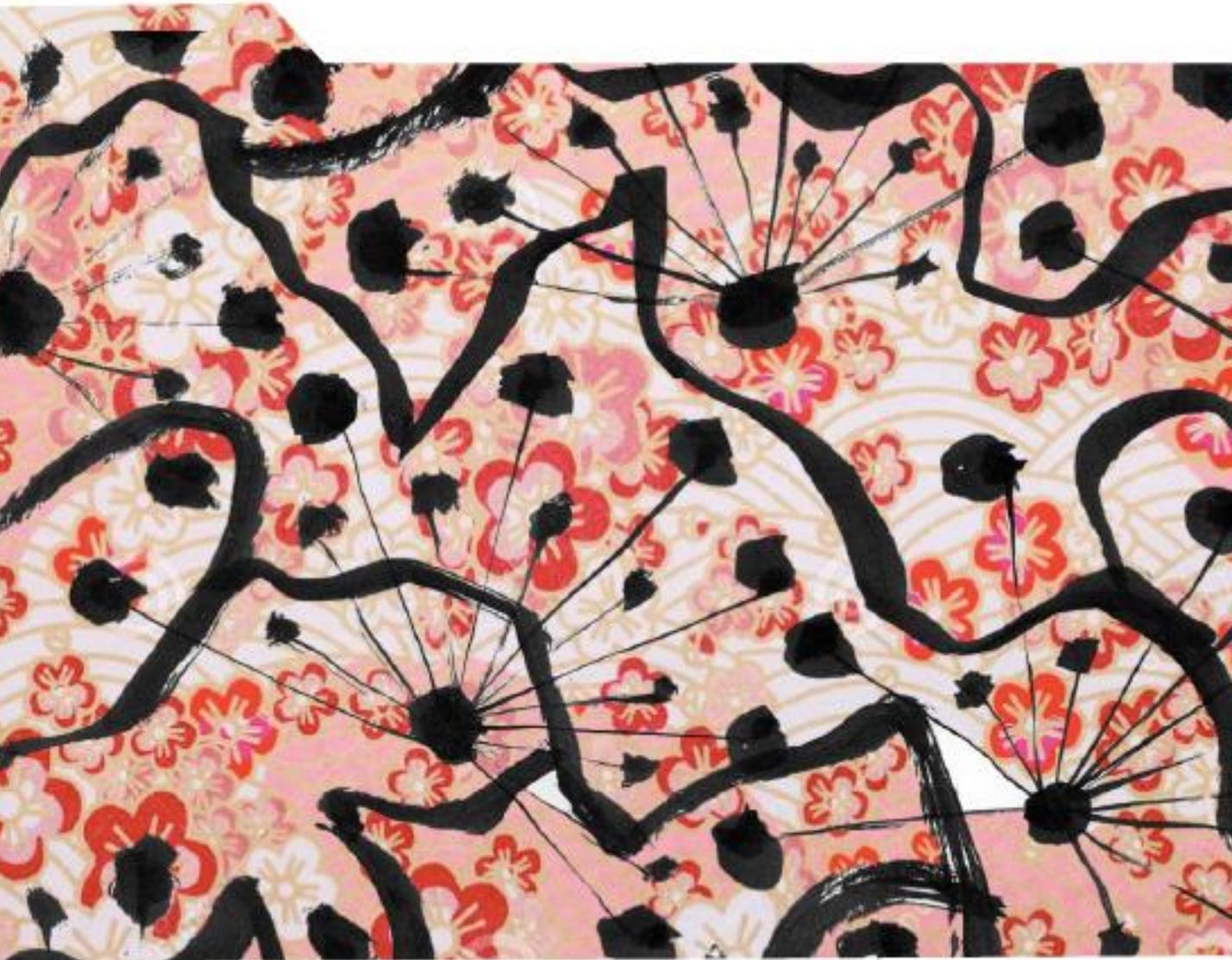




OECD Territorial Reviews

Japan

POLICY HIGHLIGHTS



Notes

This document summarises the key findings of OECD (2016), OECD Territorial Reviews: Japan, OECD Publishing, Paris. The full publication is available at <http://dx.doi.org/10.1787/9789264250543-en>.

The review is part of a series of Territorial Reviews produced by the OECD Public Governance and Territorial Development Directorate under the leadership of Rolf Alter, and its Regional Policy Division headed by Joaquim Oliveira Martins. This work is published on the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of the Organisation or of the governments of its member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Photo credits:

Cover illustration © Jeffrey Fisher

Table of contents: © Aniwwhite/ Shutterstock.com; © ©TOMO/ Shutterstock.com; ©KPG_Payless / Shutterstock.com; © Skyeearth /Shutterstock.com

Page 1: © Estherpoon /Shutterstock.com

Page 1: © Takasu /Shutterstock.com

Page 2: © Everything possible /Shutterstock.com

Page 6: © Wong yu liang /Shutterstock.com

Page 6: © Hkeita /Shutterstock.com

Page 7: © Lucas Tesson /Shutterstock.com

Page 8: © Xtock /Shutterstock.com

Page 9: © Hit1912 /Shutterstock.com

Page 9: © TAGSTOCK1 /Shutterstock.com

Page 10: © Rachael Arnott /Shutterstock.com

Page 13: © TungCheung /Shutterstock.com

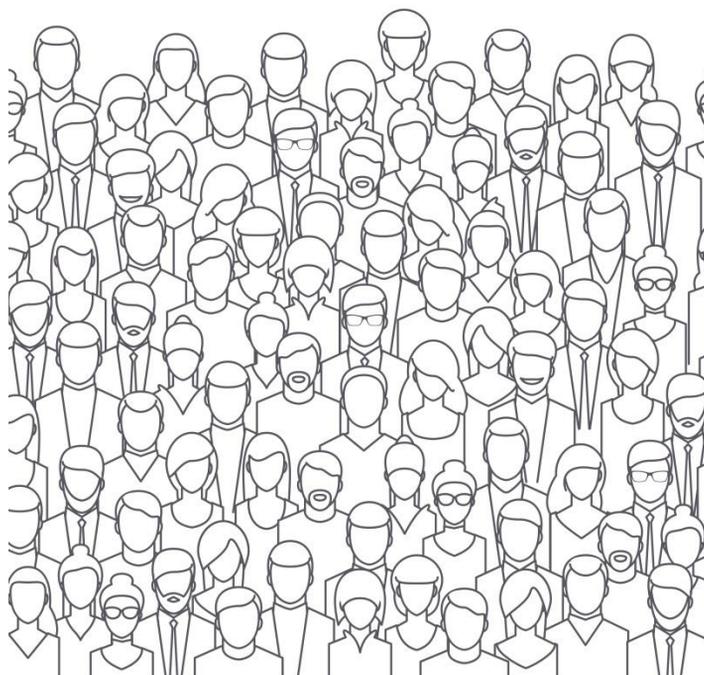
Page 17: © Osamu Nakamura

Page 18: © Narongsak Nagadhana/Shutterstock.com

Page 19: © Ama-cho, Shimane prefecture

Table of contents

Introduction	1
Key messages.....	2
Part 1. Demographic change offers opportunities as well as challenges.....	4
Part 2. Productivity growth and higher labour market activation rates are needed to maintain aggregate growth of GDP	8
Part 3. Japan’s future as “compact and networked” seems broadly right.....	10
Part 4. Better governance at the metropolitan scale would maximize productivity potential of cities.....	12
Part 5. Stronger rural and urban linkages will help sustain local prosperity.....	16
Reference.....	20





Introduction

At the beginning of this new millennium, many OECD countries find themselves embarking on a demographic transition that is without precedent in history and that may prove irreversible for a long time to come. Our populations are not only ageing rapidly, and, in many cases, they are also beginning to shrink. These demographic processes have become more evident in Japan than anywhere else, presenting important consequences for the country's economic performance and settlement patterns.

Nonetheless, the implications of this change for social progress and prosperity are not set in stone: they depend greatly on the policy choices we make. That is why the OECD's Regional Development Policy Committee is devoting increasing attention to the consequences of demographic change for cities and regions.

The OECD Territorial Review of Japan offers a fresh perspective on Japan's demographic transition, from economic diagnosis to policy implications to governance and spatial policies. It explores Japan's innovative efforts to deal with the spatial impacts of ageing and population decline. The new National Spatial Strategy adopted in 2015 is central to these efforts. While it is too early to judge the long-term impact of this strategy, there are grounds for optimism: the economic analysis confirms that Japanese cities are generating positive agglomeration benefits and that rural areas, despite their difficulties, are outperforming most of their OECD peers. Furthermore, in many cases they are pioneering revitalisation strategies based on local assets and potentials. At all levels of government, from the national to the local, public and private sector actors are devising innovative and often place-based solutions.

Japan's experiences will be of great relevance to many OECD and non-OECD as they will face similar challenges in the future. Japan is pioneering a response to policy challenges that others will soon have to confront. It is therefore critical that Japan identifies and implements policies that meet these challenges.

With the new Spatial Strategy and a wide-ranging new revitalisation programme, the government has made an ambitious start, but the realisation of this vision will take years, and there will undoubtedly be surprises and policy adjustments along the way.

In this context, it is important to note that Japan's post-war "economic miracle" unfolded in conditions of chronic labour shortage, a situation that led to specific employment and skills-development practices, as well as technological innovations that differed from those found in economies with more abundant labour resources. These served Japan well for several decades. While today's challenges are different and new approaches are needed, this history provides a reminder of the country's ability to devise innovative solutions to complex problems and to generate rapid productivity increases in the face of labour supply constraints. This is a positive legacy which Japan must now recover.

The review focuses on four main areas of regional policy in Japan (policies addressing demographic challenges, productivity, metropolitan governance and enhancing rural regions), providing a number of recommendations to answer these challenges and capitalise upon areas of opportunities. The policy highlight is structured around these four areas and a section focusing on Japan's approach on compact and network.



Key messages

Turning demographic challenges into opportunities

Spatial planning and regional development are critical for turning demographic challenges into opportunities. Productivity growth and higher labour market activation rates are imperative for sustaining aggregate growth. Effective policy implementation is required through holistic and placed-based approaches such as the National Spatial Strategy .



Recommendations

1. Demographic change offers opportunities as well as challenges.

Lower population density can bring benefits such as more flexibility in policy making. Effective spatial planning, from national to local levels, such as National Spatial Strategy will be critical to exploit the potential benefits of demographic change.

2. Productivity growth and higher labour market activation rates are needed to maintain aggregate growth of GDP

Enhancing technological and institutional innovation is paramount for Japan to sustain rising living standards in the context of population ageing and decline. Mobilising women and encouraging longer careers will be critical to achieve higher labour market activation rates.

Providing better commuting, housing and child-care conditions across the different regions and cities will make it easier for people to combine careers with family life.

