

Research Brief

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Preparing for population ageing

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Hong Kong's population has been ageing as a result of low fertility rate and extended life expectancy in recent years. However, the challenges presented by an ageing population are not unique to Hong Kong. Also faced with an ageing population and a shrinking labour force, other places have introduced various policy measures to increase both the number and productivity levels of those in employment. In general, they have encouraged more people to work through measures to recruit and retain mature workers, promote work-life balance for female population, and help carers to balance work and caring responsibilities. In addition, they have invested heavily in human capital and innovation to enhance productivity.

The subject of population policy was last discussed at the House Committee meeting held on 7 February 2014.

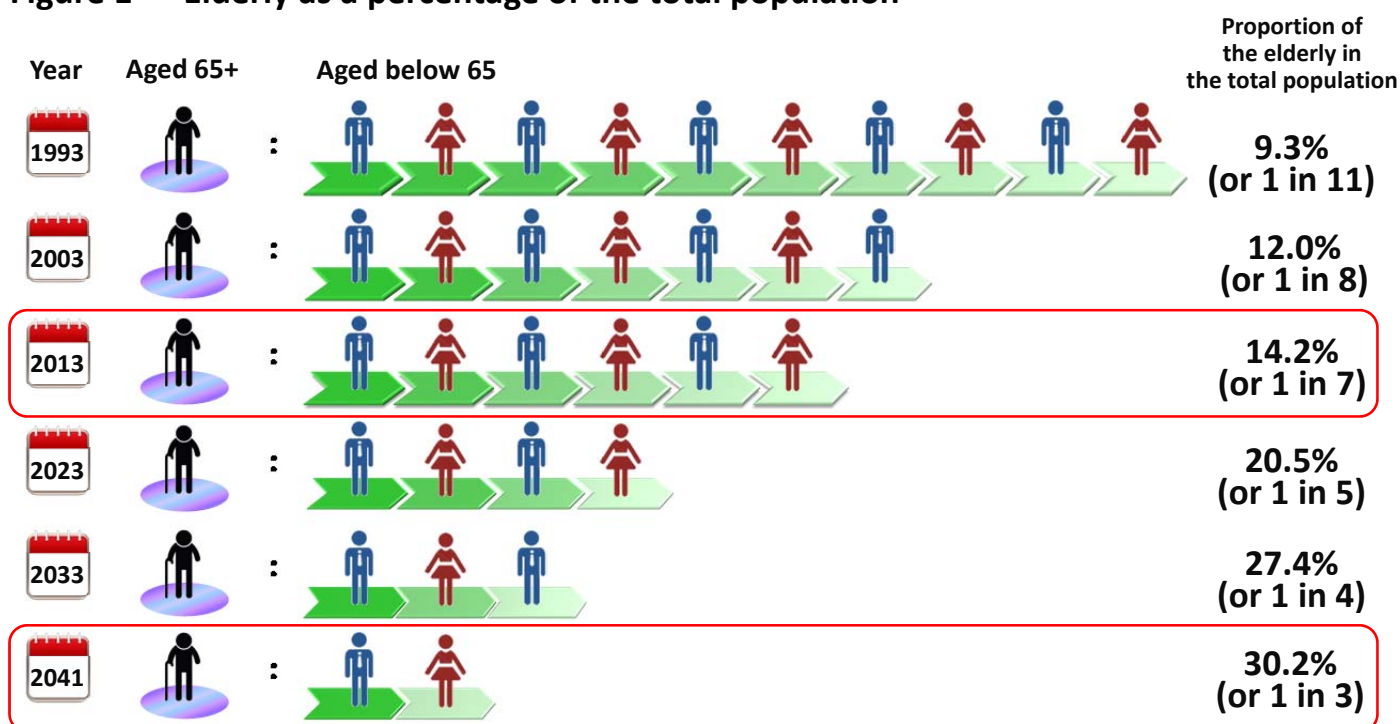


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1. Introduction

1.1 The world's population as a whole is ageing and ageing fast, and Hong Kong is no exception. According to the latest population projections by the Census and Statistics Department ("C&SD"), the number of people aged 65 and above will increase significantly from 1.02 million in 2013 to 2.56 million in 2041. In other words, around one in three persons will be an elderly person in 2041, up from the level of one in seven in 2013 (Figure 1).

Figure 1 — Elderly as a percentage of the total population



Source: Census and Statistics Department.

1.2 The ageing population is the combined result of longer life expectancy and a low fertility rate in Hong Kong. Over the past three decades, life expectancy at birth has increased by about eight years to 81.1 years for men and 86.7 years for women, whereas the total fertility rate has fallen from 1.7 childbirths per woman to 1.1. According to a survey conducted by the Family Planning Association of Hong Kong in 2012, the proportion of women desiring a child or another child rose from 12.7% in 2007 to 20.2% in 2012, the highest since 1992.¹ Hence, there have been calls for the Government to set out a supportive environment for child rearing by removing barriers for those who want to have children.²

1.3 As the population ages, there will be more people retiring than entering the labour market. This will diminish the pool of working age people³, and reduce the potential gross domestic product ("GDP") growth if leaving all other things equal.⁴ Higher productivity can help maintain the trend GDP growth, and it can be enhanced through investing in infrastructure, human capital and innovation.⁵ Yet, Hong Kong has achieved a low international ranking in both higher education/training and innovation, albeit being highly rated in infrastructure development.⁶

1.4 Another way to mitigate the consequences of an ageing population and a shrinking labour force is to encourage more people to work, or to extend their working life. This may be achieved by (a) drawing new entrants into the labour force (particularly female homemakers), (b) helping mature persons remain in or return to the labour force, and/or (c) importing workers and talents from outside.

