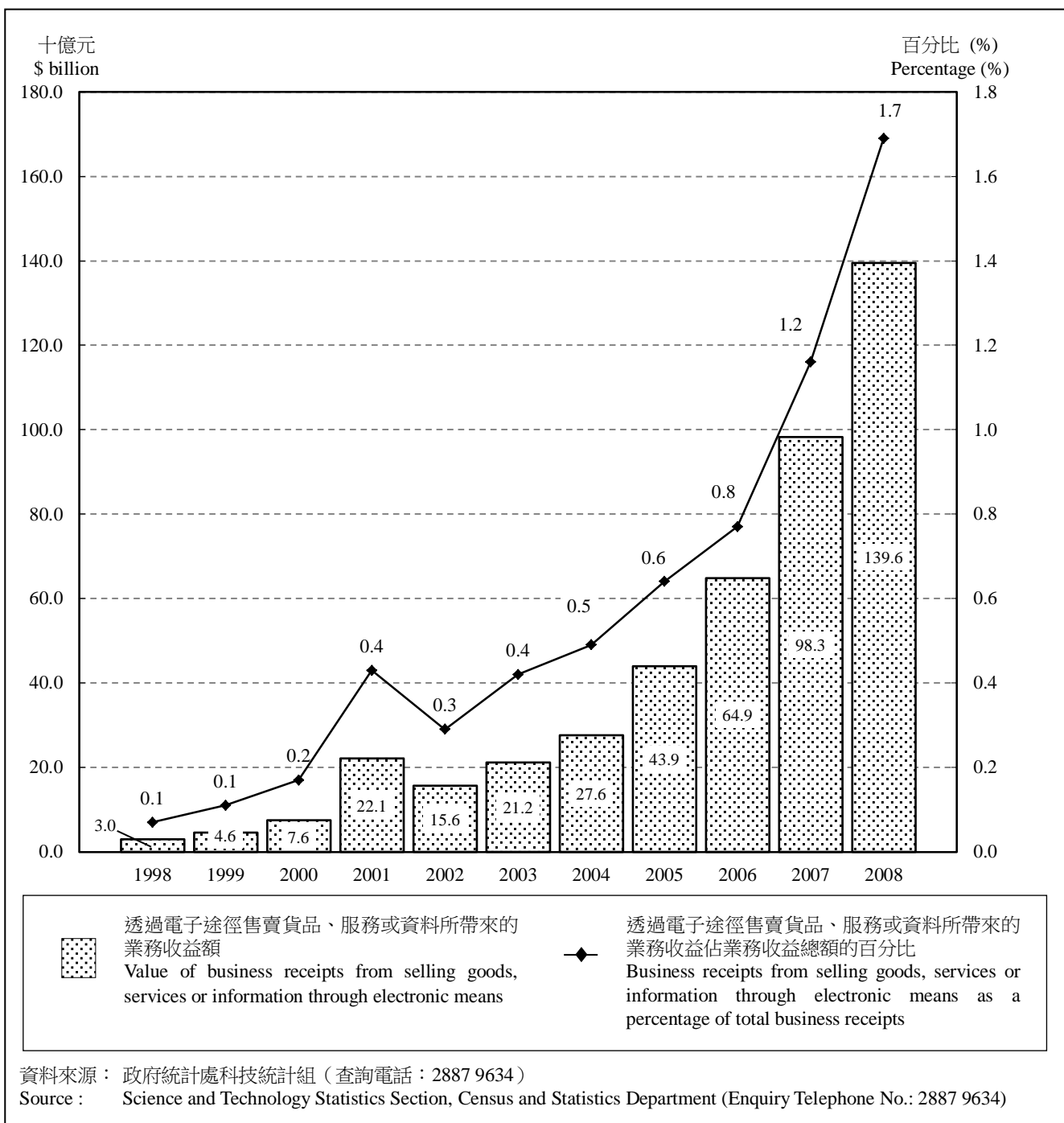
圖 1.7 有透過電子途徑⁽¹⁾買／賣貨品、服務或資料的工商機構的百分比
Chart 1.7 Percentage of business establishments having purchased/sold goods, services or information through electronic means⁽¹⁾



◆ 工商機構透過電子途徑購買產品或服務的需求日漸增強。在 2009 年，有 12.9% 的工商機構曾透過電子途徑購買貨品、服務或資料，顯著高於 2000 年的比例（4.9%）。然而，在 2000 年至 2009 年期間，每年少於 2% 的工商機構有透過電子途徑售賣貨品、服務或資料。

◆ There was a burgeoning demand for purchase of products or services through electronic means in the business sector. In 2009, 12.9% of business establishments had purchased goods, services or information through electronic means, which was much higher than that in 2000 (4.9%). However, there were less than 2% of business establishments having sold goods, services or information through electronic means per annum during the period from 2000 to 2009.

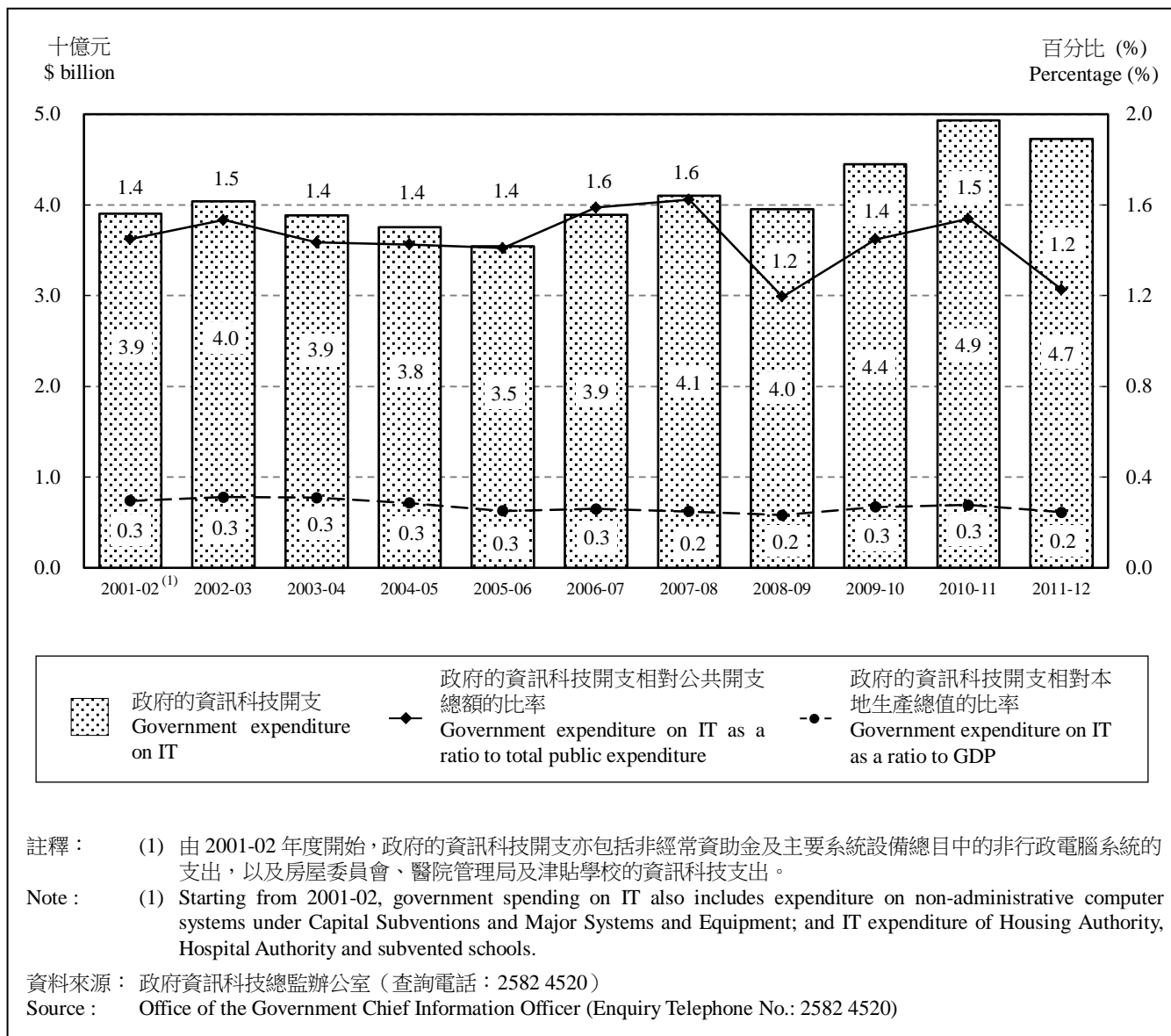
圖 1.8 透過電子途徑售賣貨品、服務或資料所帶來的業務收益
Chart 1.8 Business receipts from selling goods, services or information through electronic means



◆ 在 2008 年，工商機構透過電子途徑售賣貨品、服務或資料所帶來的業務收益總值達 1,396 億元，佔所有選定行業的業務收益總額的 1.7%。

◆ The value of business receipts received by business establishments from selling of goods, services or information through electronic means totalled \$139.6 billion in 2008, representing 1.7% of the total business receipts of all selected sectors.

圖 1.9 政府在資訊科技的開支相對公共開支總額／本地生產總值的比率
Chart 1.9 Government expenditure on information technology (IT) as a ratio to total public expenditure/GDP

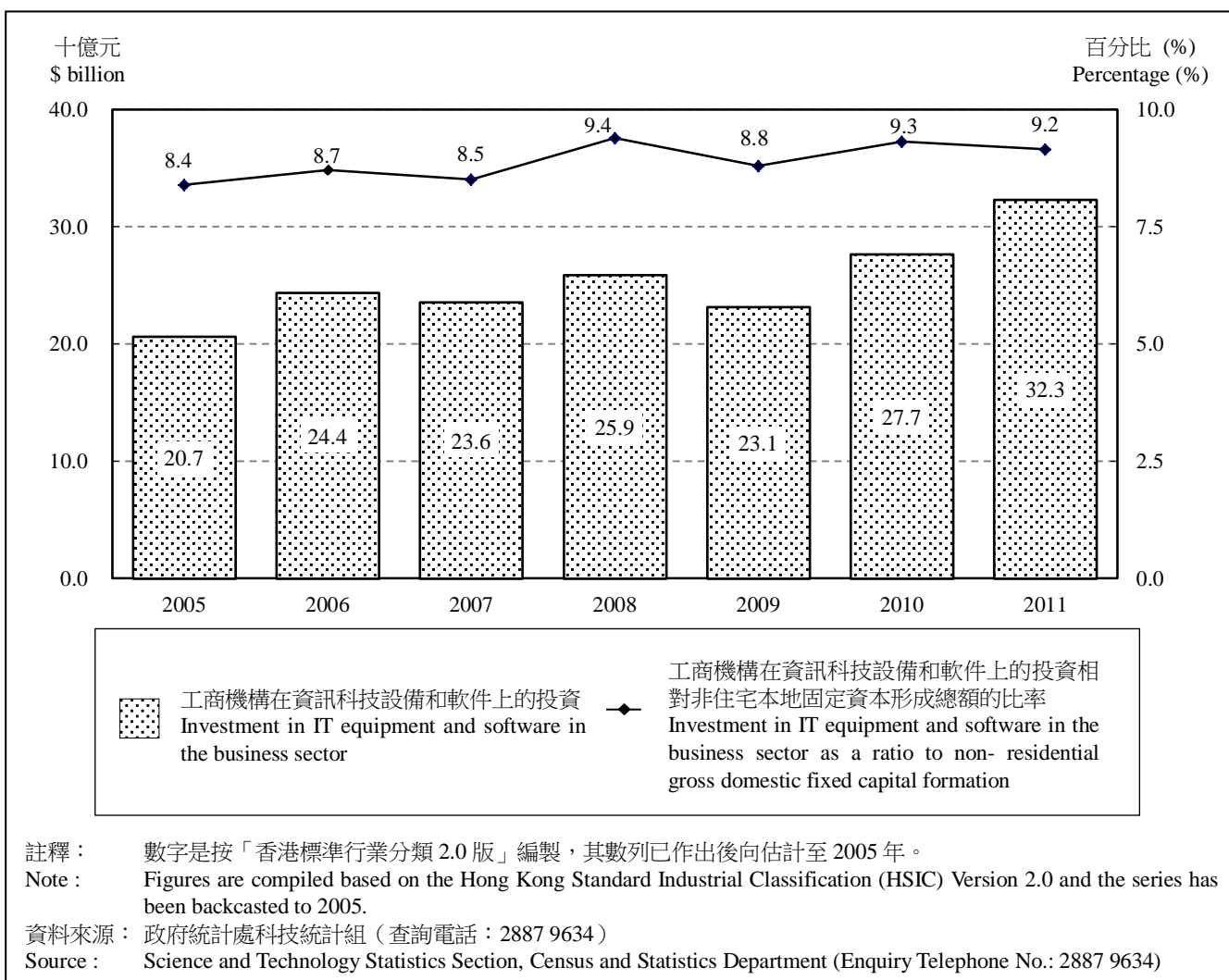


◆ 在 2011-12 年度，政府用於資訊科技的支出達 47 億元，較 2001-02 年度相關開支（39 億元）上升 21%。

◆ The government spending on IT amounted to \$4.7 billion in 2011-12, an increase of 21% as compared with 2001-02 (\$3.9 billion).

圖 1.10 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 1.10 Investment in information technology (IT) equipment and software in the business sector as a ratio to non-residential gross domestic fixed capital formation

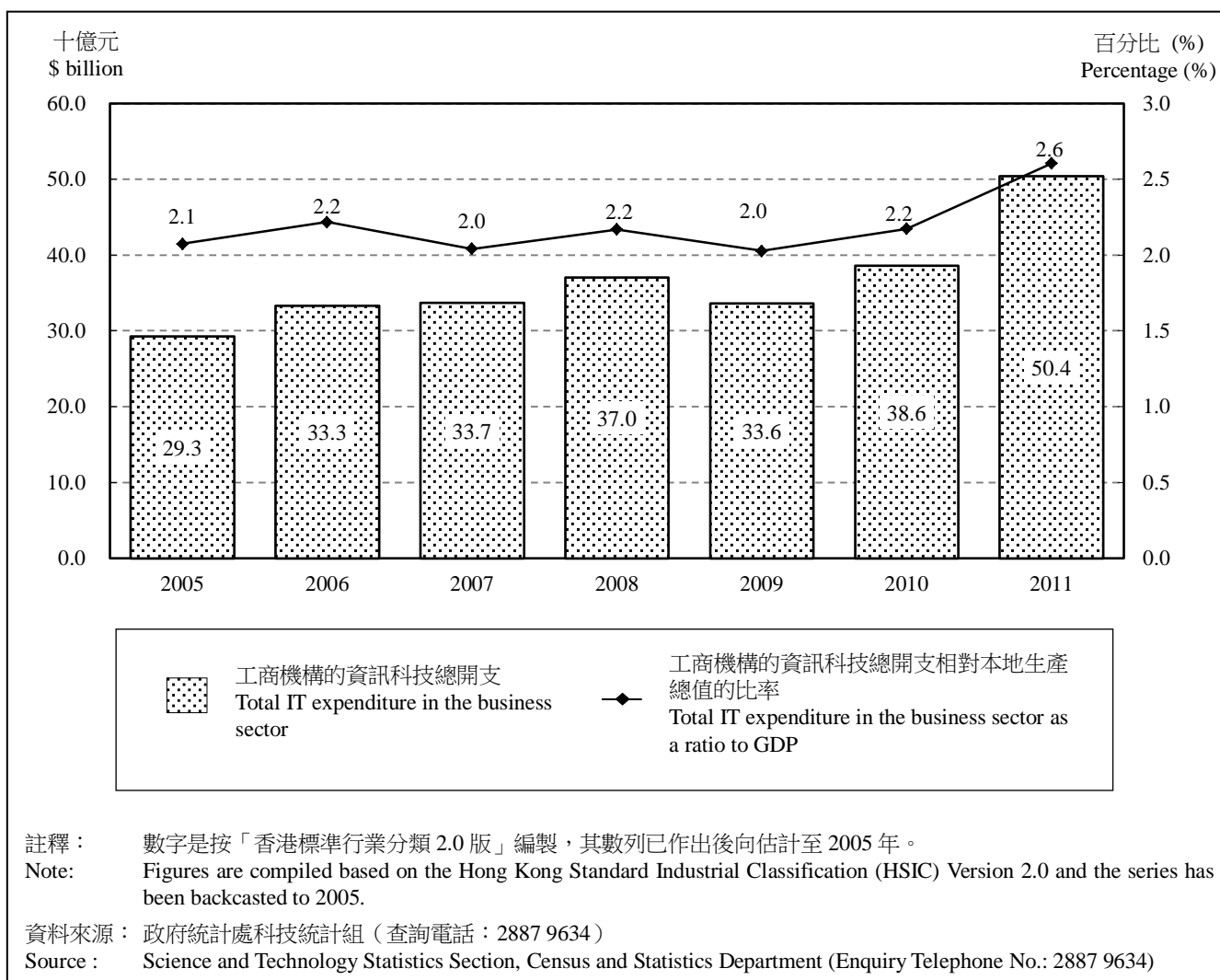


◆ 在 2011 年，工商機構在資訊科技設備和軟件上的投資，相對非住宅的本地固定資本形成總額的比率為 9.2%，稍高於 2005 年的 8.4%。

◆ Investment in IT equipment and software in the business sector accounted for about 9.2% of non-residential gross domestic fixed capital formation in 2011, slightly higher compared with 8.4% in 2005.

圖 1.11 工商機構的資訊科技總開支相對本地生產總值的比率

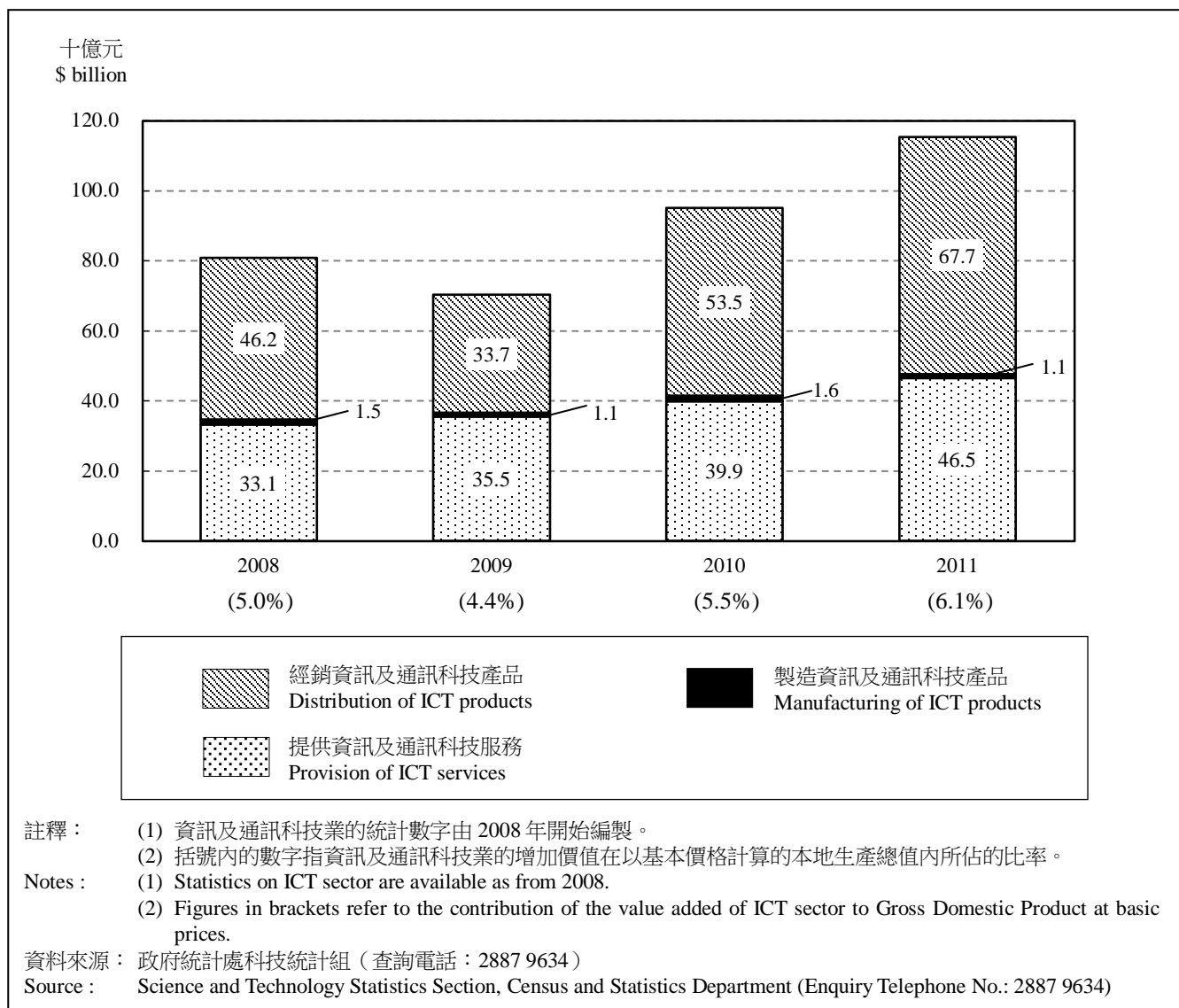
Chart 1.11 Total information technology (IT) expenditure in the business sector as a ratio to GDP



◆ 工商機構的資訊科技總開支由 2005 年的 293 億元上升至 2011 年的 504 億元，增幅約 72.2%。在 2005 年至 2011 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 至 3%。

◆ The total expenditure on IT in the business sector increased from \$29.3 billion in 2005 to \$50.4 billion in 2011, up by 72.2%. The total IT expenditure in the business sector as a ratio to GDP was around 2 to 3% during the period from 2005 to 2011.

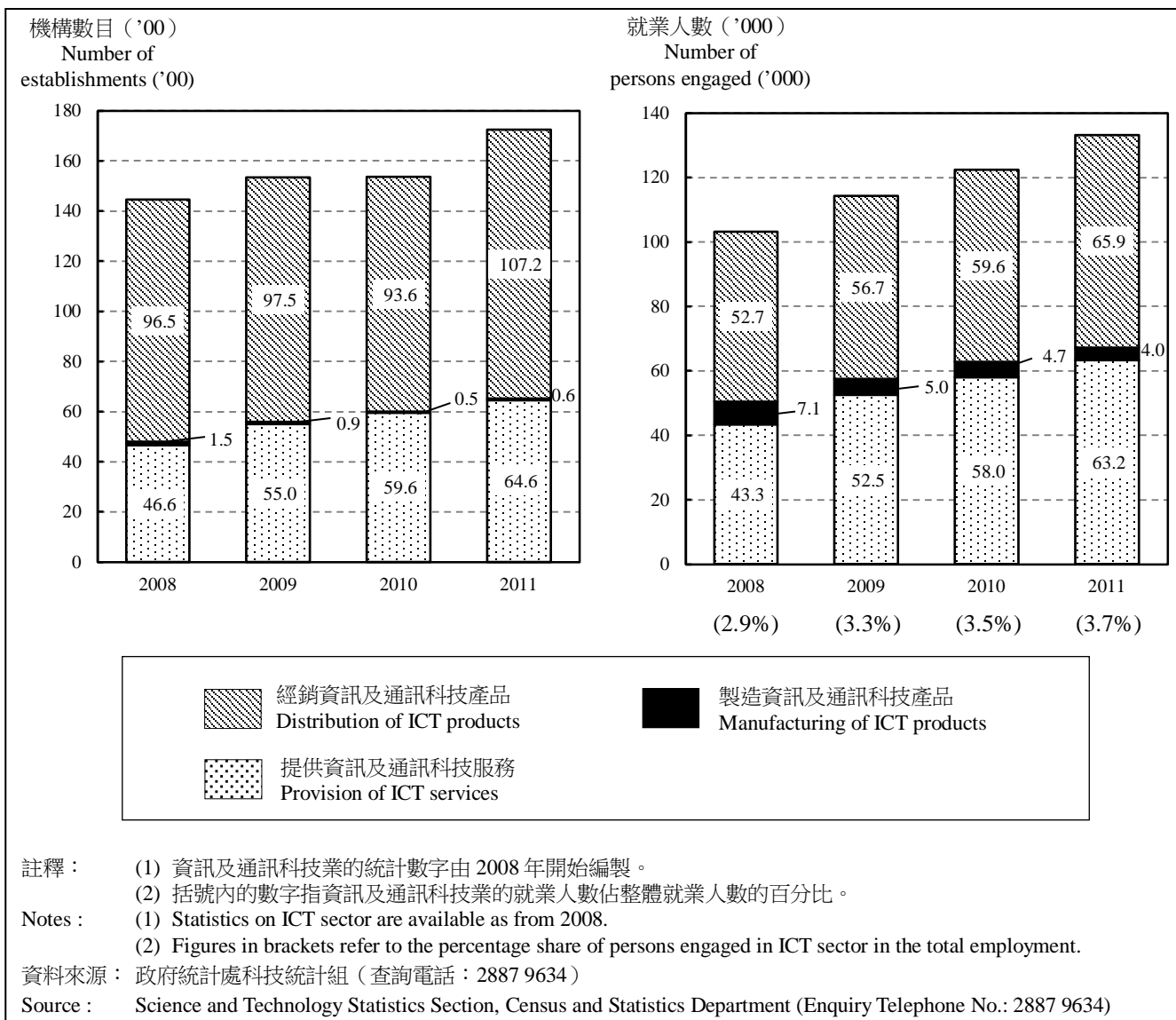
圖 1.12 按經濟活動劃分的資訊及通訊科技業的增加價值分布
Chart 1.12 Distribution of value added of the information and communication technology (ICT) sector by economic activity



◆ 在 2011 年，資訊及通訊科技業的增加價值在 2011 達 1,154 億元，佔以基本價格計算的本地生產總值的 6.1%（2008 年時為 5.0%）。

◆ The value added of the ICT sector amounted to \$115.4 billion in 2011, accounting for 6.1% of GDP at basic prices (5.0% in 2008).

圖 1.13 按經濟活動劃分的資訊及通訊科技業的機構數目和就業人數分布
Chart 1.13 Distribution of number of establishments and persons engaged in the information and communication technology (ICT) sector by economic activity



◆ 在 2011 年資訊及通訊科技業的機構數目達 17 244 間，總就業人數為 133 101 人。

◆ In 2011, there were 17 244 establishments engaging in ICT sector with a total employment size of 133 101 persons.

第 2 章 人力資源發展

Chapter 2 Human Resources Development

人力資源發展在知識型經濟的重要性

2.1 人才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，工商機構需擁有合適的組織結構、有效的管理及熟練的工人，以保持其競爭力。然而，這些轉變亦對工人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，以確保經濟體系內合適的勞動人力的供應充裕。

香港的人力資源發展情況

2.3 具高學歷及專業知識的人力資源對科技發展、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科技能力是不可缺少的。評估香港的人力資源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源發展的最新概況。

Importance of human resources development in a 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 resources development in Hong Kong

2.3 Human resources 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 resources development (HRD) in Hong Kong are listed in Table 2.1. The latest developments in HRD in Hong Kong are highlighted in the following paragraphs.

人才的投資

2.4 在知識型經濟中，人力資源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 2012-13 年度，政府的教育開支達 778 億元，較 2002-03 年度的 556 億元上升 40%。(圖 2.1)

2.5 香港在專上教育的投資亦很可觀。在 2012-13 年度，政府的專上教育開支達 304 億元，佔政府整體教育開支的 39%。(圖 2.2)

2.6 教育對人們提升知識及技能極其重要。與以往比較，香港所提供的中學和專上教育機會大增。中學的學生人數由 2002/03 學年的 466 000 人溫和下降至 2012/13 學年的 422 000 人，而大學教育資助委員會（教資會）資助的大專院校學生人數則由 2002/03 學年的 86 000 人顯著增加至 2012/13 學年的 197 000 人。(圖 2.3)

勞動人口的教育程度及職業概況

2.7 一個經濟體系內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 2002 年的 20.7% 增加至 2012 年的 27.7%。(圖 2.4)

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 resources in a KBE. The education system and government policy play a key role in nurturing human capital. In Hong Kong, the Government had devoted enormous resources to education over the past decade. Government expenditure on education in 2012-13 amounted to \$77.8 billion, 40% higher than that in 2002-03 (\$55.6 billion). (Chart 2.1)

2.5 Investment in post-secondary education in Hong Kong remains substantial. In 2012-13, government expenditure on post-secondary education amounted to \$30.4 billion, accounting for 39% of the Government's total expenditure on education. (Chart 2.2)

2.6 Education is crucial to enhancing knowledge and skills of people. The secondary and post-secondary education opportunities in Hong Kong have increased over the past years. While the student enrolment in secondary schools decreased at a moderate rate from around 466 000 in 2002/03 to 422 000 in 2012/13, the student enrolment in the institutions funded by the University Grants Committee (UGC) increased significantly from around 86 000 in 2002/03 to 197 000 in 2012/13. (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 educational attainment increased from 20.7% in 2002 to 27.7% in 2012. (Chart 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 2002 年的 26.3% 提升至 2012 年 34.3%。(圖 2.5)

2.9 在 2011 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 2001 年的百分比為 38.9%。上述統計數據是根據人口普查的結果所得。(圖 2.6)

2.10 香港向以提供高素質的專業服務見稱。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 2012 年為 26.8%。(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／輔助專業人員主要從事金融、保險、地產、專業及商用服務，以及公共行政、社會及個人服務。在 2012 年，超過半數(57.3%)的專業人員／輔助專業人員投身這些行業。(圖 2.8)

2.12 一個經濟體系要在環球知識經濟下有競爭及蓬勃發展的能力，有賴資訊科技人才的素質和技能。在 2012 年，約 78 700 人從事與資訊科技有關的工作，佔勞動人口的 2.1%。與 2002 年相比，錄得 24.7% 的顯著增長。(圖 2.9)

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 educational attainment went up from 26.3% in 2002 to 34.3% in 2012. (Chart 2.5)

2.9 As regards the labour force with post-secondary educational attainment, 37.5% of them had attended science-related fields of study (i.e. natural sciences; engineering and technology and medical sciences) as at 2011, compared with 38.9% in 2001. The above are based on results of the Population Census. (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 associated professionals was 26.8% in 2012. (Chart 2.7)

2.11 With Hong Kong being an international financial centre and a service hub in the region, persons working as professionals/associate professionals were mainly engaged in financing, insurance, real estate, professional and business services as well as public administration, social and personal services, accounting for more than half (57.3%) of the total number of professionals/associate professionals in 2012. (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 2012, about 78 700 persons were engaged in IT-related work, constituting 2.1% of the labour force. This represented a significant increase of 24.7% over 2002. (Chart 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 2002 年約 17 500 人增加至 2012 年約 44 000 人。(圖 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。

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 17 500 in 2002 to about 44 400 in 2012. (Chart 2.10)

Concluding remarks

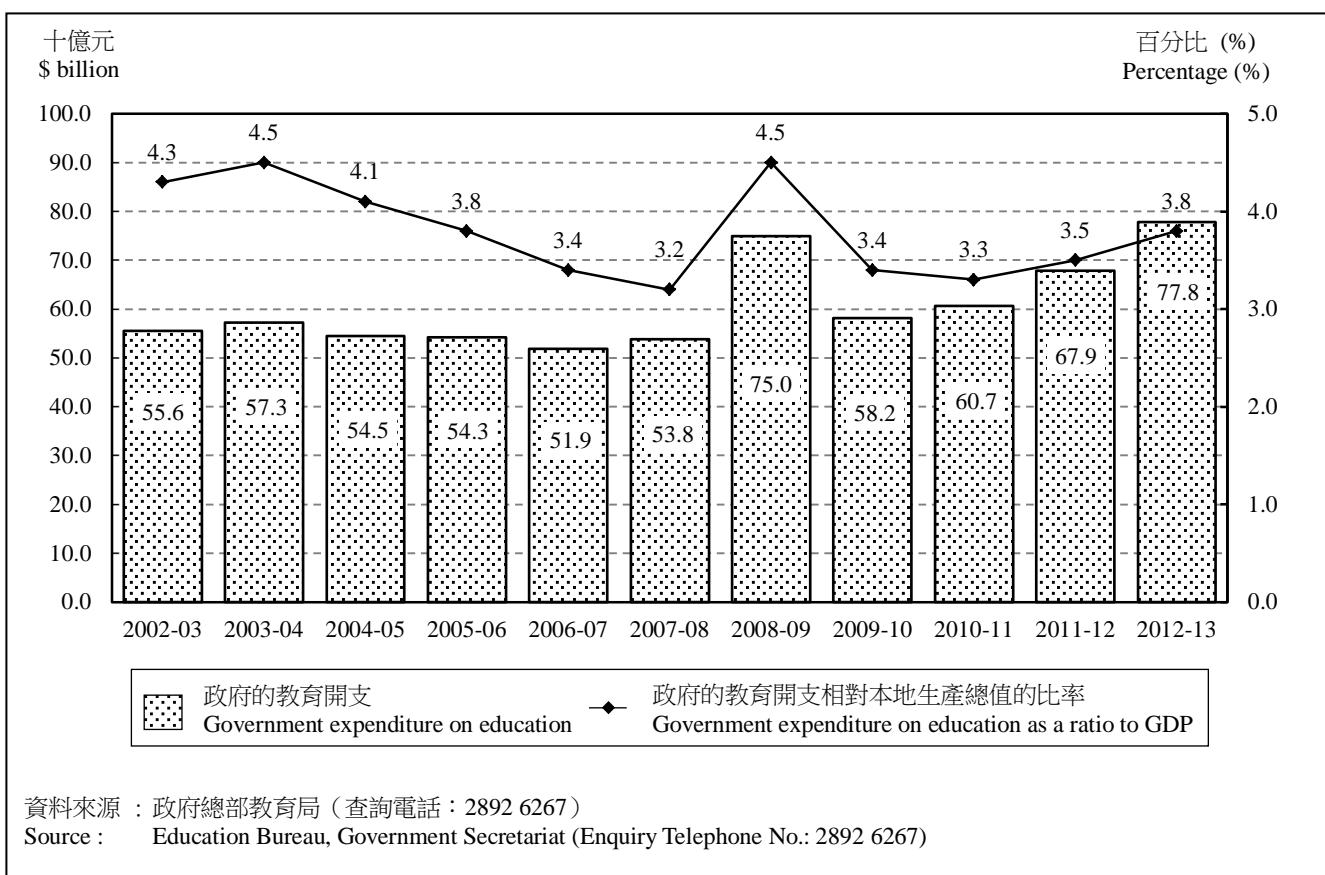
2.14 The competence and skill levels of labour force are changing to suit different stages of economic development. Improving the educational foundation, literacy skills and ICT literacy of the labour force is essential to the development of a knowledge-based and innovation-driven economy.