3. Japan's future as "compact and networked" seems broadly right.

The aim is to sustain a settlement pattern that facilitates the realisation of agglomeration economies while avoiding the abandonment of large parts of the territory.

4. Better governance at the metropolitan scale would maximize productivity potential of cities

Cooperation among cities is crucial to maximise their productivity potential. The government should foster policy co-ordination beyond administrative boundaries and improve connections by linking nearby cities.

5. Stronger rural and urban linkages will help sustain local prosperity.

Rather than relying on external resources, rural areas should mobilise their own assets, take advantage of new opportunities, make use of technology and enhance rural-urban linkages to attract investment and enter new markets.

Part 1. Demographic change offers opportunities as well as challenges

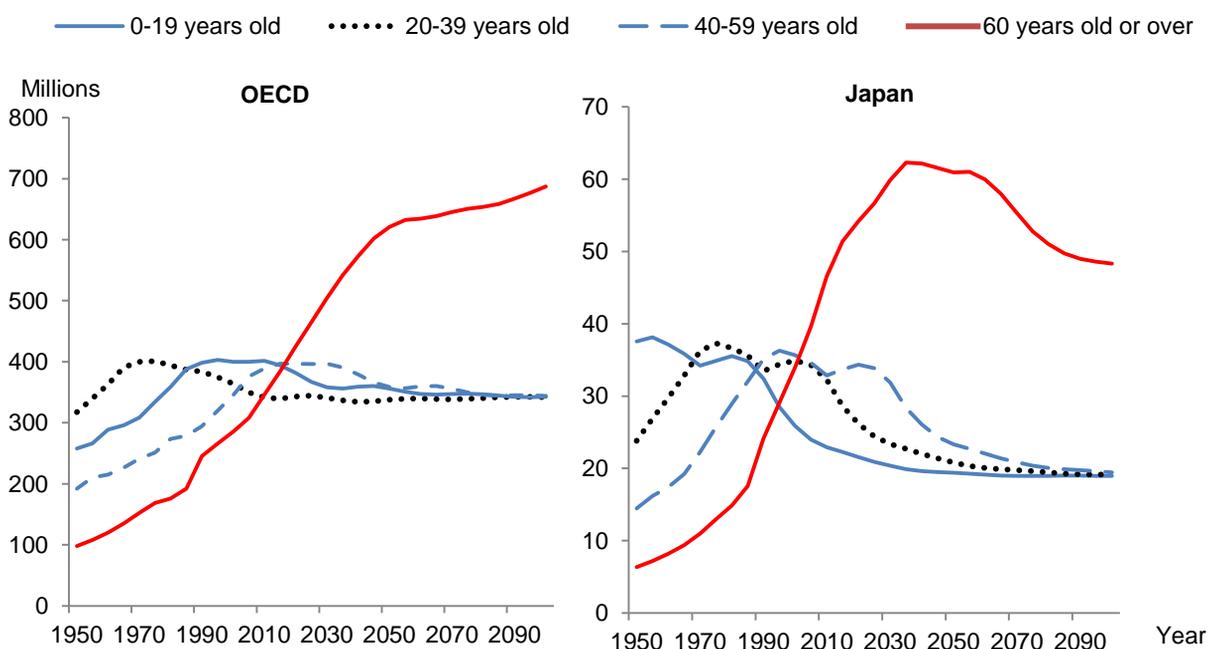
Lower densities can bring benefits such as more flexibility in policy making. Effective spatial planning, from national to local levels, such as the National Spatial Strategy, will be critical to exploit the potential benefits of demographic change.

Demography is reshaping Japan's economic geography

Japan's future economic prosperity depends on how it manages the unprecedented demographic transition underway. Its population is both declining and ageing very rapidly. The population, which peaked in 2010 at just over 128 million, is projected to decline by around 23% between 2010 and 2050, with the elderly (65+) share of the population rising from around 26% today – the highest in the OECD area – to almost 40% at mid-century. This dramatic shift is the product of fertility and longevity, since immigration plays a very small role in Japan's population dynamics. The total fertility ratio (TFR) has been below replacement level (2.1) since 1974 and below 1.5 since 1993. Even if it quickly returned to replacement levels, the population would decline for more than 50 years before stabilising. In parallel, Japan has achieved an extraordinary increase in longevity, with life expectancy at birth reaching almost 83.5 years in 2013, the highest in the OECD.

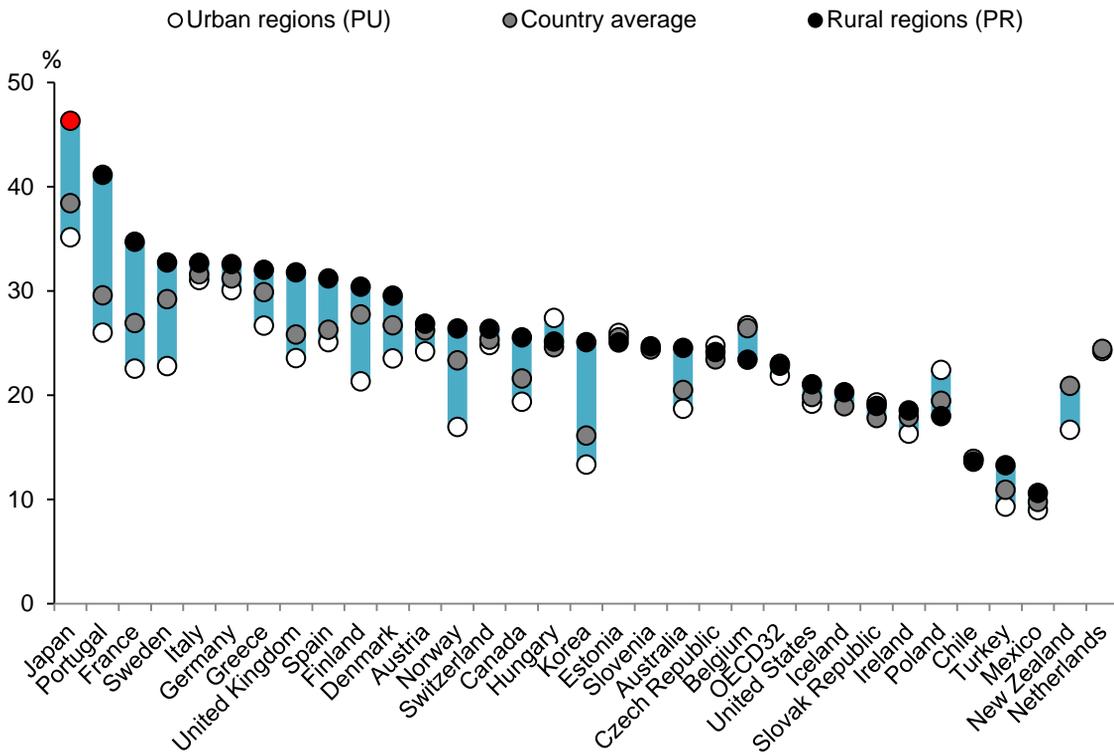
The impact of these nationwide demographic trends varies greatly from place to place. The three large conurbations located in Tokyo, Osaka and Nagoya are now home to about 46% of the national population, though they account for just 5.2% of the national territory. The concentration of population and economic activity has accelerated in recent decades, raising questions about the viability of many smaller cities, towns and rural communities. Predominantly rural regions have also been ageing faster than cities, with more remote rural places having higher elderly dependency ratios than those close to cities. When it comes to fertility, however, the pattern is reversed: the largest cities tend to have lower fertility – Tokyo's TFR was just 1.15 in 2014, the lowest in the country and well below the national average of 1.42. Other large cities also have exceptionally low fertility rates, which reinforces concern about the steady migration of young people to the big cities.

Figures 1. Population estimates and projections by age group, 1950-2100



Source: OECD (2015a), Ageing in Cities, OECD Publishing, Paris, OECD calculations based on United Nations Department of Economic and Social Affairs, Population Division (2010), World Population Prospects: The 2010 Revision, United Nations, New York, http://esa.un.org/unpd/wpp/unpp/panel_indicators.htm (accessed 30 September 2014).

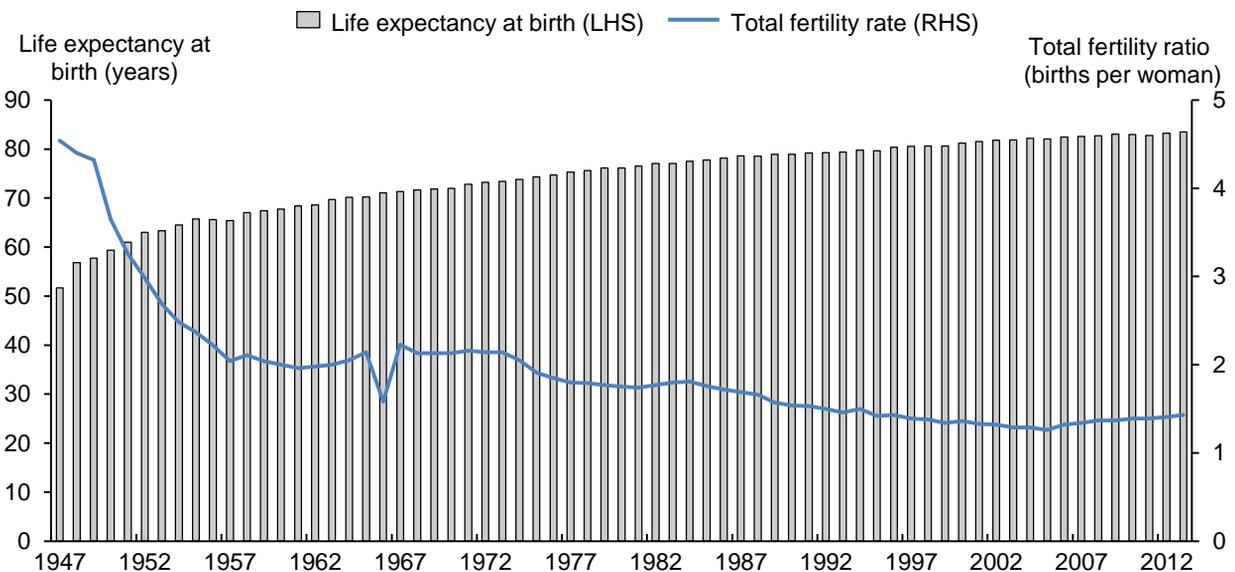
Figures 2. Elderly dependency rate for countries, predominantly urban and predominantly rural regions, 2012



Note: The elderly dependency ratio is defined as the ratio of elderly to working-age people. Latest available year 2011 for Australia and the United States.