1.5 According to C&SD, among those women aged 30-59 who chose to stay out of the workforce in 2013, around 485 800 or 81% were homemakers. These female homemakers had domestic responsibilities, especially child rearing, which might restrain them from participating in the labour market. With female homemakers aged 30-59 alone accounting for 20% of the total economically inactive population in 2013, unleashing this latent labour force could point to a potential source of additional labour force for Hong Kong.

¹ See Family Planning Association of Hong Kong (2013).

² These barriers include the financial burden, concerns over children's future education, and a working environment that is not friendly to families. See, for example, Yip (2012).

³ According to the labour force projections released by C&SD, Hong Kong's labour force is expected to peak at 3.71 million in 2018 and then decline to 3.51 million in 2035 before resuming modest growth.

⁴ Over the past two decades or so, Hong Kong's economy had an annual real growth of 4% on average, of which about one percentage point was attributed to an increase in labour force and the remaining three percentage points were due to increased productivity. See Steering Committee on Population Policy (2014).

⁵ See Australian Treasury (2009).

⁶ According to the *Global Competitiveness Report 2014-2015*, Hong Kong ranked 22nd in higher education/training, 26th in innovation and 1st in infrastructure development.

1.6 Apart from female homemakers, mature persons can also be considered as another potential source of additional labour supply. In the past, the labour force participation rates ("LFPRs") decreased markedly as people became older; for example, LFPRs for mature persons aged 50-54, 55-59 and 60-64 stood at 76.8%, 63.7% and 39.4% respectively in 2013. With better health, higher education levels and less physically demanding jobs today, it is expected that more and more mature persons would be willing to stay longer in the labour force.⁷ Increased life expectancy may also render the need for people to work longer to fund their retirement.

1.7 As to importing workers and talents from outside, Hong Kong has over the years put in place various schemes targeted towards bringing in foreign low-skilled workers and professionals.⁸ While a labour importation scheme generally represents a direct way of expanding the existing manpower resources⁹, there is a limit to the use of such scheme as a long-term solution for addressing the issue of population ageing. For example, too many foreign workers may overstretch the public services and infrastructure, depress wages, and reduce the incentives for firms to upgrade workers and raise productivity.¹⁰ In addition, the availability of foreign workers may hinge on exogenous factors such as the extent of global competition for skilled workers and the employment opportunities in the labour-sending countries.

1.8 Population ageing is not unique to Hong Kong. Other places see a similar need to address the trend of low fertility rate and increased life expectancy. Of particular relevance to Hong Kong are the corresponding measures adopted by them to make good use of their existing population and workforce, such as attracting more people to work and improving productivity of the potential and current manpower resources. The ensuing paragraphs highlight the measures implemented by overseas places to tackle the challenges presented by an ageing population.

⁷ See Steering Committee on Population Policy (2014).

⁸ Low-skilled workers are imported under the Supplementary Labour Scheme on a case-by-case basis, whereas the majority of talents come to work in Hong Kong under the General Employment Policy, the Admission Scheme for Mainland Talents and Professionals, and the Quality Migrant Admission Scheme. It should be noted that the One-way Permit ("OWP") Scheme is not a scheme for importing labour. The OWP Scheme is designed primarily for family reunion in an orderly manner, not importing talents from outside Hong Kong. Moreover, the power to approve OWP rests with the Mainland authorities. See GovHK (2014).

⁹ See Steering Committee on Population Policy (2014).

¹⁰ See Singapore National Population and Talent Division (2013).