表 2.1 量度知識型經濟中有關人力資源發展範疇的統計指標一覽

Table 2.1 List of statistical indicators for measuring the human resources development (HRD) aspect of a KBE

與人力資源發展相關的因素 Factors relating to HRD	統計指標 Statistical indicators
政府透過投資教育以培育人才 Government investment in education for development of human capital	<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 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專院校的學生人數 Student enrolment in the institutions funded by the University Grants Committee
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 educational attainment 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 educational attainment 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／輔助專業人員數目的百分比 Percentage of persons working as professionals/associate professionals by industry grouping 6. 資訊科技人員佔勞動人口的百分比 Percentage of information technology workers in the labour force
一個經濟體系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

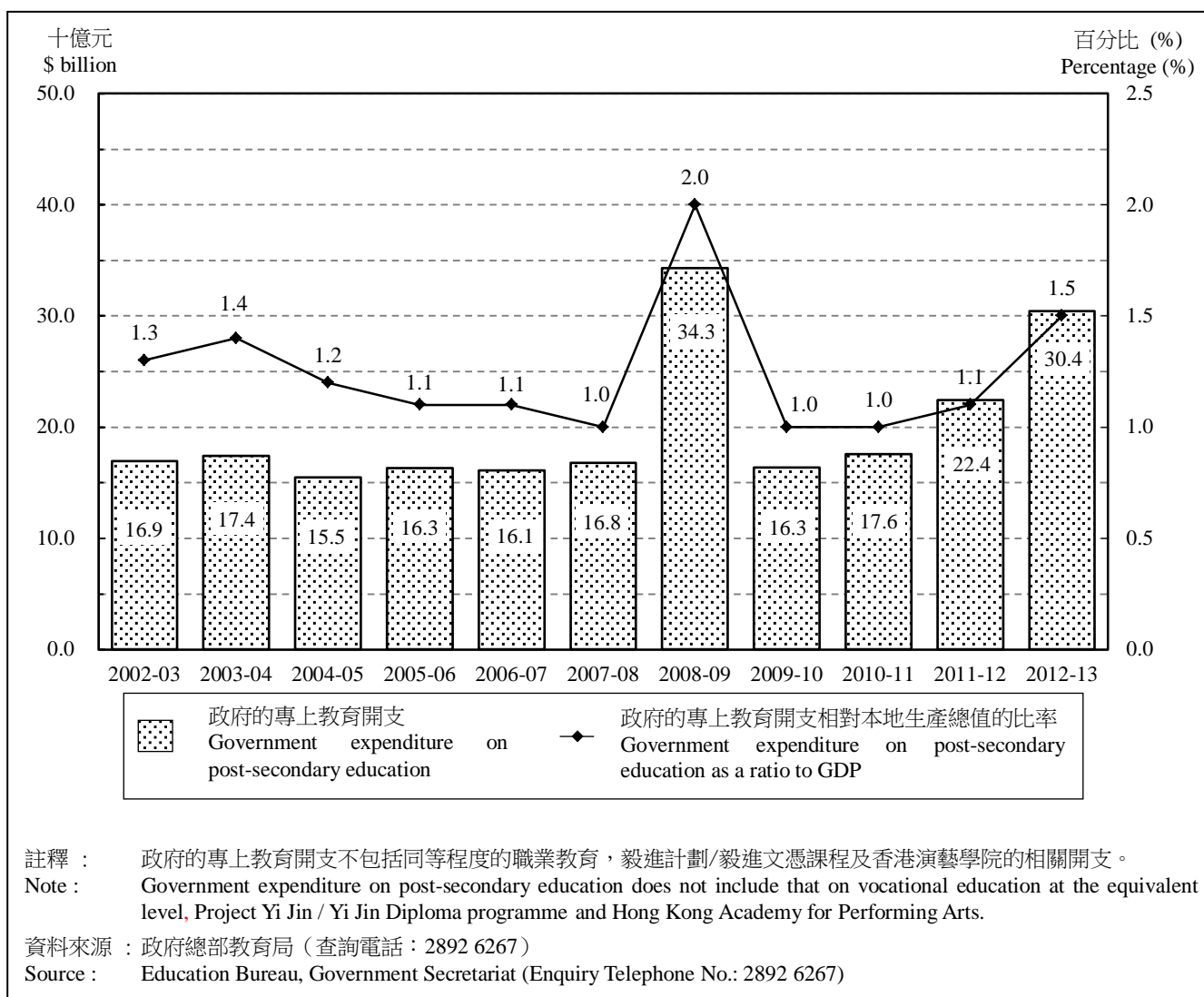
圖 2.1 政府的教育開支相對本地生產總值的比率
Chart 2.1 Government expenditure on education as a ratio to GDP



- ◆ 2012-13 年度政府的教育開支為 778 億元，相對本地生產總值的比率為 3.8%。
- ◆ Government expenditure on education in 2012-13 amounted to \$77.8 billion, representing a ratio of 3.8% to GDP.
- ◆ 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。
- ◆ 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

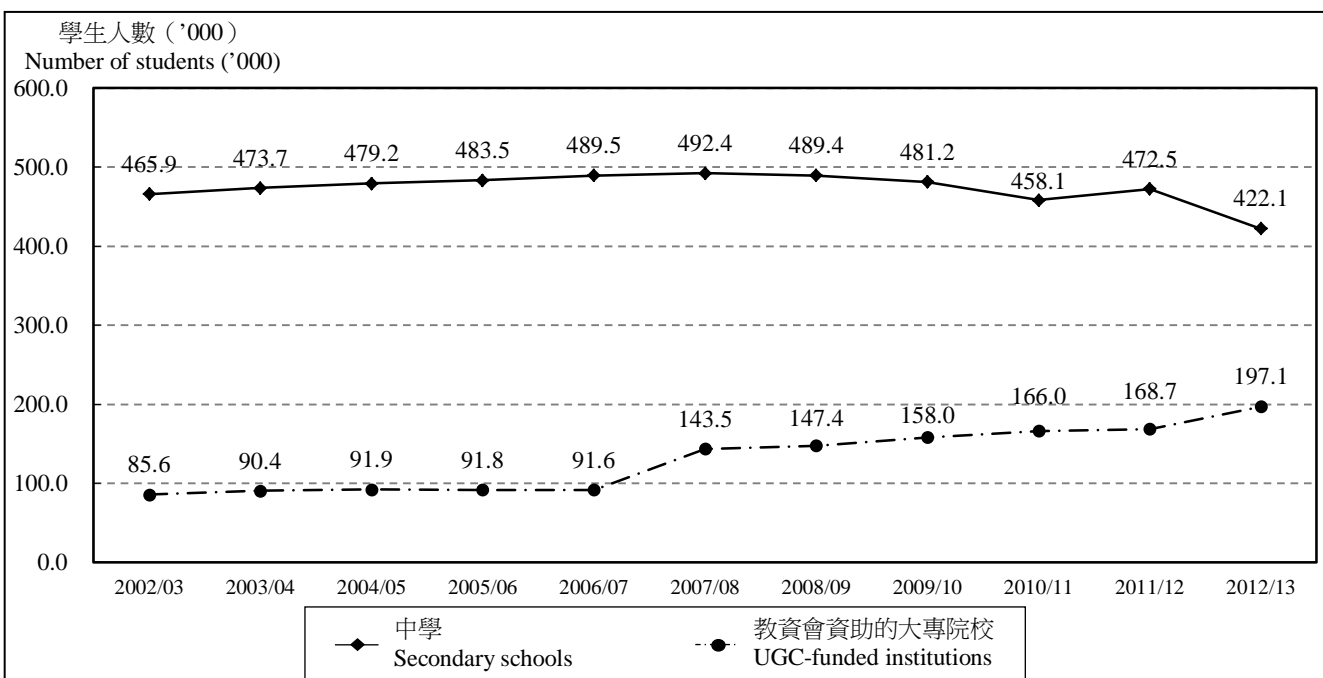
Chart 2.2 Government expenditure on post-secondary education as a ratio to GDP



- ◆ 政府的專上教育開支由 2002-03 年度的 169 億元大幅增加至 2012-13 年度的 304 億元。
- ◆ 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 年度亦錄得顯著增長。相關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 increased remarkably from \$16.9 billion in 2002-03 to \$30.4 billion in 2012-13.
- ◆ 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.
- ◆ A significant increase in government expenditure on post-education was also registered in 2012-13. It was largely attributable to the one-off injections into various funds, viz. the Research Endowment Fund, the HKSAR Government Scholarship Fund and the Self-financing Post-secondary Education Fund, totalling \$7 billion.

圖 2.3 中學⁽¹⁾及大學教育資助委員會（教資會）資助的大專院校⁽²⁾的學生人數
Chart 2.3 Student enrolment in secondary schools⁽¹⁾ and institutions⁽²⁾ funded by the University Grants Committee (UGC)



註釋： (1) 中學包括日校、夜校及其他中學日間課程。其他中學日間課程是指由提供成人教育／補習／職業課程的私立院校開辦的日間中學課程，此數字自 2006/07 起開始編製。

(2) 教資會資助的大專院校，是指香港城市大學、香港浸會大學、嶺南大學、香港中文大學、香港教育學院、香港理工大學、香港科技大學和香港大學。數字包括修讀教資會資助課程的學生人數，以及修讀教資會資助院校及其附屬學院提供的自資課程的學生人數。這些數字涵蓋了證書、文憑、副學位課程、學士學位課程、研究院修課課程及研究院研究課程的學生人數。

Notes: (1) Secondary schools include day schools, evening schools and other secondary school day courses. Other secondary day courses refer to the secondary courses operated by private institutes offering adult education/tutorial/vocational courses in daytime. The figures for students attending other secondary day course are available as from 2006/07.

(2) The UGC-funded institutions include City University of Hong Kong, Hong Kong Baptist University, Lingnan University, The Chinese University of Hong Kong, The Hong Kong Institute of Education, The Hong Kong Polytechnic University, The Hong Kong University of Science and Technology and The University of Hong Kong. Figures include students attending UGC-funded programmes and those attending self-financing programmes offered by UGC-funded institutions and their extension arms. The relevant figures cover students in certificate, diploma, sub-degree, undergraduate, taught postgraduate and research postgraduate courses.

資料來源：政府總部教育局（查詢電話：3509 8442）及大學教育資助委員會（查詢電話：2844 9919）

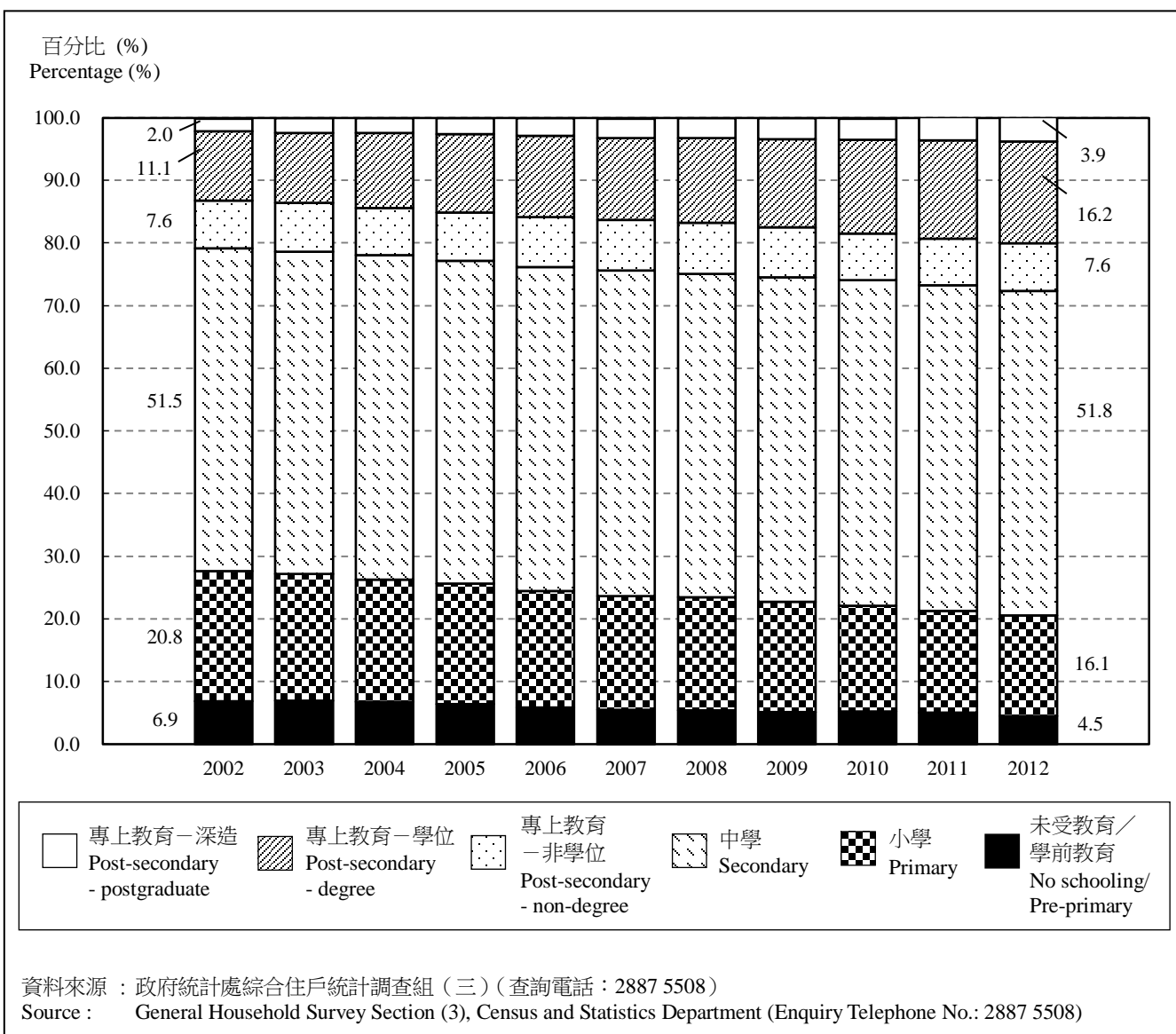
Source: Education Bureau, Government Secretariat (Enquiry Telephone No.: 3509 8442) and University Grant Committee (Enquiry Telephone No.: 2844 9919)

◆ 中學的學生人數由 2011/12 年的 472 500 人，顯著下降至 2012/13 年的 422 100 人。同期，教資會資助的大專院校學生人數則由 168 700 人大幅上升至 197 100 人。這轉變部份由於本港實施新學制：三年初中、三年高中及四年大學教育。本地課程自 2012/13 年起沒有中七津貼學額。

◆ Number of students enrolled in secondary schools declined significantly from 472 500 in 2011/12 to 422 100 in 2012/13, whereas the student enrolment in UGC-funded institutions surged from 168 700 to 197 100 during the corresponding period. The change in 2012/13 is partly attributable to the introduction of the New Academic Structure that covers three years of junior secondary education, three in senior secondary and four at university. There are no subsidised secondary 7 places under local curriculum starting from 2012/13.

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



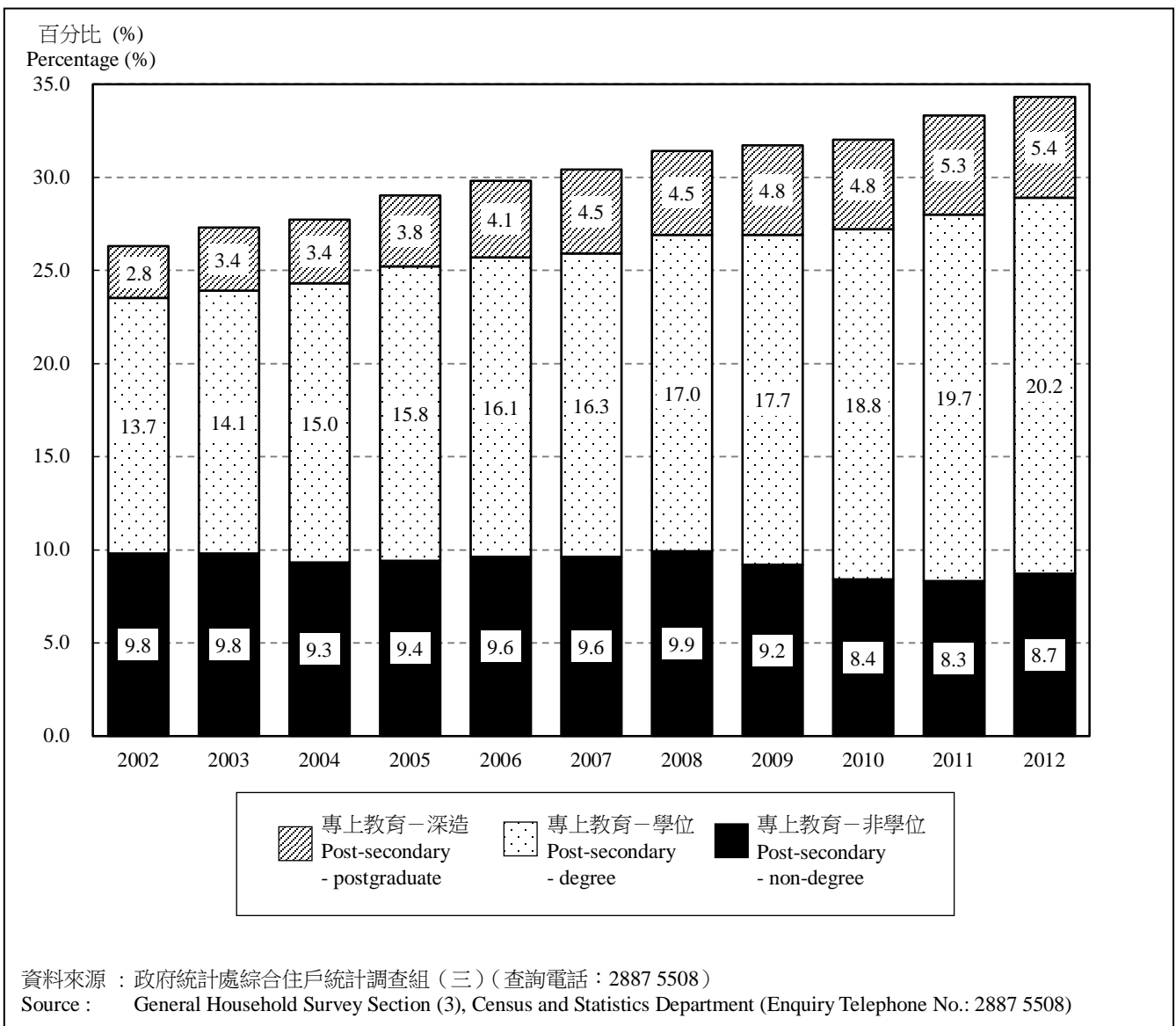
◆ 過去 10 年，香港人口的教育程度一直有所提高。具有深造學位學歷的 15 歲及以上人士比例由 2002 年的 2.0% 增加至 2012 年的 3.9%。至於具有專上教育學歷（學位及非學位）的 15 歲及以上人士比例由 2002 年的 18.7% 上升至 2012 年的 23.8%。

◆ 在 2012 年，15 歲及以上人士當中 27.7% 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 postgraduate educational attainment went up from 2.0% in 2002 to 3.9% in 2012. The corresponding proportion for post-secondary (degree and non-degree) educational attainment also rose from 18.7% in 2002 to 23.8% in 2012.

◆ In 2012, 27.7% of the population aged 15 and over had post-secondary educational attainment.

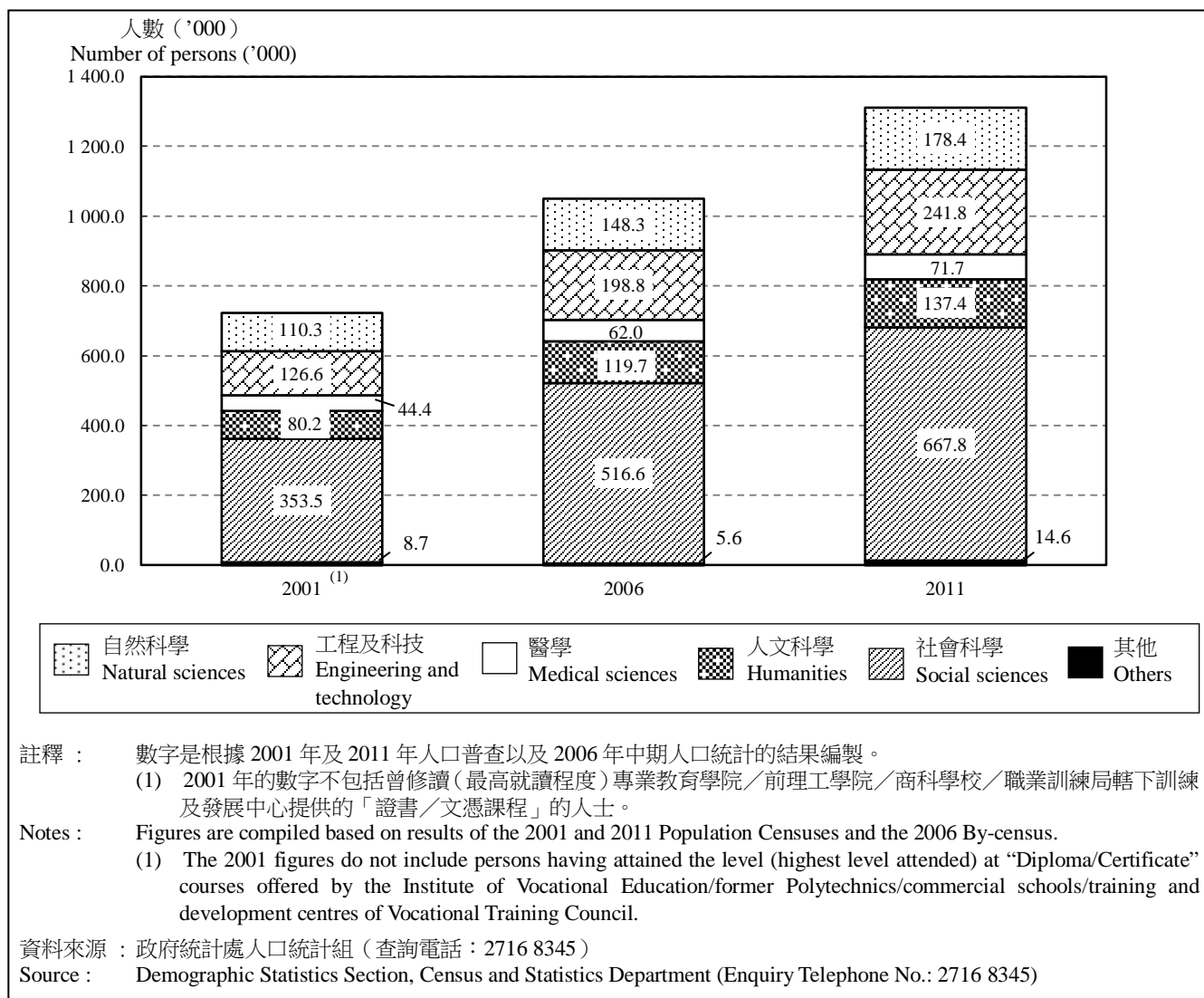
圖 2.5 曾受專上教育的勞動人口的百分比
Chart 2.5 Percentage of labour force with post-secondary educational attainment



- ◆ 勞動人口與整體人口的教育程度概況很相近。
- ◆ 具有專上教育程度的勞動人口百分比在近年有上升的趨勢，尤其具有深造學位學歷的勞動人口比例由 2002 年的 2.8% 增加至 2012 年的 5.4%。
- ◆ 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 educational attainment has been trending up over the past years. In particular, the proportion of labour force with postgraduate educational attainment rose from 2.8% in 2002 to 5.4% in 2012.

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 educational attainment by field of education



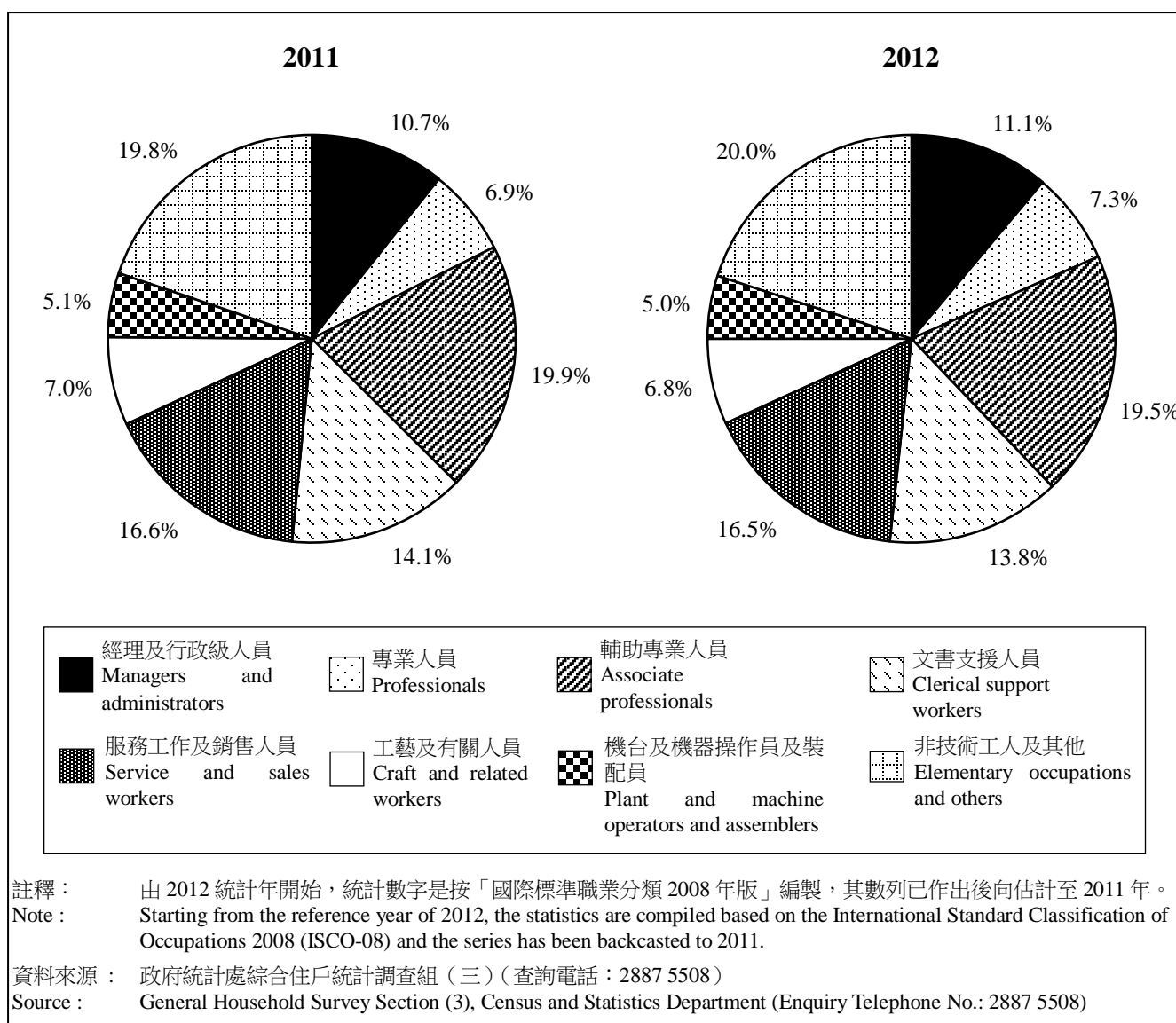
◆ 曾修讀與科學有關的科目(即自然科學、工程及科技以及醫學)的勞動人口,由 2001 年的 28 萬人增加至 2011 年的 49 萬人,顯著增長 74.9%。

◆ 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 74.9% from 0.28 million in 2001 to 0.49 million in 2011.

◆ 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 2001 年的 35 萬人增加至 2011 年的 67 萬人,上升 88.9%。

◆ In comparison, the increase in the size of labour force having attended social sciences courses was more remarkable, up by 88.9% from 0.35 million in 2001 to 0.67 million in 2011.