Source: OECD (2013b), *How's Life? 2013: Measuring Well-being*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264201392-en>. OECD(2013a) *Regions at a Glance 2013*, OECD Publishing, Paris, Stat link: <http://dx.doi.org/10.1787/888933324469>

Figures 3. Longevity and fertility in Japan



Source: OECD (2015i), "Population", http://stats.oecd.org/Index.aspx?DatasetCode=POP_FIVE_HIST, (accessed 16 October 2015); information provided directly by the Ministry of Health, Labour and Welfare (MHLW). Stat link <http://dx.doi.org/10.1787/888933324406>

Demographic change is a huge challenge but also offers opportunities

The economic consequences of demographic change are myriad and complex, but they are not all negative. Clearly, they include shrinking domestic markets and some loss of scale economies in certain activities, as well as the fiscal pressures generated by increased age-related spending and rising dependency ratios.

However, population decline in Japan, the OECD's most densely populated large country, could also create opportunities with the right policy in place. Those opportunities could be related to space-intensive activities, more flexibility in land use, less congestion and, in some respects, less environmental pressure. National responses taking into account the geographical dimension of Japan's different challenges could be effective in particular areas.

Lower urban densities can bring environmental, social and economic benefits, as well as costs; the costs and benefits of different strategies to cope with a shrinking population will need to be assessed and managed in specific contexts. Lower population densities tend to be associated with higher fertility in Japan and other countries. A reduction in population density would also allow for the provision of more urban green space.

The economic impact of demographic change is not a given. Well-articulated and complementary reforms (among other things, reforms to support healthier ageing, longer careers and more efficient healthcare provision) are more likely to offset the impact of ageing than piecemeal approaches that treat particular problems in isolation. The government is currently working to put such a transversal approach in place, co-ordinating across policy sectors and levels of government with the help of such instruments as the National Spatial Strategy.

Key recommendations:

- Take advantage of opportunities that can emerge with the demographic challenges. Such opportunities concern more space-intensive activities, more flexibility in land use, less congestion and, in some respects, less environmental pressure.
- Effective spatial planning, from national to local levels, such as the National Spatial Strategy will be critical to realise the potential benefits of demographic change.
- Put in place effective regional planning mechanisms capable of sustaining prosperity even as communities grow smaller.



Table 1. Possible consequences of demographic change

	Potential benefits and opportunities	Potential costs and challenges
Population ageing	<ul style="list-style-type: none"> • High life expectancy is a sign of success • Demand for goods and services and new market opportunities (“silver economy”) • Elderly people represent untapped resources for flexible and experienced workforce • High life expectancy 	<ul style="list-style-type: none"> • Rising burden of pensions and age-related services • Shrinking labour force relative to population • Less entrepreneurship and innovation • Less demand for “non-silver” goods and services
Population decline	<ul style="list-style-type: none"> • Less congestion • Opportunities for space-intensive activities • Decreasing environmental pressure • Flexibility in land use 	<ul style="list-style-type: none"> • Loss of tax base • Shrinking labour force • Smaller domestic market • Challenges to efficient service delivery

Box 1. Smart shrinking

Japan’s population is set to shrink substantially for decades to come. Many, perhaps most, cities, towns and other settlements will shrink in size. The “smart shrinking”, the policies that will be needed for shrinking place, will require effective regional planning. They will ensure that communities are capable of sustaining prosperity even as they grow smaller.

A review of international experience on these challenges shows that, in some areas, Japan is very much in the forefront of the responses and continues to innovate particularly in fields such as demand-responsive transport (see page 18). In other areas, it is the experiences of declining European and US cities that suggest some important lessons for national and local policymakers. European and US cities have pioneered a wide range of options in managing vacant sites so as to avoid the creation of visual and environmental drawbacks and safety hazards. These include urban green infrastructure programmes, unconventional arrangements for allowing entrepreneurs and others to use such sites temporarily, as well as community redevelopment programmes. Effective spatial planning can help ensure that this type of initiatives maintains the overall coherence and attractiveness of the urban space.



Part 2. Productivity growth and higher labour market activation rates are needed to maintain aggregate growth of GDP

Enhancing technological and institutional innovation is paramount for Japan to sustain rising living standards in the context of population ageing and decline. Mobilising women and encouraging longer careers will be critical to achieve higher labour market activation rates. Providing better commuting, housing and child-care conditions across the different regions and cities will make it easier for people to combine careers with family life.

Productivity growth has not been sufficient to offset labour force decline. Japan's prosperity depends more than ever on productivity.

Japan's future prosperity depends on its ability to tackle two substantial and intertwined challenges: the first is demographic change, and the second relates to productivity. With the labour force shrinking as a share of the total population, output per worker will have to rise even faster if per capita incomes are to increase. This will require efforts to stimulate innovation and entrepreneurship and to strengthen the international integration of the Japanese economy.

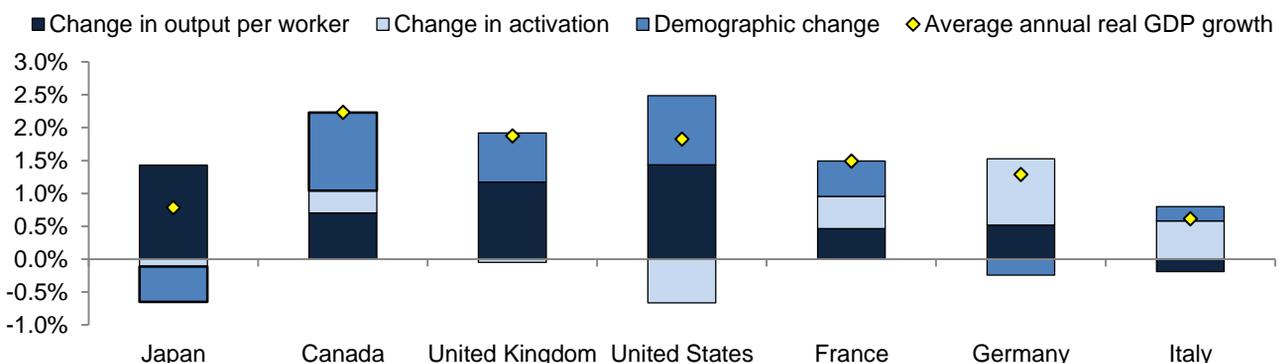
Over the last decade, productivity performance has improved relative to other OECD economies, but this has been insufficient to offset the impact of demographic change.

Japan's income per capita fell due to a number of factors, but primarily it has been driven by a demographic effect – the decline in the working-age share of the population. The share of 15-64 year-olds in the total population, which peaked at almost 70% in the early 1990s, is now about 61% and is projected to fall to around 51% at mid-century. A rapidly shrinking labour force and a rapidly rising dependency ratio imply that even productivity growth of 2% or more will deliver very low aggregate or per capita growth.

Reviving productivity growth is perhaps Japan's most urgent economic priority. If an ageing economy is to sustain continued prosperity, then output per worker must rise faster than would be required in a stable or growing population. Japan is the only OECD country in which there is a significant negative effect of demography – equivalent to just over one-half a percentage point of GDP growth. To ensure a constant rate of GDP growth, increases in labour force participation and longer careers must surely be part of the solution, together with labour market reforms aimed at increasing labour force participation, in particular, full-time employment among women.



Figure 4. Decomposition of real GDP growth for selected OECD countries, 1999-2011



Note: "Change in activation" reflects only the combined effect of changes in the participation rate and changes in the employment rate. The expansion or contraction of the working-age population is encompassed in the "demographic change" variable. Source: OECD (2015f), OECD Economic Outlook: Statistics and Projections (database), http://www.oecd-ilibrary.org/economics/data/oecd-economic-outlook-statistics-and-projections_eo-data-en (accessed 16 October 2015). Stat link <http://dx.doi.org/10.1787/888933324496>

Mobilising women and encouraging longer careers will require regional policy to make it easier to combine one's professional career with family life.

Policies aimed at addressing conditions for all workers, particularly by expanding childcare provision and improving the work-life balance, could advance both economic growth and gender equity goals. They could help increase participation among older workers as well. A number of OECD countries have already shown how such policies can support both fertility and female labour force participation. The authorities are planning a significant expansion in child-care and after-school places. It would also be advisable to move ahead with more flexible arrangements for fathers. More generally, there is a need to reduce excessive working hours and improve the work-life balance of Japanese workers, male and female alike. While Japan scores better than most OECD countries on many dimensions of well-being, such as life expectancy and education, it scores near the bottom of the OECD on measures of work-life balance, a dimension of well-being (which is directly linked to labour market institutions and practices), as well as health status and reported life satisfaction (OECD, 2013b).

The issue of work-life balance also has implications for productivity. Japan ranks third, after Turkey and Mexico, in the proportion of employees working 50 hours a week or more on average. Yet evidence suggests that very long working hours are detrimental to labour productivity. Up to a certain level (perhaps 48-50 hours per week), output appears to be roughly proportional to hours. However, above that threshold, output rises at a rapidly decreasing rate as hours increase (Pencavel, 2014). The long-hours culture of many countries thus confers no productivity advantage and imposes high costs in terms of accidents and injuries (Dembe et al., 2005; Rho, 2010; Ricci et al., 2007), as well as life satisfaction.



Key recommendations:

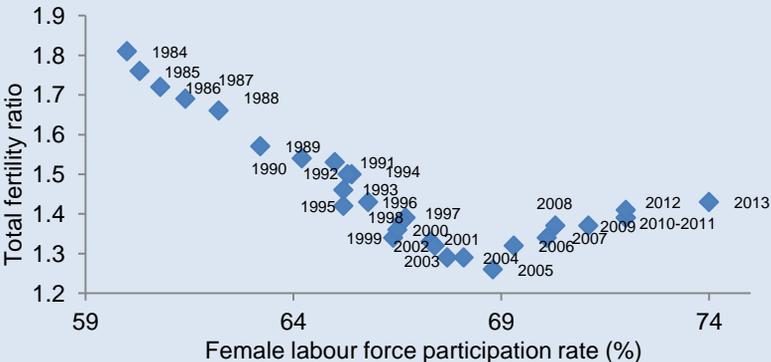
- Enhancing technological and institutional innovation is paramount for Japan to sustain rising living standards in the context of population ageing and decline.
- Mobilising women and encouraging longer careers will require regional policy to make it easier to combine careers with family life.
- Providing better commuting, housing and child-care conditions as well as reducing excessive working hours will be of importance.

Box2. Female labour force participation

The evidence suggests that very low fertility is linked to labour market institutions and practices that make it difficult to combine careers with child-rearing. It shows a large gap between male and female activity rates. If the female participation rates were to converge with the male rate over the period to 2030, then the decline in the labour force would be reduced by two-thirds, even with no change in male participation rates.

It is possible to achieve both high fertility and high female employment. Indeed, whereas there was a broadly negative relationship between female employment and fertility in OECD countries in 1980, by the mid-2000s the relationship was positive, suggesting that women are likely to have more children where structures are in place to support combining family and work rather than forcing a choice between them (OECD, 2007).