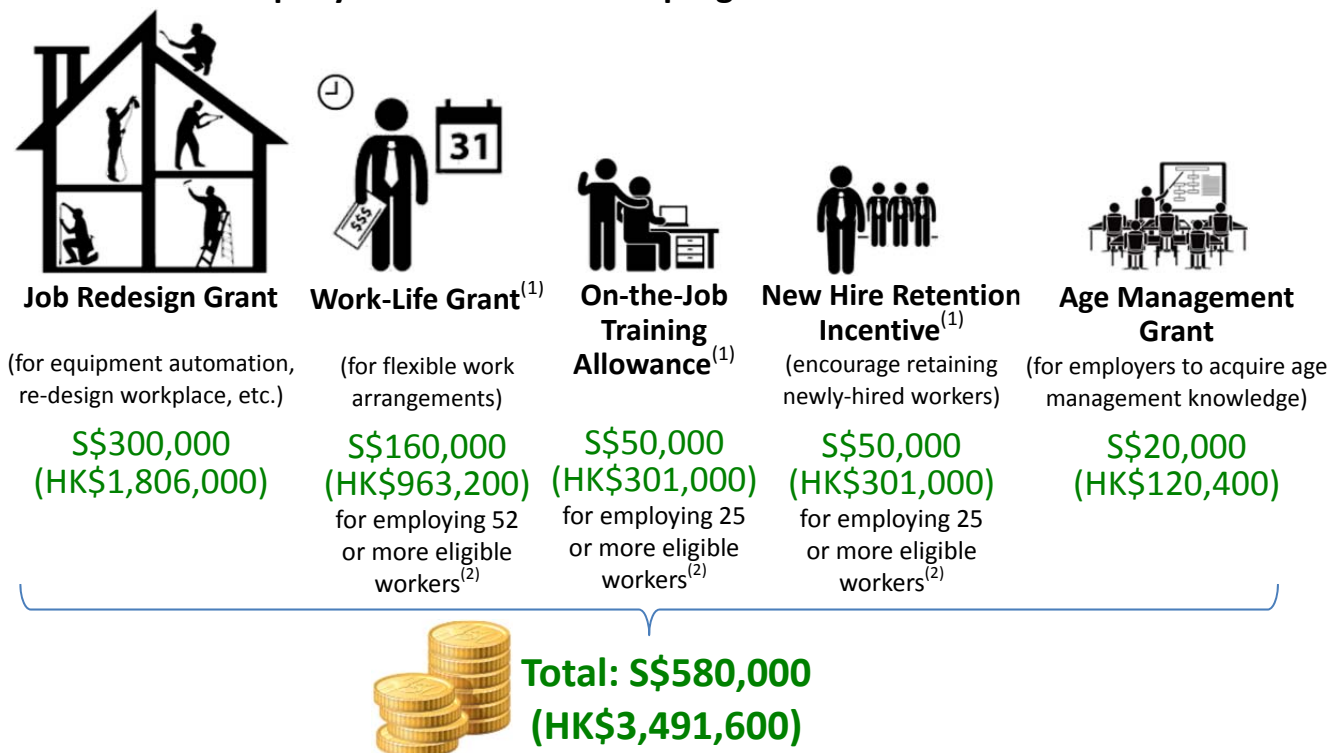
2. Unleashing the potential of existing population

Recruiting and retaining mature workers

2.1 Many overseas places have put in place various policy measures to support and promote the employment and retention of mature workers, aiming to provide a positive opportunity for them and help offset the pressure of population ageing on public finances and economic growth. Singapore stands out from the overseas places studied, as the Singaporean government has taken a lead role in offering generous incentives to help companies offset the costs so involved in training and job re-design programmes and other supportive measures.

2.2 For example, Singapore launched a three-year government programme, WorkPro, in April 2013 to encourage companies to employ mature workers and back-to-work locals. The various financial incentives provided under the programme are shown in **Figure 2**. The Singaporean government has earmarked a total of S\$170 million (HK\$1,023 million) for WorkPro, and small and medium enterprises ("SMEs") are expected to constitute 70% of the companies that will benefit from the programme.

Figure 2 — Maximum amount of government incentives receivable by one company under the WorkPro programme



Notes: (1) Awarded on a per-employee basis and subject to the cap imposed by the government on the total amount of benefit a company can receive.

(2) Eligible workers comprise mature workers and back-to-work locals.

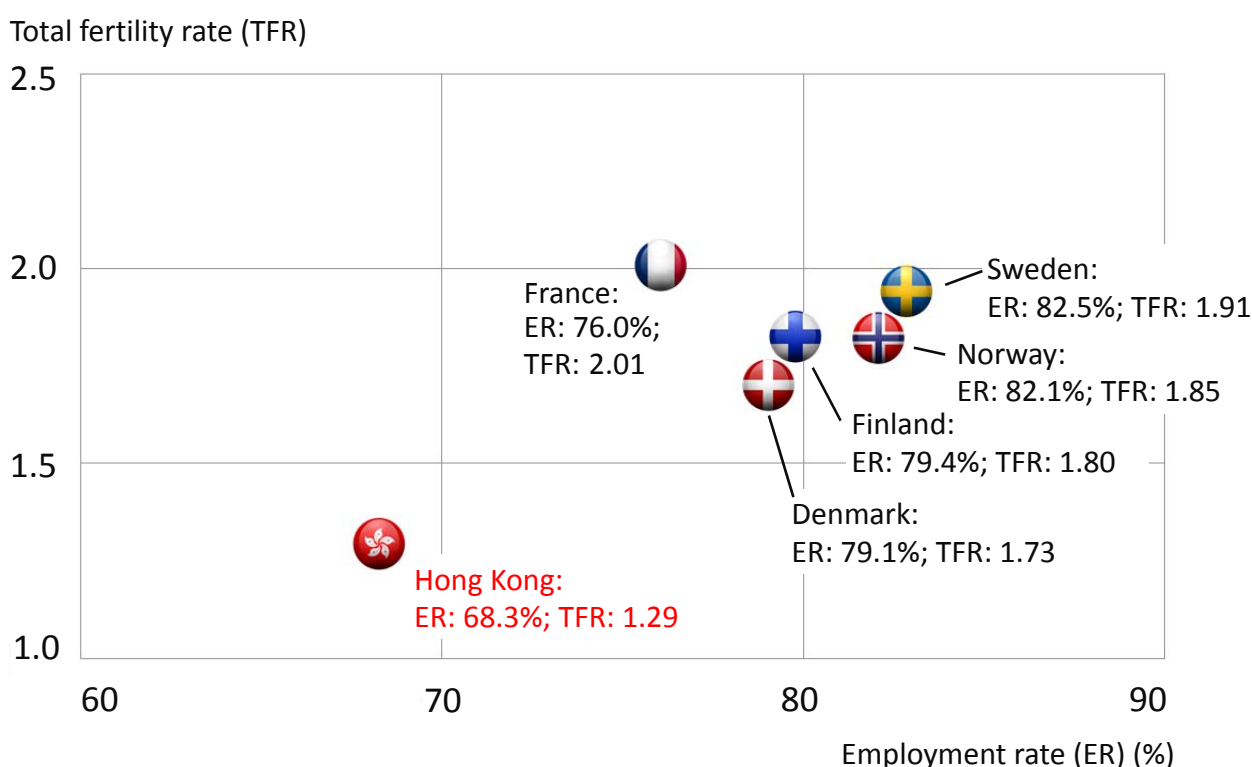
Source: Ministry of Manpower, Singapore.