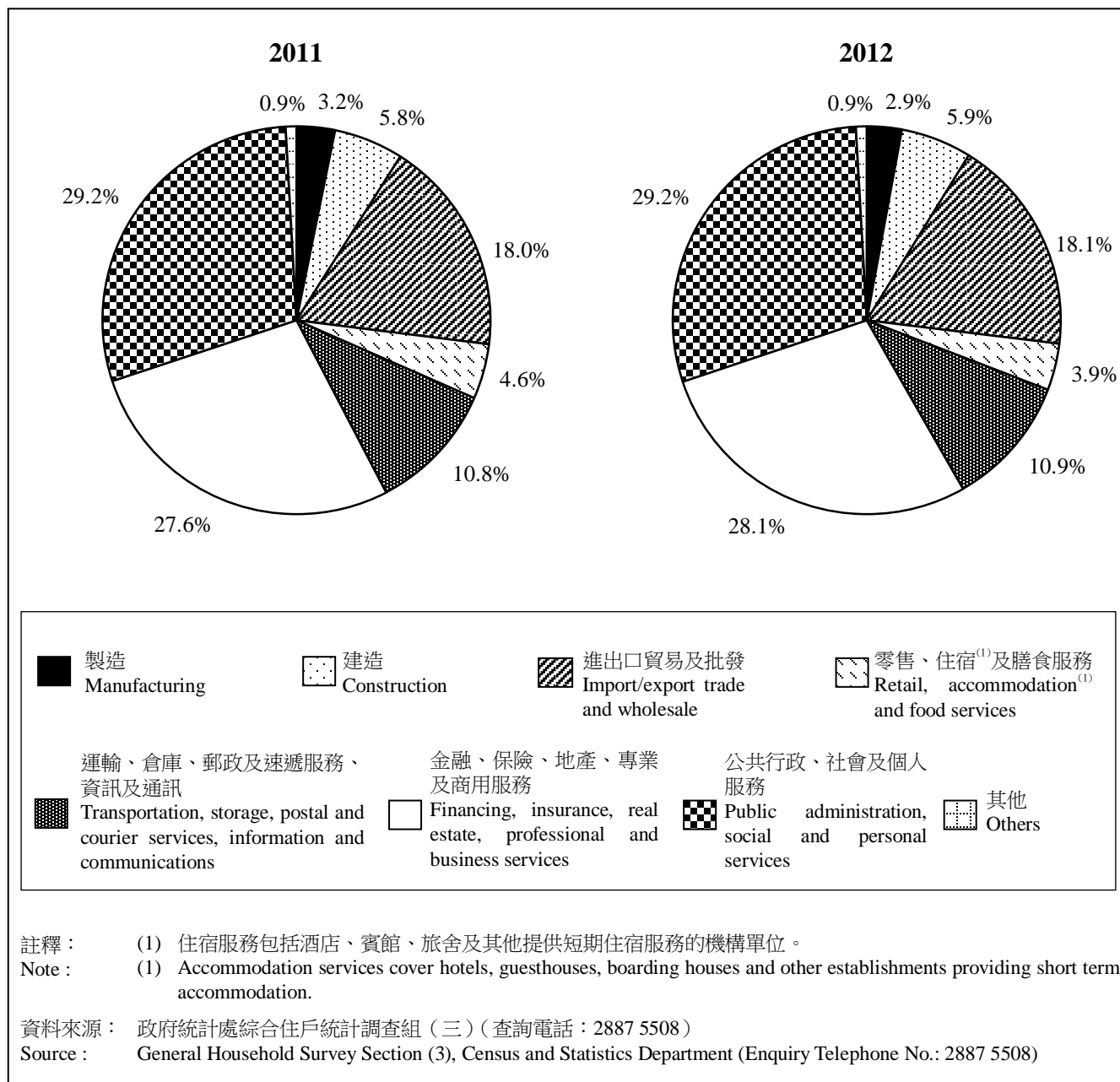
圖 2.7 按職業劃分的就業人數分布
Chart 2.7 Distribution of employed persons by occupation



◆ 在 2012 年，超過三分之一的就業人士從事管理或專業職級，包括：經理及行政級人員（11.1%）、專業人員（7.3%）及輔助專業人員（19.5%）。

◆ In 2012, over one-third of the employed persons worked in the managerial or professional grades, including: managers and administrators (11.1%), professionals (7.3%) and associate professionals (19.5%).

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

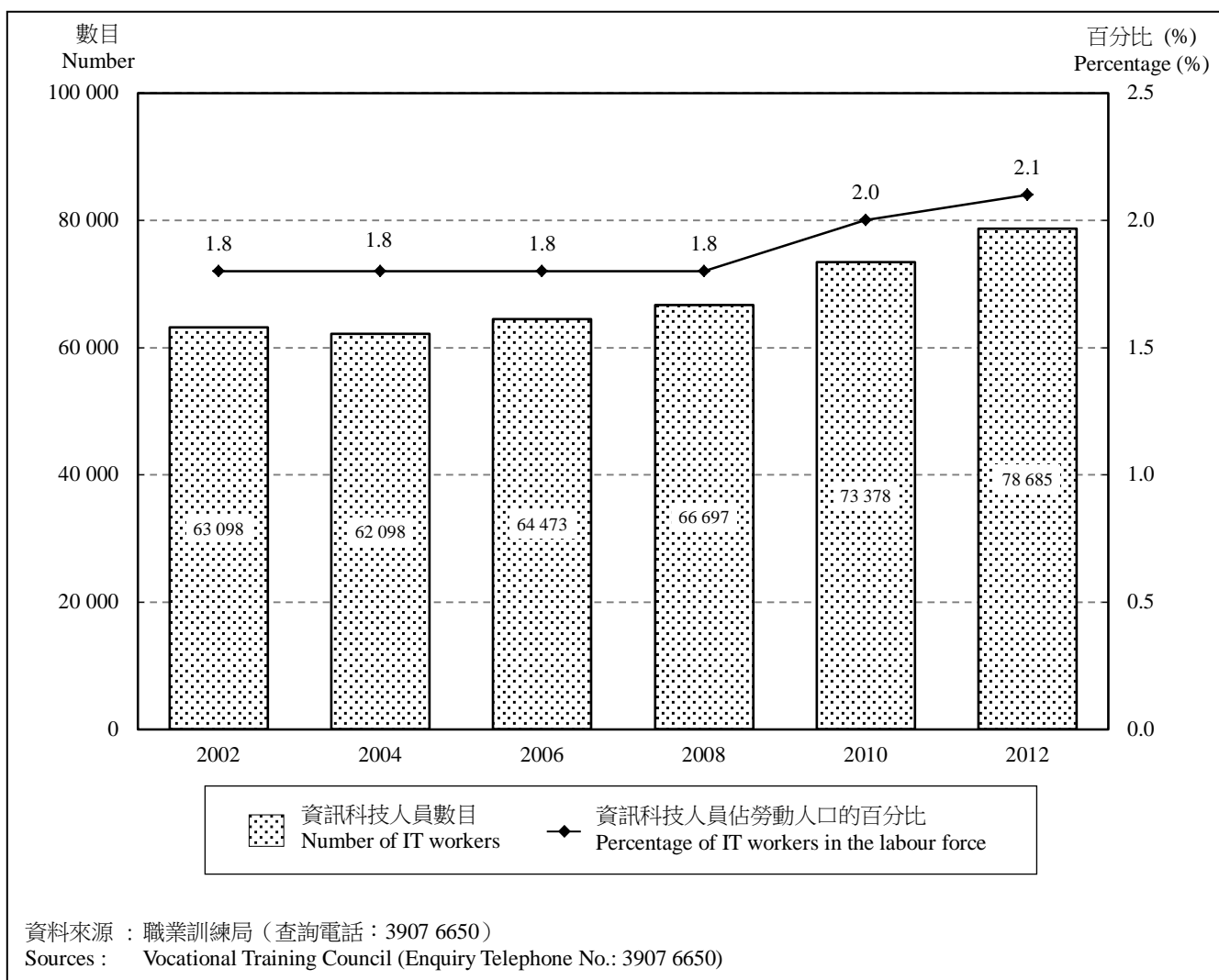


◆ 專業人員及輔助專業人員普遍從事金融、保險、地產、專業及商用服務，以及公共行政、社會及個人服務。在 2012 年，這些行業內的專業人員及輔助專業人員佔香港的專業人員及輔助專業人員總數過半（57.3%）。

◆ Professionals and associate professionals are prevalent in financing, insurance, real estate, professional and business services as well as public administration, social and personal services. These sectors took up more than half (57.3%) of the professionals and associate professionals in Hong Kong in 2012.

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

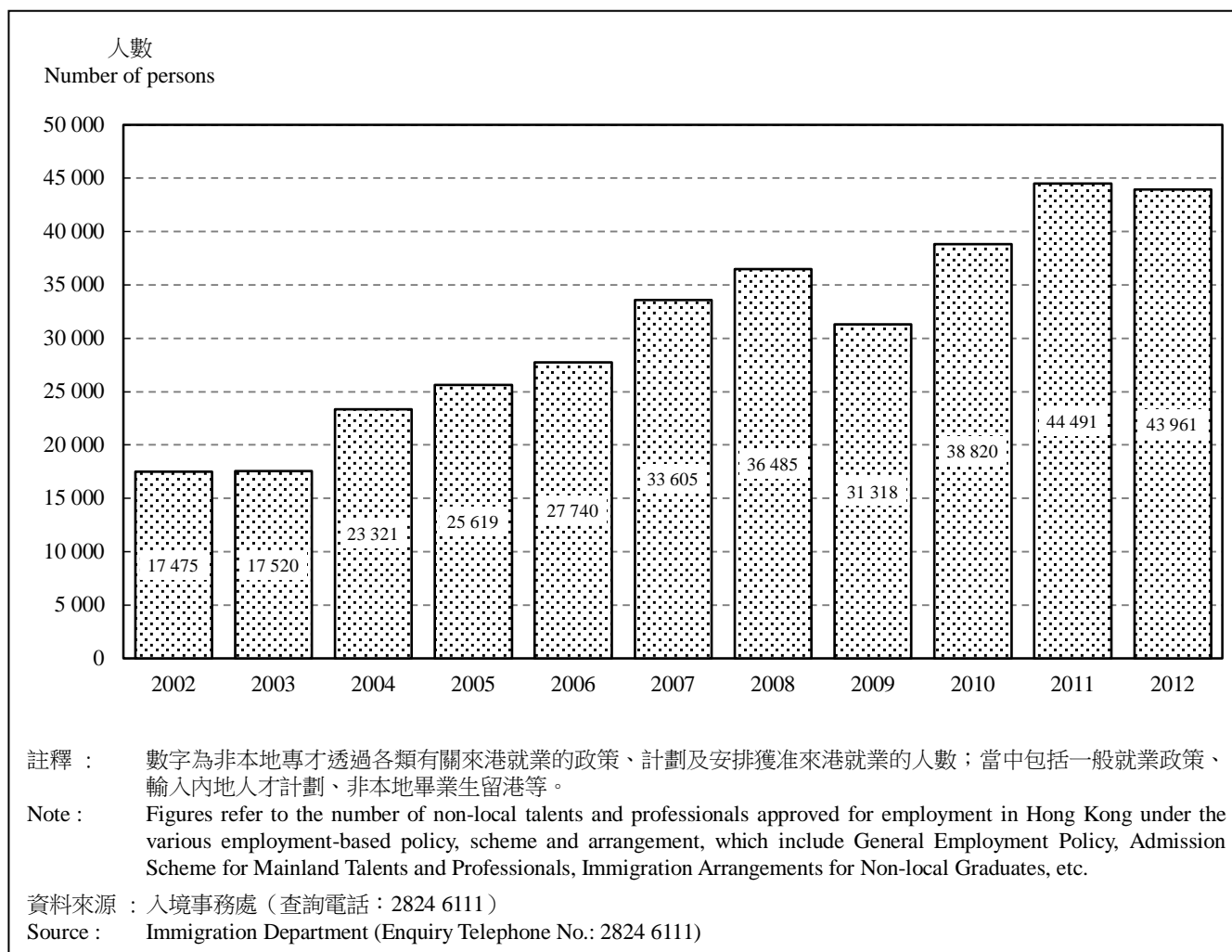


◆ 根據最新的資訊科技人力統計調查結果，於 2012 年約有 78 700 人從事與資訊科技有關的工作，佔勞動人口的 2.1%。

◆ According to the findings from the latest round of IT manpower survey, about 78 700 persons were engaged in IT-related work in 2012, representing 2.1% 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 2012 年，非本地專才獲准來港就業的人數約 44 000 人。在 2002 年至 2012 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 9.7%。

◆ The number of non-local talents and professionals approved for employment in Hong Kong reached some 44 000 in 2012, representing an average annual growth rate of 9.7% during the period from 2002 to 2012.

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系的競爭力、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，一個經濟體系的創新系統由工商機構、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全球知識，緊貼知識的變革，並因應經濟體系內的不同需要而融入新的知識。這個元素是發展一個知識型經濟不可缺少的。

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、組織架構上的創新及市場推廣上的創新。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，亦涉及工商機構將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。組織架構上的創新（例如組織架構的改變，實施嶄新的機構策略，以及採用先進的管理技術等）以及市場推廣上的創新（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 KBE

3.1 Innovation 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 and 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-technological innovation.

3.3 一個經濟體系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。有些工商機構不獨自進行創新活動而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、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系的結構，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 一個經濟體系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 2001 年的 71 億元增加至 2011 年的 139 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則由 2001 年的 0.54% 上升至 2011 年的 0.72%。（圖 3.1）

3.7 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可加強一個經濟體系的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 2011 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 44.4% 及 51.3%。政府主要發揮促進研發活動的作用，為工商機構、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 3.2 及 3.3）

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 \$7.1 billion in 2001 to \$13.9 billion in 2011. GERD as a ratio to GDP also went up from 0.54% in 2001 to 0.72% in 2011. (Chart 3.1)

3.7 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 research capacity of the economy and development of new technologies, products and processes. In Hong Kong, both the business sector and the higher education sector are the major R&D performers. In 2011, the business and higher education sectors accounted for 44.4% and 51.3% respectively of the GERD. The Government mainly plays a facilitating role, providing infrastructural and funding support to businesses, higher education institutions and public technology support organisations. (Charts 3.2 and 3.3)

3.8 工商機構的研發開支由 2001 年的 21 億元大幅上升至 2011 年的 62 億元，反映工商機構不斷透過研發活動開發產品／程序創新項目，藉此提升其競爭力。(圖 3.4)

3.9 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 2001/02 學年的 48 億元增加至 2011/12 學年的 72 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)

3.10 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。由於政府不是研發活動的主要參與者，政府的研發開支僅由 2001 年的 1.6 億元增加至 2011 年的 6 億元。自 1999 年起，政府已成立了創新及科技基金以支持工商機構進行應用研發，另外亦設立香港科學園、香港應用科技研究院有限公司，以及 5 所研發中心，反映政府致力提供有利環境，扶植研發工作。(圖 3.6)

3.11 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）反映一個經濟體系現時的研究效能水平。在 2011 年，相當於全日制人數的研究員數目為 20 381 人，較 2001 年的人數（9 149 人）增加接近一倍。近年間，每千名勞動人口中，研究員數目均維持在約 5 人的水平。(圖 3.7)

工商機構的創新活動

3.12 在香港的工商機構中，有進行創新活動的機構（即有進行技術創新活動或非技術創新活動或兩者皆有）的百分比由 2001 年的 16.0% 增加至 2011 年的 21.5%。(圖 3.8)

3.8 R&D expenditure in the business sector rose substantially from \$2.1 billion in 2001 to \$6.2 billion in 2011, reflecting the increasing R&D efforts made by the business establishments to explore product/process innovations for improving their competitiveness. (Chart 3.4)

3.9 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 \$4.8 billion in 2001/02 academic year to \$7.2 billion in 2011/12 academic year. In Hong Kong, R&D activities in the higher education sector were mainly financed by the Government. (Chart 3.5)

3.10 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. While the Government is not a major performer of R&D activities, expenditure on R&D activities undertaken in the government sector increased from \$0.16 billion in 2001 to \$0.6 billion in 2011. Since 1999, the Government has set up the Innovation and Technology Fund to support business establishments for carrying out applied R&D. The setting up of the Hong Kong Science Park, Hong Kong Applied Science and Technology Research Institute Limited, and 5 R&D centres also reflect on the Government's commitment to providing an environment conducive to R&D activities. (Chart 3.6)

3.11 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 2011, the total number of researchers expressed in full-time equivalent stood at 20 381 which was nearly double that in 2001 (9 149). The number of researchers per 1 000 persons in the labour force maintained at the level of around 5 in recent years. (Chart 3.7)

Business innovation activities

3.12 Among all business establishments in Hong Kong, the percentage of innovative establishments (i.e. establishments that have undertaken TI or non-TI or both) increased from 16.0% in 2001 to 21.5% in 2011. (Chart 3.8)

3.13 工商機構在技術創新活動的開支自 2000 年代初期急速增長後，在近年已有所整固。(圖 3.9)

創新活動的協作安排

3.14 進行創新活動的過程會觸及多個學科的範疇，在某些情況下，需要不同界別的組織合作及參予有關項目。創新活動的協作安排有利轉移及交換知識。在 2011 年，約有 600 間工商機構曾與其他機構協作進行研發活動。從技術創新的較闊層面來看，工商機構曾與其他機構有技術創新活動協作安排的數目更多，約有 1 200 間。香港的工商機構主要與屬於中國內地珠三角經濟區的機構協作進行創新活動，顯示香港和珠三角經濟區的經濟緊密融合。(圖 3.10 及 3.11)

研發成果

3.15 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系的研發成果。香港的專利申請數目由 2002 年的 9 463 項上升至 2012 年的 13 633 項，增幅為 44.1%。同期，香港的專利批出數目由 2002 年的 2 441 項增加至 2012 年的 5 550 項。(圖 3.12)

3.16 美國是香港和其他經濟體系的主要市場之一。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系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 2001-02 年度的 546 項上升至 2011-12 年度的 715 項，升幅達 31.0%。(圖 3.13)

3.17 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 2001/02 至 2011/12 學年期間，研究成果數目每年超越 21 000 項。(圖 3.14)

3.13 Business expenditure on technological innovation activities consolidated in recent years, after a period of rapid growth in the early 2000's. (Chart 3.9)

Collaboration in innovation activities

3.14 Innovation is a multi-disciplinary process which, in some cases, involves collaboration and partnership among organisations from various sectors. Collaboration in innovation activities is conducive to knowledge transfer and exchange. In 2011, some 600 business establishments had engaged in collaboration arrangement on R&D activities with other parties. In terms of the broader area of technological innovation, the number of business establishments with collaboration arrangement on technological innovation with other parties was larger, at around 1 200. Collaboration in the area of innovation mainly exists between business establishments in Hong Kong and their partners in the Pearl River Delta Economic Zone in the mainland of China, reflecting the close economic tie between the two places. (Charts 3.10 and 3.11)

Output of R&D

3.15 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 44.1% from 9 463 in 2002 to 13 633 in 2012. During the same period, the number of patents granted in Hong Kong increased from 2 441 in 2002 to 5 550 in 2012. (Chart 3.12)

3.16 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 31.0% from 546 in 2001-02 to 715 in 2011-12. (Chart 3.13)

3.17 The total number of research output items is also regarded as a quantitative measure of R&D output of higher education institutions, engaging in basic research as well as applied research. The number of research output items was over 21 000 each year during the academic years 2001/02 to 2011/12. (Chart 3.14)

3.18 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，並反映一個經濟體系吸取科技的能力。在 2002 年至 2012 年期間，高科技產品的出口總值的平均按年增長率為 14.8%，顯著高於香港商品整體出口貨值的 8.2% 增長。在高科技產品出口總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 14.3%，同樣高於香港商品整體進口貨值的 9.2%。(圖 3.15)

3.19 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 2002 年的 26.2% 大幅上升至 2012 年的 47.3%，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 31.5% 飆升至 79.5%。(圖 3.16 及 3.17)

3.20 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自 2002 年開始每年均錄得赤字。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)

3.18 External trade in high technology (high-tech) products and technology balance of payments are useful indicators for gauging international transfer of technology and know-how as well as reflecting an economy's capability of assimilating technology. Between 2002 and 2012, the value of total exports of high-tech products increased at an average annual growth rate of 14.8%, which was distinctly faster than that of 8.2% for the total merchandise exports of Hong Kong. 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 14.3%, also at a faster pace than that of 9.2% for the total merchandise imports of Hong Kong. (Chart 3.15)

3.19 The share of total exports of high-tech products in Hong Kong's total exports of goods also went up markedly from 26.2% in 2002 to 47.3% in 2012, 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 31.5% to 79.5% during the same period. (Charts 3.16 and 3.17)

3.20 Technology balance of payments (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 has been recording a deficit in its TBP account each year since 2002. The deficit in the transactions of intellectual capital and services reflects that the business establishments in Hong Kong are 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)

結語

3.21 香港的工商機構、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。

Concluding remarks

3.21 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.

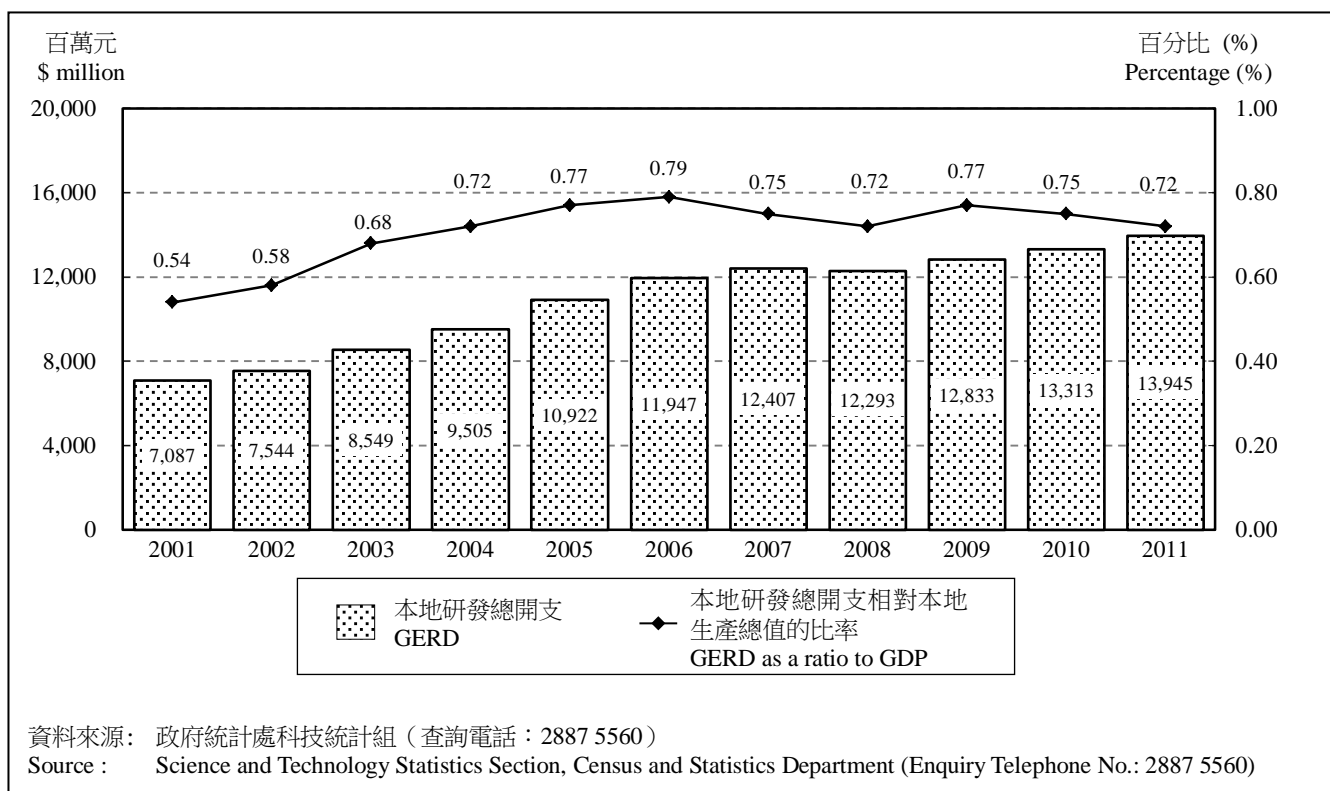
表 3.1 量度知識型經濟中有關創新系統範疇的統計指標一覽

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究及發展（研發）活動的深度 Research capacity and intensity of research and development (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 Gross domestic expenditure on R&D 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 gross domestic expenditure on R&D 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 gross domestic expenditure on R&D 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. 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. 曾進行創新活動的工商機構的百分比 Percentage of business establishments having undertaken innovation activities 2. 工商機構的技術創新活動開支相對業務收益總額的比率 Business technological innovation expenditure as a ratio to total business receipts
<p>研發及創新活動的協作安排 Collaboration arrangement on R&D and innovation activities</p>	<ol style="list-style-type: none"> 1. 有就研發活動與其他機構訂立協作安排的工商機構的百分比 Percentage of business establishments having collaboration arrangement on R&D activities with other organisations 2. 有就技術創新活動與其他機構訂立協作安排的工商機構的百分比 Percentage of business establishments having collaboration arrangement on technological innovation activities with other organisations
<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

<p>與創新系統有關的因素</p> <p>Factors relating to innovation system</p>	<p>統計指標</p> <p>Statistical indicators</p>
	<p>3. 按每百萬名人口計算的高等教育研究成果數目</p> <p>Higher education research output items per million population</p>
<p>一個經濟體系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>	<p>1. 高科技產品進口及出口總值佔商品整體貿易貨值的百分比</p> <p>Percentage of value of imports and exports of high-tech products in the total value of overall merchandise trade</p> <p>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</p> <p>Value of total exports of high-tech products as a percentage of value of total merchandise exports</p> <p>3. 高科技產品整體出口貨值相對本地生產總值的比率</p> <p>Value of total exports of high-tech products as a ratio to GDP</p> <p>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</p> <p>Technology balance of payments flows/balance as a ratio to GDP</p>

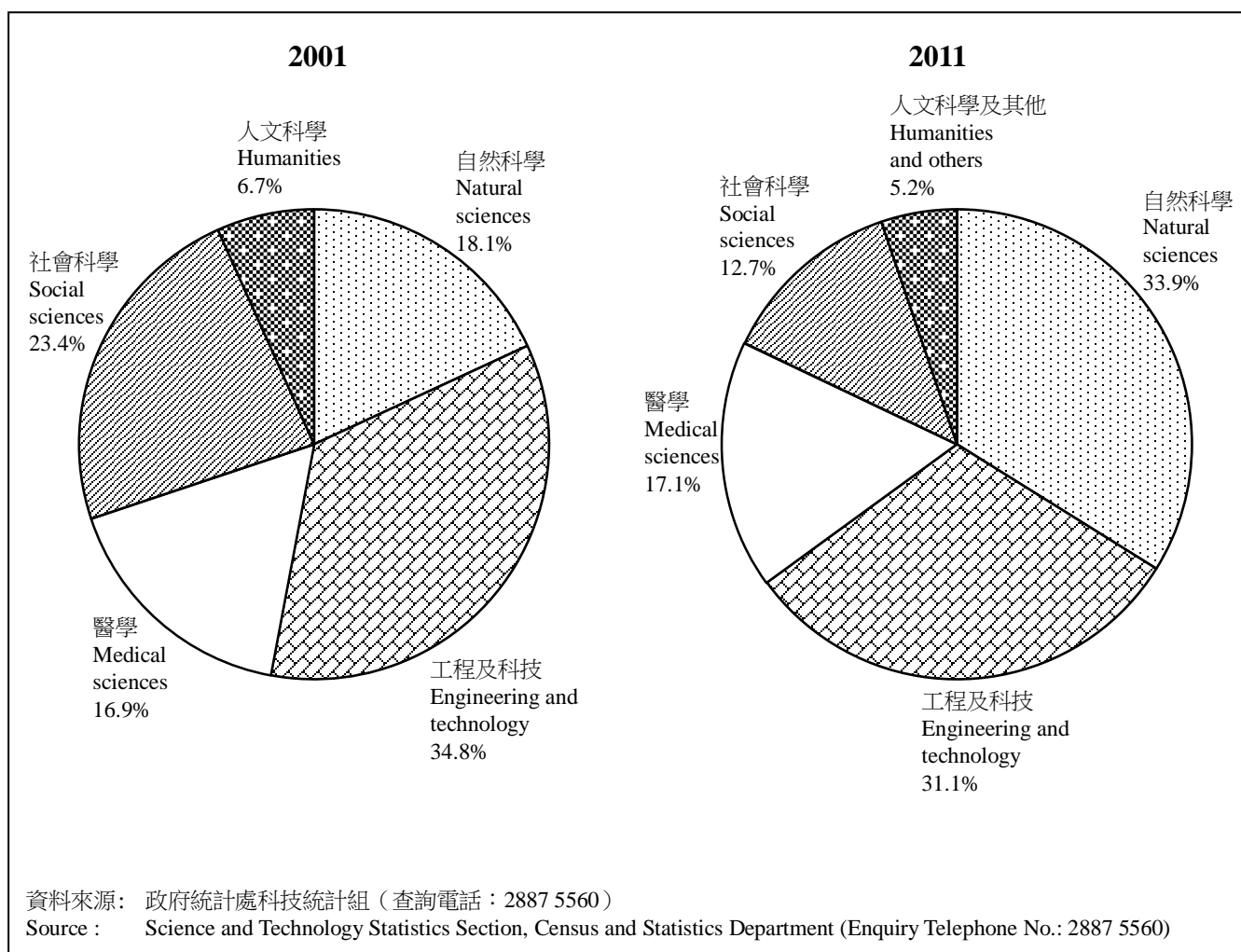
圖 3.1 本地研究及發展總開支（本地研發總開支）相對本地生產總值的比率
Chart 3.1 Gross domestic expenditure on research and development (GERD) as a ratio to GDP



- ◆ 本地研發總開支由2001年的71億元逐年增加至2011年的139億元。
- ◆ The gross domestic expenditure on R&D (GERD) increased incrementally from \$7.1 billion in 2001 to \$13.9 billion in 2011.
- ◆ 在2011年，本地研發總開支相對本地生產總值的比率由2010年的0.75%輕微下降至2011年的0.72%，而本地研發總開支則在同期錄得5%的增幅。這主要由於本地生產總值在2011年的增長較快。
- ◆ GERD as a ratio to GDP was edged down from 0.75% in 2010 to 0.72% in 2011, though a growth was registered for GERD at 5% during the same period. This was mainly attributable to a faster growth in GDP in 2011.