Figure 5. Female participation rate and fertility rate in Japan



Source: OECD (2015g), OECD Economic Surveys: Japan 2015, OECD Publishing, Paris, based on data provided directly by the Ministry of Internal Affairs and Communication (MIC) and the Ministry of Health, Labour and Welfare (MHLW). Stat link: <http://dx.doi.org/10.1787/888933324617>.



Part 3. Japan's future as "compact and networked" seems broadly right

The aim is to sustain a settlement pattern that facilitates the realisation of agglomeration economies while avoiding the abandonment of large parts of the territory for growth and enhanced well-being.

A National Spatial Strategy to heighten the sense of urgency surrounding these issues in Japan's regions and cities

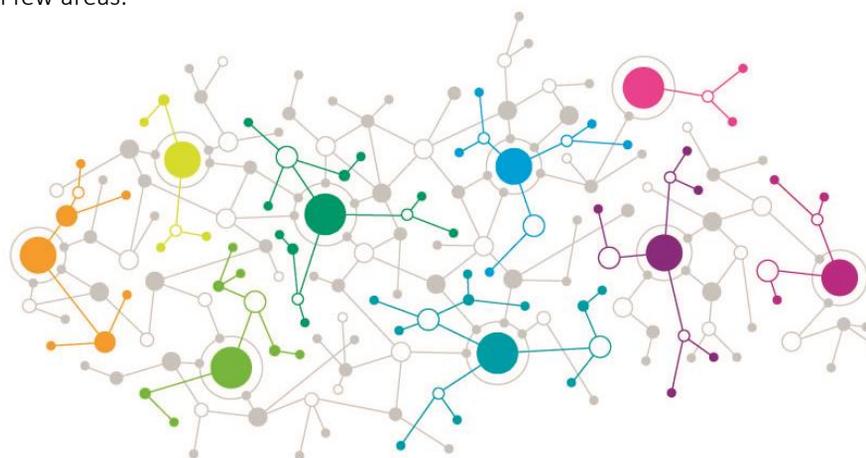
Demographic shifts have important spatial consequences. The government projects that more than 60% of the inhabited grid squares in Japan will lose over half their population by 2050, with almost a fifth becoming uninhabited. Only 2% are projected to experience population growth. For some areas this will present severe challenges for inclusiveness and growth.

In August 2015, the Japanese government adopted a new ten-year National Spatial Strategy (NSS). The Strategy is part of a broad view of spatial development up to 2050, which underscores Japan's determination to take a comprehensive and long-term approach and, in particular, to heighten the sense of urgency surrounding these issues in regions and cities. The central concepts set out in the NSS are "compact" and "networked". The aim is to sustain a settlement pattern that facilitates the realisation of agglomeration economies (see Figure 9 for a description) while avoiding the abandonment of very large parts of the national territory.

In order to ensure effective service delivery and realise agglomeration economies, the settlement of Japan needs to be more compact. This principle applies at different scales, from national to local. The authorities acknowledge that some areas will become effectively depopulated, but they seek to sustain a balanced settlement pattern across the national territory rather than still greater concentration in few areas.

A Japan in which cities and towns are shrinking will need to be networked. Improved connectivity will be critical to maximising the potential economic benefits of agglomeration, especially when it comes to strengthening the links between neighbouring cities. Better connectivity among towns and cities, as well as within them, can help offset the loss of agglomeration potential that will occur as the population declines. Better networking of people and firms should facilitate innovation as well as the exchange of ideas, goods and services.

Diversity and collaboration are the other key themes of the strategy. As the population declines, competition among regions and cities for people and resources will intensify, largely because they have similar endowments, needs and aspirations. However, it is their diversity that may offer the best hope for the future. Most regions and cities will need to identify their specific natural, cultural, economic and social assets and potential in order to successfully attract people and investment. This very diversity of endowments and strategies creates the possibility for collaboration, because it gives rise to the possibility of identifying potential complementarities among places and building strategies to exploit them. Fostering diversity thus offers a way to promote both regional innovation and collaboration across different communities.



A “compact and networked” approach must be adapted to local circumstances

The government’s “compact and networked” approach is, broadly, the right one to take. However, it will need to be implemented in different ways in different places. The critical point is not that all places should be very dense, but that downsizing should be managed in ways that preserve the coherence and identity of places, facilitating efficient service delivery and avoiding “perforated cities”, made up of patchworks of settled and abandoned areas.

The “networked” dimension of the government vision should also be approached carefully and in a multi-faceted way. It will be critical to ensure that central and local actors give due attention to the “soft” dimensions of networking, including governance co-operation across administrative boundaries, inter-firm connection in networks and collaboration in service provision, especially public transport.

The theme that is central to the NSS’s approach to future spatial organisation is the creation of compact cities in urban areas and small “stations” in rural areas. These stations will concentrate basic services, including administrative services, healthcare, shopping and so on, in specific places with transport networks organised so as to make them as accessible as possible to the surrounding areas. The stations will also vary with scale: some will be quite basic and limited to essential functions, while others, where population and resources permit, may become local centres of innovation.

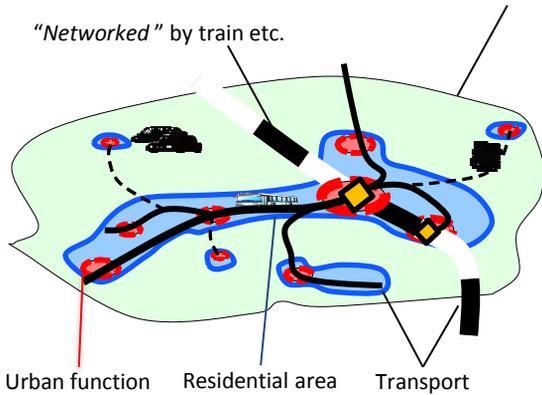
Key recommendations:

- Sustain a settlement patterns that facilitates the realisation of agglomeration economies while avoiding the abandonment of large parts of the territory.

Urban area (Compact city)

Residential areas and urban functions will be “Compact”.

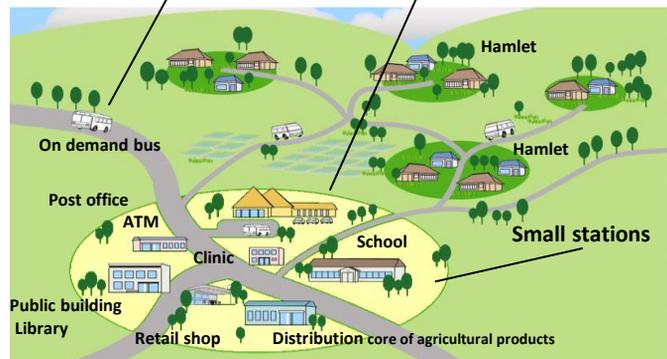
“Networked” by train etc.



Rural area (Small stations)

Service delivery hubs will be “Compact”.

“Networked” by bus etc.



Box 3 Service delivery: Small stations and other practices in OECD countries

The small stations initiative is similar to the approaches to service provision undertaken in some other OECD countries, such as France’s Maisons de service au public (“Public services houses”). The purpose of the Maisons initiative is to guarantee public service delivery in low-density or isolated territories by sharing costs and employees as far as possible among communities. In March 2015, the French government set a goal of increasing the number of MSPs threefold, up to 1000, by 2017.

Similar initiatives may also be observed in Australia (the Rural Transaction Centres) and Finland (Citizen Service Offices). These and other one-stop shops (OSS) can cut provider costs and improve access by rural dwellers to necessary services. The range of services offered by OSS in OECD countries can include anything from education, childcare, government information, referrals and advice, health/elder care, social support services (rehabilitation, housing support), to cultural and recreational activities. Driven largely by community need and involvement, these “all-purpose” service centres are expected to continue to grow in rural areas because they allow governments to provide rural services on the basis of cost-efficiency (OECD, 2010). Japan’s small station initiative may be even more ambitious than OSS found in most other OECD countries, since small stations concentrate the delivery of private as well as public services, in reshaping the settlement pattern over time, and, in some cases, acting as centres of innovation.

Source: Commissariat Général à l’Egalité des Territoires.

Part 4. Better governance at the metropolitan scale would maximize productivity potential of cities

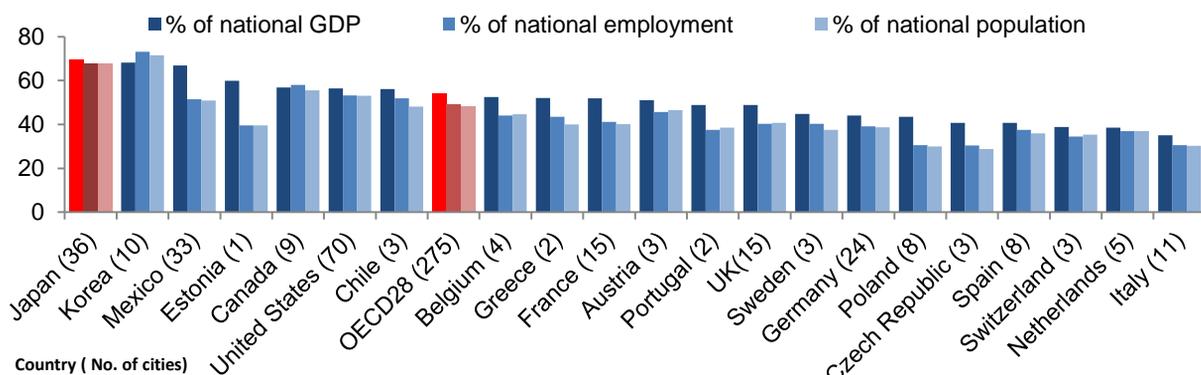
Cooperation among cities is crucial to maximise their productivity potential. The government should foster policy co-ordination beyond administrative boundaries and improve connections by linking nearby cities.

Japan combines high concentrations of population and economic activity with low territorial disparities

The impact of nation-wide demographic dynamics varies greatly from place to place. The population as well as economic activity has become increasingly concentrated, with the three large conurbations centred around Tokyo, Osaka and Nagoya, now home to about 46% of the country's population and generating 49.9% of GDP in 2010 according to OECD estimates. Yet, despite this concentration of activity, Japan has low levels of inter-regional disparities: in 2010, it had the second-lowest level of inequality in GDP per capita among its regions across OECD countries. Disparities between predominantly urban and rural regions were the second lowest in the OECD.

Between 2000 and 2011, the Tokyo metropolitan area accounted for about 85% of jobs created in Japan. Policies to stimulate business entry and job creation in the regions would therefore be the most important way to counter the concentration of the economy. The government has two distinct strategies for cities; for major cities, international competitiveness is clearly the priority, while for smaller cities, liveability and sustainability are prioritised. Tokyo remains very much the motor of Japan's growth: during 2001-10, the Tokyo metropolitan area contributed almost 45% of Japan's economic growth and accounted for around one-third of total GDP.