2.3 The Singaporean government also introduced the Special Employment Credit as a Budget Initiative in 2011 to encourage employers to hire mature workers. Employers who hire employees aged 50 and above earning up to S\$4,000 (HK\$24,080) a month can receive the Special Employment Credit of up to 8% of the employee's monthly wages. The government's effort to boost employability of the mature workforce paid off in recent years, as evidenced by the increase in the employment rate of people aged 55-64 from 47% in 2004 to 65% in June 2013.

Promoting work-life balance for female population

2.4 Recent research¹¹ shows that work-life balance is becoming an important factor to promote parenthood.¹² This may be due to women being able to both work and care, and not to be obliged to choose one or the other alternative. Indeed, high LFPRs of women and fertility rates are both found in France and some Nordic countries where the governments have implemented programmes seeking to promote work-life balance for the female population (**Figure 3**).

Figure 3 — Female employment and fertility rates (2012)



Note: Working females refer to those employed females aged 25-54.

Sources: Census and Statistics Department and Organisation for Economic Co-operation and Development.

¹¹ See European Union (2014) and Kreyenfeld & Andersson (2014).

¹² It is worth noting that direct subsidies to encourage marriage and childbearing may not be as effective as programmes to promote work-life balance in bringing about high fertility rate. For example, the Singaporean government has been focusing on providing generous financial benefits to encourage marriage and childbearing in the country. It was estimated that a middle-income Singaporean household with two children may enjoy a total benefit equivalent to about S\$166,000 (HK\$1.0 million) until both children turn 13. Yet, Singapore's total fertility rate has remained at a low of 1.15-1.29 in recent years.

2.5 In France, sufficient financial incentives (such as cash transfers and tax allowance) are made available to help families reduce the cost of child rearing. Parents receive additional support either to care for children at home (through entitlement to quite long parental leave¹³) or to work (with fairly ample provision of affordable childcare services which cater for children from a very young age and are compatible with the working hours of the parents¹⁴).

2.6 While France has developed policies to enable working women to balance parenthood and career, the Nordic countries incline to help them secure their transition into parenthood and into employment. For example, in Sweden, the government provides a generous paid parental leave to secure household income for the period directly following a birth. It is followed by affordable childcare services and monthly child allowances when the mother returns to work. Parents also have the legal right to reduce their normal working hours by up to 25% until the child turns eight.

2.7 France and Sweden are among the European Union's most successful in balancing work and family responsibilities, perhaps owing to the high public spending on family support policy.¹⁵ Women in both countries have achieved an employment rate being among the highest in the European Union and almost matching the male employment rate.¹⁶ One estimate calculates that increasing women's participation in the labour market to male levels will boost France's GDP by 11% and Sweden's by 6%.¹⁷

Helping carers to balance work and caring responsibilities

2.8 With the population ageing, more people will have caring responsibilities for their elder family members. Difficulties in balancing work and care may lead to their early exit from the labour market. In the United Kingdom ("UK"), the government has passed the *Care Act 2014* which reflects its support and recognition to the dedication of carers. For the first time, there is a statutory duty on local authorities to meet the eligible needs of carers, including their need for social support services that enable them to work alongside caring.

¹³ France offers all working women a paid maternity leave six weeks before and 10 weeks after the birth of the first two children, and eight weeks before and 18 weeks after the birth of the third child. At the end of maternity leave, the mother or father can take unpaid parental leave until the child reaches the age of three, with entitlement to re-integration into the previous or a similar job. Nevertheless, parents can apply to the government for the relevant allowances during the period.

¹⁴ For example, day care centres catering for children aged under three open from 7:00 am to 7:00 pm on weekdays.