圖 3.2 按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 R&D (GERD) by field of R&D activity



◆ 香港的研發活動主要涉及自然科學，佔2011年本地研發總開支的33.9%。其次是工程及科技（31.1%）及醫學（17.1%）。

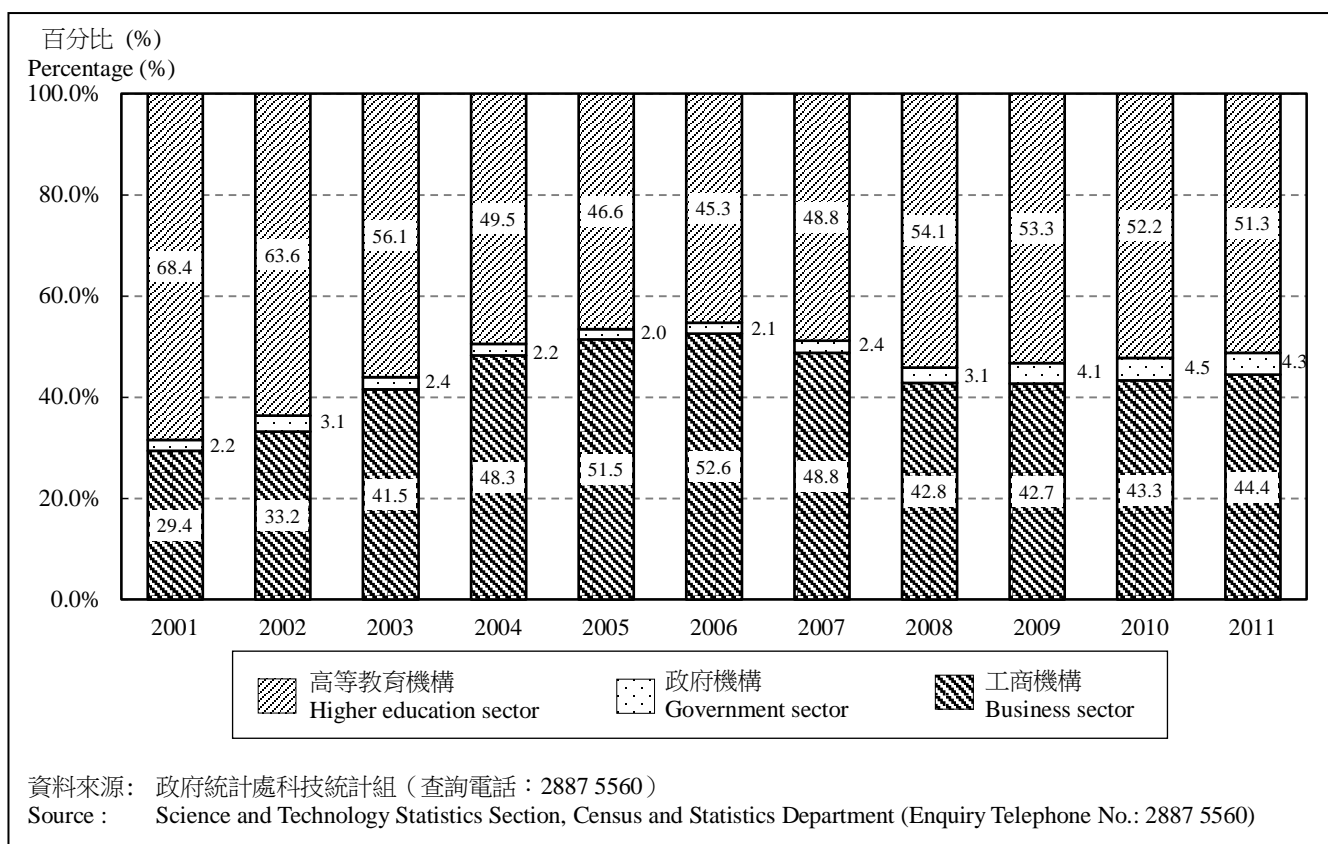
◆ 涉及社會科學，人文科學及其他範疇的研發活動主要由高等教育機構進行。在2011年，有關範疇的研發開支佔本地研發總開支的17.9%。

◆ In Hong Kong, R&D activities were mainly related to natural sciences which accounted for 33.9% of the GERD in 2011. This was followed by engineering and technology (31.1%) and medical sciences (17.1%).

◆ R&D activities on social sciences, humanities and other fields, which accounted for 17.9% of the GERD in 2011, were predominantly undertaken by higher education institutions.

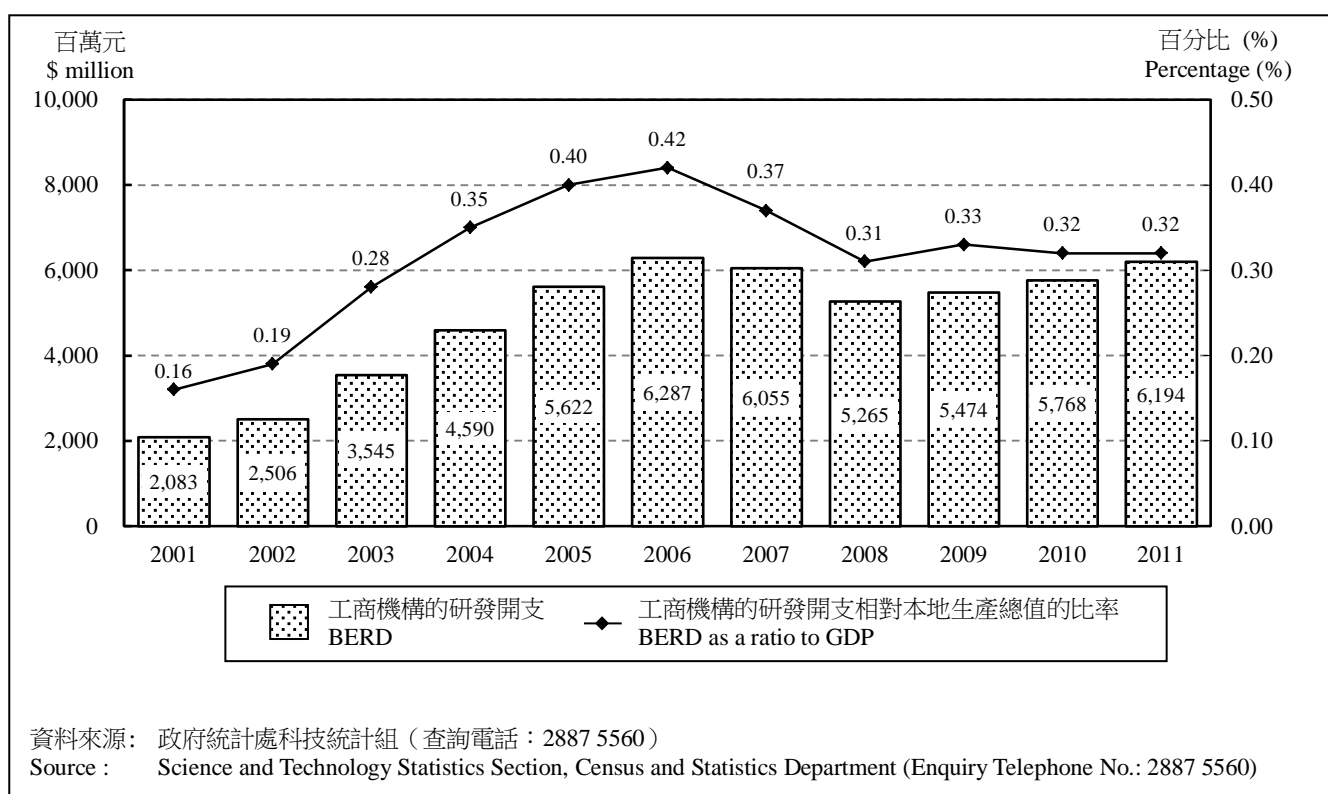
圖 3.3 按進行研發的機構類別劃分的本地研發總開支分布

Chart 3.3 Distribution of gross domestic expenditure on R&D (GERD) by R&D performing sector



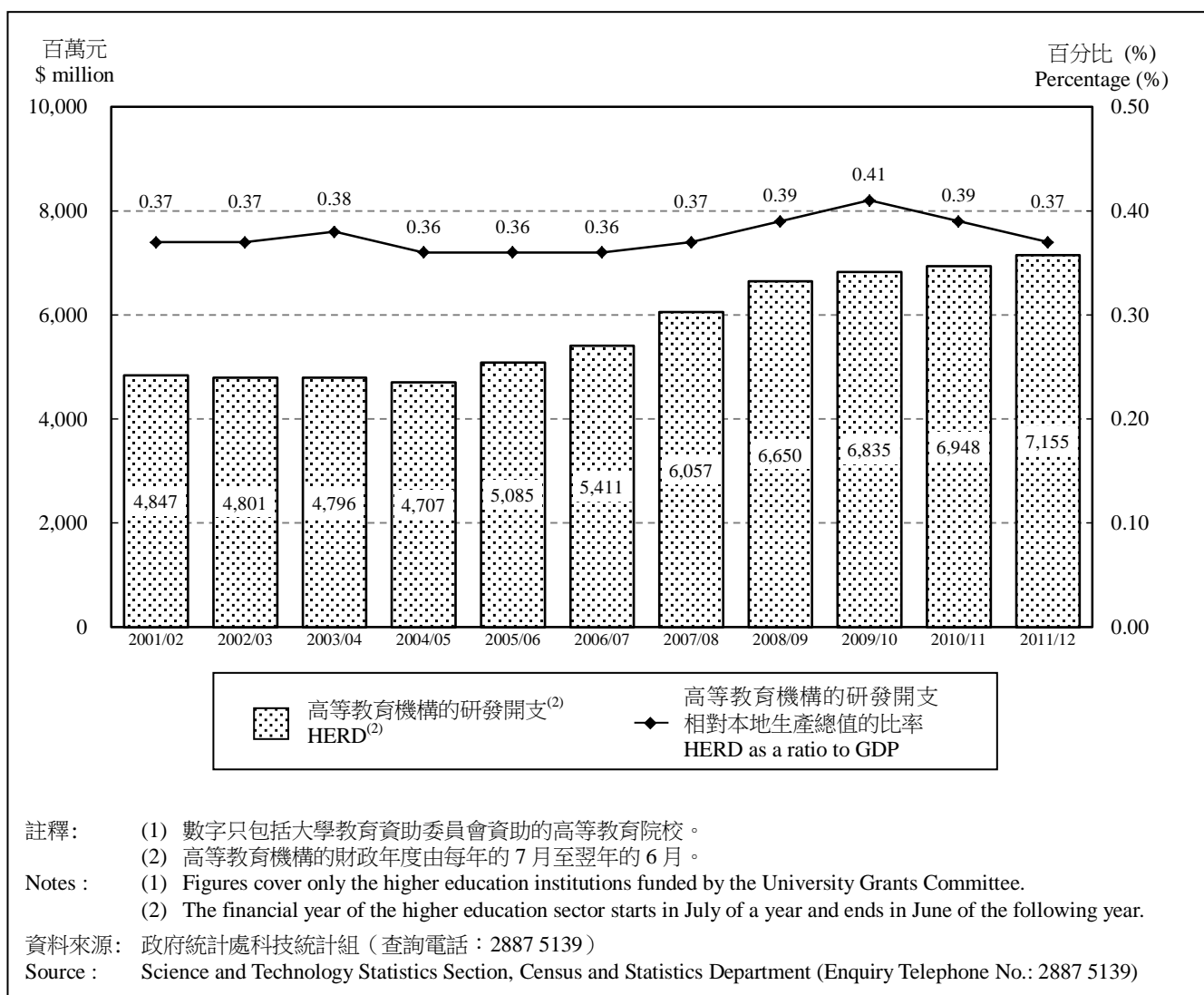
- ◆ 在 2001 年至 2007 年期間，工商機構加強其研發活動。工商機構的研發開支佔本地研發總開支的比例由 2001 年的 29.4% 增加至 2007 年的 48.8%。
- ◆ Business establishments had been stepping up their R&D activities during the period 2001 to 2007. The share of the expenditure on R&D performed in the business sector in the GERD increased from 29.4% in 2001 to 48.8% in 2007.
- ◆ 自 2008 年下旬後，工商機構的研發開支在環球金融海嘯後有所整固。在 2011 年，工商機構的研發開支佔本地研發總開支的比例為 44.4%。
- ◆ Business expenditure on R&D consolidated in latter half of 2008, in the aftermath of the global financial tsunami. The share of the business expenditure on R&D in the GERD was 44.4% in 2011.

圖 3.4 工商機構的研發開支相對本地生產總值的比率
Chart 3.4 Business expenditure on R&D (BERD) as a ratio to GDP



- ◆ 工商機構的研發開支由 2001 年的 21 億元增加至 2011 年的 62 億元。
- ◆ 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。
- ◆ Expenditure on R&D performed in the business sector increased from \$2.1 billion in 2001 to \$6.2 billion in 2011.
- ◆ Business outlay on R&D was more 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.

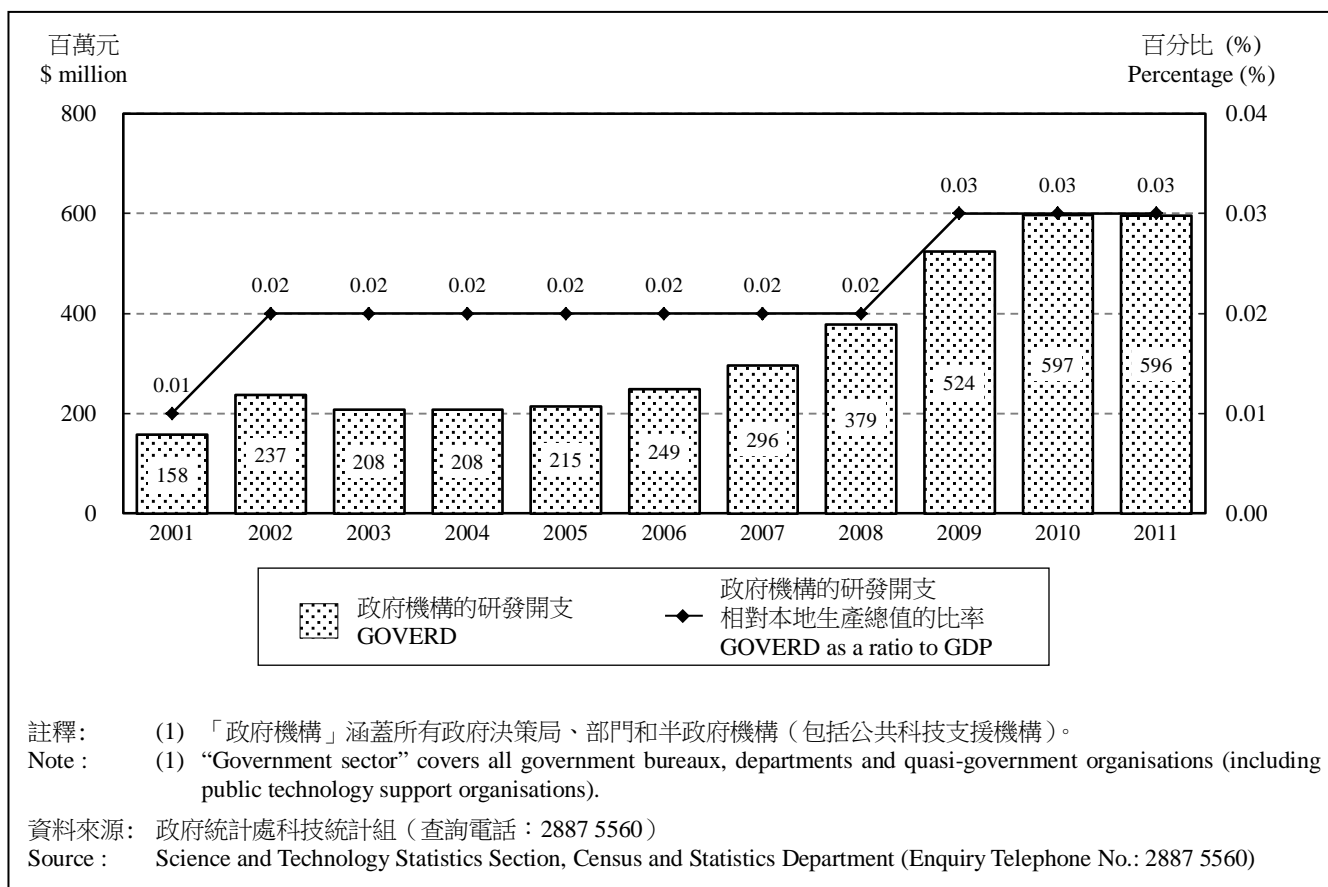
圖 3.5 高等教育機構⁽¹⁾的研發開支相對本地生產總值的比率
Chart 3.5 Higher education⁽¹⁾ expenditure on R&D (HERD) as a ratio to GDP



- ◆ 在 2011/12 學年，高等教育機構的研發開支達 72 億元，較 2001/02 學年上升 47.6%。
- ◆ 高等教育機構的研究資金主要由政府提供。

- ◆ In 2011/12 academic year, expenditure on R&D in the higher education sector amounted to \$7.2 billion, 47.6% higher than that recorded in 2001/02.
- ◆ Research funds of the higher education sector are mainly provided by the Government.

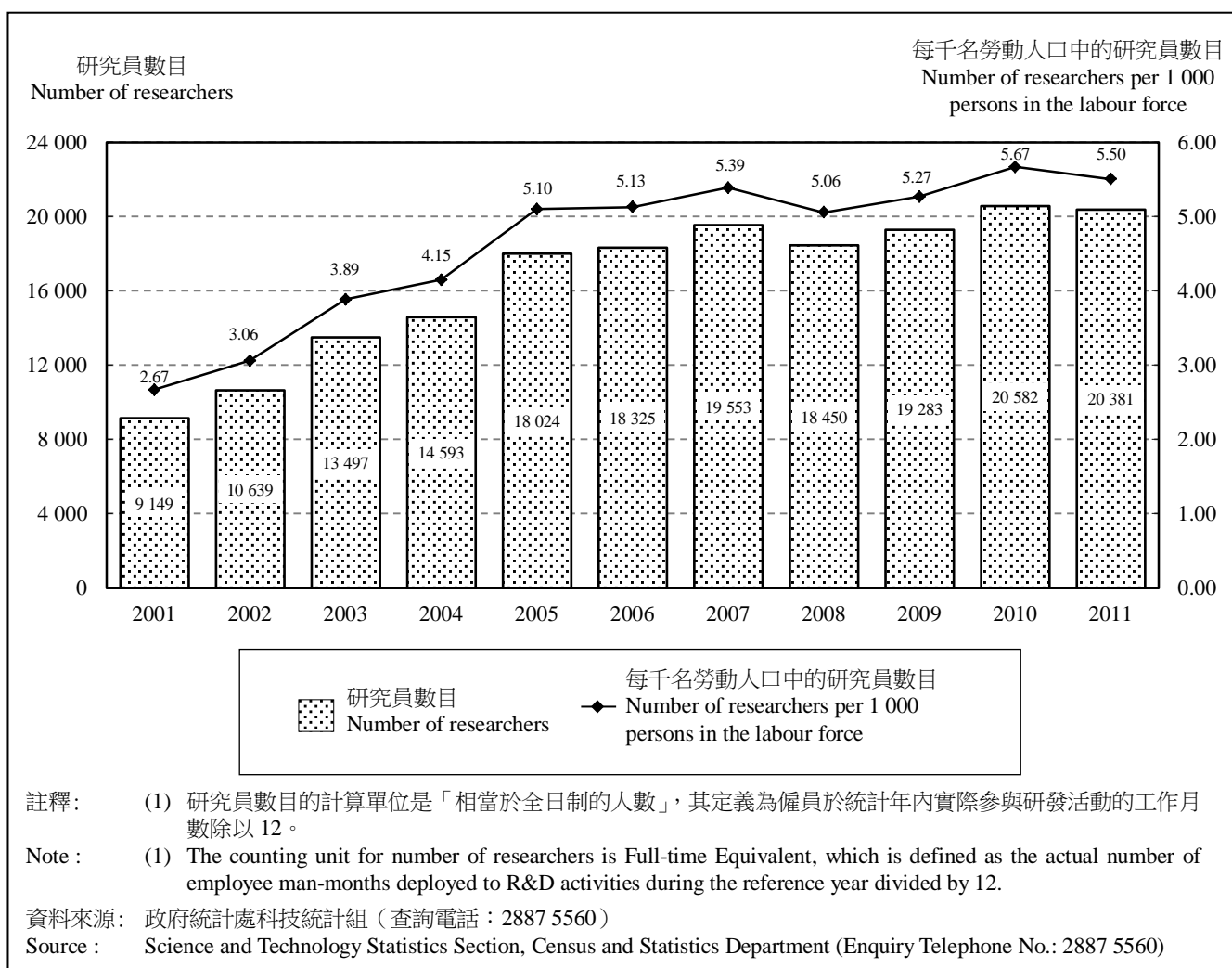
圖 3.6 政府機構⁽¹⁾的研發開支相對本地生產總值的比率
Chart 3.6 Government⁽¹⁾ expenditure on R&D (GOVERD) as a ratio to GDP



- ◆ 政府的研發開支由 2001 年的 1.6 億元增加至 2011 年的 6 億元。
- ◆ Expenditure on R&D performed in the government sector increased from \$0.16 billion in 2001 to \$0.6 billion in 2011.
- ◆ 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。事實上，在 2011 年，香港整體研發開支中有 47% 的經費來自政府。政府在 1999 年成立了創新及科技基金以支持能提升創新及科技的項目。政府亦透過成立香港科學園及各個研發中心，提供基礎建設以促進技術提升及發展。
- ◆ 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. In fact, 47% of the total R&D expenditure in Hong Kong was financed by Government in 2011. The Innovation and Technology Fund was set up in 1999 to support projects that contribute to innovation and technology upgrading. The Government also provides infrastructural support to facilitate technological upgrading and development through the establishment of the Hong Kong Science Park and various R&D centres.

圖 3.7 每千名勞動人口中的研究員數目⁽¹⁾

Chart 3.7 Number of researchers⁽¹⁾ per 1 000 persons in the labour force

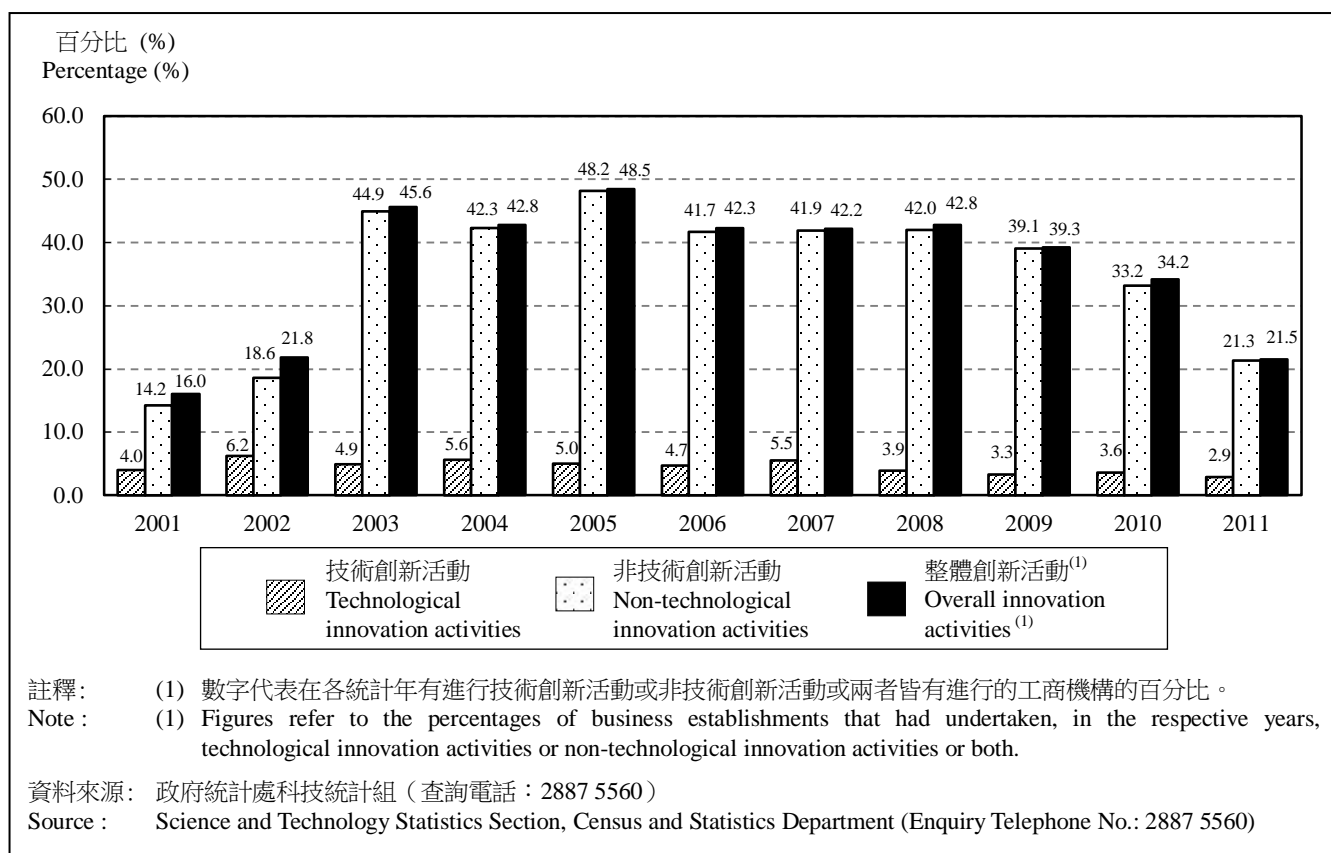


◆ 每千名勞動人口計算,研究員數目由2001年的2.67人上升至2011年的5.50人。

◆ The number of researchers per 1 000 persons in the labour force increased from 2.67 in 2001 to 5.50 in 2011.

圖 3.8 曾進行創新活動的工商機構的百分比

Chart 3.8 Percentage of business establishments having undertaken innovation activities



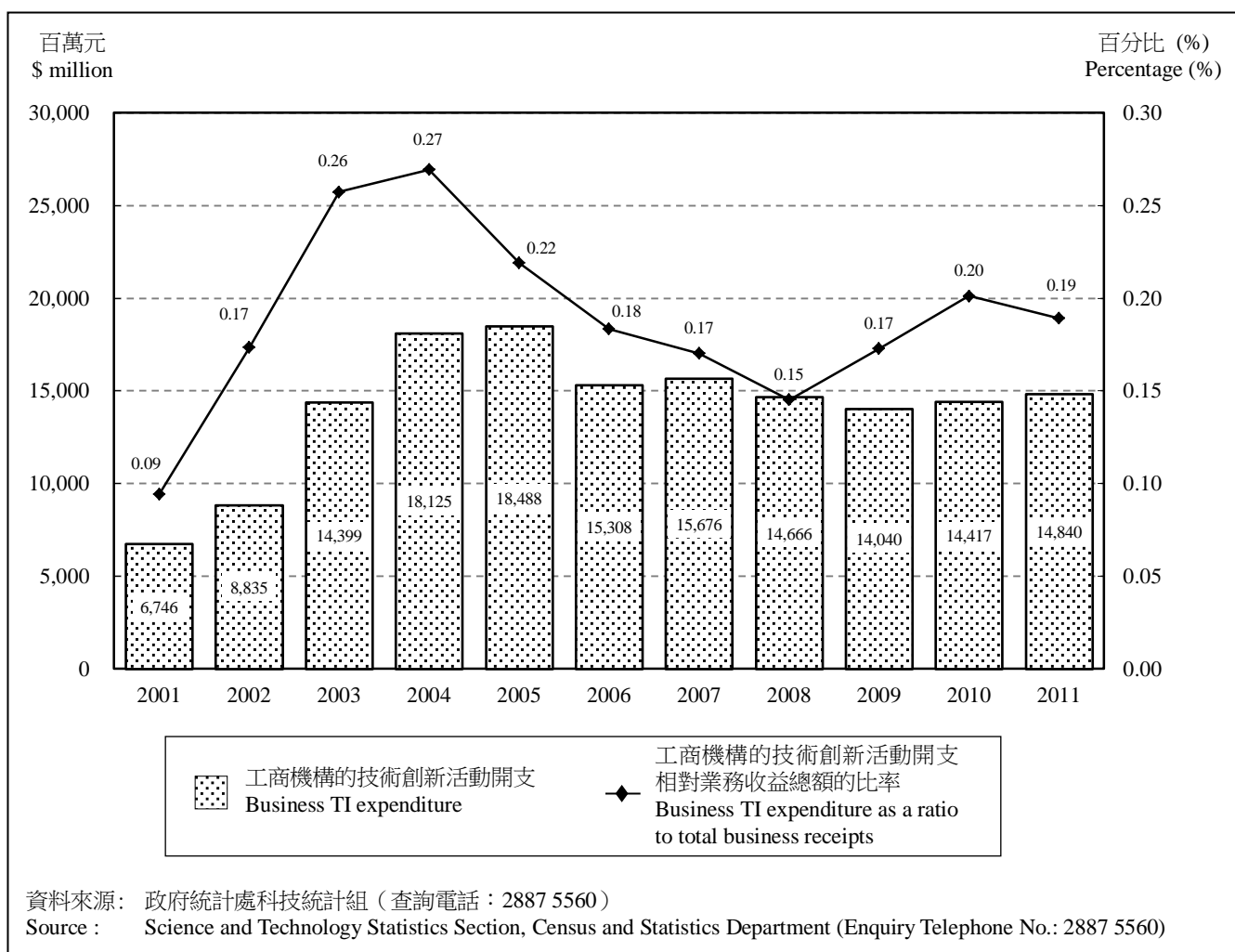
◆ 曾進行創新活動的工商機構的百分比由 2001 年的 16.0% 激增至 2008 年的 42.8%，接著回落至 2011 年的 21.5%。

◆ 在 2011 年，曾進行非技術創新活動（組織架構及市場推廣上的創新）的工商機構的百分比為 21.3%，較從事技術創新活動（產品及程序上的創新）的工商機構的百分比（2.9%）高出很多。這主要因為香港大部分的工商機構的業務性質均以提供服務為主。

◆ The percentage of business establishments that had undertaken innovation activities surged from 16.0% in 2001 to 42.8% in 2008, then decrease gradually to 21.5% in 2011.

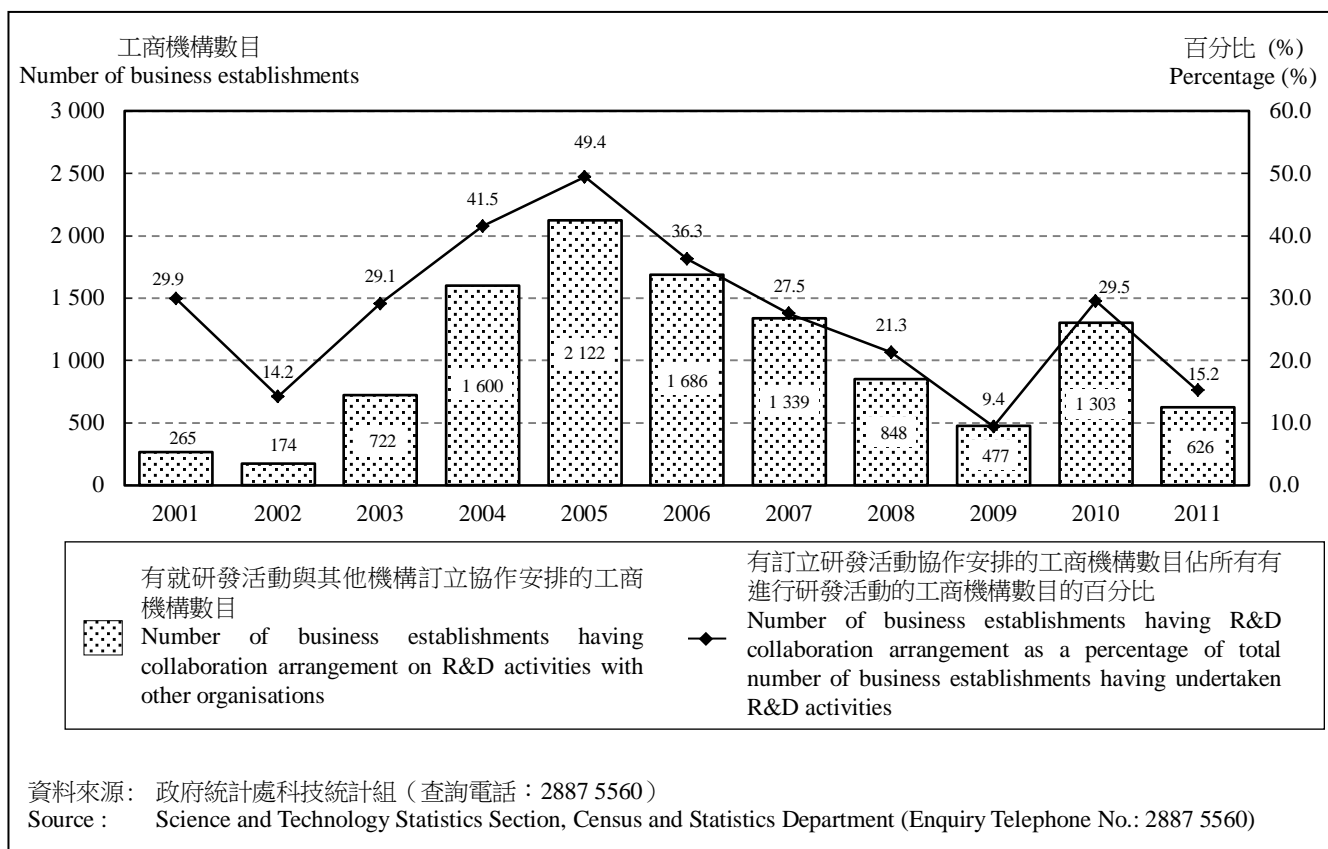
◆ In 2011, the percentage of business establishments engaged in non-technological (organisational and marketing) innovation was 21.3%, much higher than that of 2.9% for business establishments engaged in technological (product and process) innovation. This was due largely to the service-oriented nature of the majority of business establishments in Hong Kong.