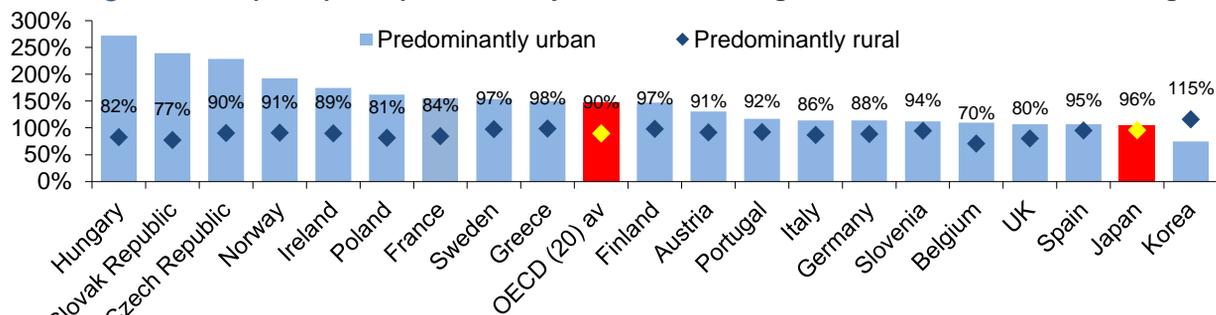
Figure 6. Concentration of population, GDP and employment in OECD metropolitan areas, 2010



Country (No. of cities)

Note: Countries with only one metropolitan area above 500 000 population are not shown. Source: OECD (2015d), "Metropolitan areas", OECD(2015h) Regional Statistics (database), <http://dx.doi.org/10.1787/data-00531-en> (accessed 10 September 2015). OECD(2013a) Regions at a Glance 2013,, Stat link <http://dx.doi.org/10.1787/888933324751>

Figure 7. GDP per capita in predominantly urban and rural regions relative to the national average



Source: OECD (2015d), Regional Statistics (database), <http://dx.doi.org/10.1787/region-data-en> (accessed 10 September 2015). Stat link <http://dx.doi.org/10.1787/888933324537>

The global competitiveness of Tokyo is a critical priority

Sustaining Tokyo’s position as a globally competitive metropolis will require improvements to both internal and external connectivity. A review of Tokyo’s strengths and weaknesses compared to other successful global cities points to a number of other priorities. For example, regulatory and fiscal regimes must be conducive to attracting and retaining of global players in fields such as logistics, finance and knowledge-creation. The new National Strategic Special Zone for Tokyo—that aims to create “the world’s most business-friendly environment”, is thus a welcomed development. Steps to ensure adequate international and connectivity inside Tokyo, as well as environmental quality, urban cultural and recreational amenities are being taken.

There is much that Tokyo can do to make itself more family-friendly, such as promoting the provision of childcare facilities in central areas and locating more childcare facilities at or near transport hubs (e.g. railway stations).

The international character of the city matters: it must be attractive to high-skilled expatriates from outside. Transforming Tokyo into a city that is friendly not only for visitors but also for foreign residents is essential.



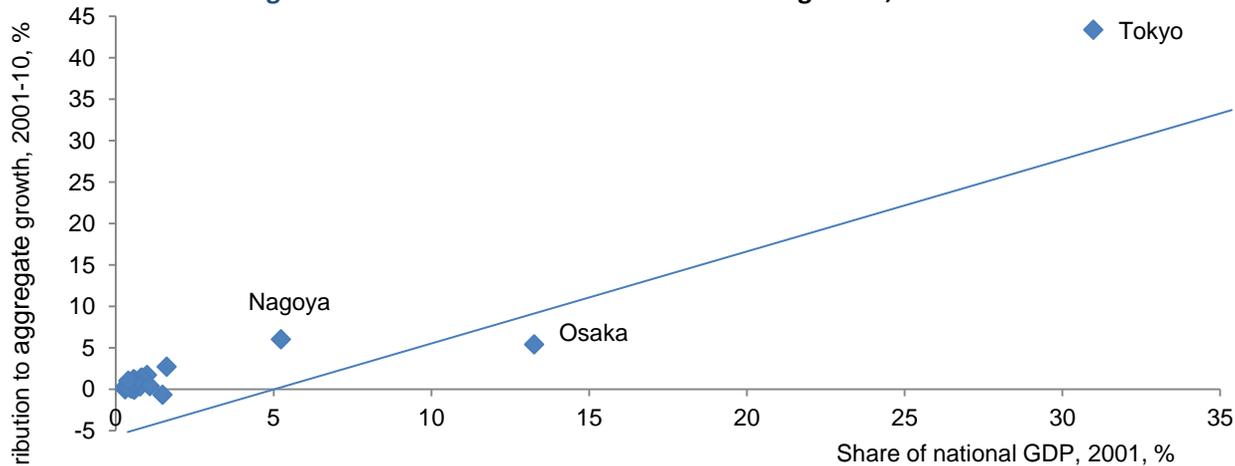
Tokyo International Airport is one of the two primary airports that serve the Greater Tokyo Area in Japan

Much can be done to maximise the benefits of the high speed maglev rail line. It must be accompanied by “soft” policies, to promote entrepreneurship, innovation and venture investment.

Over the coming decades, Tokyo, Nagoya and Osaka will be linked by a new running magnetic levitation maglev trains at speeds of more than 500km/hour. This is meant to foster the creation of an urban mega-region of more than 60 million people along the Pacific side of Honshū. It is envisaged that competitive synergies will emerge as the international functions of Tokyo are linked more closely to the manufacturing excellence of the area around Nagoya and the cultural, historical and commercial functions of the Osaka metropolitan area. Policy makers in the Tokyo-Nagoya-Osaka mega-region should thus focus on enhancing the environment for innovation, entrepreneurship and venture investment.

Japan could do much more to stimulate innovation and entrepreneurship. The country scores poorly on measures of entrepreneurship: entry, and exit rates are low. The Japanese authorities have unveiled a large number of proposals to address this, including new support for start-ups and programmes to support innovation and the growth of small firms. However, there is still much to do. For example, entrepreneurship could be encouraged among older workers.

Figure 8 Initial GDP share and contribution to growth, 2001-10



Source: OECD (2015d), “Metropolitan areas”, OECD(2015h) Regional Statistics (database), <http://dx.doi.org/10.1787/data-00531-en> (accessed 10 September 2015). Stat link <http://dx.doi.org/10.1787/888933324766>

Increasing productivity may largely depend on tapping the potential of agglomerations

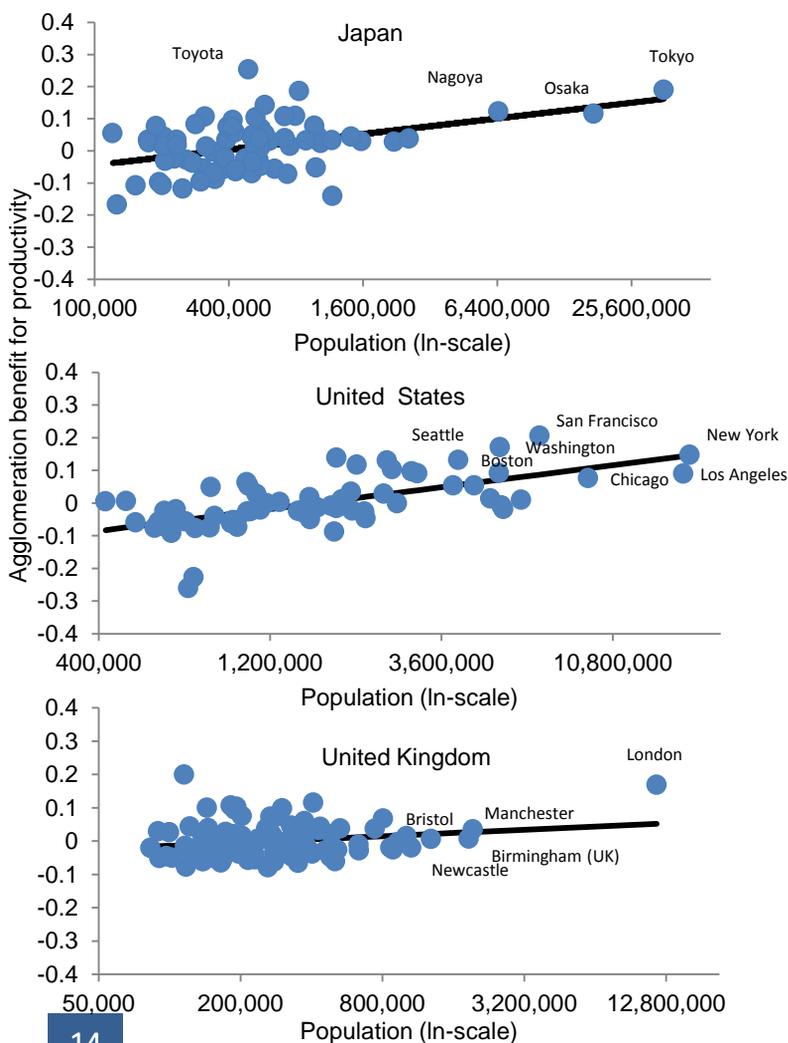
The need to increase productivity points to a need for greater concentration of people and activities as the population declines, to realise the potential productivity benefits of agglomeration, achieve economies of scale in infrastructure and service provision, and sustain the global competitiveness of Japan's major cities. Although Japanese cities are not without their problems, a micro-data analysis of functional urban areas in Japan in 2013 found that they still show relatively strong agglomeration benefits. This suggests that further growth and integration of major urban centres could yield productivity gains. Japan has not exhausted its agglomeration potential.

However, the productivity-focused logic of concentration must be balanced against the need for a sustainable settlement pattern. The authorities are concerned about the environmental deterioration that can occur in abandoned locations, as well as about the equity implications of leaving a substantial portion of the population living in places where depopulation trends may destroy the economic and social fabric of local communities.

There is also a fear that over-concentration could leave the country even more vulnerable to both economic shocks and natural catastrophes, particularly given Tokyo's vulnerability to earthquakes. The government remains committed to sustaining a broader settlement pattern. Variety in the size and character of places is no less beneficial than variety in the availability of goods and services. Firms and households choose cities of different size, or rural areas, as a function of their needs and resources, and there is no obvious reason for depopulation to change this.

The productivity imperative and sustainable settlement pattern are thus two central themes in Japanese territorial development policies. Pursuing both goals with a population in decline and public finances under strain will be difficult, but the authorities are right to be concerned with both priorities. The global competitiveness of the country's major cities is the foundation of Japan's prosperity, but the government should not neglect the potential of non-metropolitan areas.