¹⁵ In 2012, the budget for family benefits accounted for 3.1% and 3.6% of France's and Sweden's GDP respectively.

¹⁶ For persons aged 25-54, France achieved an employment rate of 85.8% for male workers and 76.0% for female workers in 2012. The corresponding employment rates for Sweden were 87.8% and 82.5%.

¹⁷ See Goldman Sachs (2009).

2.9 The UK government has also made use of assistive living technology, such as telehealth¹⁸ and telecare¹⁹, to support the elderly living independently and securely at home and ease the pressure on their family members. For example, it announced the "3 million lives" programme²⁰ in January 2012 to accelerate the roll-out of telehealth and telecare services.²¹ Three million represents the number of people with long-term medical conditions and/or social care needs whom the UK government estimates can benefit from such services.

2.10 According to the UK government, it was estimated that the additional output from carers being able to work would amount to £5.3 billion (HK\$65.7 billion) per annum. In addition, the public finances would gain £1 billion (HK\$12.4 billion) in additional tax revenues from carers returning to the workplace, and would save £300 million (HK\$3,720 million) through the Carer's Allowance it no longer needed to pay.

3. Enhancing productivity

3.1 Amid population ageing and the associated shrinking labour force, higher productivity should help maintain the trend GDP growth with the economy producing more for each hour worked. Human capital and innovation, in addition to infrastructure, are the key drivers for productivity growth.

¹⁸ Telehealth refers to services that use various point-of-care technologies to monitor a patient's physiological status and health conditions. Typically, it involves electronic sensors or equipment that monitors vital health signs remotely from home or while on the move. Readings are automatically transmitted to an appropriately trained person who can monitor the health vital signs and make decisions about potential interventions in real time, without the patient needing to attend a clinic.

¹⁹ Telecare is a service that enables the elderly to live independently and securely in their own home. Through the sensors fitted around the home, telecare system remotely monitors real-time situation to keep track of any emergencies such as fire, gas leakage or a person falling. Should there be any emergencies, the system triggers an alarm to the nominated person (e.g. the carer) or the call centre via the telephone line linking to the sensors.

²⁰ The "3 million lives" programme grew out of a pilot scheme of telehealth and telecare trials that began in May 2008. The trials showed a 20% reduction in emergency admissions, a 15% reduction in Accident & Emergency visits, and a 14% reduction in bed days in hospitals.

²¹ Indeed, there has been an increasing global trend of using telehealth and telecare technologies to improve access to health care. For example, a Singapore hospital launched the country's first telehealth initiative in September 2014 for heart failure patients, providing them with devices to monitor their health and remotely send the data to healthcare service providers.

Investing in human capital

3.2 Education is an investment in human capital that pays off in terms of higher productivity. It is observed that a solid learning foundation at junior levels is conducive to learning in the next key stage. This suggests the streaming of students into different groups based on their learning abilities and placing each group into appropriate classes or curricula. A notable example of this approach is Singapore whose education system ranked second in the 2014 IMD World Competitiveness Yearbook and one of the best in a 2007 McKinsey study.²²

3.3 According to the Singaporean government, school education is no longer sufficient for the vocational preparation for one's whole life. Singaporeans need to constantly upgrade and refresh their knowledge and expertise to cope with changing job demands. As such, Singapore has established the Continuing Education and Training Masterplan featuring, among other things, the provision of heavily-subsidized training schemes geared towards improving the skills and abilities of those in employment.

3.4 For example, under the Workfare Training Support Scheme, the government funds up to 95% of accredited course fees incurred by low-wage workers and up to 50% by professionals, managers, executives and technicians. Between July 2010 and March 2013, 96 000 workers have benefited from the Workfare Training Support Scheme. Employers also receive Absentee Payroll funding from the government to compensate for the costs incurred in sending their employees to training during working hours. The amount of benefit receivable could be up to 95% of the basic salary of staff attending training.²³