圖 3.9 工商機構的技術創新活動開支相對業務收益總額的比率
Chart 3.9 Business technological innovation (TI) expenditure as a ratio to total business receipts



- ◆ 工商機構的技術創新活動開支經過 2000 年代初期急速增長後，在近年有所整固。
- ◆ Business expenditure on TI consolidated in recent years, after a period of rapid growth in the early 2000's.
- ◆ 工商機構從事技術創新活動的活躍程度，可按技術創新活動開支相對業務收益總額的比率來量度。有關比率由 2004 年的 0.27% 高位回落至 2011 年的 0.19%。
- ◆ The intensity of businesses undertaking TI, measured in terms of expenditure on TI activities as a ratio to total business receipts, receded to 0.19% in 2011 from the peak of 0.27% in 2004.

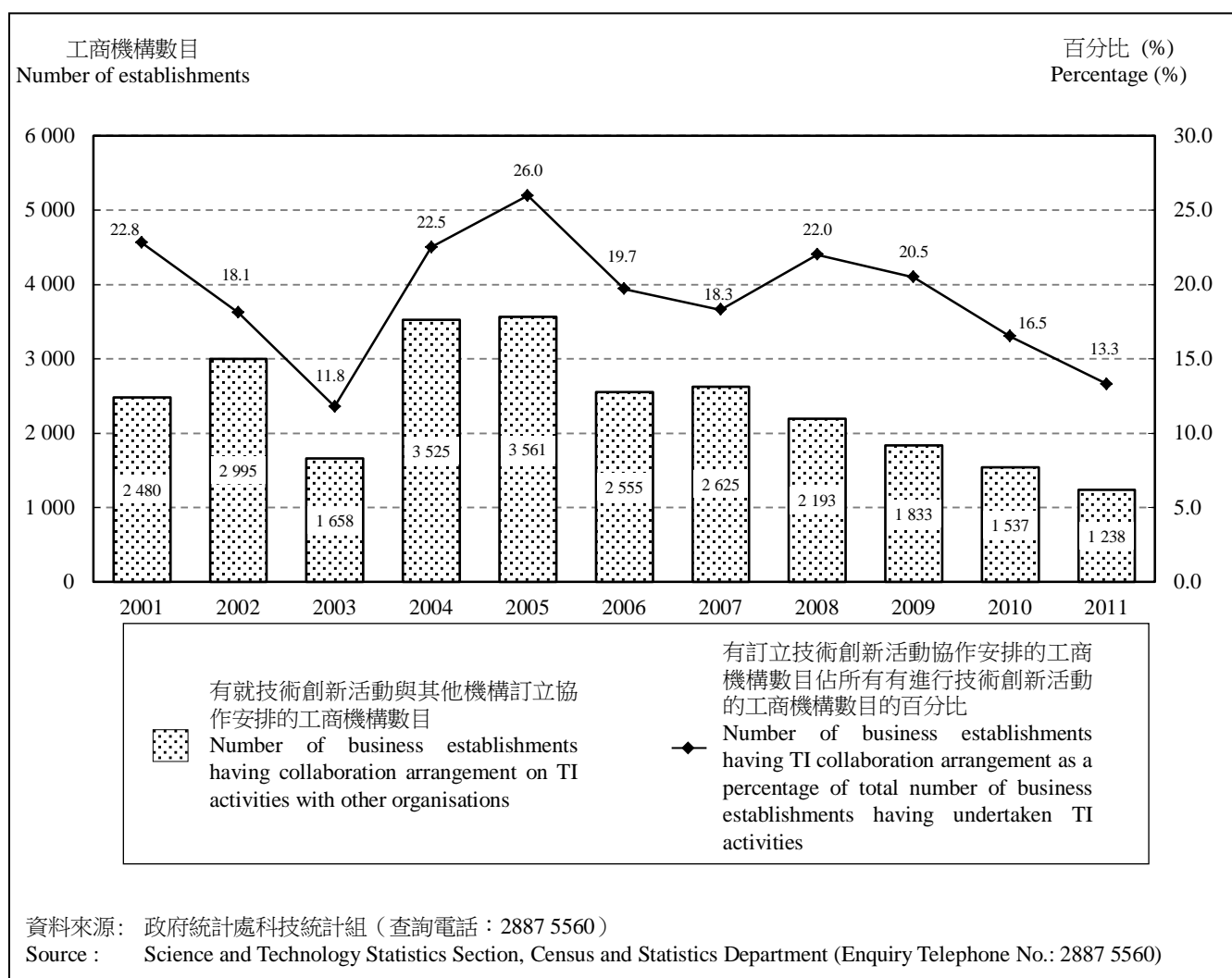
圖 3.10 有就研發活動與其他機構訂立協作安排的工商機構的百分比
Chart 3.10 Percentage of business establishments having collaboration arrangement on R&D activities with other organisations



◆ 在 2011 年，共有 626 間工商機構（或佔有進行研發活動的工商機構總數的 15.2%）有就研發活動與其他機構訂立協作安排。與 2001 年相比，當時只有 265 間（29.9%）機構有類似的協作安排。

◆ In 2011, a total of 626 business establishments (or 15.2% of all business establishments having undertaken R&D activities) had collaboration arrangement on R&D activities with other parties, as compared with 265 establishments (29.9%) having such kind of arrangement in 2001.

圖 3.11 有就技術創新活動與其他機構訂立協作安排的工商機構的百分比
Chart 3.11 Percentage of business establishments having collaboration arrangement on TI activities with other organisations

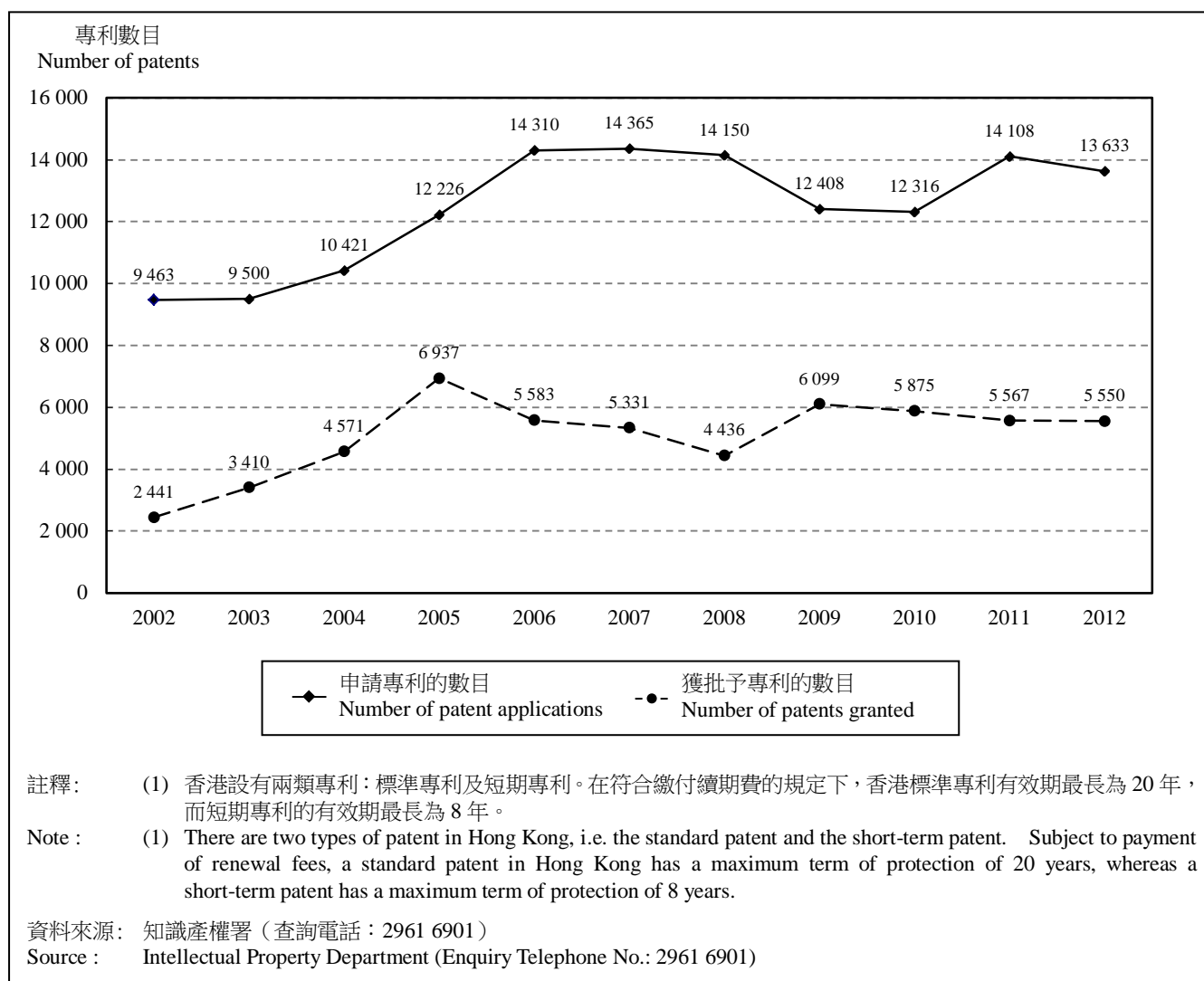


◆ 2011 年，在有進行技術創新活動的工商機構中，有 1 238 間（或 13.3%）與其他機構訂立技術創新活動的協作安排。

◆ Among those business establishments which had undertaken TI activities in 2011, there were 1 238 (or 13.3%) establishments having collaboration arrangement on TI activities with other parties.

圖 3.12 在香港申請專利⁽¹⁾及獲批予專利的數目

Chart 3.12 Number of patent⁽¹⁾ applications and patents granted in Hong Kong



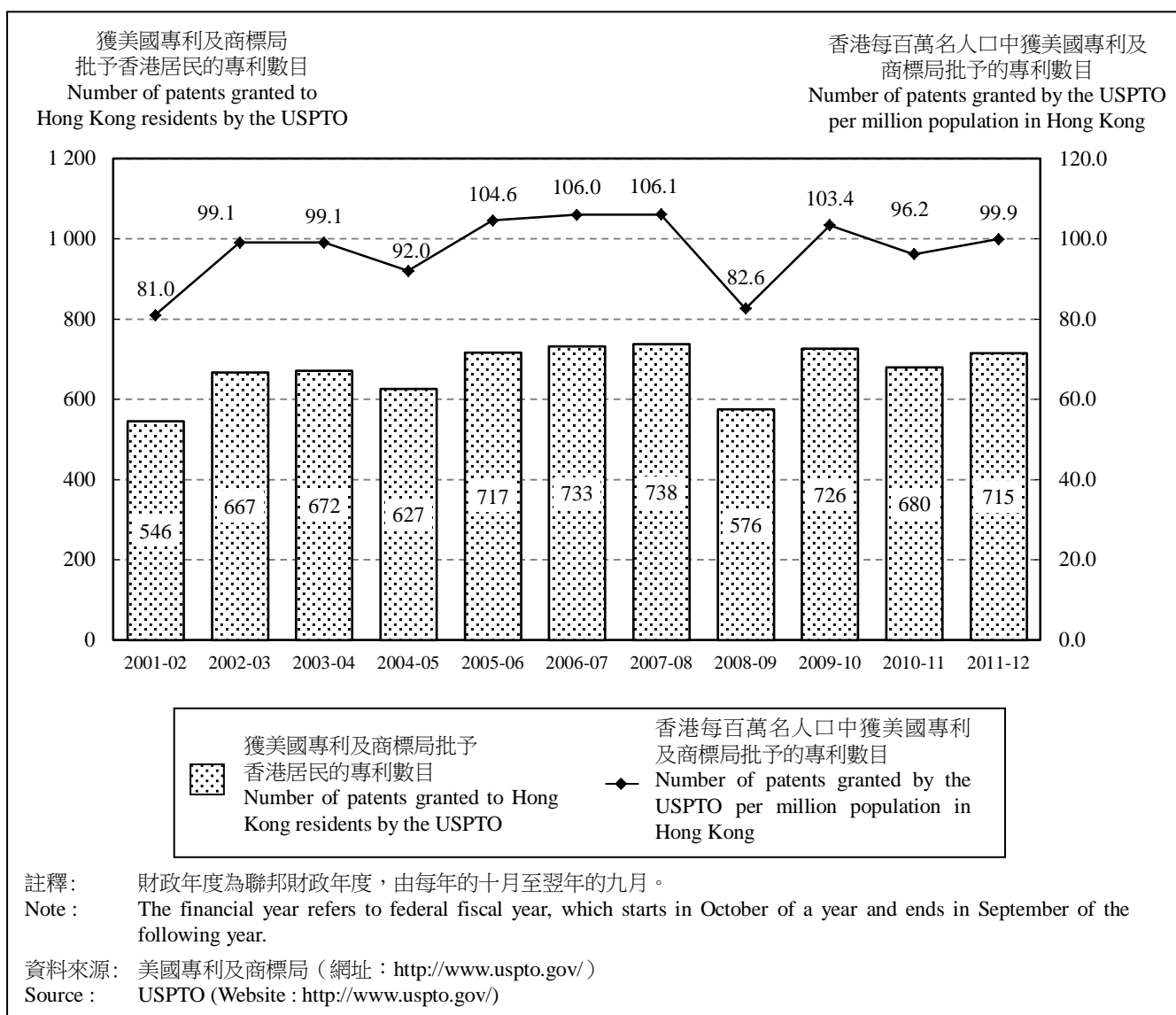
◆ 香港的申請專利數目由 2002 年約 9 500 項上升至 2012 年的 13 600 項。

◆ The number of patent applications in Hong Kong increased from around 9 500 in 2002 to 13 600 in 2012.

◆ 在香港獲批予專利的數目與申請專利數目的趨勢頗為相似。有關數字在 2012 年約為 5 600 項，而在 2002 年約為 2 400 項。

◆ The number of patents granted in Hong Kong followed a fairly similar trend as the patent applications. The number stood at around 5 600 in 2012, compared with around 2 400 in 2002.

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)

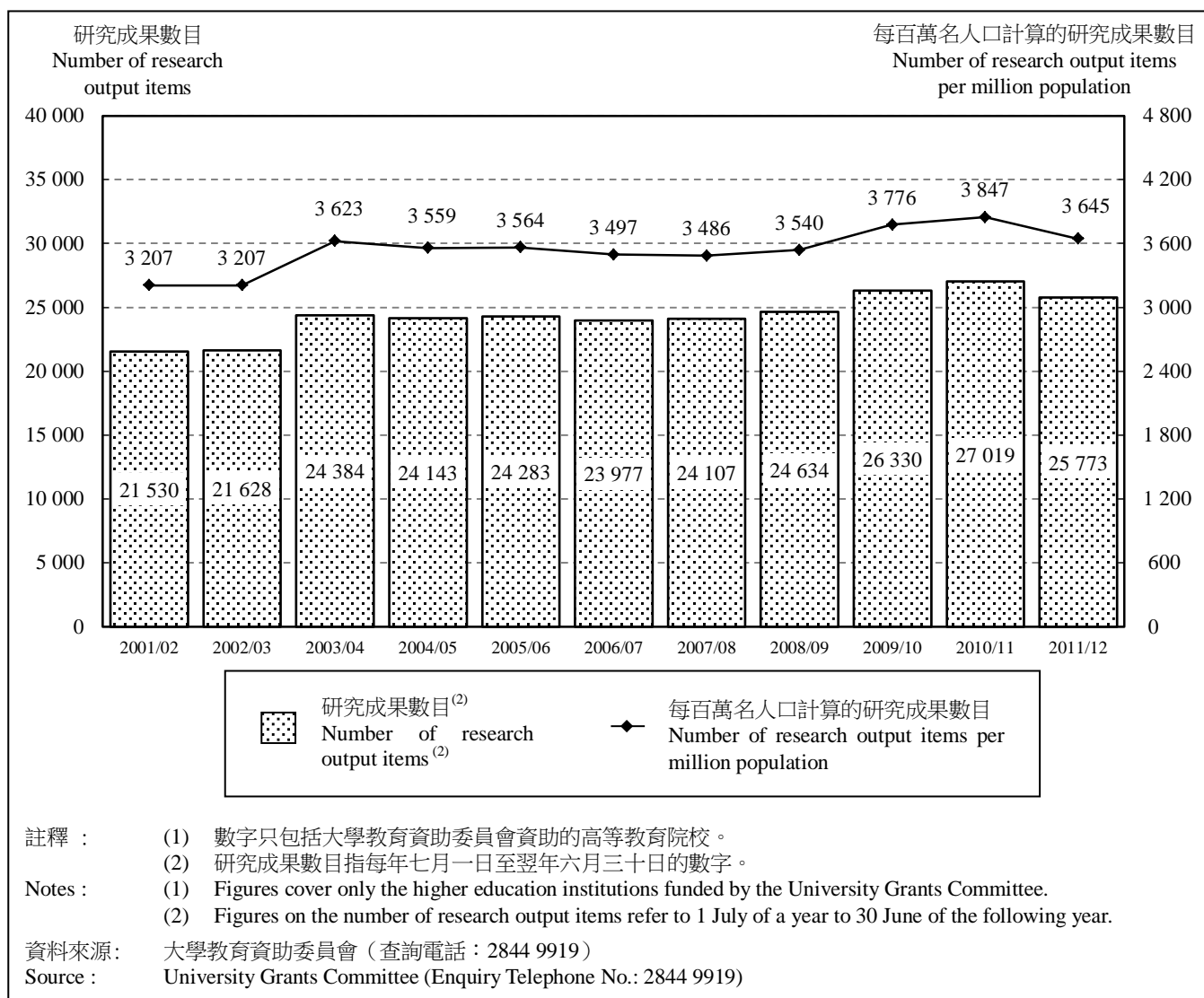


◆ 除了 2008-09 年度外，美國專利及商標局自 2005-06 年度至 2011-12 年度期間批予香港居民的專利數目每年約 700 項。

◆ The number of patents granted by the USPTO to Hong Kong residents was about 700 each year during the period 2005-06 to 2011-12, except 2008-09.

圖 3.14 按每百萬名人口計算的高等教育研究成果數目⁽¹⁾

Chart 3.14 Higher education research output items⁽¹⁾ per million population

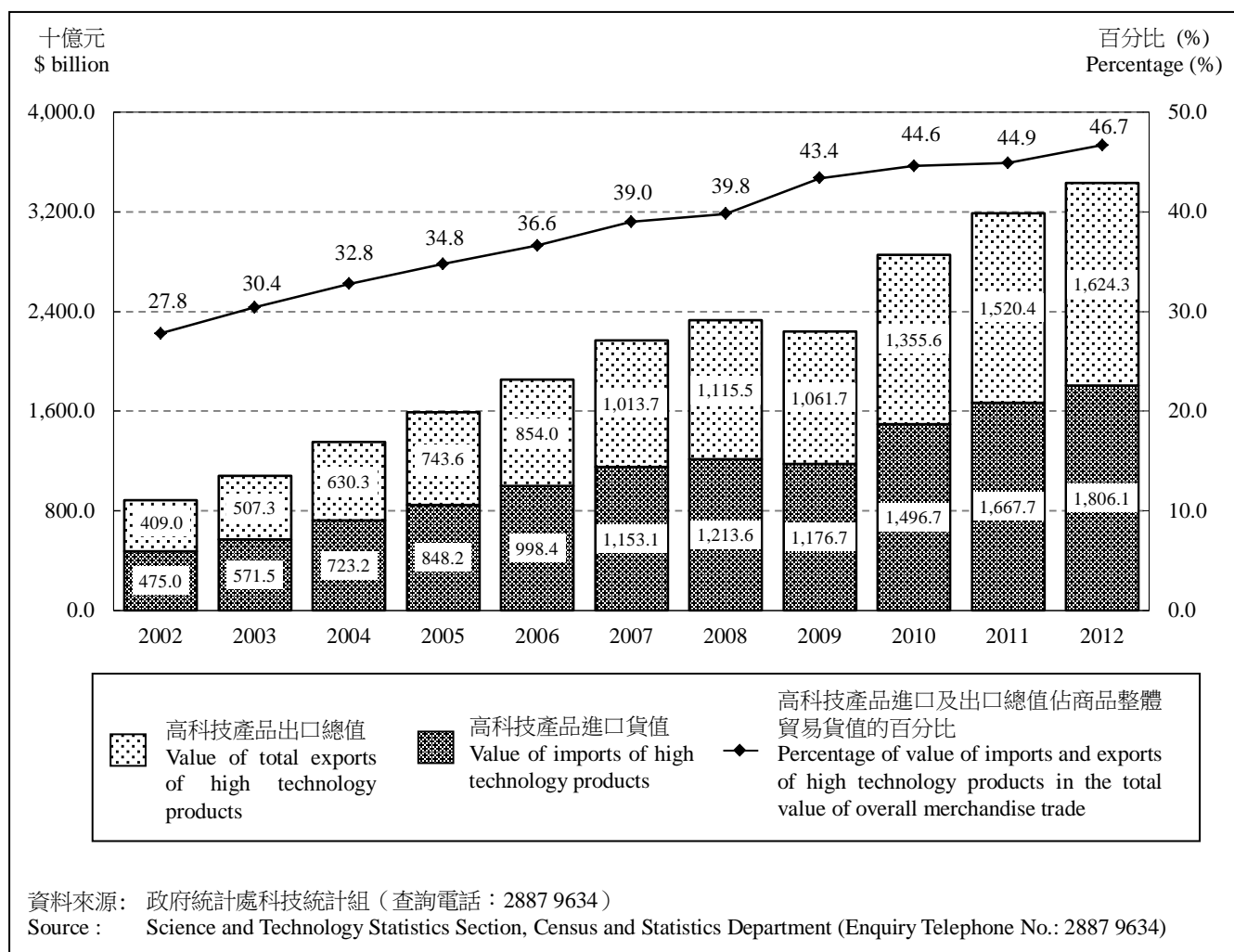


◆ 大學教育資助委員會資助的高等教育院校的研究成果數目由 2001/02 學年的約 21 500 項增加至 2011/12 學年的 25 800 項。在 2011/12 學年期間，以每百萬名人口計算的研究成果數目達 3 645 項。

◆ The number of research output items by the higher education institutions funded by the University Grants Committee increased from around 21 500 in 2001/02 to 25 800 in 2011/12. Higher education research output items per million population was 3 645 in 2011/12.

圖 3.15 高科技產品進口及出口總值佔商品整體貿易貨值的百分比

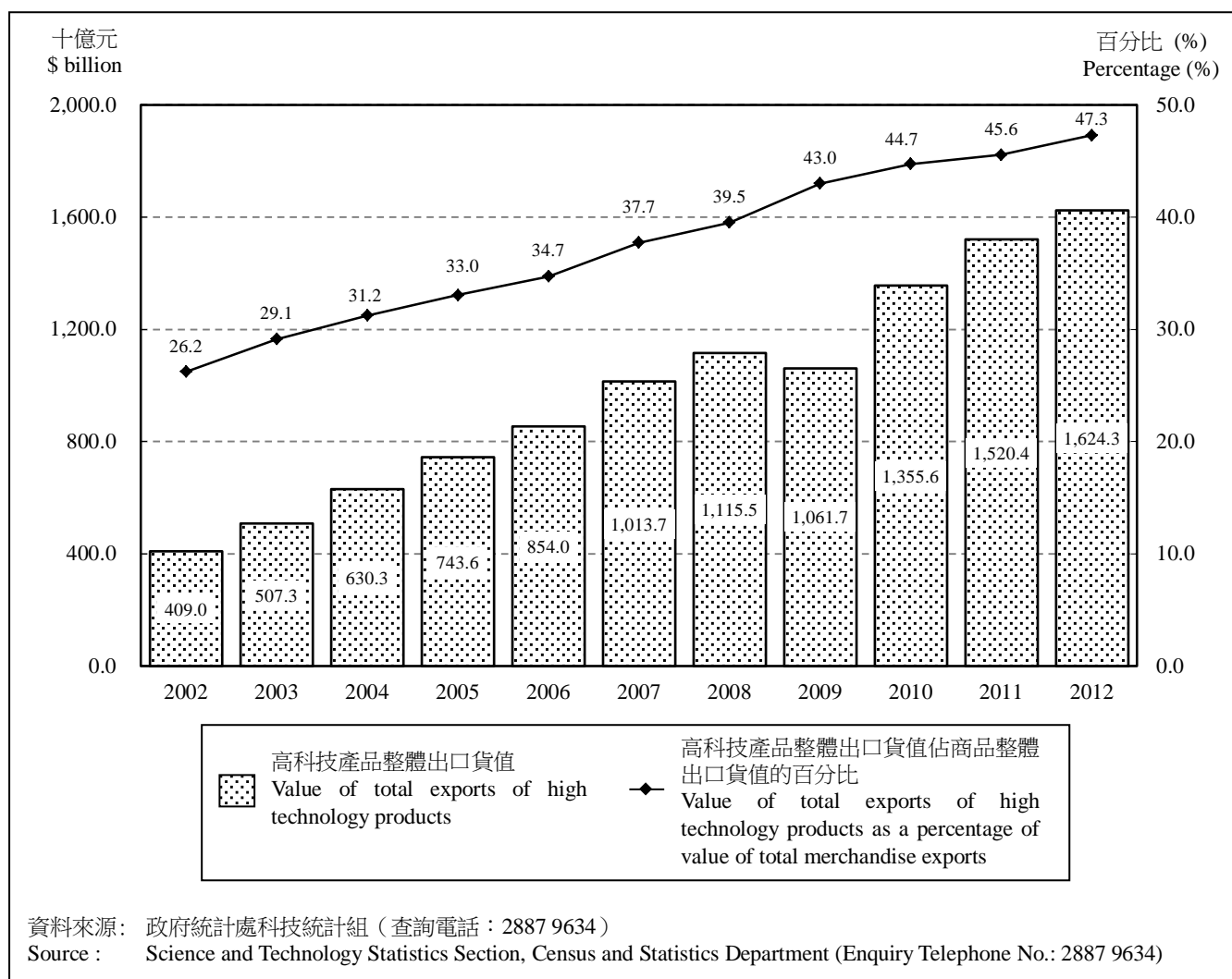
Chart 3.15 Percentage of value of imports and exports of high technology products in the total value of overall merchandise trade



◆ 高科技產品的貿易總值(出口及進口)從 2002 年的 8,840 億元大幅上升至 2012 年的 34,304 億元。高科技產品的貿易總值佔商品整體貿易貨值的百分比亦由 2002 年的 27.8% 躍升至 2012 年的 46.7%。

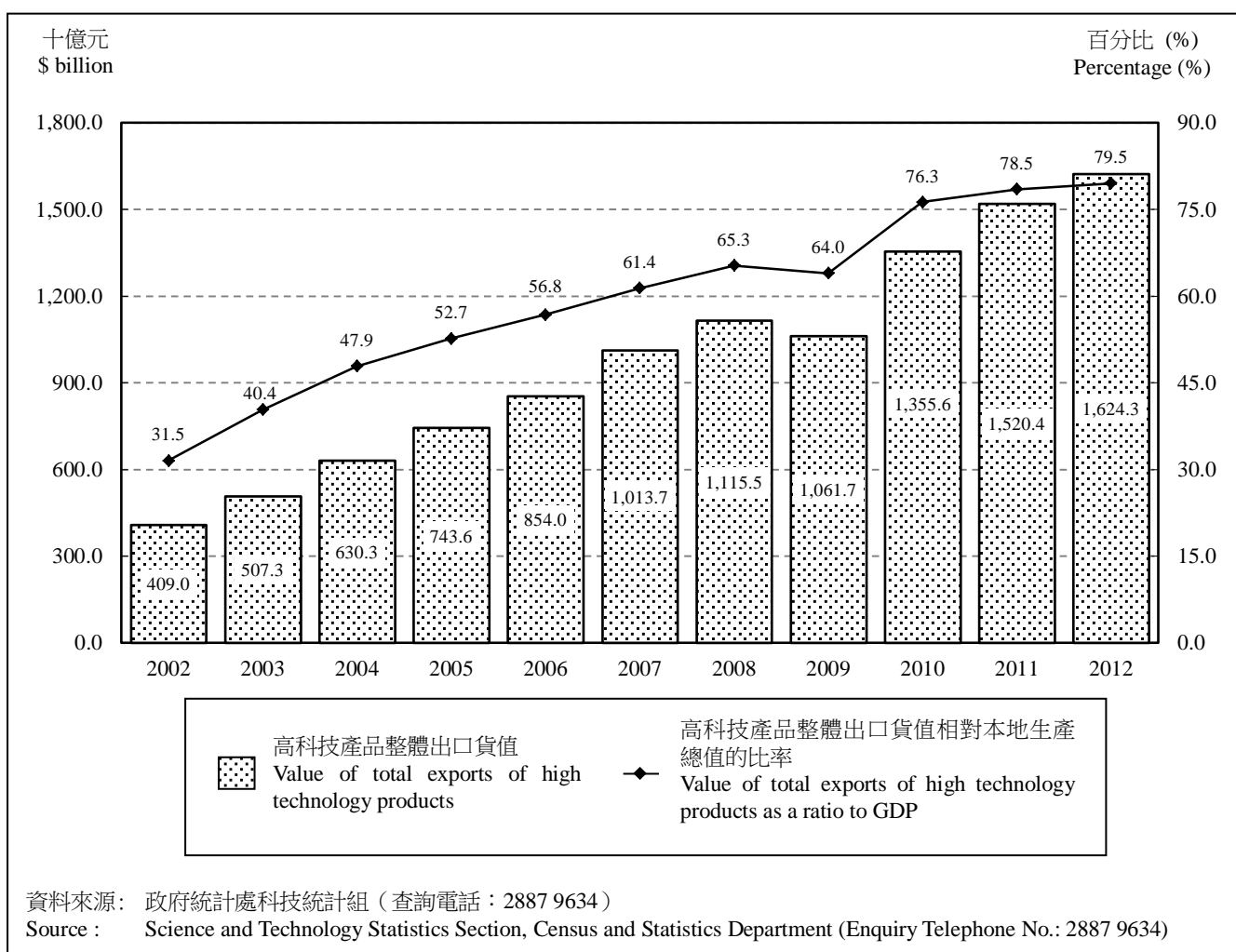
◆ Total value of merchandise trade (exports plus imports) in respect of high technology products increased markedly from \$884.0 billion in 2002 to \$3,430.4 billion in 2012. The share of total trade in high technology products in the total value of overall merchandise trade also surged from 27.8% in 2002 to 46.7% in 2012.

