

2022 H2 Prelim Essay Q4

Rapid population ageing and a shrinking labour force in Japan are major challenges for achieving further increases in its living standards and ensuring the financial sustainability of its public social expenditures.

- (a) Explain how Japan's rapid ageing population affects its future economic performance.
[10]
- (b) Discuss the economic policies which might help the Japanese government to mitigate the adverse impact of its rapidly ageing population. [15]

Part a

Suggested Answer

The 3Cs to Question Interpretation:

Command Word	Concept Word	Context Word
Explain how	future economic performance	Japan's rapid ageing population
Elaborate with economic rigour (including graphical analysis)	Future economic performance <ul style="list-style-type: none">• Internal: Potential Economic Growth, Unemployment Rate, Inflation Rate• External: Healthy Balance of Payment Use of AD/AS analysis	Application to Japan context

Introduction

Population ageing in Japan has progressed more rapidly as compared to other countries. Currently, Japan has the highest old-age dependency ratio of all countries, with a ratio in 2017 over 50 persons aged 65 and over, for every 100 persons aged 20 to 64 and this ratio is projected to rise to 79 per hundred in 2050. This essay will explain the impact of Japan's rapid ageing population on its future economic performance. Japan's future economic performance includes the key macroeconomic objectives that are sustained economic growth, low unemployment rate, low inflation rate and favourable balance of trade (BOT).

Body I: Impact on potential economic growth

Japan's working-age population (persons aged 15-64) has been declining trend since the late 1990s and this decline is likely to feed through a considerable decline in the total labour force over the next few decades.

With higher retirement figures and insufficient younger people entering the workforce to replace these workers, the quantity of workforce will drop further fuelling the fall in LRAS from AS_0 to AS_1 .

Coupled with shrinking labour force, older workers may not be able to keep pace with technological changes and changing work requirements Falling labour productivity

Thus, the fall in both quantity and quality of labour would limit potential economic growth as Yf_0 falls to Yf_1

Fall in potential economic growth

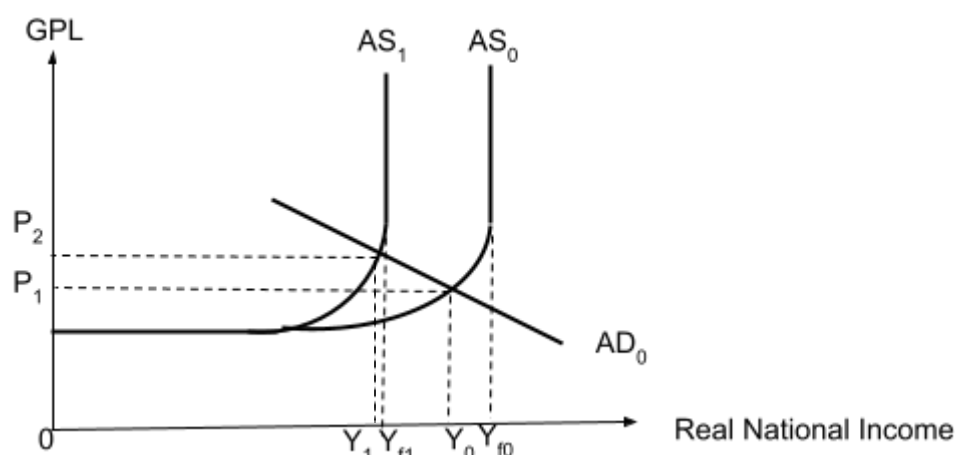


Figure 1: Falling quantity of labour force in Japan

Body II: Impact on future balance of payment & potential economic growth

However, the longer working lives could help limit the decline in Japan's workforce and boost social security contributions to finance rising health and pension expenditures.