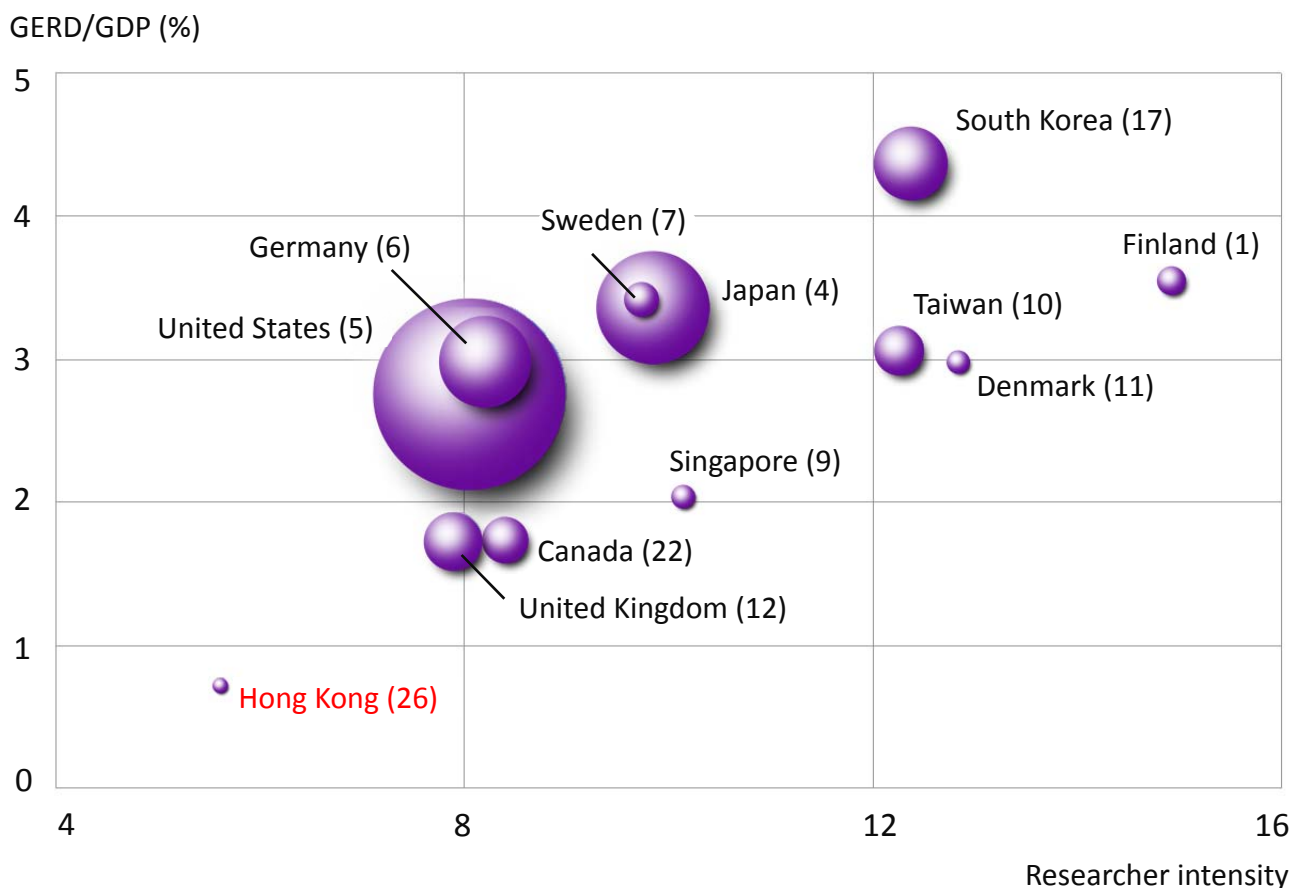
Fostering innovation

3.5 Innovation is another key driver for productivity growth which requires, among other things, a wide array of private and public investment in research and development ("R&D") activities. The latter can be represented by the gross expenditure on R&D ("GERD") as a percentage of GDP. Hong Kong's GERD/GDP stood at 0.73% in 2012, lagging behind many other developed economies (**Figure 4**). Another indicator of strength of R&D activities is researcher intensity, which refers to the number of full-time equivalent number of researchers per 1 000 labour force. Hong Kong's researcher intensity, at 5.61 in 2012, was among the lowest of developed economies (**Figure 4**).

²² For a detailed discussion of Singapore's education system, please refer to the Research Brief entitled *Support for Students of Different Learning Abilities* published by the Research Office in July 2014.

²³ In comparison, Hong Kong set up the Continuing Education Fund in June 2002 to subsidize adults pursuing continuing education and training courses. Each applicant is subject to a lifetime maximum benefit of HK\$10,000. In addition, the Employees Retraining Board was set up in 1992 to provide retraining courses to improve the quality of labour force, particularly the less well educated.

Figure 4 — R&D investment and researcher intensity of selected economies in 2012



Notes: (1) The figure in the parenthesis represents the ranking in the Global Innovation Index as published in the *Global Competitiveness Report 2014-2015*.