Figure 9 Estimated agglomeration benefits across cities in three OECD countries



Notes:

“Agglomeration benefits” are the positive productivity spillovers that arise when highly productive firms and people are brought closer together. Typically, these benefits are created through shared inputs, better “matching” between firms and employees, and mutual learning among firms and residents. “Knowledge spillovers”, in particular, are considered critical in explaining the benefits of cities in modern service-oriented economies.

Note: City productivity is defined as a wage premium associated with each city once the characteristics of the city workforce are taken into account. Individual level wage regressions are estimated with controls for the characteristics of the workers, in order to account for sorting of individuals to cities.

Sources: OECD calculations based on national sources: “UK Annual Survey of Hours and Earnings” (ASHE) for 2003-10; US Census from 1990 and 2000 with the “American Community Survey” for the years 2005 to 2007; for Japan calculations are based on Ministry of Health, Labour and Welfare (n.d.), “Basic Survey on Wage Structure”, <http://www.mhlw.go.jp/english/database/db-l/wage-structure.html> (accessed 15 July 2015) and Ahrend, R. et al. (2014), “What Makes Cities More Productive? Evidence on the Role of Urban Governance from five OECD Countries”, OECD Regional Development Working Papers, No. 2014/05, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5jz432cf2d8p-en> Statlink <http://dx.doi.org/10.1787/888933324849>

Cities outside the big three metropolitan areas need to work together

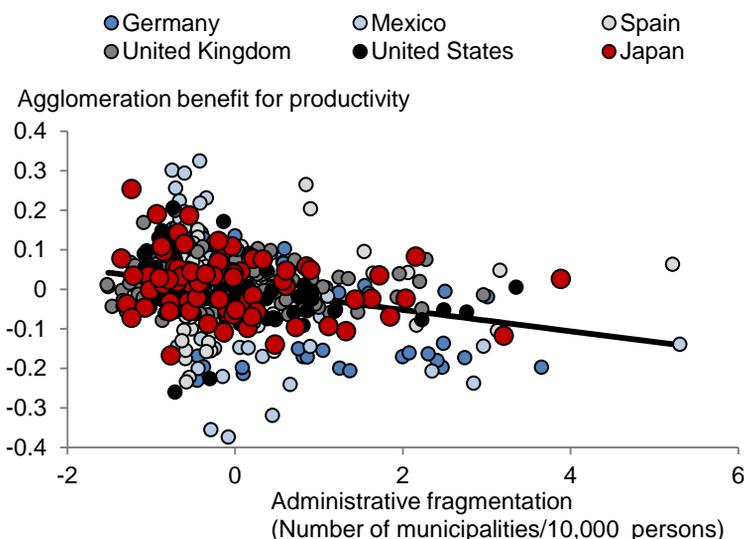
A great deal of attention has recently been focused on the revitalisation of small rural communities, but the challenges may be most daunting in the cities outside the big three metropolitan areas. The micro-data analysis of urban performance conducted by the OECD suggests that governance fragmentation undermines performance. Cities need to work together.

Recent OECD work on urban growth confirms that cities can indeed benefit from the agglomeration dynamics resulting from strengthening connections and that this can offset some of the competitive disadvantages they may suffer as a result of their small size. Analysis also shows that successful urban agglomerations tend to also generate “growth in their hinterlands.

Work on urban governance across the OECD highlights the importance of co-ordinating land-use,

transport and economic development policies, in particular, at the scale of the “functional urban area”. That means co-operating successfully across administrative borders. This is not just a matter of collaboration among public bodies: business-to-business connections and links between regional firms, and nearby universities and research institutions are critical to knowledge creation, entrepreneurship and innovation. Steps to co-ordinate or even merge local public corporations across municipal lines may also help to sustain service delivery. Efforts to promote horizontal collaboration should thus be reinforced and co-ordinated with national and prefectural infrastructure policies.

Figure 10 Administrative fragmentation



Source: Ahrend, R. et al. (2014), Author's elaboration.

Key recommendations:

- Further foster co-operation between cities outside the top three metropolitan areas through contracts among local governments that facilitate policy co-ordination and the concentration of key urban facilities or functions in core cities.
- Ensure that the hard infrastructure investment into the maglev rail line connecting the Tokyo, Osaka and Nagoya metropolitan areas is accompanied by appropriate “soft” policies to promote entrepreneurship, innovation and venture capital investment.
- Foster policy co-ordination beyond administrative boundaries and further improve connections of nearby cities.

Box 4 The national government can do much to foster such co-operation

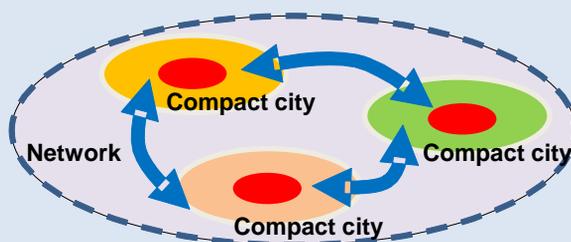
The performance of cities outside the major metropolitan cities would improve if they were further linked together by better governance co-ordination, and infrastructure connections.

Historically, prefectural and municipal boundaries in Japan have operated independently, making the kind of horizontal co-operation Japan's cities and localities now need more difficult. Changing this has been a priority for policy-makers.

The Government Headquarters, the Ministry of Land, Infrastructure and Tourism and the Ministry of Internal Affairs and Communications have been working to create “central agglomerations of co-operation” – in essence, co-operation contracts among local governments that facilitate policy co-ordination among them and, in many cases, the concentration of key urban facilities or functions in

core cities that can then support service provision to the surrounding population. These efforts are welcome and should be reinforced.

Collaborative core urban area



Part 5. Stronger rural and urban linkages will help sustain local prosperity

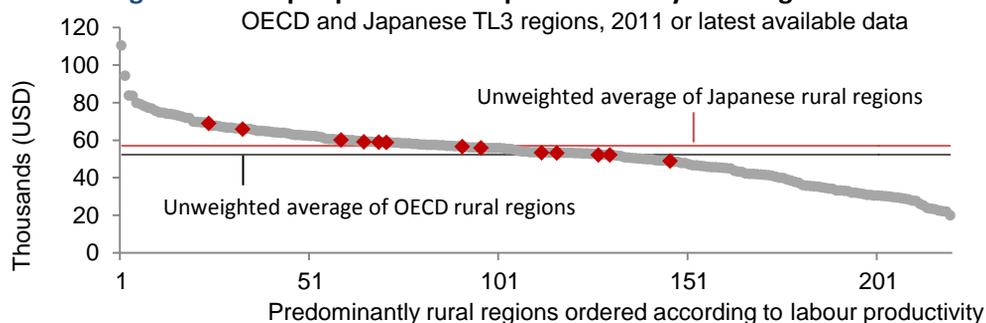
Rather than relying on external support, rural areas should take advantage of new opportunities to use technology and rural-urban linkages to promote innovation, attract investment and enter new markets.

Rural is not synonymous with decline

Rural Japan faces daunting challenges, including ageing, population decline and continuing urbanisation. Nevertheless, it would be a mistake to overlook its considerable strengths. While rural regions in Japan have tended to grow slowly – like all regions in Japan – they nevertheless exhibit certain strengths when seen in an OECD-wide context. GDP per capita in Japan’s predominantly rural regions was about 18% above the OECD average for such regions in 2012, and labour productivity was about 19% above the OECD

average for rural regions in 2011. Japan’s predominantly rural prefectures have, moreover, enjoyed higher growth in GDP per capita than the OECD-wide average since 2000, and their labour-market outcomes have been far better than average in recent years. All of Japan’s predominantly rural regions recorded lower unemployment rates and higher activation rates than the OECD-wide averages. Rural regions in Japan also offer advantages in terms of well-being (e.g., environment, housing etc.).

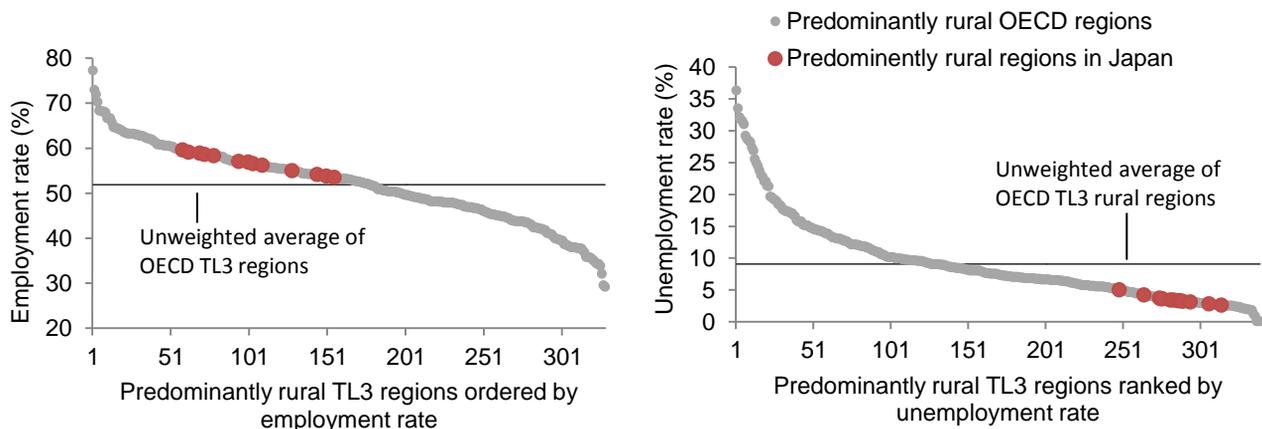
Figure 11. Output per worker in predominantly rural regions



● All predominantly rural OECD regions ◆ Predominantly rural Japanese regions

Source: OECD (2015b), Regional Statistics (database), <http://dx.doi.org/10.1787/region-data-en> (accessed 10 September 2015). Stat link <http://dx.doi.org/10.1787/888933324973>

Figure 12. Labour market performance: Rural regions in Japan and the OECD 2013



Source: OECD (2015b), Regional Statistics (database), <http://dx.doi.org/10.1787/region-data-en> (accessed 10 September 2015). Stat link <http://dx.doi.org/10.1787/888933324999>

Rural-urban linkages are key to local prosperity

For many years, rural development policy was almost synonymous with agricultural policy. This has lately begun to change.

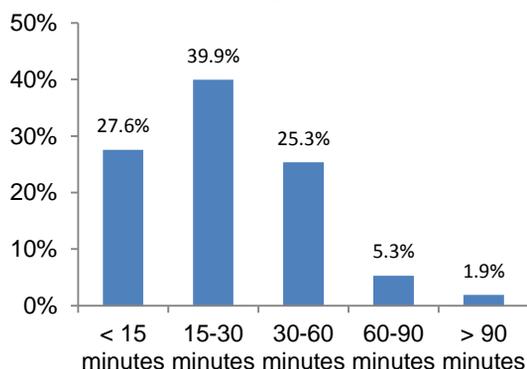
Currently there are measures to promote rural-urban exchanges: green tourism; children’s school trips to experience rural life; efforts to foster collaboration with the medical, welfare and food industries; promote the consumption of local foods; and to support the development of biomass and renewable energy, as well as greater use of ITC in farming and distribution.