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 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 2002 年至 2012 年期間由 4,090 億元增加至 16,243 億元，平均按年增長 14.8%。
- ◆ The value of total merchandise exports (comprising domestic exports and re-exports) of high technology products grew at an average rate of 14.8% per annum, from \$409.0 billion to \$1,624.3 billion between 2002 and 2012.
- ◆ 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。
- ◆ Most of Hong Kong's exports of high technology products belong to the category of telecommunications and sound recording, and reproducing apparatus and equipment.

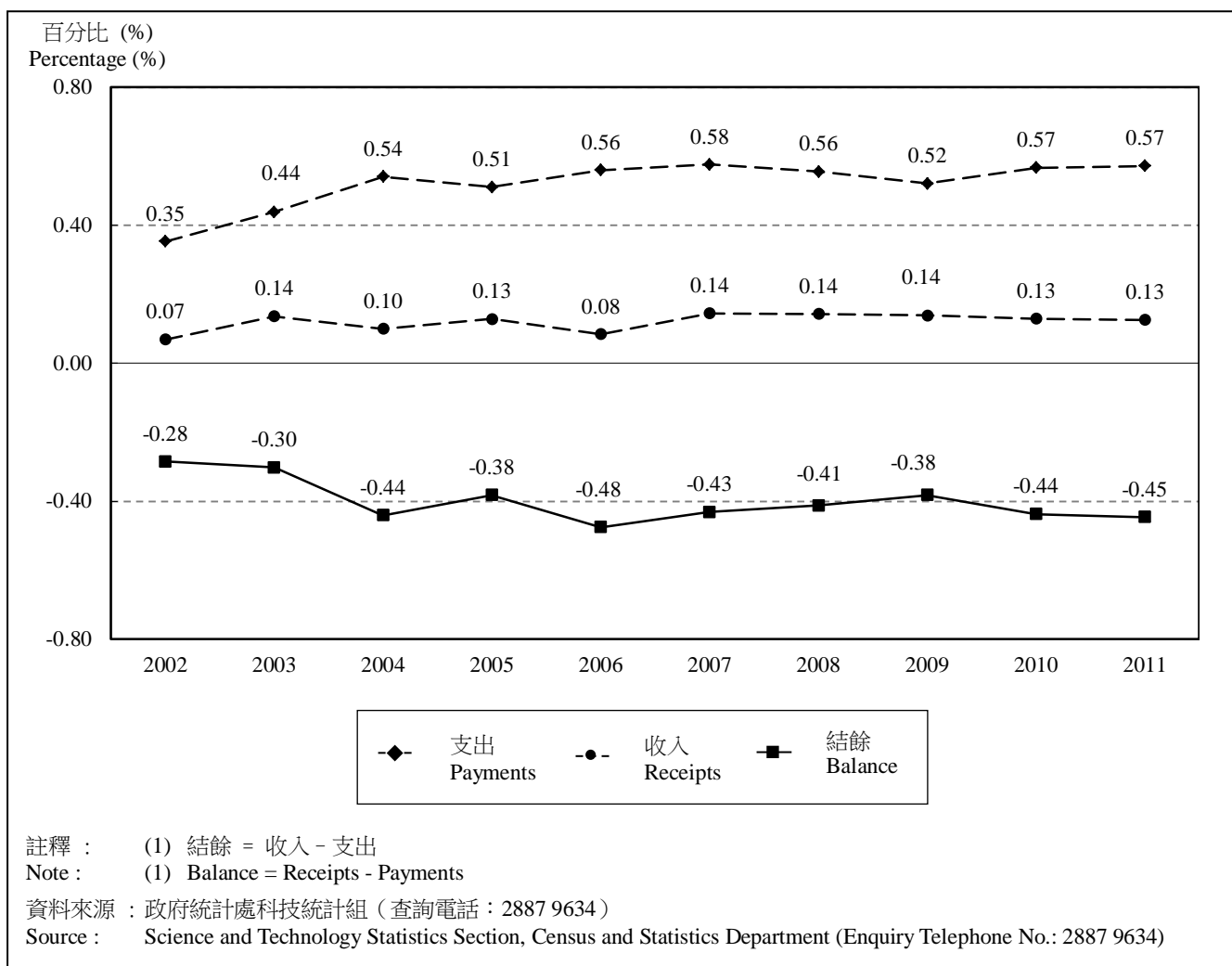
圖 3.17 高科技產品整體出口貨值相對本地生產總值的比率
Chart 3.17 Value of total exports of high technology products as a ratio to GDP



- ◆ 與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由 2002 年的 31.5% 飆升至 2012 年的 79.5%。
- ◆ 香港的高科技產品出口受惠於中國內地的蓬勃經濟增長。過去十年，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，由 2002 年的 46.1% 上升至 2012 年的 65.2%。

- ◆ In tandem with the rapid growth in external trade of high technology products, the value of total exports of high technology products as a ratio to GDP went up markedly from 31.5% in 2002 to 79.5% in 2012.
- ◆ Hong Kong's exports of high technology 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 technology products in the past decade, with its share in total export value of high technology products of Hong Kong increasing from 46.1% in 2002 to 65.2% in 2012.

圖 3.18 技術國際收支平衡表流向／結餘⁽¹⁾相對本地生產總值的比率
Chart 3.18 Technology balance of payments (TBP) flows/balance⁽¹⁾ as a ratio to GDP



◆ 香港的技術國際收支平衡表在 2002 年至 2011 年間每年均錄得赤字。在 2011 年，從知識資本及服務的交易中錄得 86 億元（相當於本地生產總值的 0.45%）的赤字，反映香港工商機構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 2002 to 2011. In 2011, the deficit in the transactions of intellectual capital and services amounted to \$8.6 billion (at 0.45% 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系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。被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經濟情況。

以服務業為本的香港經濟

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 2011 年，香港的服務業佔以基本價格計算的本地生產總值的 93.1%，顯示其高度朝向服務業為本的經濟結構。（圖 4.1）

Business environment conducive to the development of a KBE

4.1 A KBE flourishes under a business environment and institutional framework which promote efficient access to ICT, 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.

Service-oriented economy of Hong Kong

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 highly service-oriented structure of Hong Kong is manifested by the significant economic contribution of the services sector, accounting for 93.1% of the GDP at basic prices in 2011. (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而加快其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／或高技能工人的產業。在 2011 年，在香港從事知識型行業的人數為 580 400 人，佔整體就業人數的 16.2%。同年，知識型行業的增加價值達 4,617 億元，佔以基本價格計算的本地生產總值的 24.3%。(圖 4.2 及 4.3)

經濟體系對外開放的程度

4.5 香港是最能與全球聯繫的經濟體系之一，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 2012 年達 73,465 億元，相當於本地生產總值的 360%。同年，香港的商品貿易總值在世界排名第 9 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 2012 年，服務輸出及輸入價值分別達 9,979 億元及 4,481 億元。服務貿易總值佔本地生產總值的百分比為 70.8%。(圖 4.5)

4.7 根據聯合國貿易及發展會議的最新報告書，香港在 2009 年是亞洲第二大接受外來直接投資的地區。截止 2012 年年底，按市值計算的直接投資資產及負債頭寸分別為 101,520 億元及 110,241 億元，而相對本地生產總值的比率分別為 497% 及 540%。(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 2012 年，駐港的地區總部及地區辦事處合共有 3 883 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 580 400 in 2011, accounting for 16.2% of the total employment. In the same year, the value added of KBI amounted to \$461.7 billion, contributing to 24.3% 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 2012, the value of total merchandise trade reached \$7,346.5 billion, equivalent to 360% of GDP. In the same year, Hong Kong ranked 9th 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 2012, the value of exports and imports of services amounted to \$997.9 billion and \$448.1 billion respectively. The percentage of trade in services to GDP stood at 70.8%. (Chart 4.5)

4.7 According to the latest report from the United Nations Conference on Trade and Development, Hong Kong was Asia's second largest recipient of foreign direct investment in 2009. As at the end of 2012, the positions of direct investment assets and liabilities at market value were \$10,152.0 billion and \$11,024.1 billion respectively. Their respective ratios to GDP were 497% and 540%. (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 2012, there were a total of 3 883 regional headquarters and regional offices 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，本地實質生產總值在 2009 年下跌 2.5%。在 2012 年，本地實質生產總值上升 1.5%，而人均本地實質生產總值錄得 0.3% 的溫和增長。(圖 4.8 及 4.9)

4.10 在 2012 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 5,390 億元，佔本地生產總值的 26.4%。(圖 4.10)

勞動市場

4.11 香港的勞動人口就業水平頗高。在 2012 年，失業率下降至 3.3%。(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 2002 年的 51.9% 增加至 2012 年的 53.6%。同期，男性勞動人口參與率則由 72.4% 下降至 68.7%。(圖 4.12)

4.13 勞工生產力是一個經濟體系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中。在 2000 年至 2011 年期間，香港的整體勞工生產力指數錄得 3.4% 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 2002 年的 7.8% 下降至 2012 年的 6.6%，而同期入息在 60,000 元及以上的住戶則由 7.5% 增加至 11.2%。在 2012 年，住戶每月入息中位數達 20,700 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 growth of 2.5% in real terms in the aftermath of the global financial tsunami. In 2012, a growth of 1.5% was registered for GDP in real terms, while per capita GDP in real terms also recorded a mild growth of 0.3%. (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, amounted to \$539.0 billion (at 26.4% of the GDP) in 2012. (Chart 4.10)

The labour market

4.11 The level of utilisation of labour is generally high in Hong Kong. The unemployment rate came down to 3.3% in 2012. (Chart 4.11)

4.12 The labour market is generally flexible. The female labour force participation rate went up from 51.9% in 2002 to 53.6% in 2012. Over the same period, the male labour force participation rate dropped from 72.4% to 68.7%. (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 3.4% during the period from 2000 to 2011. (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 7.8% in 2002 to 6.6% in 2012, while that with \$60,000 and over increased from 7.5% to 11.2% during the same period. In 2012, the median monthly household income reached \$20,700. (Charts 4.14 and 4.15)

4.15 香港是世界上人煙最稠密的都市之一。2012 年的年中人口是 715 萬人，人口密度達每平方公里 6 620 人（不包括水上人口及水塘區域）。在過去 10 年，人口平均按年增長 0.6%。（圖 4.16）

4.16 香港的人口正在老化。年齡中位數由 2002 年的 37.5 歲增加至 2012 年的 42.0 歲。這個趨勢主要是由於人口中的生育率持續偏低和死亡率改善所致。（圖 4.17）

結語

4.17 概括而言，香港的營商環境有助發展一個知識型的經濟。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-2012 population was 7.15 million, with a density of 6 620 persons per square kilometer (excluding marine population and area of reservoirs). The size of the population increased by an average of 0.6% per annum in the past decade. (Chart 4.16)

4.16 Hong Kong's population is ageing. The median age rose from 37.5 in 2002 to 42.0 in 2012. The trend is mainly attributable to the continuously low fertility rate and mortality improvement experienced by the population. (Chart 4.17)

Concluding remarks

4.17 The business environment in Hong Kong is generally conducive to nurturing the development 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.

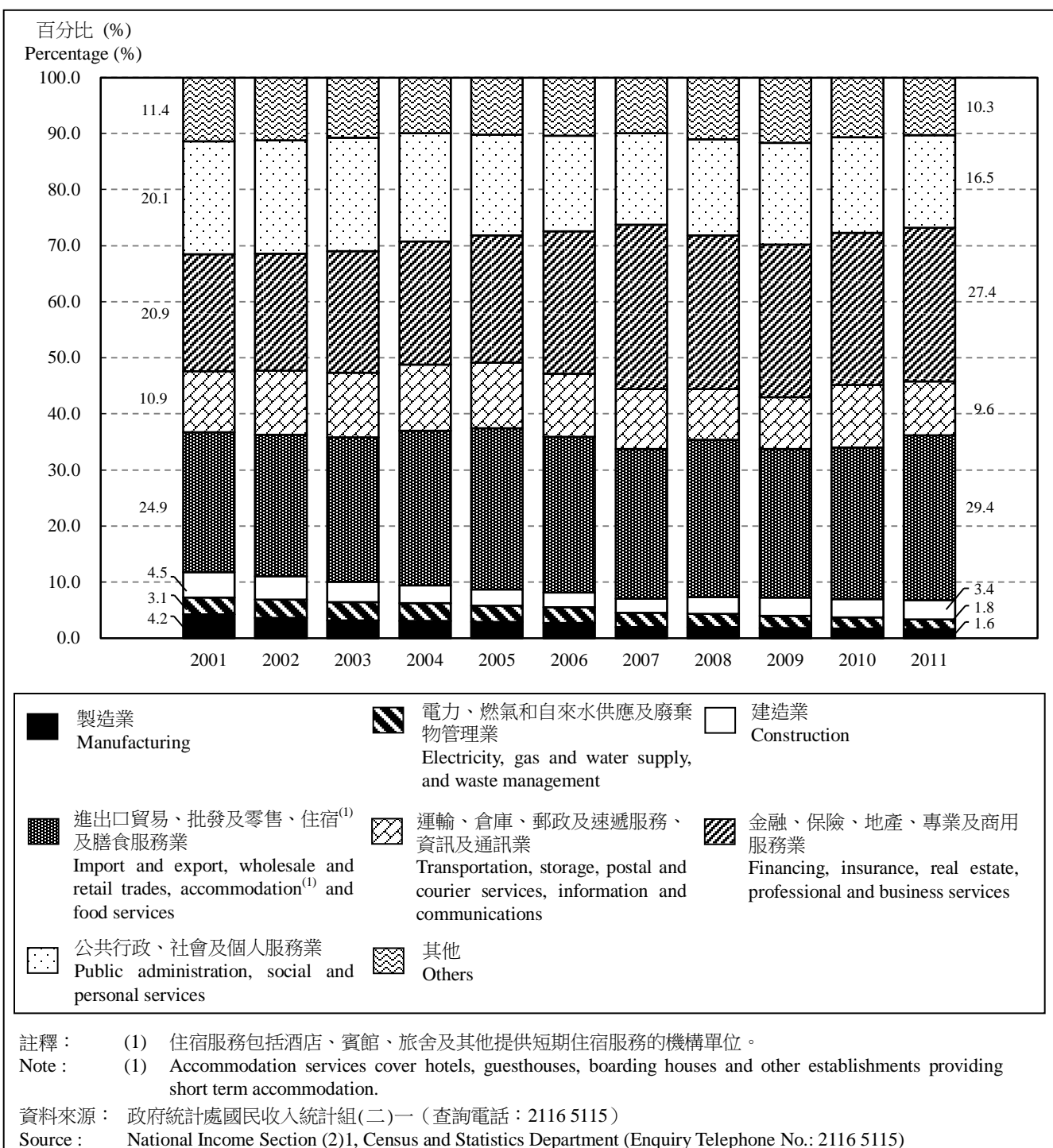
表 4.1 量度知識型經濟中有關營商環境範疇的統計指標一覽

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
以服務業為本的香港經濟 Service-oriented economy of Hong Kong	<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. 知識型行業的機構數目及就業人數 Number of establishments and persons engaged in knowledge-based industries (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
經濟體系對外開放程度 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. 服務貿易總值佔本地生產總值的百分比 Total value of trade in services as a percentage of 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 direct investment (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 regional headquarters and regional offices 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 GDP growth in real terms 2. 人均本地生產總值的實質增長 Per capita GDP growth in real terms 3. 本地固定資本形成總額佔本地生產總值的百分比 Gross domestic fixed capital formation as a percentage 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 Labour productivity indices of 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"> <li data-bbox="699 230 1505 338">1. 按住戶每月入息劃分的家庭住戶數目 Number of domestic households by monthly household income <li data-bbox="699 371 1461 443">2. 家庭住戶每月入息中位數 Median monthly household income of domestic households <li data-bbox="699 477 1278 548">3. 年中人口及按年增長率 Mid-year population and annual growth rate <li data-bbox="699 580 999 651">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 GDP at basic prices

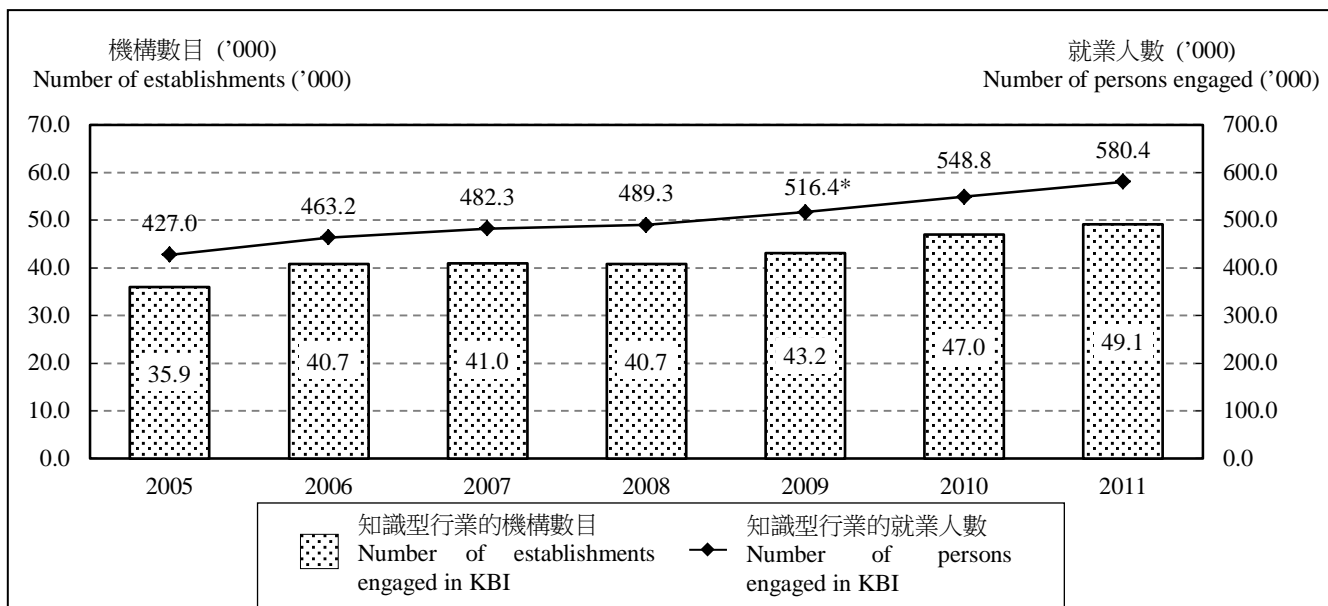


◆ 香港經濟結構持續朝高增值活動轉型，已逐步發展為一個高度以服務業為主的經濟體系。服務業佔以基本價格計算的本地生產總值的百分比由 2001 年的 88.1% 提升至 2011 年的 93.1%。

◆ With the ongoing structural transformation of the economy towards high value added activities, Hong Kong has evolved to become a highly service-oriented economy. The share of the services sector in GDP at basic prices increased from 88.1% in 2001 to 93.1% in 2011.

圖 4.2 知識型行業⁽¹⁾⁽²⁾的機構數目及就業人數

Chart 4.2 Number of establishments and persons engaged in knowledge-based industries⁽¹⁾⁽²⁾ (KBI)



註釋： (1) 香港的知識型行業的涵蓋範圍是參照經濟合作及發展組織的有關定義而訂定，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）。

(2) 知識型行業統計數字是按「香港標準行業分類 2.0 版」編製，其數列已作出後向估計至 2005 年。

Notes : (1) The coverage of KBI in Hong Kong is modelled on the definition adopted by Organisation for Economic Cooperation and Development (OECD) which includes: high-technology manufacturing industries; medium-high-technology manufacturing industries; communications; finance and insurance; and business services (excluding property services).

(2) KBI statistics are compiled based on the Hong Kong Standard Industrial Classification (HSIC) Version 2.0 and the series has been backcasted to 2005.

資料來源：政府統計處科技統計組（查詢電話：2887 5139）

Source : Science and Technology Statistics Section, Census and Statistics Department (Enquiry Telephone No.: 2887 5139)

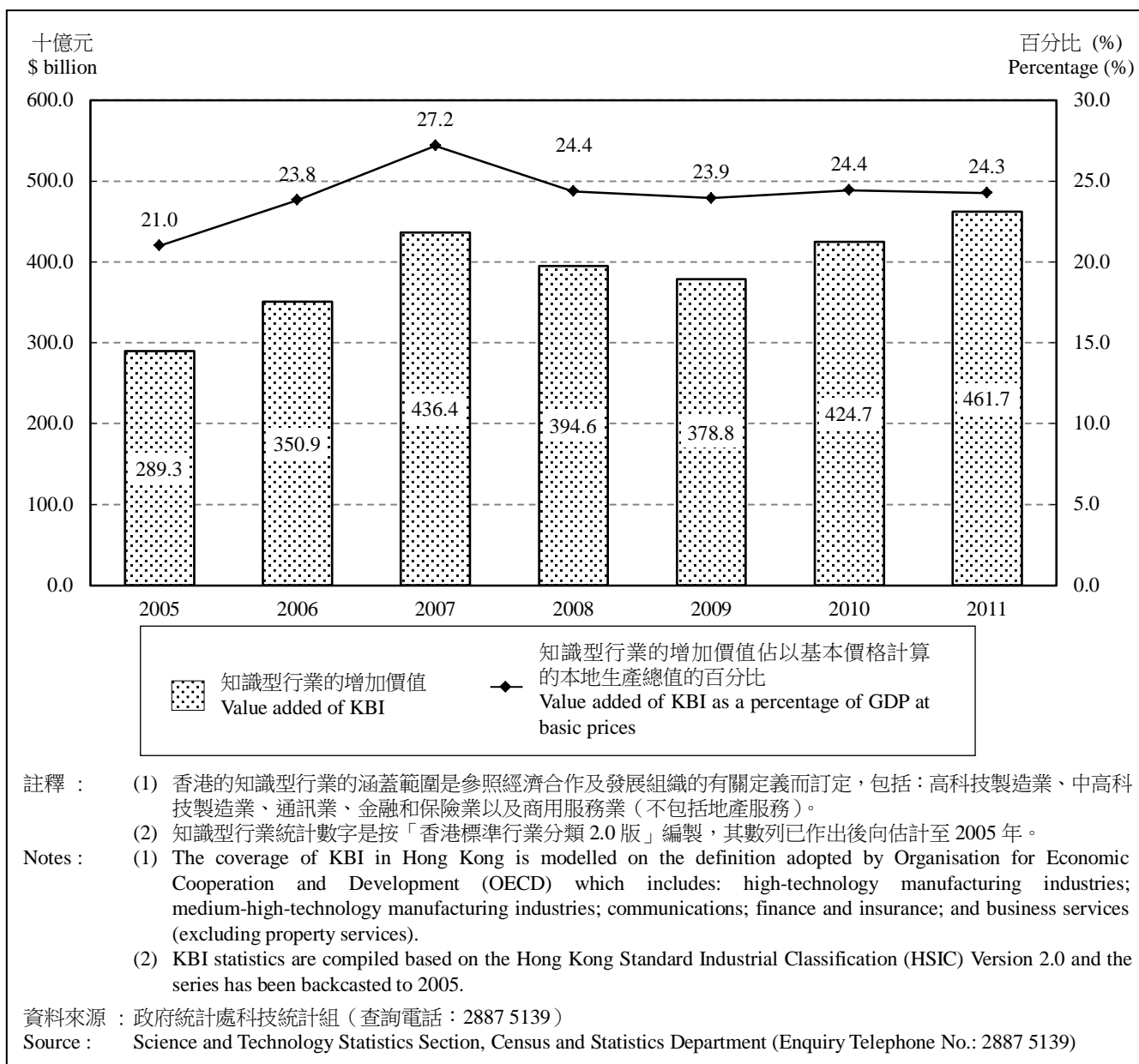
◆ 知識型行業的規模持續增長。在香港從事知識型行業的機構數目由 2005 年的 35 900 間上升至 2011 年的 49 100 間，升幅為 36.5%。

◆ 同期，知識型行業的就業人數上升 35.9%，反映知識密集的活動在香港日漸重要。

◆ The size of the knowledge-based industries (KBI) has been expanding. The number of establishments engaged in KBI in Hong Kong increased by 36.5% from 35 900 in 2005 to 49 100 in 2011.

◆ The number of persons engaged in the KBI surged by 35.9% over the same period, reflecting the growing importance of knowledge intensive activities in Hong Kong.

圖 4.3 知識型行業⁽¹⁾⁽²⁾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 KBI⁽¹⁾⁽²⁾ as a percentage of GDP at basic prices



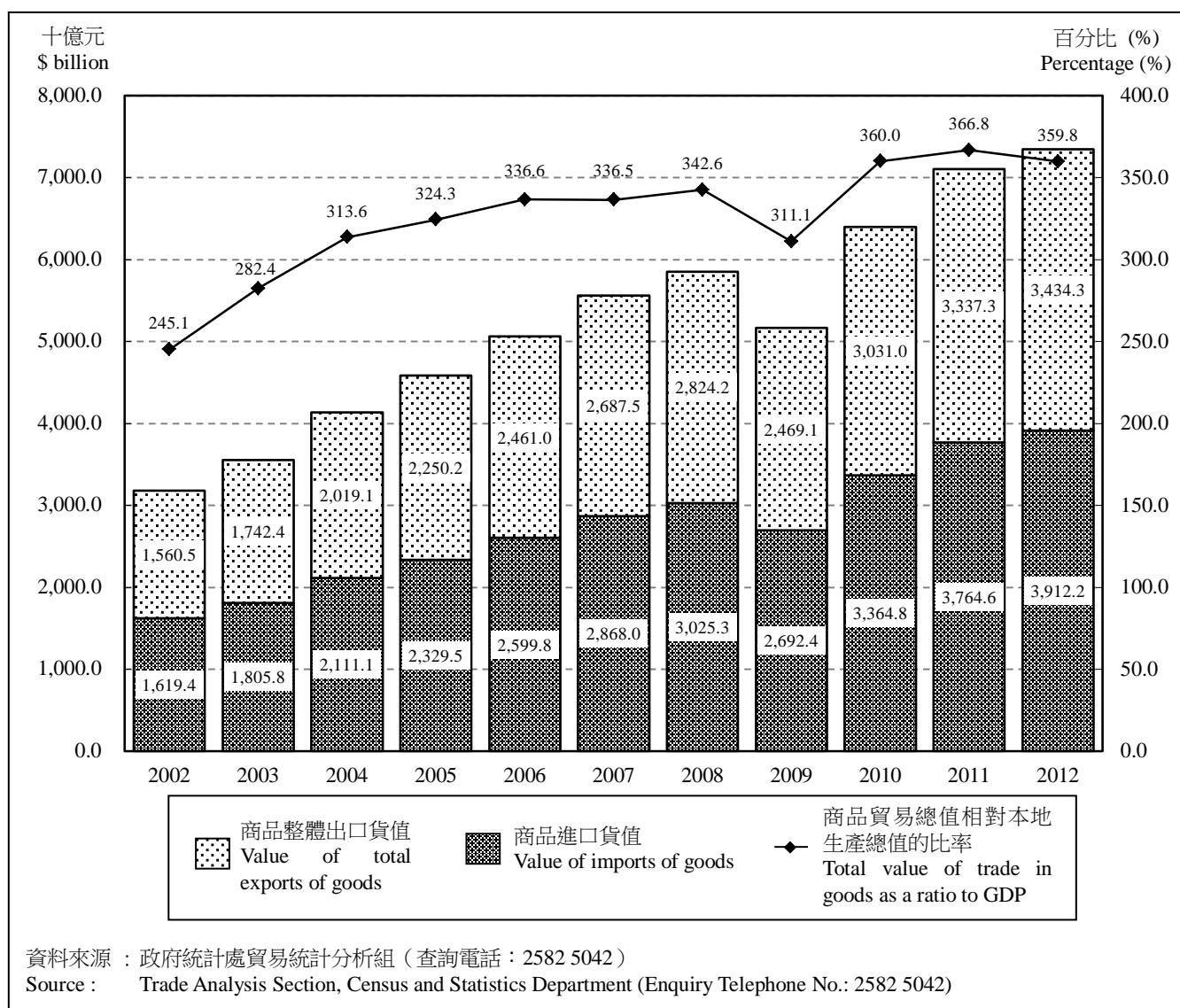
◆ 知識型行業的增加價值由 2005 年的 2,893 億元增加至 2011 年的 4,617 億元。

◆ 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由 2005 年的 21.0% 上升至 2011 年的 24.3%。

◆ The value added of the KBI increased from \$289.3 billion in 2005 to \$461.7 billion in 2011.

◆ The value added of the KBI as a percentage of GDP at basic prices went up from 21.0% in 2005 to 24.3% in 2011.

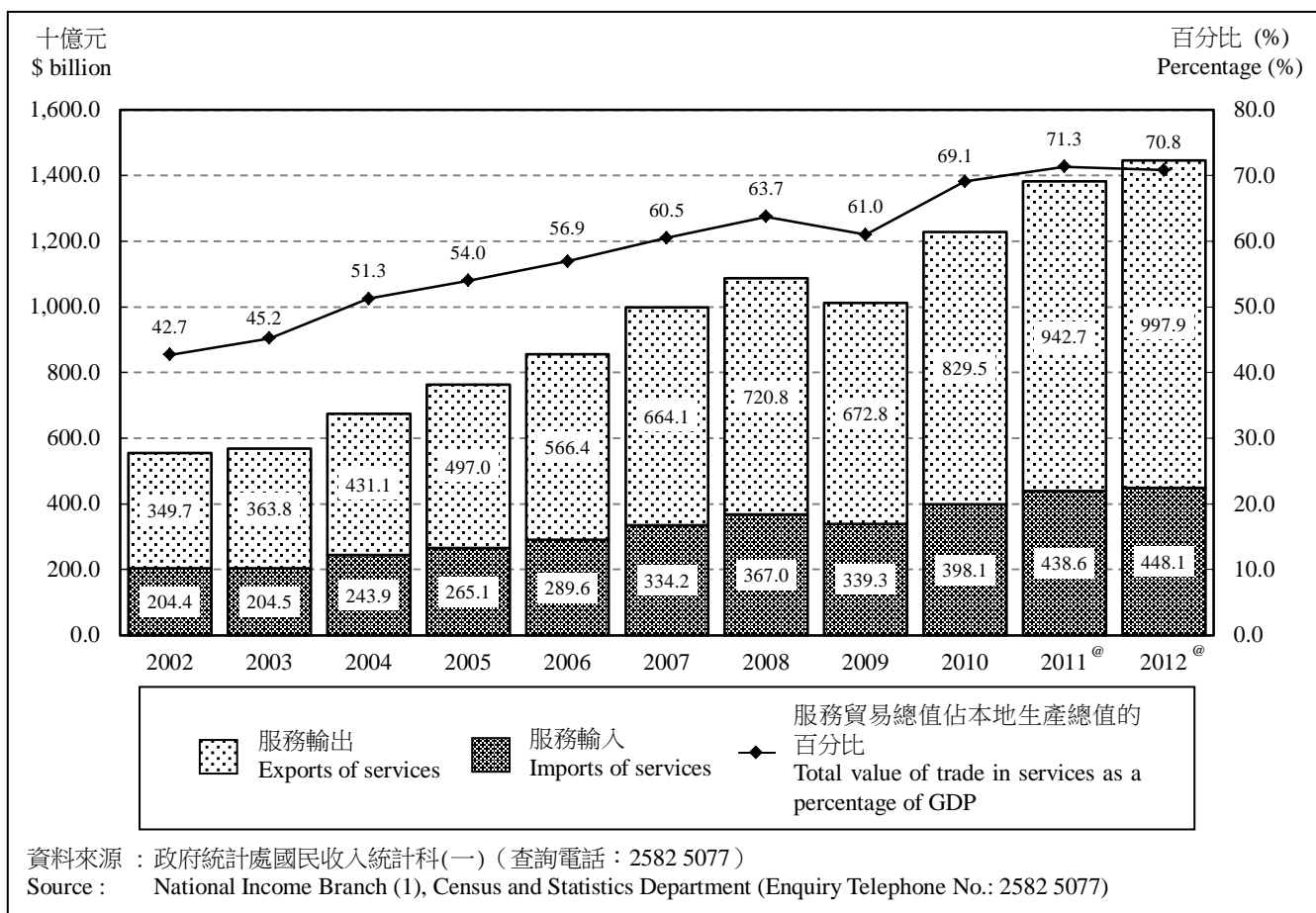
圖 4.4 商品貿易總值相對本地生產總值的比率
Chart 4.4 Total value of trade in goods as a ratio to GDP



◆ 香港商品貿易總值相對本地生產總值的比率由 2002 年的 245.1% 增加至 2012 年的 359.8%，顯示香港在經濟上持續對外開放的程度。

◆ The degree of openness of the Hong Kong economy sustained, with the ratio of total value of trade in goods to GDP increased from 245.1% in 2002 to 359.8% in 2012.