Successful R&D that provide robotics solutions eg greater automation in manufacturing and services sector that reduce the need for physical work

rise in labour productivity and expansion of service sector

gain comparative advantage in say, robotics design and manufacturing

increases in future trade surplus healthy balance of payments in future

falling cyclical unemployment as firms expand output and increase their derived demand for labour

increases potential economic growth

Body III: Impact on future price stability

In the longer run, the fall in labour force > fall in demand for labour

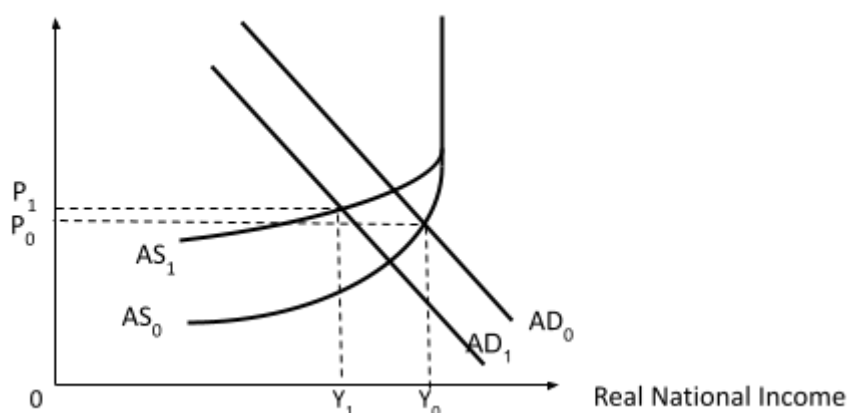
rise in nominal wages in future across the various labour markets

rise in the unit costs of production of all firms

firms will pass on the increase in unit cost of production to consumers

increase in GPL increase in cost-push inflation in the future

General Price Level



Body IV: Impact on future financial sustainability

Rapid ageing population

Increase in number of retirees increase pension expenditure

strain on financial sustainability of Japan's social security system

Conclusion

Overall, the impact of Japan's rapid ageing population on its future economic performance is likely to be adverse.

Examiners' Comments:

Mark Scheme

Level	Knowledge, Understanding, Analysis, Application	Marks
L3	Knowledge + Application + Analysis A balanced and well-developed answer on Japan's rapid ageing population positively and negatively impact it's future economic performance.	8 – 10
L2	Knowledge + Application An under-developed answer on how Japan's rapid ageing population positively and negatively impact it's future economic performance. Max 6m – only adverse impact on both internal and external economic performance is considered.	5 – 7

	Max 5m - only adverse impact on either internal or external economic performance is considered.	
L1	Knowledge An undeveloped answer where points are merely stated or listed without elaboration on the marginalist principle used by both consumers and producers. May contain theoretical errors.	1 – 4

- (b) Discuss the economic policies which might help the Japanese government to mitigate the adverse impact of its rapidly ageing population. [15]

Part b

Suggested Answer

The 3Cs to Question Interpretation:

Command Word	Concept Word	Context Word
Discuss	Economics policies to mitigate the adverse impact	Japan's rapid ageing population
Requires 2 sided arguments and eventually make a reasoned judgement on the basis of your analysis.	Discuss at least 2 economics policies that might help to mitigate the adverse impact of its rapidly ageing population. Comment on the appropriateness/ effectiveness of the proposed economic policies.	Application to Japan context

Introduction

- Briefly state the adverse impact of rapidly ageing population: shrinking labour force, lower labour productivity growth, reduced potential economic growth
- Identify the economic policies that might help mitigate the adverse impact of ageing population.
 - Policies that could increase employment levels or rise labour productivity
- Comment whether the proposed economic policies could successfully mitigate the adverse impact of its ageing population

Body I: Economics policies that increase the quantity of labour

1. Further increases in employment of older labour would help to limit the steep fall in total labour force that Japanese is projected to face over the next 20-30 years.

Proposed economics policy: Extend retirement age

- Extend retirement age
 - o In the short run, the Japanese government should seek to extend mandatory retirement age which can be phased in progressively every two years. The government can also increase the re-hiring of older

workers above age 70. Do note that the Japanese government has increased the mandatory retirement age to 70 years old in Apr 2021.

Comment: Gradually increase the mandatory retirement age as this will reduce the risk that older workers are re-hired as non-regular workers.

- o In the longer term, the Japanese government should consider abolishing the mandatory retirement age altogether as done in Australia, Canada, New Zealand and United States where these countries set law to ban mandatory retirement age.