Others seek to link local activities to their tourism potential. Tourism promotion is an important part of many local revitalisation strategy and indeed, a central part of Japan’s national economic development strategy. Its potential for rural areas goes without saying. Local economies benefit directly from the influx of outside visitors, and many of the investments made to help attract tourist can also enhance the local quality of life. However, tourism is not a stand-alone sector but rather a part of a more complex revitalisation effort which seeks to leverage tourism activities to promote local products, as illustrated by Ama-cho (see page 19). In addition to the places that present tremendous tourism potential (e.g. coastal resorts in warm climates), many successful tourist sectors are linked to other activities in the region – similar to wine tours in France or other forms of agri-tourism around the world. This suggests that experimentation with tourism and festivals as part of a regional branding and marketing strategy can be encouraged.

The so-called “sixth industry” programme involves the creation of integrated value chains encompassing production, processing, distribution and sales activities linking producers in agriculture, forestry and fisheries with partners who have expertise in the secondary and tertiary sectors. In some cases, this involves increasing value added in traditional sectors, e.g., by developing high-quality or organic agricultural products with distinctive characteristics.

Some initiatives are linked to technical innovation or the attraction of knowledge-intensive services. In many OECD countries, rural areas with attractive landscapes and amenities – and especially those that combine these attributes with good external connectivity – have emerged as attractive locations for start-ups in knowledge-intensive service activities (KISA). Although KISA firms are not intensive creators of employment, they generate economic spill-overs for the communities where they are located. This includes the fiscal benefits generated by the presence of KISA firms and the support to retain wealth locally since local firms and individuals use their services. In Japan, this type of dynamic underlines the emergence of a small but growing IT cluster in a small town of Kamiyama. It attracts not only IT start-ups, but also involves its revitalization strategy to retain highly skilled workers by offering a good quality of life. It also extends to the promotion of cultural activities and exchanges, including artist-in-residence program. The promotion of new entrepreneurial activity must be conducted in parallel with the attraction and retention of talents to avoid that such ventures leave the area.

Figure 13 Agricultural hamlets grouped by driving time to a city



Note: Densely inhabited districts are defined as contiguous census blocks with a population of at least 5 000 and an overall population density of at least 4 000/km².

Source: Agricultural census, 2010. Data provided directly by Official Statistics of Japan (Government of Japan).

Stat link <http://dx.doi.org/10.1787/888933325001>



Photo: Osamu Nakamura. Authors: Ilya & Emilia Kabakov.
Notes: One of the permanent exhibitions of Echigo-Tsumari Art Field.

Title: Terraced rice fields.

There are 5 artworks representing people cultivating in the terraced rice fields, and these poems matched to 4 seasons (spring, summer, autumn and winter) are hanged over (supported by Benesse Corporation).

Rural revitalisation depends on local initiative and local assets

A number of success factors seem to stand out, many of which are consistent with asset-based community development (ABCD) approaches. Successful initiatives tend to be locally driven and outwardly focused. Local communities actively seek external markets and ideas and welcome outside actor, rather than soliciting subsidies. This underscores the role of non-technical innovation in revitalisation efforts, including new marketing methods and new service delivery strategies. Such approaches are based on local, often highly place-specific assets. Given Japan's demographic and fiscal situation, this is encouraging: local communities need to abandon any expectation of revitalisation on the basis of external action and focus on their own endowments and potential. For local policy makers, this implies a shift of focus from local deficiencies to local assets, both tangible and intangible, and local capacities.

A community's capacity for self-organisation is critical intangible assets

Social capital matters. A community's capacity for self-organisation is one of its most critical intangible assets, especially when it comes to the co-production of services, which represents an increasingly important form of collaboration between municipalities and citizens.

Efficient provision of public transport is often a challenge in areas with relatively low population density: long distances and low ridership make it difficult to offer public transport alternatives. However, open data and mobile information platforms are rapidly changing the options available; this is particularly true of the rise of "big data". OECD/ITF (2015) draws on the experiences of a number of OECD countries, including Japan, to understand these shifts. It particularly looks at the potential for "demand-responsive transport" (DRT) in rural areas.



It would appear that the most successful strategies so far are those that focus on prosperity rather than population. Ama-cho, Kamiyama and other such communities do not expect to return to their previous sizes; they may even shrink further. But they have established a basis for future prosperity that will allow them to attract and retain young people, attaining a healthier and more sustainable population structure. While the government has a clear policy aimed at preventing large parts of Japan from becoming uninhabited, the prosperity, well-being and access to opportunity of its citizens are the primary concerns. This must be kept in mind, because many places may well have prosperous sustainable futures but with fewer people – as, for example, when structural change leads to a reduction in the labour intensity of the dominant local industry or when it leads to a shift in specialisation from more to less labour-intensive activities.

The evidence suggests that DRT users are prepared to pay a higher fare than existing bus tariffs. However, the unit cost per trip may be high, which means that vehicle choice needs to be linked to density of demand (Table 2).

Japanese municipalities are extremely active in this sphere; indeed, demand buses have operated in Japan since the 1970s (Takeuchi et al., 2003). A number of Japanese locals have shown how identifying service levels based on customer need can help to plan the supply to meet actual demand. In some places, the local private sector has been involved in designing routes and financing initiatives in co-operation with local authorities. In a number of others, community bus services now operate on a not-for-profit basis, sustained partly by fares, but with support from municipal budgets and, most importantly, local businesses along the routes. In many cases, local volunteers play a central role (ITPS, 2011). There is still plenty of scope for experimentation and innovation in this sphere. The government should therefore seek to promote a trial-and-error approach, supported by mechanisms for sharing information and experiences.

Table 2 Indicative guidance for vehicle choice related to demand

Trips per vehicle-hour x journey length (=passenger-km per vehicle-hour)	Suggested vehicle choice
Less than 10	Taxi
Between 10 and 20	Taxi(s) or flexible minibus
Between 20 and 50	Flexible minibus, with lower degree of route flexibility at the upper end of the range
Greater than 50	Largely fixed-route bus with limited deviations

Sources: OECD/ITF (2015), International Experiences on Public Transport Provision in Rural Areas, OECD, Paris, available at http://www.internationaltransportforum.org/Pub/pdf/15CSPA_RuralAreas.pdf; adapted from Wright, S. (2013), "Designing flexible transport services: guidelines for choosing the vehicle type", Transportation Planning and Technology, Vol. 36/1, pp. 76-92.

Box 5 Ama-cho as a model for regional revitalisation

The small island municipality of Ama-cho in Shimane Prefecture offers an excellent illustration of how local revitalisation can occur in a rural setting. Ama saw its population fall by more than 70%, from almost 7000 in 1950 to not much more than 2000 a half-century later. It has since begun to grow again, attracting an influx of new residents from elsewhere, and the local economy has picked up considerably. Ama-cho's experience is instructive in a number of ways, and the lessons it holds are relevant to remote rural communities that are struggling for survival elsewhere in Japan and, indeed, around the OECD.

First, it is important to note that Ama-cho's turn-around took time and that there were numerous false starts and failures: the town had been struggling with decline for decades before it hit upon a mix of policies that enabled it to change trajectory.

Second, there was no "magic bullet", no single intervention that put the town on course for recovery; on the contrary, the change in Ama-cho's fortunes has been the product of a multi-faceted strategy that included measures to put public finances in order; innovation in public service provision (especially education); innovation and entrepreneurship that combines technologies from elsewhere (the best known is the cell-alive system for freezing seafood products in a way that retains quality better than other technologies) with local assets (especially Ama's rock oysters); and a mix of public and private initiatives, as well as public-private collaboration.

Third, Ama-cho's turnaround was engineered locally; it was not the result of large-scale intervention or funding from outside.

Finally, Ama-cho has not turned in on itself but has rather reached out to the world, working to export its products and attract visitors and newcomers. One characteristic of many remote rural communities, particularly islands, is a failure to see residents as a fungible commodity: there is little interest in attracting newcomers and even selling one's home to an outsider can be very badly seen in the community (Chavez, 2014).

Ama-cho probably also benefits from being a fairly small place. Relatively modest initiatives, based on place-specific local assets, can make a very big difference to a small community's prosperity and well-being. Social capital and trust within the community have been critical ingredients in Ama-cho's success, and these can be easier to foster in small communities where residents know one another. In contrast to other places however, Ama-cho has worked deliberately to foster a strong sense of community that is still open and outward-looking, welcoming visitors and newcomers and encouraging people to try new things – even when there is a real risk of failure. The island tries to provide young people with opportunities to "learn by doing"; opportunities that a big city could not give them. Small rural places are often thought to be very conservative and resistant to change, and sometimes they are, but a growing number of Japan's rural communities are showing how they can embrace much more open and entrepreneurial attitudes to change.

Key recommendations:

- Encourage rural areas to make greater use of asset-based community development strategies (ABCD strategies) in response to structural change.
- Help rural areas to take advantage of new opportunities to use technology and rural-urban linkages to innovate, attract investment, enter new markets and sustain local prosperity and well-being, rather than simply rely on external support.