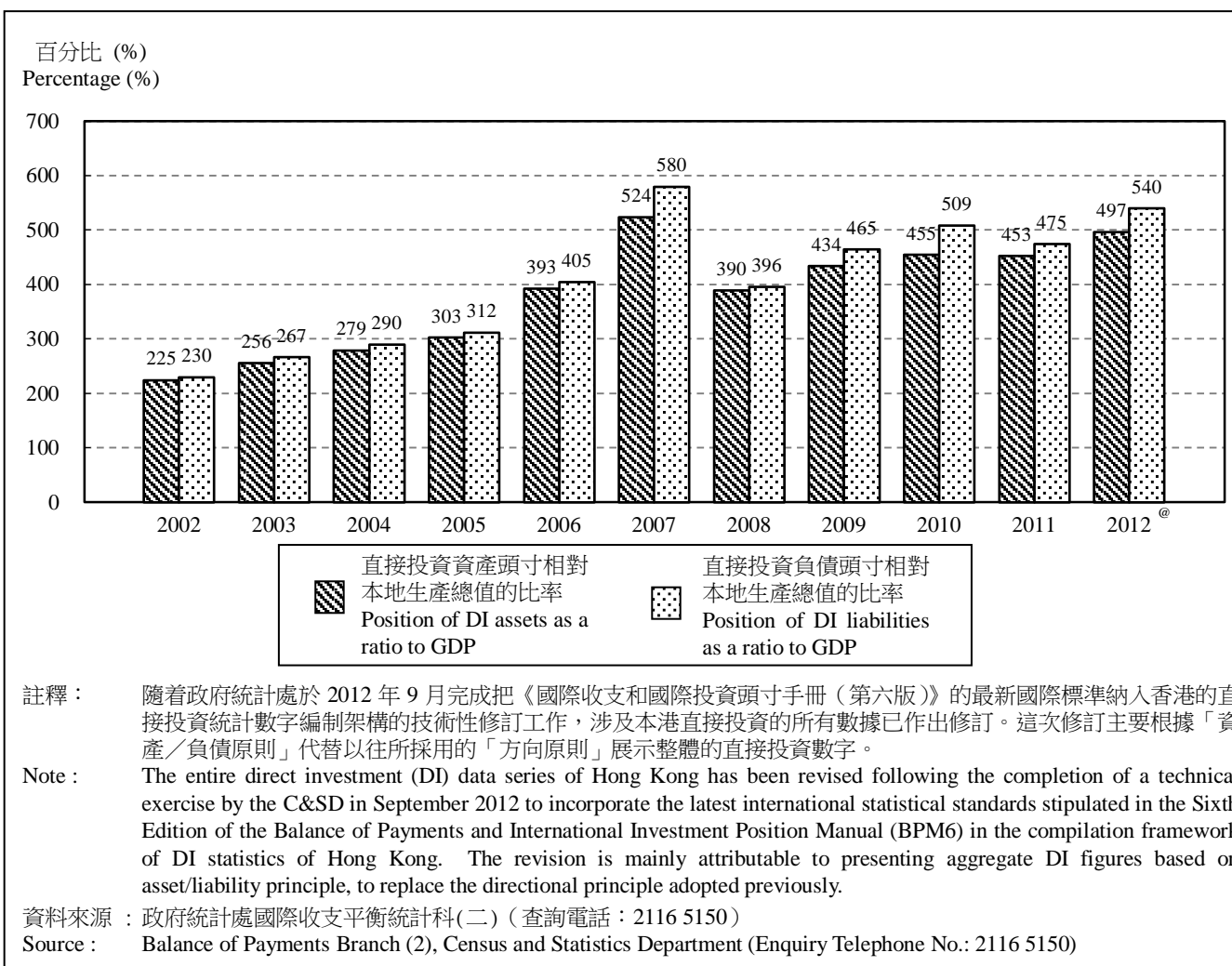
圖 4.5 服務貿易總值佔本地生產總值的百分比
Chart 4.5 Total value of trade in services as a percentage of GDP



- ◆ 服務貿易總值佔本地生產總值的百分比由 2002 年的 42.7% 持續上升至 2012 年的 70.8%。
- ◆ The percentage of trade in services to GDP continued to rise from 42.7% in 2002 to 70.8% in 2012.

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 GDP

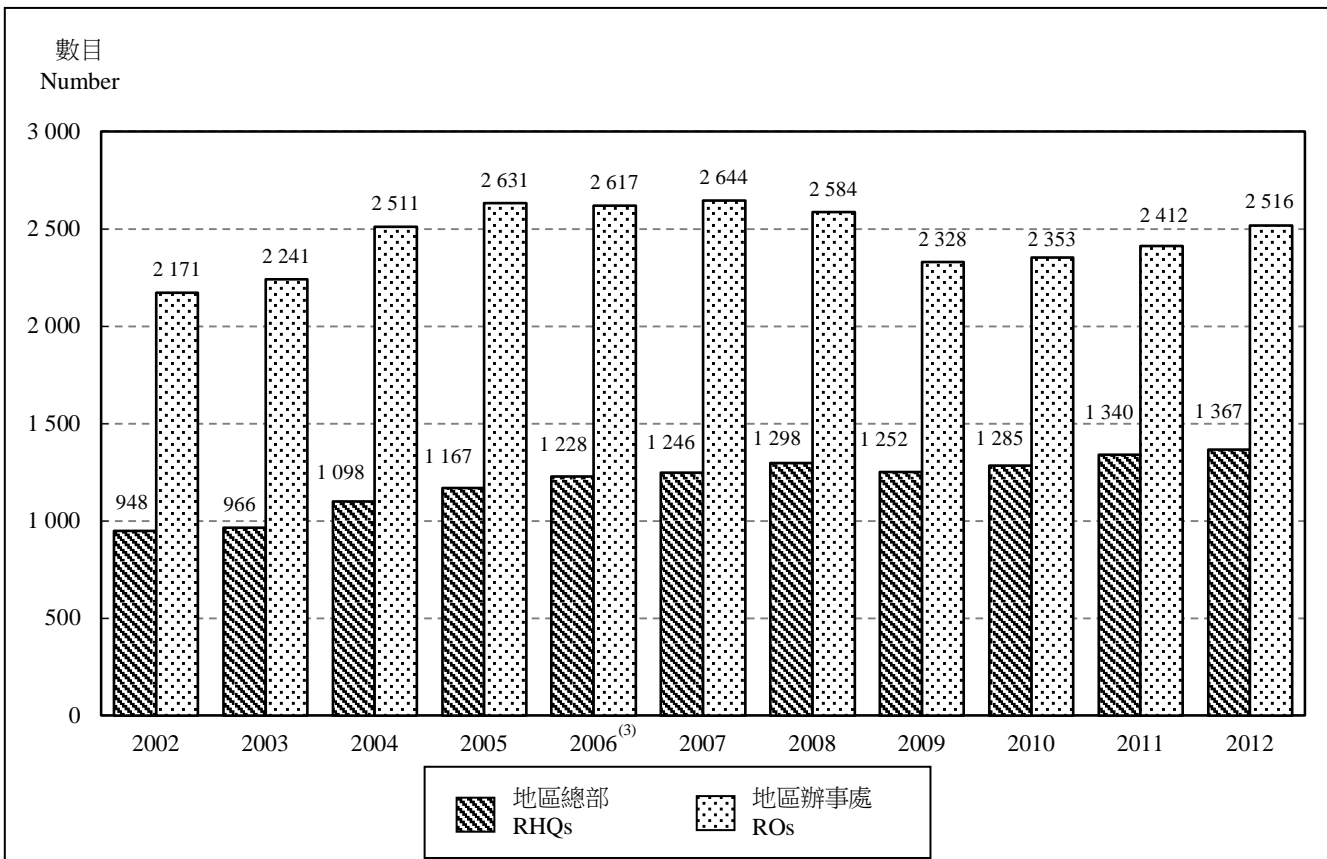


◆ 在 2012 年年底，直接投資資產及負債頭寸分別是 101,520 億元及 110,241 億元。在 2012 年，直接投資資產及負債頭寸相對本地生產總值的比率分別是 497% 及 540%，這顯示香港是一個高度外向型的經濟體，及在區內擁有龐大跨境投資的重要商業中心。

◆ At the end of 2012, the positions of direct investment (DI) assets and liabilities were \$10,152.0 billion and \$11,024.1 billion respectively. The ratios of the positions of DI assets and liabilities to GDP in 2012 were 497% and 540% respectively, reflecting that Hong Kong is a highly externally oriented economy and an important business centre in the region with substantial amount of cross-boundary investment.

圖 4.7 駐港的地區總部⁽¹⁾及地區辦事處⁽²⁾的數目

Chart 4.7 Number of regional headquarters⁽¹⁾ (RHQs) and regional offices⁽²⁾ (ROs) in Hong Kong



註釋：數字指有關年度 6 月首個工作天的數字。

- (1) 地區總部是指代表香港境外母公司對區內(即香港及另一個或多個地方)各辦事處擁有管理權的一家辦事處。
- (2) 地區辦事處是指代表香港境外母公司負責協調區內(即香港及另一個或多個地方)各辦事處及/或運作的一家辦事處。
- (3) 地區總部及地區辦事處的定義於 2006 年作出修訂,故 2006 年及以後的數字未必能與較早年份的數字作嚴格的比較。

Notes : Figures refer to the first working day of June of the year.

- (1) An RHQ is an office that has managerial control over offices in the region (i.e. Hong Kong plus one or more other places) on behalf of its parent company located outside Hong Kong.
- (2) An RO is an office that coordinates offices and/or operations in the region (i.e. Hong Kong plus one or more other places) on behalf of its parent company located outside Hong Kong.
- (3) The definitions of RHQ and RO were revised in 2006. Hence, figures from 2006 and onwards may not be strictly comparable with those for earlier years.

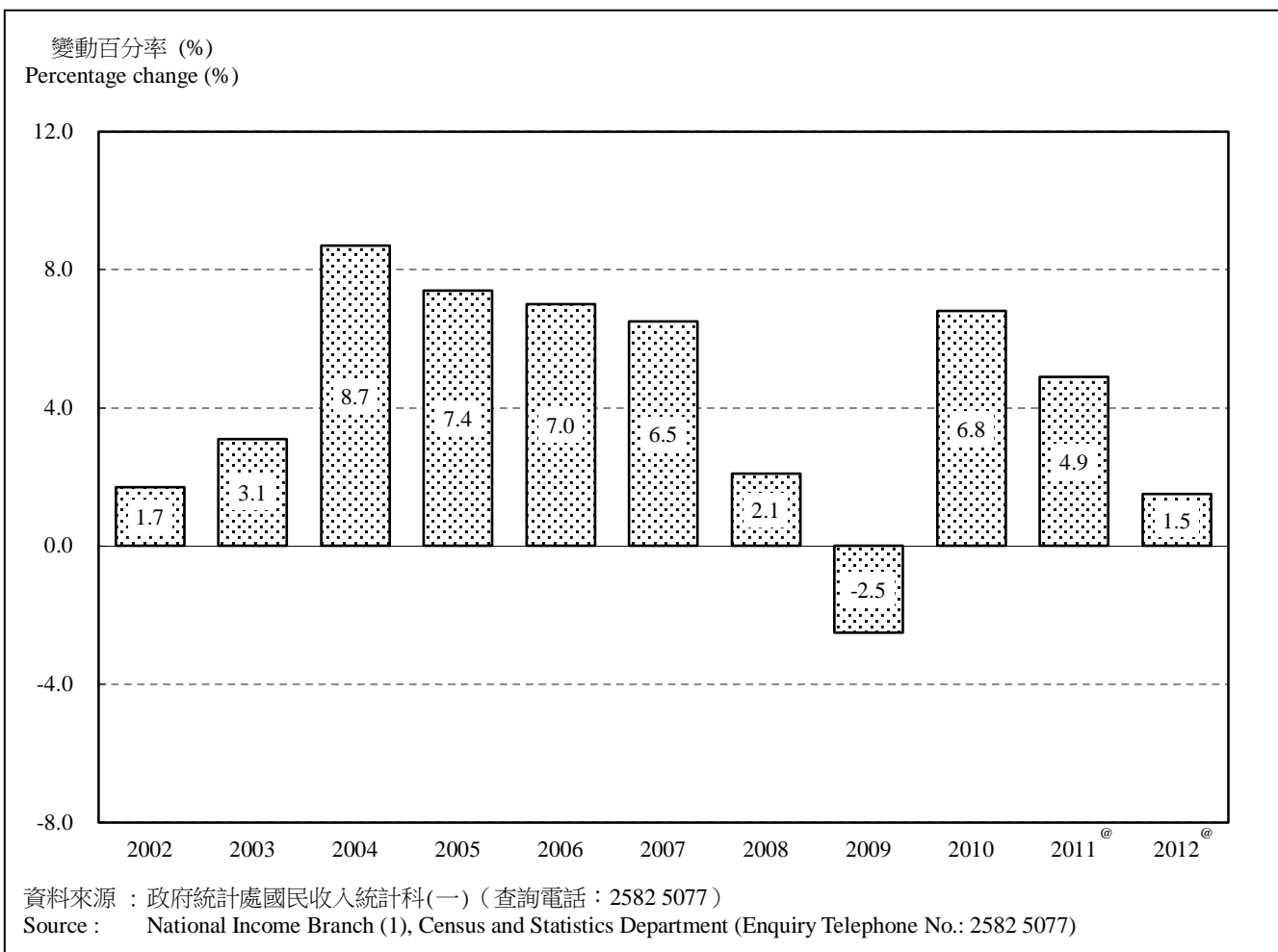
資料來源：政府統計處業務展望統計組(查詢電話：2805 6112)

Source : Business Expectation Statistics Section, Census and Statistics Department (Enquiry Telephone No.: 2805 6112)

◆ 在 2012 年，駐港的地區總部數目有 1 367 間，而駐港的地區辦事處數目有 2 516 間。

◆ In 2012, the number of RHQs in Hong Kong stood at 1 367 while that of ROs was 2 516.

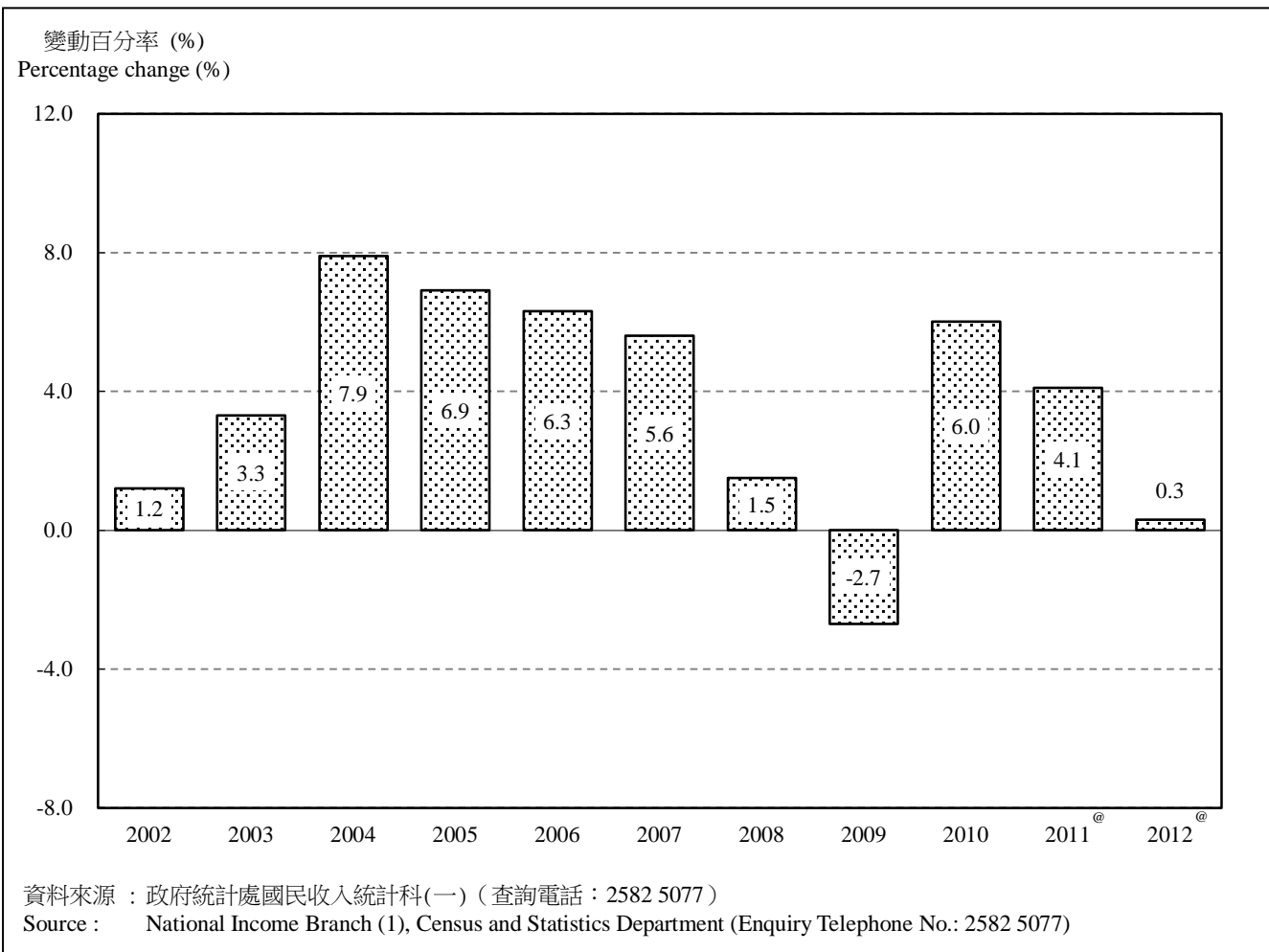
圖 4.8 本地生產總值的每年實質增長
Chart 4.8 Annual GDP growth in real terms



◆ 香港是個細小的開放型經濟體系，因此其經濟表現會受到環球經濟的發展所影響。在環球金融海嘯下，世界經濟受到嚴重打擊。雖然本地生產總值在 2009 年錄得 2.5% 的實質負增長，香港經濟隨後迅速復原及回穩。本地生產總值在 2012 年較上年實質上升 1.5%。

◆ Being a small open economy, the economic performance of Hong Kong is affected by the developments in the global economy. The GDP recorded negative 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 2012, the GDP of Hong Kong increased by 1.5% in real terms over a year earlier.

圖 4.9 人均本地生產總值的實質增長
Chart 4.9 Per capita GDP growth in real terms

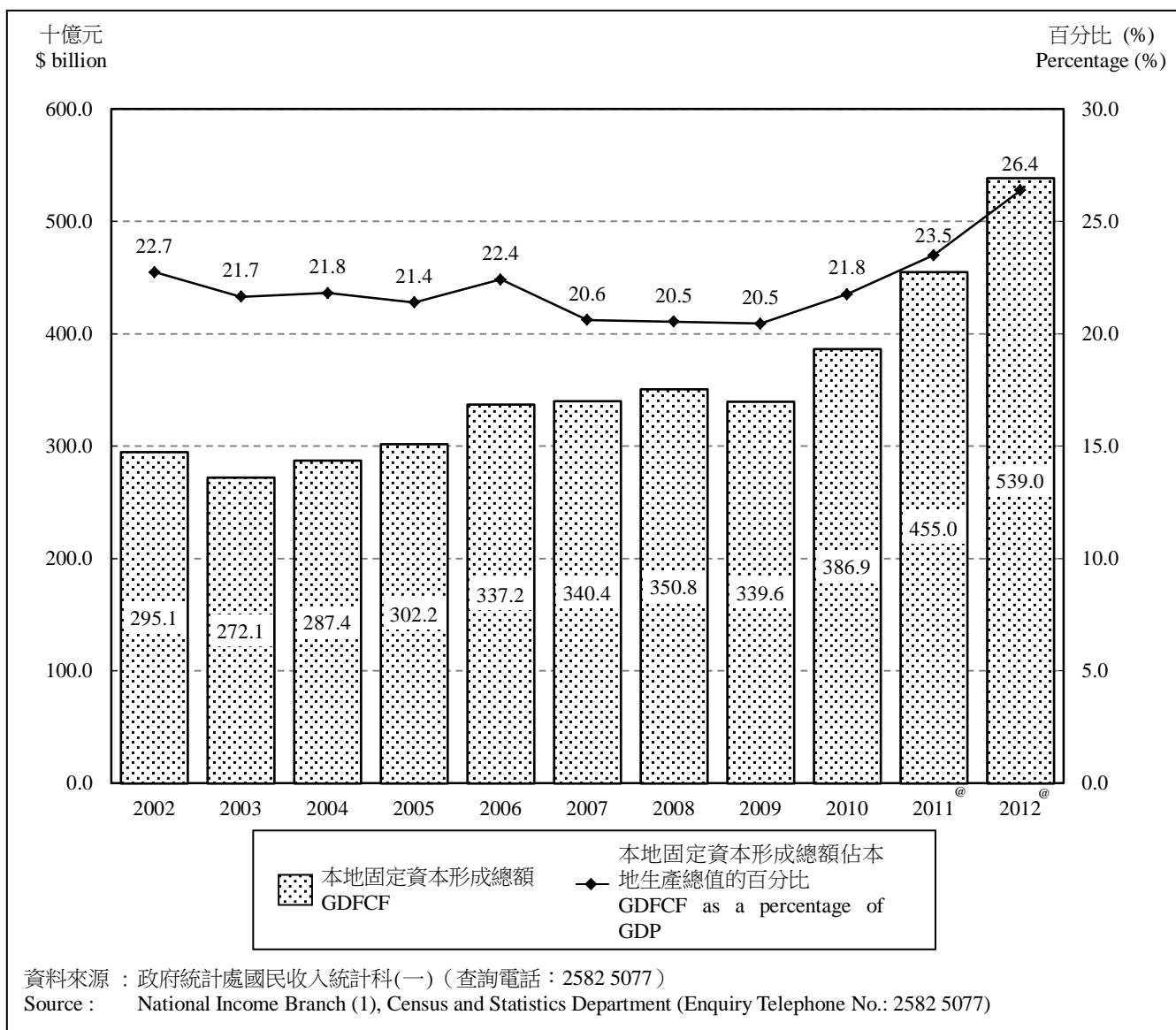


◆ 香港的人均本地生產總值繼 2011 年實質上升 4.1% 後，在 2012 年微升 0.3%。

◆ Per capita GDP of Hong Kong grew mildly by 0.3% in 2012 in real terms, following the 4.1% increase in 2011.

圖 4.10 本地固定資本形成總額佔本地生產總值的百分比

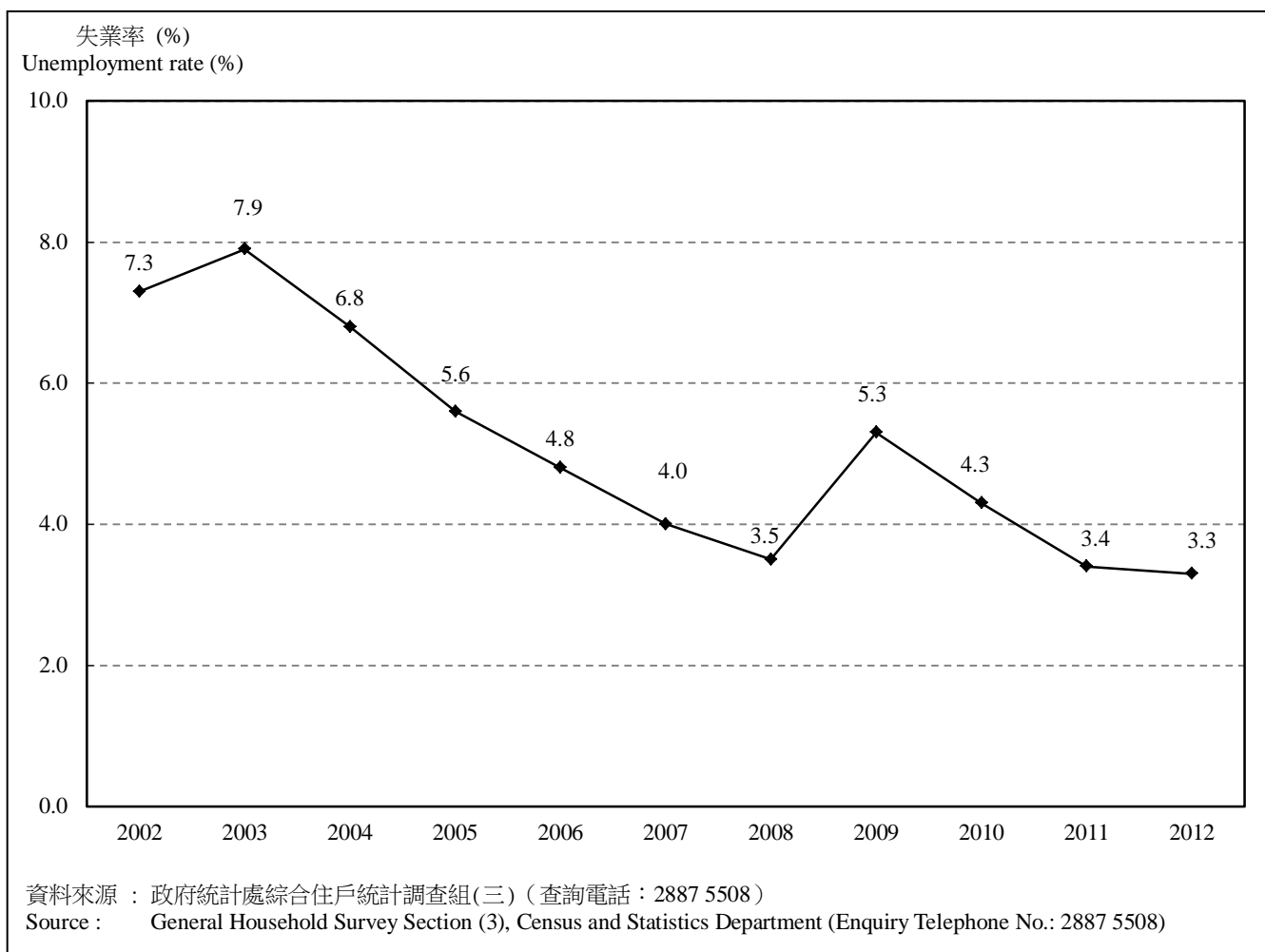
Chart 4.10 Gross domestic fixed capital formation (GDFCF) as a percentage of GDP



◆ 本地固定資本形成總額佔本地生產總值的百分比由 2002 年的 22.7% 上升至 2012 年的 26.4%。

◆ The percentage of GDFCF to GDP rose from 22.7% in 2002 to 26.4% in 2012.

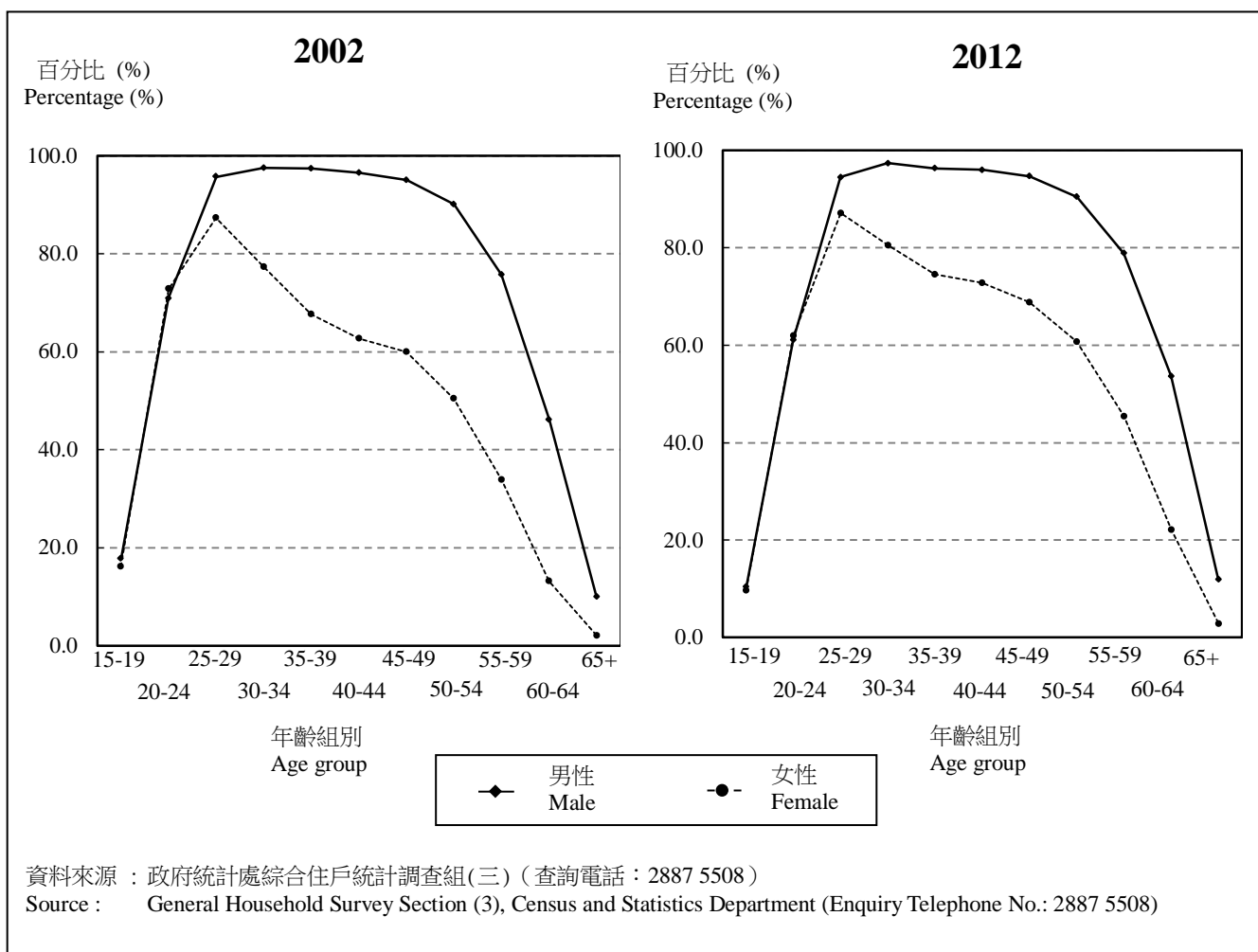
圖 4.11 失業率
Chart 4.11 Unemployment rate



◆ 在 2003 年，香港爆發嚴重急性呼吸系統綜合症，失業率達到 7.9% 的最高點。隨着香港經濟復蘇，失業率在 2012 年下降至 3.3%。

◆ The unemployment rate peaked at 7.9% in 2003 with the outbreak of the Severe Acute Respiratory Syndrome (SARS). With the recovery of the Hong Kong economy, unemployment rate fell to 3.3% in 2012.