Comment:

But unless the wage systems are reformed, employers will continue to resist raising the mandatory retirement age. One of the biggest difficulties in hiring older workers arises from their high wages due to the seniority-based wage system. The seniority-based pay system rewards worker for each additional year of service. However, this makes older workers expensive relative to their productivity which creates a barrier to their continued employment.

In terms of employees' perspectives, many older workers face a substantial pay cut following mandatory retirement and may end up being rehired in jobs that do not fully utilised their skills, which undermines their job satisfaction, motivation and well-being.

Limitations: Japan already has rates of labour force participation for older people that are among the highest of OECD countries, especially for older men. Thus, limited room to increase employment rates for older men.

2. Issues facing Japan currently:

- Situation of many older women who have been involved in non-regular work at younger ages (Non-regular jobs include part-time, temporary, dispatched, and contract workers.)
- Many women leave employment following marriage and child birth.

Proposed policy: Rise women labour force participation rate

- Boost opportunities to combine work and care for children and elderly parents in order to help women to (re-)enter and stay longer in the workforce.
- Enhance the availability of high-quality childcare; reducing long working hours and increasing working-time flexibility, in part by better enforcing the Childcare and Family Care Leave Law.

Comment:

- Partially offset the negative effects of population ageing on the size of workforce
- Help to bolster incomes and pensions at older ages. This is particularly important in Japan, where relative poverty rate of people aged over 65 years is 19.6% against 12.5% on average in the OECD.
- Contribute significantly to the fiscal sustainability of social security

However, poor quality jobs and working conditions undermine reforms to lengthen working lives. Excessive work hours for many Japanese workers as well as a lack of autonomy and support from colleagues.

Body II: Economics policies that boost labour productivity

- In view of rapid ageing population and an uncertain global economic environment, productivity-driven growth can deliver sustainable and inclusive economic development and improve Japan's standard of living over time.
- Define productivity: Productivity is measured by the output per worker per period of time or output per man-hour.
- Policies to boost labour productivity: Supply-side policy such as human capital development, tax incentives /subsidies, subsidize firms' R&D initiatives etc

Proposed policy: Interventionist Supply-side policy – Human capital development

- Investment in human capital eg education
 - i. Investing in skills is critical to improve productivity and respond to labour market changes. Adapting and upgrading the skills of older workers as well as making the best use of their skills represent a major challenge for Japan. It would help to overcome labour shortages, increase labour productivity and ensure workers have the right skills for an increasingly digital and globalised labour market.
 - ii. Invest in lifelong learning to support the good foundation skills among older and younger Japanese adults and reduce inequalities in training participation by age, skill and type of employment contract.
A key determinant is the skills obtained at a younger age through education and training as well as those skills acquired through participation in further training. The learning content of jobs also has an important impact on skills development over the life cycle. Some skills

are likely to decline over age, although experience may compensate for this decline.

↑ in labour productivity

↑ productive capacity and potential economic growth

↑ AS

Comment:

With advances in technology and automation, jobs increasingly involve sophisticated tasks, require analysing and communicating information. Hence, poor proficiency in information-processing skills not only restrains employment opportunities but also limits access to many services. More than ever, lifelong learning is of key importance, for all workers in all kinds of jobs. Workers in low-technology sectors and those performing low-skilled tasks must learn to be adaptable, because they are at higher risk of losing their job, as routine tasks are increasingly performed by machines, and companies may relocate to countries with lower labour costs. In high-technology sectors, workers need to update their competencies and keep pace with rapidly changing techniques. The job prospects of older workers will be increasingly dependent on the skills they have acquired and kept up to date over their careers.

As in other developed countries, high-skilled workers in Japan tend to participate more often in work-related training than the low skilled. In general, worker who have already built up a substantial stock of human capital learn more easily and their rates of return to learning tend to be higher. Thus, the need to train workers over the whole working life cycle rests on the continuous adoption of new technologies and forms of work organisation which are changing the skills needed in jobs. Training needs are also linked to changing jobs, functions or duties within the company.