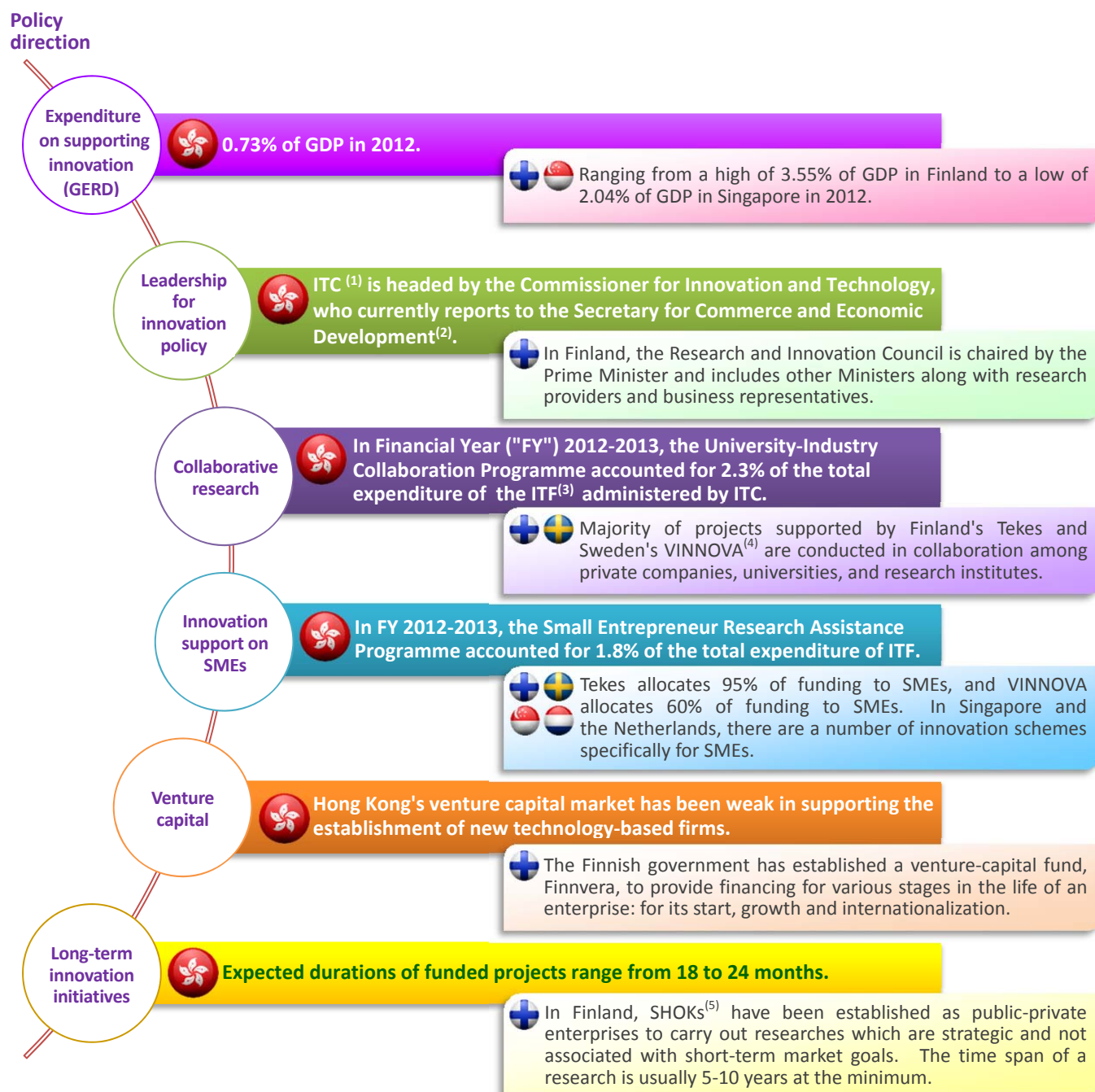
(2) Bubble size indicates GERD in 2012.

Sources: Census and Statistics Department, Organisation for Economic Co-operation and Development and World Economic Forum.

3.6 Many developed economies have adopted national strategic roadmaps to foster innovation and enhance its economic impact. Even economies that have generally refrained from pursuing an active industrial policy in recent years are now seeking new ways to improve the environment for innovation in order to boost productivity and growth. For example, Northern Ireland strives to develop itself as one of the innovative regions in the UK. In March 2012, it conducted a survey on the global best practice in stimulating innovation based on the case studies of success in Finland, Singapore, Sweden, New Zealand, Estonia as well as regions within the Netherlands, Germany and Italy.

3.7 According to the afore-mentioned survey, best practice approaches are characterized by (a) significant expenditure on supporting innovation, (b) high level leadership for innovation policy, (c) emphasis on collaborative research, (d) innovation support focused on SMEs, (e) well-developed venture capital market, and (f) commitment to long-term innovation initiatives. The table below compares how Hong Kong and selected best-practice economies fare in terms of the above areas (**Figure 5**).

Figure 5 — Comparison of innovation policy between Hong Kong and selected best-practice economies



Notes: (1) ITC stands for Innovation and Technology Commission.

(2) On 29 October 2014, the Legislative Council passed a resolution to establish the Innovation and Technology Bureau. The new bureau, to be headed by the Secretary for Innovation and Technology, will replace the Commerce and Economic Development Bureau in overseeing the operation of ITC.

(3) ITF stands for Innovation and Technology Fund.

(4) Tekes stands for the Finnish Funding Agency for Innovation, and VINNOVA is the Sweden's government innovation agency.

(5) SHOKs stands for Strategic Centres for Science, Technology and Innovations.

Sources: Au & White (2010), Savantas Policy Institute (2009), & Department for Enterprise, Trade and Investment (2014).