Notes: Ama's rock oysters

Reference

- Abe, H. (2014), "Pursuing Local Economy and Well-Being in Ama Town, Shimane Prefecture", JFS Newsletter, No. 140, April.
- Ahlfeldt, G. M. and A. Feddersen (2015), "From periphery to core: Measuring Agglomeration Effects Using High-Speed Rail", SERC Discussion Paper, No. 172
- Ahrend, R. et al. (2014), "What Makes Cities More Productive? Evidence on the Role of Urban Governance from Five OECD Countries", OECD Regional Development Working Papers, No. 2014/05, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5jz432cf2d8p-en> .
- Ama-cho (2015), "A Bold Challenge from a Tiny Remote Island", brochure, Oki Ama-cho.
- Cabinet Secretariat (2015), "Regional Empowerment for Japan's Growth: Overcoming Population Change", A. (2014), "On This Island, Depopulation Isn't the Problem – Inertia Is", Japan Times, 27 August,
- Decline and Revitalizing Local Economies: Japan's Long-term Vision and Comprehensive Strategy", Headquarters for Overcoming Population Decline and Vitalizing Local Economy in Japan, Cabinet Secretariat, Tokyo.
- Dembe, A. et al. (2005), "The Impact of Overtime and Long Work Hours on Occupational Injuries and Development Towards 2050: Provisional Translation", Ministry of Land, Infrastructure, Transport and Tourism, Tokyo, 4 July, available at: <http://www.mlit.go.jp/common/001088248.pdf>.
- Forum, No. 18, available at: http://www.japanpolicyforum.jp/pdf/2014/vol18/DJweb_18_pol_01.pdf.
- Green Valley Inc. (2015), "In Kamiyama", <http://www.in-kamiyama.jp/en/about-us/> (accessed 14 December 2015).
- Horiguchi, H. (2007), (in Japanese) "Masua Hiroya, Iwate Prefecture Governor: How I Put the Prefectural Primary Balance into the Black," Foresight, April: <http://www.fsight.jp/3341?device=smartphone> (accessed 10 September 2015).
- Illnesses: New Evidence from the United States", Occupational and Environmental Medicine, Vol. 62/9, September, pp. 588-597.
- ITPS (2011), National Regional Traffic Activation Case Studies, Institution for Transport Policy Studies, Tokyo, March.
- Lippert, S. (2013), "Japan's Mega-project to Link Tokyo and Osaka with 505 km/h Train", World Review, 16 December, <http://www.worldreview.info/content/japans-mega-project-link-tokyo-and-osaka-505kmhtrain> (accessed 15 July 2015).
- Martínez-Fernandez, M. C. and C.-T. Wu (2007), "Stadtentwicklung in einer differenteren Wirklichkeit: Schrumpfende Städte in Australien [Urban development in a different reality: Shrinking cities in Australia], Berliner Debatte, Initial 1, pp. 45-60.
- Martínez-Fernandez, M. C. (2010), "Knowledge-intensive service activities in the success of the Australian mining industry", Service Industries Journal, Vol. 30/1, pp. 55-70.
- Martínez-Fernandez, M. C. et al. (2012), "Shrinking Cities: Urban Challenges of Globalization", International Journal of Urban and Regional Research, Vol. 36/2, pp. 213-25.
- Masuda, H. (2014), "The Death of Regional Cities: A Horrendous Simulation", Japan Policy Forum, No. 18, 20 January, <http://www.japanpolicyforum.jp/en/archives/politics/pt20140120152454.html> (15 July 2015).

Ministry of Health, Labour and Welfare (n.d.), “Basic Survey on Wage Structure”, <http://www.mhlw.go.jp/english/database/db-l/wage-structure.html> (accessed 15 July 2015).

Ministry of Land, Infrastructure, Transport and Tourism (2014), “Grand Design of National Spatial Development Towards 2050: Provisional Translation”, Ministry of Land, Infrastructure, Transport and Tourism, Tokyo, 4 July, available at: <http://www.mlit.go.jp/common/001088248.pdf>.

Ministry of Land, Infrastructure, Transport and Tourism (2014b), “OECD National Territorial Review Background Report”, Ministry of Land, Infrastructure, Transport and Tourism, Tokyo, December.

Ministry of Land, Infrastructure, Transport and Tourism (2015a), “National Spatial Strategy”, August, available (in Japanese) at: <http://www.mlit.go.jp/common/001100233.pdf>.

Ministry of Land, Infrastructure, Transport and Tourism (2015), Brochure of the revised Regional Public Transport Revitalisation Act, 8th edition, Ministry of Land, Infrastructure, Transport and Tourism, July 2015, available at: www.mlit.go.jp/common/001061400.pdf.

Morichi, S. and T. Shimizu (2002), “An Analysis of the Effect of High-Speed Railway on Inter-Regional Migration and Traffic Flow in Japan”, Proceedings of International Conference on Inter-city Transportation, Vol. 1, pp. 131-139.

Odagiri, T. (2015), “The Masuda Report Warns of the Disappearance of Country Life”, Opinion, No. 58, Meiji University, 20 March.

OECD (n.d.), Regional Well-being website, <http://oecdregionalwellbeing.org/> (accessed 1 September 2015).

OECD (2006), The New Rural Paradigm: Policies and Governance, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264023918-en>.

OECD (2007), Babies and Bosses - Reconciling Work and Family Life: A Synthesis of Findings for OECD Countries, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264032477-en>.

OECD (2010), Strategies to Improve Rural Service Delivery, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264083967-en>.

OECD (2012a), Redefining “Urban”: A New Way to Measure Metropolitan Areas, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264174108-en>.

OECD (2012b), Compact City Policies: A Comparative Assessment, OECD Green Growth Studies, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264167865-en>.

OECD/European Commission (2013), A Good Life in Old Age? Monitoring and Improving Quality in Long-Term Care, OECD Health Policy Studies, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264194564-en>.

OECD (2013a), Regions at a Glance 2013, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

OECD (2013b), How’s Life? 2013: Measuring Well-Being, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264201392-en>.

OECD (2013c), OECD Economic Surveys: Japan 2013, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-jpn-2013-en.

OECD (2013d), Entrepreneurship at a Glance 2013, OECD Publishing, Paris, http://dx.doi.org/10.1787/entrepreneur_aag-2013-en.

OECD (2014), Japan: Advancing the Third Arrow for a Resilient Economy and Inclusive Growth, Better Policies, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264215955-en>.

OECD (2015a), Ageing in Cities, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264231160-en>.

OECD (2015b), Governing the City, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264226500-en>.

OECD (2015c), Historical population data and projections (1950-2050), https://stats.oecd.org/Index.aspx?DataSetCode=POP_PROJ, (accessed 16 October 2015).

OECD (2015d), “Metropolitan areas”, OECD Regional Statistics (database), <http://dx.doi.org/10.1787/data-00531-en> (accessed 10 September 2015)

OECD (2015e), OECD Compendium of Productivity Indicators 2015, OECD Publishing, Paris, <http://dx.doi.org/10.1787/pdtyv-2015-en>.

OECD (2015f), OECD Economic Outlook: Statistics and Projections, http://www.oecd-ilibrary.org/economics/data/oecd-economic-outlook-statistics-and-projections_eo-data-en (accessed 16 October 2015).

OECD (2015g), OECD Economic Surveys: Japan 2015, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-jpn-2015-en.

OECD (2015h), OECD Regional Statistics (database), <http://dx.doi.org/10.1787/data-00531-en> (accessed 10 September 2015).

OECD (2015i), "Population", http://stats.oecd.org/Index.aspx?DatasetCode=POP_FIVE_HIST, (accessed 16 October 2015).

OECD/ITF (2015), International Experiences on Public Transport Provision in Rural Areas, OECD, Paris, available at: http://www.internationaltransportforum.org/Pub/pdf/15CSPA_RuralAreas.pdf.

Oliveira Martins, J. et al. (2005), "The Impact of Ageing on Demand, Factor Markets and Growth", OECD Economics Department Working Papers, No. 420, <http://dx.doi.org/10.1787/545827207132>

On Demand Bus (n.d.), "Introduction to on Demand Bus", Tokyo University Graduate School of Frontier Sciences, http://www.nakl.t.u-tokyo.ac.jp/odb/en/02_intro.html (accessed 6 August 2015).

Pencavel, J. (2014), "The Productivity of Working Hours", IZA Discussion Paper, No. 8 129, April, available at: <http://ftp.iza.org/dp8129.pdf>

Rho, H. (2010), "Hard Work? Patterns in Physically Demanding Labor among Older Workers", Center for Economic and Policy Research, Washington, D.C., August.

Ricci, J. et al. (2007), "Fatigue in the U.S. Workforce: Prevalence and Implications for Lost Productive Work Time", Journal of Occupational and Environmental Medicine, Vol. 49/1, pp. 1-10.

Rink, D. et al. (2012), Shrink Smart: The Governance of Shrinkage within a European Context, Helmholtz Centre for Environmental Research – UFZ, Leipzig, May.

Schilling, J. (2009), "Blueprint Buffalo, Using Green Infrastructure to reclaim America's Shrinking Cities", in K. Pallagst (ed.), The Future of Shrinking Cities: Problems, Patterns and Strategies of Urban

Takeuchi, R. et al. (2003), "Feasibility Study on Demand Responsive Transport Systems (DRTS)", Journal of the Eastern Asia Society for Transportation Studies, Vol. 5, October.

Tomoe, A. (2014), "Aging Kamiyama Hopes to Rejuvenate with IT Startups", The Japan Times, 1 January, <http://www.japantimes.co.jp/news/2014/01/01/business/aging-kamiyama-hopes-to-rejuvenate-with-itstartups/> (accessed 15 July 2015).

Tompson, W. (2009), The Political Economy of Reform: Lessons from Pensions, Product Markets and Labour Markets in Ten OECD Countries, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264073111-en>.

Transformation in a Global Context, Institute of Urban and Regional Development, Center for Global Metropolitan Studies and the Shrinking Cities International Research Network, University of California, Berkeley, pp. 127-138.

Vaillant, Y., E. Lafuente and C. Serarols (2011), "Location Decisions of New KISA firms: The Rural-Urban Divide", Service Industries Journal, <http://www.japantimes.co.jp/community/2014/08/27/our-lives/island-depopulation-isnt-problem-inertia/#.VvURXU32aDY> (accessed 15 July 2015).

Wright, S. (2013), "Designing flexible transport services: guidelines for choosing the vehicle type", Transportation Planning and Technology, Vol. 36/1, pp. 76-92.

Acknowledgements

The OECD Secretariat is grateful for the co-operation and support of the numerous Japanese officials, experts and businesspeople who met the OECD team preparing the review and in other ways participated in the review process. The Secretariat is particularly grateful to the Ministry of Land, Infrastructure, Transport and Tourism for its informational, financial and logistical support, as well as its deep engagement with the OECD Review team at all stages in the process.

The OECD Territorial Review of Japan was produced by the Regional Development Policy Division of the OECD's Public Governance and Territorial Development Directorate, headed by Joaquim Oliveira Martins. This report was prepared by William Tompson, Emiko Araki, Jose Enrique Garcilazo and Tadashi Matsumoto. Important analytical inputs into the Review were received from Alexander Lembcke and Johannes Weber of the OECD, Andre Comandon of UCLA, Andrew DeWit of Rikkyo University, Mikitaro Shobayashi of Gakushuin Women's College, and Izumi Yokoyama of Hitotsubashi University. Thanks are due to Rüdiger Ahrend and Karen Maguire of the OECD for their helpful comments on the first draft of the Review. The Secretariat is also grateful for the excellent inputs received from the two peer reviewers, Sabrina Lucatelli of Italy and Michel Ruffin of France. Kate Lancaster provided editorial support, and Ulrike Chaplar and Pilar Philip prepared the manuscript for publication.

This document summarises the key findings of OECD (2016), OECD Territorial Reviews: Japan, OECD Publishing, Paris.

Consult this publication on line at <http://dx.doi.org/10.1787/9789264250543-en>.

This work is published on the OECD iLibrary, which gathers all OECD books, periodicals and statistical databases.

Visit www.oecd-ilibrary.org for more information.