Body III: Fiscal Policy

- Payroll levies: Payroll levies on employers are used in some countries as a way to pool resources from employers and earmark them for expenditure on vocational training. It is expected that they help avoid the “free-riding” of some companies, stemming from the fact that some employers invest considerably in their workforce (with expected benefits for the whole economy).

Comment (Limitations):

Some companies may use the funds for other activities and charge them to training. The net impact of these levies also remains unclear, as the policy may encourage employers to provide more internal training than they otherwise would have. These schemes may also not be sufficiently targeted, eg to promote training for the more disadvantaged groups, namely those with a low skill level and those who have a poor previous participation in further training. Further, if not targeted at SMEs, they are likely to benefit more large companies as these have more capacities to identify training needs of their workers and organise training.

- Develop further the **recognition and certification system** of prior learning acquired at work as well as a **qualifications framework**. This would help to standardise training and make it more transferable between companies for workers of all ages. A qualification framework would help achieve this and both actions should be carried out in partnership with employer and worker representatives.
- Set stronger incentives for employers to invest in training and to include social partners for the implementation of a lifelong learning strategy. In particular, SMEs have few resources for workforce development and lack instruments to identify their skills needs. Thus, government support for training eg subsidies, in particular of non-regular workers and targeted at SMEs should be leveraged up.
- Provide training in transversal skills irrespective of age. This includes investing in ICT skills as well as in soft skills for all age groups.

Comment:

One major obstacle to training over the lifecycle is that in many cases training needs are not identified. Some Japanese firms provide mid-career interviews and counselling but their focus remains on future employment and pay options after reaching a certain age instead of identifying training needs and gaps to help promote job mobility within and across firms. The government has taken several small steps in recent years to encourage firms to assess training needs of their workers including a subsidy to employers who introduce mechanisms that provide employees with opportunities for career consultations and access to certified career consultant agencies.

Body IV: Other policies

- Japan is promoting the establishment of career and lifelong learning counselling in companies. Practically, employers can introduce a mechanism “The Self-Career Doc system” that periodically provides employees with opportunities for various career workshops and career consultations, based on human resources development policies. In this

way, employees can independently promote their own career development. In Japan, certified career consultant agencies have been established since 2001.

- Hello Work (Japan's Public Employment Services) provides special counselling and guidance and job replacement services for older job seekers aged 55 and above. Even with Hello Work's help, more can be done to improve job matching and placement for this group. On one hand, older jobseekers are often steered towards occupations of low quality for which there are shortages and which younger workers show little interest. On the other hand, Hello Work counsellors find it difficult to change the negative attitude of some older jobseekers to new jobs. Hello Work could complement caseworker's judgement with qualitative guidelines and data-intensive approaches.

Comment:

Takes time to influence mindsets and change societal norms.

Conclusion

Since each policy comes with its own set of limitations, it is critical that the Japanese government designed policies to raise the labour force participation rate for women and older workers in the short run. In the longer term, the government should design policies to boost labour productivity.

Examiners' Comments:

Mark Scheme

Level	Knowledge, Understanding, Analysis, Application	Marks
L3	Knowledge + Application + Analysis A balanced and well-developed answer that discuss the economic policies that mitigate the adverse impact of Japan's rapidly ageing population. Comment on the appropriateness/ effectiveness of these economics policies.	8 – 10
L2	Knowledge + Application An under-developed answer that discusses the economic policies that mitigate the adverse impact of Japan's rapidly ageing population. However there exists gaps in analysis and/or with limited application of context given.	5 – 7

L1	Knowledge An undeveloped answer where economics policies are merely stated or listed without elaboration to Japan context. May contain theoretical errors.	1 – 4
Evaluation		
E3	Well-reasoned judgement Justified conclusion and evaluation regarding whether the government interventions are appropriate/effective with the use of a clear set of criteria. Might question any unstated assumptions to arrive at this well-reasoned judgement.	4 – 5
E2	Largely unexplained judgement Some attempt at a conclusion or evaluation regarding whether the government interventions are appropriate/effective. However, the response does not explain adequately their judgement or base it on a clear set of criteria.	2 – 3
E1	Unsupported judgement Mere stating of stand. An unexplained, unsupported evaluative statement on whether the government interventions are successful in maximising social welfare.	1