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 2002 年的 347 萬人穩步增加至 2012 年的 379 萬人，同期的勞動人口參與率則由 61.7% 下降至 60.5%。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快。

◆ The labour force of Hong Kong increased steadily from 3.47 million in 2002 to 3.79 million in 2012. The labour force participation rate dropped from 61.7% to 60.5% during the same period. This means that the growth in population of working age (i.e. population aged 15 and over) was faster than the growth in the labour force during this period.

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) of the whole economy and selected major economic activities

	勞工生產力指數 Labour productivity index (Year 2000 = 100) (2000年 = 100)							2000年至2011年 平均按年變動百分率 (%) Average annual percentage change (%), 2000-2011		
	2005*	2006*	2007*	2008*	2009*	2010	2011	以環物量計 算的增加價值 Chain volume measure of value added	人時 Person- hours worked	勞工 生產力 指數 LPI
整體經濟 Whole Economy	117.3	124.7	129.4	134.1	133.6	138.9	144.6	+4.1	+0.7	+3.4
選定主要經濟活動 Selected Major Economic Activities										
製造業 Manufacturing	98.3	104.7	106.2	105.7	106.4	122.8	127.9	-3.4	-5.5	+2.3
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 Electricity and gas supply; water supply; sewerage, waste management and remediation	131.5	133.9	136.2	133.9	137.8	131.0	135.1	+1.6	-1.2	+2.8
批發及零售業 Wholesale and retail trade	106.4	114.9	121.4	127.4	128.9	150.5	175.6	+5.8	+0.5	+5.3
進出口貿易業 Import and export trade	150.1	164.7	170.9	192.1	182.0	204.3	223.6	+7.7	+0.1	+7.6
住宿 ⁽¹⁾ 及膳食服務業 Accommodation ⁽¹⁾ and food services	93.9	103.4	107.4	110.6	102.6	109.0	110.3	+1.1	+0.2	+0.9
運輸及倉庫業 Transportation and storage	123.7	130.0	134.6	141.0	138.7	143.9	156.0	+4.1	§	+4.1
資訊及通訊業 Information and communications	135.1	141.3	148.4	148.6	158.4	157.4	158.1	+4.7	+0.4	+4.3
金融業 Financing	146.6	164.4	188.4	176.2	180.0	179.8	188.4	+8.9	+2.8	+5.9
保險業 Insurance	127.4	150.5	159.7	172.1	175.5	191.4	189.3	+6.8	+0.8	+6.0

註釋： (1) 住宿服務包括酒店、賓館、旅舍及其他提供短期住宿服務的機構單位。
Notes: (1) Accommodation services cover hotels, guesthouses, boarding houses and other establishments providing short term accommodation.
§ 變動在±0.05%之內。
§ Change within ±0.05%.

資料來源：政府統計處物流及生產者價格統計組（查詢電話：2802 1273）
Source: Logistics and Producer Prices Statistics Section, Census and Statistics Department (Enquiry Telephone No.: 2802 1273)

◆ 在 2000 年至 2011 年期間，整體勞工生產力指數錄得 3.4% 的平均按年增幅。

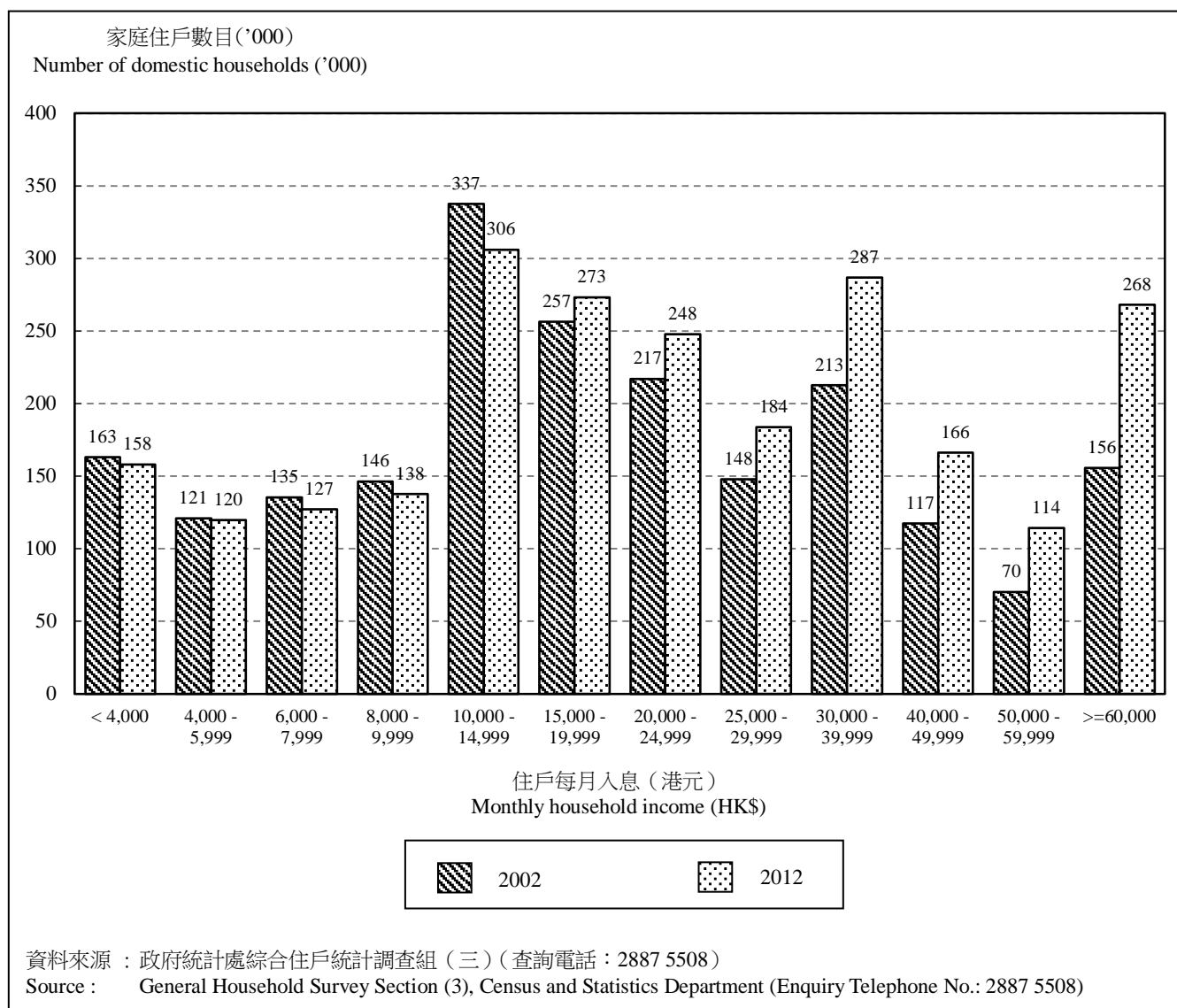
◆ 不同經濟活動的勞工生產力變動各有差異，當中以進出口貿易業的升幅最大，在 2000 年至 2011 年期間平均每年的增長率達 7.6%。

◆ The labour productivity index for the whole economy increased at an average annual growth rate of 3.4% during the period from 2000 to 2011.

◆ Variations in labour productivity changes among different economic activities were observed, with the largest increase recorded in the import and export trade, at an average annual growth rate of 7.6% from 2000 to 2011.

圖 4.14 按住戶每月入息劃分的家庭住戶數目

Chart 4.14 Number of domestic households by monthly household income

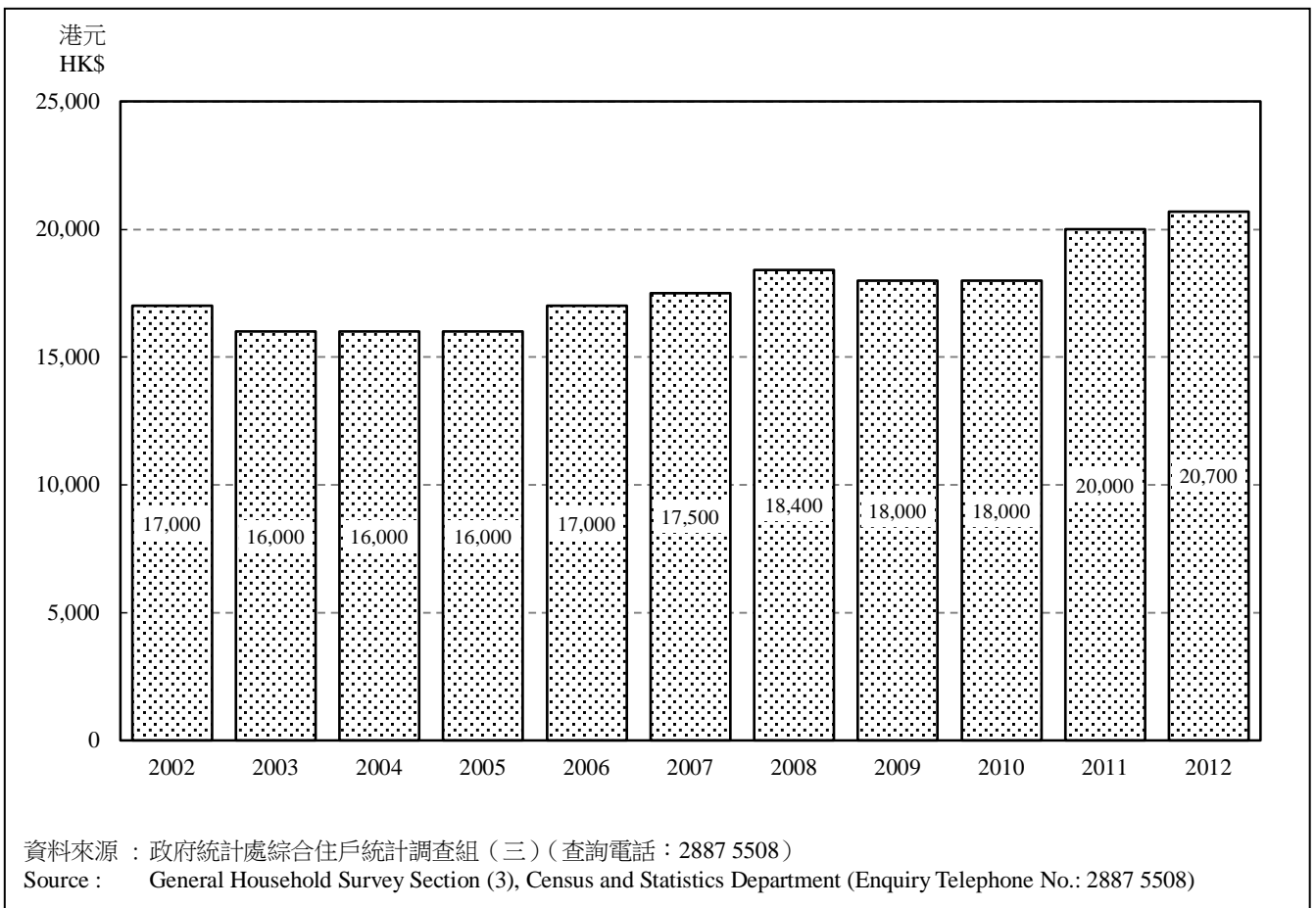


◆ 在 2012 年，香港約有 239 萬個家庭住戶，其中約 42.3% 的住戶每月住戶入息介乎 10,000 元至 29,999 元。

◆ Among some 2.39 million domestic households in Hong Kong in 2012, about 42.3% of them had monthly household income ranging from \$10,000 to \$29,999.

圖 4.15 家庭住戶每月入息中位數

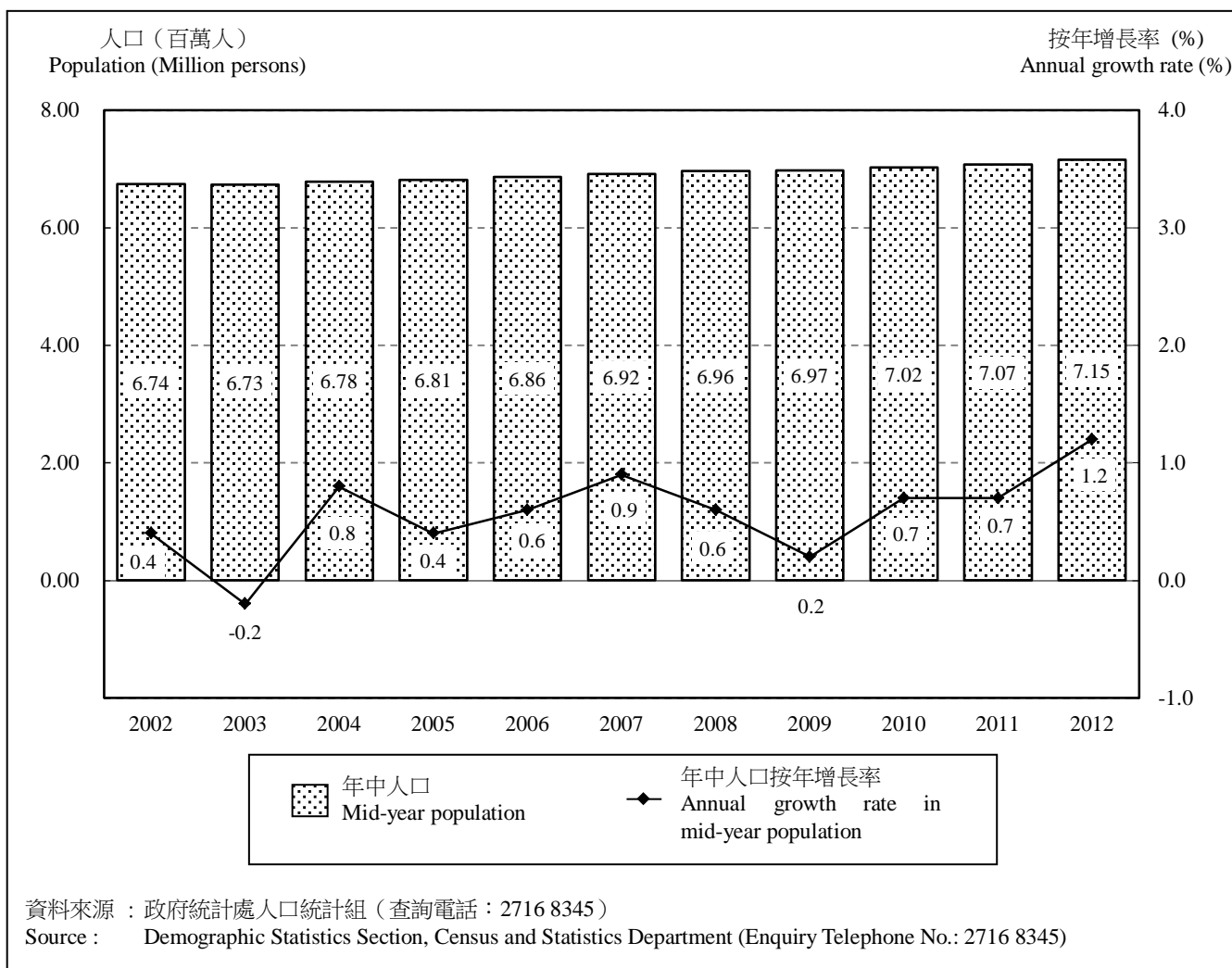
Chart 4.15 Median monthly household income of domestic households



◆ 隨着香港經濟情況的轉變，住戶每月入息中位數下降至 2003 年的 16,000 元，及後回升至 2011 年的 20,000 元。在 2012 年，住戶每月入息中位數為 20,700 元。

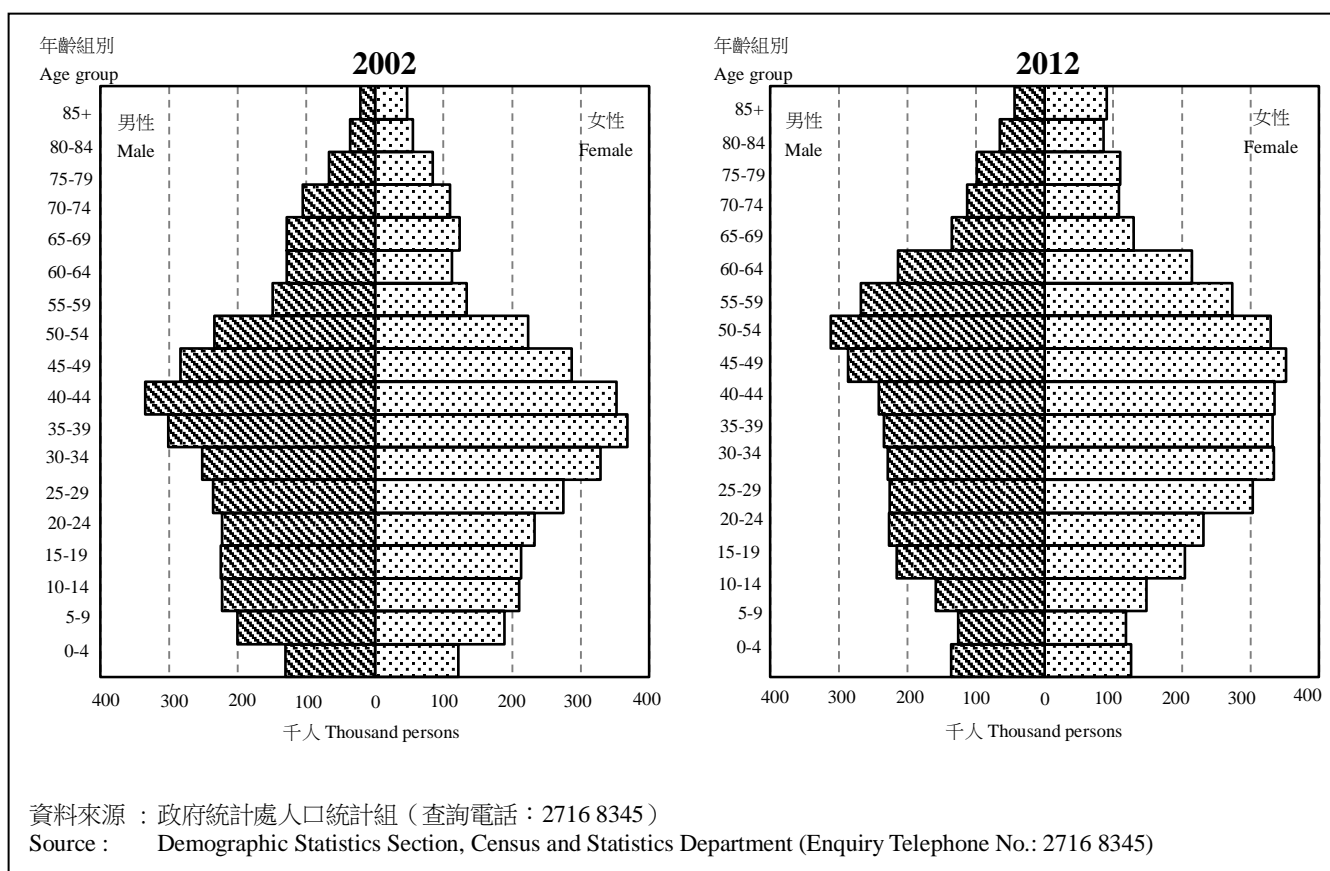
◆ In tandem with the changes in economic situation of Hong Kong, the median monthly household income declined to \$16,000 in 2003 and rebounded to \$20,000 in 2011. In 2012, the median monthly household income was \$20,700.

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



- ◆ 在過去十年，香港的人口平均按年增長 0.6%。
- ◆ 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，2012 年每千名婦女一生中平均只生育 1 285 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 0.6% in the past decade.
- ◆ The fertility rate is one of the main factors influencing population growth. The total fertility rate indicated that 1 000 women in 2012 would bear, on average, only 1 285 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 2002 年的 37.5 歲升至 2012 年的 42.0 歲，反映人口正在老化的趨勢。
- ◆ 過去十年，人口的性別組成有所改變。在 2002 年年中每千名女性有 947 名男性，但至 2012 年年中，每千名女性的男性數目已減少至 869 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 37.5 in 2002 to 42.0 in 2012.
- ◆ The gender composition of the population had changed during the past decade. In mid-2012, there were 869 males per 1 000 females, recording a decline as compared with 947 males per 1 000 females in mid-2002. 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.

寬頻 是指傳送速度由每秒數百個千位元 (kbps) 至每秒數個百萬位元 (Mbps) 的上網服務 (1 個百萬位元=1 024 個千位元), 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、異步傳輸模式 (ATM)、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。

有透過電子途徑購買貨品、服務或資料的工商機構 是指完全透過電子途徑確認預訂或購買貨品、服務或資料的工商機構。

有透過電子途徑售賣貨品、服務或資料的工商機構 是指工商機構提供並接納完全透過電子途徑預訂或購買其貨品、服務或資料。除一般透過互聯網、電話等電子途徑售賣貨品、服務或資料外, 亦包括如機構根據與客戶訂立的協議, 當機構透過電子途徑得悉客戶某產品的存貨量降低至某水平時即自動遞送該產品予客戶, 供其補充存貨。

研究及發展(研發)活動的協作安排 是指積極參與和其他機構共同進行的研發項目。積極參與包括為研發項目提供撥款資助、知識和專門技能, 以及訂立目標和方向。純粹將研發項目外判而沒有積極參與者, 不視為協作安排。

Broadband refers to Internet access service, which allows user to access the Internet and Internet related services, with transmission speed from hundreds of kbps (kilobits per second) to several Mbps (Megabits per second) (1 Mb = 1 024 kb). Cable modems, ATM (asynchronous transfer mode), 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 having purchased goods, services or information through electronic means refer to business establishments having confirmed the orders or purchases of goods, services or information completely through electronic means.

Business establishments having sold goods, services or information through electronic means refer to business establishments having sold their goods, services or information through electronic means if they offer and accept orders or purchases that are placed completely through electronic means. Apart from the sales of goods, services or information through electronic means such as the Internet, telephone, etc., this should include cases where an establishment, in accordance with an agreement with its client, automatically delivers certain product to the client for replenishment of stock when the establishment learns, through electronic means, that the stock kept by the client falls to a certain level.

Collaboration arrangement on research and development (R&D) activities mean active participation in joint R&D projects with other organisations. Active participation involves contribution of project funding, knowledge and technology know-how plus project goals and direction setting. Pure contracting out of R&D work with no active participation is not regarded as collaboration.

技術創新活動的協作安排 是指積極參與和其他機構共同進行的技術創新項目（包括研發）。積極參與包括撥款資助技術創新項目、在技術創新項目中貢獻知識和技術專門技能，以及為技術創新項目訂立目標和方向。純粹將技術創新項目外判而沒有積極參與者，不視為協作安排。

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分行的股本、附屬及聯營公司的股票、投資基金份額，以及收益再投資，即投資者應得但其分行、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。

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」。統計期為2001年第1季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。「流動居民」是指在統計時點之前的6個月內，在港逗留最少1個月但少於3個月，又或在統計時點之後的6個月內，在港逗留最少1個月但少於3個月的香港永久性居民，不論在統計時點他們是否身在香港。

Collaboration arrangement on technological innovation (TI) activities mean active participation in joint TI projects (including R&D) with other organisations. Active participation involves contribution of project funding, knowledge and technology know-how plus project goals and direction setting. Pure contracting out of the TI work with no active participation is not regarded as collaboration.

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 consist of the investors' share of earnings not distributed by branches, subsidiaries, associates or investment fund. 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.

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. Figures on domestic households for reference periods starting from the first quarter of 2001 and thereafter do not include households comprising Mobile Residents only. Mobile Residents are Hong Kong permanent residents who have stayed in Hong Kong for at least 1 month but less than 3 months during the 6 months before or for at least 1 month but less than 3 months during the 6 months after the reference time-point, regardless of whether they are in Hong Kong or not at the reference time-point.

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、學位及研究生課程除外），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—包括所有中學在新學制下的一至六年級或同等程度、毅進課程以及工藝程度教育。在新學制實施前，則包括所有中學的一至七年級程度教育。
- (e) 專上教育 - 非學位—(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。
- (g) 專上教育 - 深造—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。

電子途徑 是指以電子媒介（例如互聯網及專用私人網絡）處理及傳送數碼數據。

研究及發展（研發）活動範疇 有助一間機構根據研究的範圍，即在哪方面進行研究，劃分研發資源的類別。研發活動的範疇分為下列五大類別：

- (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。

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 schools.
- (d) Secondary — including secondary 1-6 or equivalent in all schools under the New Academic Structure, Project Yi Jin and craft level. Before the implementation of the New Academic Structure, it includes secondary 1-7 level in all schools.
- (e) Post-secondary - non-degree — (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) Post-secondary - postgraduate — including taught and research postgraduate courses in local or non-local institutions.

Electronic means refer to the processing and transmission of digitised data, which are transmitted through electronic media such as the Internet and designated private network.

Field of research and development (R&D) activity facilitates an organisation to classify its 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) 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、其他有關學科）。
- (c) 醫學包括基本醫學、臨床醫學及衛生科學。
- (d) 社會科學包括心理學、經濟學、教育學及其他社會科學（例如工商管理、法律、政治學、社會學）。
- (e) 人文科學包括歷史、語言文學及其他人文科學（例如哲學、藝術、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在一個國家或地區內進行的研發活動的數量，涵蓋下列機構類別的研發開支：

- (a) 工商機構用於研發的開支；
- (b) 高等教育機構用於研發的開支；及
- (c) 政府機構用於研發的開支

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

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。

- (b) Engineering and technology cover civil engineering; electrical engineering; electronics; and other engineering sciences (such as chemical, mechanical, metallurgical and materials engineering, textile technology, other allied subjects).
- (c) Medical 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 cover history; languages and literature; and other humanities (such as philosophy, arts, 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 performed in a country or territory and it covers the following sectoral R&D expenditure:

- (a) business expenditure on R&D (BERD);
- (b) higher education expenditure on R&D (HERD); and
- (c) government expenditure on R&D (GOVERD)

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

Gross domestic product (GDP) 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.

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、一般資訊科技管理、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。

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）。香港的知識型行業是根據經濟合作及發展組織的有關行業分類所編製。

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 (OECD).

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 (IT) 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.

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 property services). The classification of KBI in Hong Kong is modelled on the relevant industry classification of the Organisation for Economic Cooperation and Development (OECD).

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）。
- (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。

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

Labour force refers to the land-based non-institutional population aged 15 and over who satisfy the criteria for being classified as the employed population or the 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. 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).
- (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.

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

- 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：

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

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 期內的總人時；及
 HW_0 = 0 期內的總人時。

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。勞工投入是以人時量度，即以就業人數乘以平均實際工作時數計算。

就編製整體經濟的勞工生產力指數而言，所採用的實質生產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。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。

- 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 calculated by dividing a real output index by an index of labour input. Conceptually, it is compiled as:

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

where VA_t = chain volume estimates of value added in period t;
 VA_0 = chain volume estimates 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.

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.

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

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。

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.

人均本地生產總值 是指一個經濟體的按人口平均計算的本地生產總值指把該經濟體在某統計年的本地生產總值除以該經濟體在同年的人口總數所得的數字。

Per capita gross domestic product (GDP) of an economy is obtained by dividing the total GDP in a year by the population of that economy in the same year.

個人電腦 包括桌面電腦、便攜式／筆記簿型／小筆電／平板電腦及掌上電腦／個人數碼助理，但不包括電子日記簿及電子詞典。

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

專上教育 包括非學位課程、學位課程及深造課程。

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

專業／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。

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)；
- 香港物流及供應鏈管理應用技術研發中心；
- 香港紡織及成衣研發中心有限公司；以及
- 納米及先進材料研究院有限公司

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 是指在有系統的基礎上進行具創造性的活動，目的為提高人類、文化和社會的知識，從而改進現有的產品、程序或其相關的用途，以及發明新產品、設計新程序或開拓現有產品或程序的新用途。研發活動通常都帶有相當程度的新穎或創新元素，並可於自然科學、工程及科技、醫學、社會科學和人文科學等範疇進行。

Professionals/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 communications 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.

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);
 - Hong Kong R&D Centre for Logistics and Supply Chain Management Enabling Technologies;
 - 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 HKSAR Government.

Research and development (R&D) activities refer to creative work undertaken on a systematic basis so as to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this knowledge to devise new products/processes/applications and improve existing products/processes/applications. They can be conducted in such areas as natural sciences, engineering and technology, medical sciences, social sciences and humanities.

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。

研究成果數目 涵蓋大學教育資助委員會資助院校在指定統計期內（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。根據大學教育資助委員會所制定的定義，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，亦採用同樣的計算法（而 2005/06 學年以前的數字則每名參與者作一次計算）。數字包括教學及研究人員的研究成果項目。由 2000/01 學年開始，數字亦包括研究課程研究生的研究成果項目。

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等範疇的專上教育），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。技術創新包括任何內部或外判研發活動。

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.

Research output items cover the University Grants Committee-funded institutions' 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 University Grants Committee, 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 (each participant is however counted as 1 for the figures prior to 2005/06 academic year). Research output items of both academic and research staff are covered. Starting from 2000/01 academic year, research output items of research postgraduate students 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) 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 contract-out R&D 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) 研究及發展活動。

業務收益總額 一般指透過售賣貨品和服務獲得的收入，並包括：

- (a) 出租機器和設備的收益；
- (b) 利息收益；
- (c) 出租／分租土地和樓宇的收入；
- (d) 股息；
- (e) 買賣金融資產的收入／虧損；及
- (f) 從其他來源獲得的收入，如離岸貿易的毛利總額（即銷貨價值減去貨品成本）及佣金。

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專門設計／開發的電腦軟件；

The **Technology balance of payments (TBP)** statistics of Hong Kong are compiled with reference to the recommendations promulgated by OECD. 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 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) research and development activities.

Total business receipts in general refers to income received through sales of goods and services. Also included are:

- (a) receipts from rental of machinery and equipment;
- (b) interest receipts;
- (c) rental income from letting/subletting land and premises;
- (d) dividends;
- (e) gain/loss from trading of financial assets; and
- (f) income from other sources, e.g. gross margin (i.e. sales of goods less costs of goods sold) and commissions realised from offshore trading.

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) 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。

服務貿易 是指服務輸出及服務輸入，包括本港居民與世界各地進行的服務交易。有關數字是根據《2008年國民經濟核算體系》（除了所有權轉移原則）標準編製而成。主要服務組別包括運輸服務、旅遊服務、轉手商貿活動及其他與貿易相關的服務，以及其他服務。而其他服務包括多類服務例如金融服務、保險服務、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）。

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- (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.

Trade in services refers to exports of services and imports of services. It covers transactions in services between Hong Kong residents and the rest of the world. Figures are compiled in accordance with the standards stipulated in the 2008 SNA, other than the change of ownership principle. The major service groups include transportation services, travel services, merchanting and other trade-related services, and other services. Other services cover a wide variety of services including financial services; insurance 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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