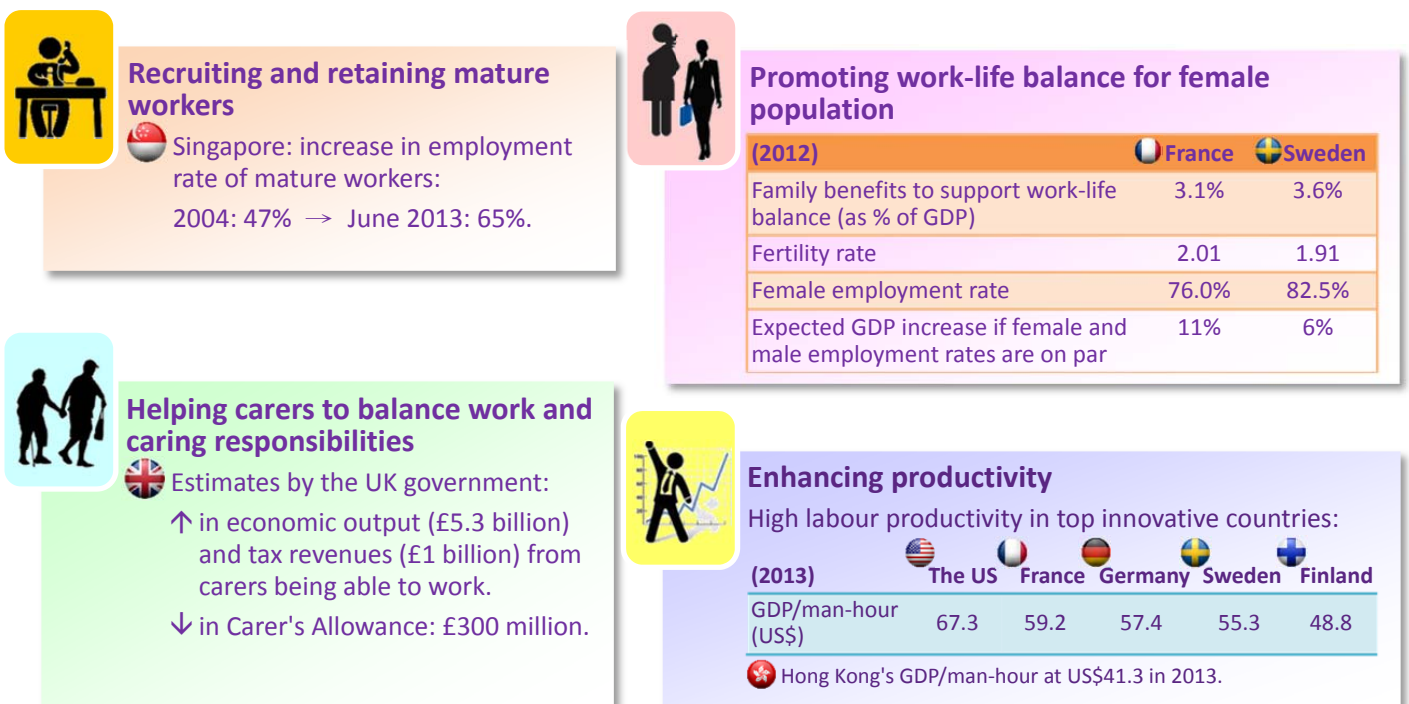
4. Observations

4.1 The challenges presented by an ageing population are not unique to Hong Kong. Faced with a shrinking labour force, other places have made better use of their existing population through measures to encourage more people to work and enhance the productivity of the potential and current workforce. In particular, there are several areas which warrant special attention:

- (a) recruiting and retaining mature workers – Singapore's labour policy shows how the government can play a lead role in enhancing the employability of the mature workforce. In Singapore, employers are compensated by the government for the costs involved in job re-design, workplace improvement, skills upgrading and other support measures to recruit and retain older employees;
- (b) promoting work-life balance for the female population – Sweden and France's pro-natalist programmes, which have succeeded in maintaining the country's high fertility rate, share a set of characteristics that enables women to balance work and child raising. In Sweden and France, working women receive financial incentives to reduce the cost of child rearing, as well as additional support from access to affordable childcare services that cater for children from a very young age and are compatible with their working hours;
- (c) helping carers to balance work and caring responsibilities – the UK's *Care Act 2014* places a statutory duty on local authorities to meet the eligible needs of carers, including their wish to work alongside caring. Apart from the legislative framework, the UK government has also put in place the "3 million lives" programme to accelerate the roll-out of telehealth and telecare to support the elderly living independently and securely at home. The programme aims at, among other things, keeping the elderly out of hospital and easing the pressure on their carers;
- (d) investing in human capital to boost productivity – Singapore's education system is characterized by the availability of multiple pathways for students with different talents and skills. Another feature is the considerable focus placed by the government on vocational lifelong learning as a key driver of productivity growth. The government subsidizes training programmes and provides funding support for Absentee Payroll funding to help employers defray the manpower cost incurred when sending their employees for training during working hours;

- (e) fostering innovation as another driver for productivity growth – a survey of global best practice has identified a number of key elements for a sound innovation policy. The elements include (i) significant expenditure on supporting innovation, (ii) high level leadership for innovation policy, (iii) emphasis on collaborative research, (iv) innovation support focused on SMEs, (v) well-developed venture capital system, and (vi) commitment to long-term innovation initiatives; and
- (f) while the above measures inevitably require additional financial support from taxpayers and employers, it is noted that they also benefit the economy as a whole as demonstrated by the resultant statistics and relevant estimates (**Figure 6**).

Figure 6 — Benefits from the measures to mitigate population ageing and shrinking labour force



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