**The Economics of Ageing Population**

**Suggested Answers**

**(a) (i) With reference to Figure 4, identify the country which appears to face the least challenge to the size of its future labour supply. Explain the basis of your choice. [2]**

* Sweden.
* Sweden’s working population was forecast to rise by 8.1% by 2030, the highest among the countries with forecast of positive change in working population.

**(ii) Using AD/AS analysis, explain two ways in which ageing population in Germany would threaten the country’s future economic growth. [6]**

* **Defining future economic growth**: Future economic growth refers to a country’s ability to generate Gross Domestic Product (GDP) which is the value of goods and services produced domestically.
* **Primary determinants of future economic growth**: To achieve healthy future economic growth, a country has to grow its productive capacity (LRAS) and demand for its goods and services (AD).
  + Expansion in productive capacity – rightward shift of LRAS curve.
  + Expansion in AD – rightward shift to actualise potential economic growth (for actual economic growth).
* **How ageing population affects AS:** Through the impact on labour, ageing population can be expected to affect both productive capacity and labour cost.
* **How ageing population affects AD**: As a large number of the elderly can be expected to be pensioners or not working, this can be expected to affect the strength of consumption demand.
* These threats can be inferred from Figure 1 which shows Germany’s labour force in 2030 was forecast to decline by 12.7% and the old-age dependency ratio will increase by about 50%. Extract 5 mentions the size of decline in labour force to be over 6 million.
* **Shrinkage in size of labour force** 🡪 contraction of labour force🡪 smaller expansion in LRAS, assuming that the expansion is contributed by greater efficiency through investment and innovation and extension of labour force participation rates.
* **More resources need to be allocated for supporting the elderly**, drawing away from investment spending →limiting effects on both future LRAS and AD.
* **Rising dependency ratio** due to a greater fall in working-age population compared to the rise in the number of pensioners 🡪 need to set higher taxes to earn the tax revenue needed to sustain government spending → disincentive effects on effort and investment 🡪limiting effects on both future LRAS and AD.
* There could also be falling domestic consumption as elderly households tend to spend only on basic needs and not on luxuries →limiting effects on future AD.

Draw diagram and explain how the as-ad impact is seen.

**(b) Explain why it is likely the government and not the private sector that would finance the provision of infrastructure for the elderly population. [4]**

**Two reasons expected in answers.**

* Infrastructure for the elderly is generally not chargeable directly (e.g. railings and gradual slope on pedestrian pavements, lifts on every floor of public housing). Even if there are charges for the construction of such facilities, **prices and profitability will likely be low** in comparison to investment needed. The construction of these facilities involves high cost as it will need rebuild or revamp works. The private sector will not have incentives to supply.
* The provision of such infrastructure is part of collective well-being of the population. The use of such facilities can also be considered to offer **positive externality to society**, in the form of improved safety and less resources incurred to deal with incidents involving fall of the elderly. Private firms will not consider positive externality in their investment considerations. Government subsidies are hence needed to build the elderly-support infrastructure which the private sector will not build or build enough.

**(c) With reference to Extract 7, comment on the view that ageing population would reduce income inequality. [4]**

The claim/point of view in Extract 7:

* Ageing population 🡪 increase in demand for care workers (health service providers and other ageing –related jobs). These are jobs in middle and lower range skills.
* Increased demand → higher wages in the relevant sectors 🡪 narrowing the income gap between wages of higher skilled and lower skilled labour or between workers in the care industries with those in higher paying jobs in other industries.

Possible comments/evaluation points:

* The impact on narrowing income gap can be negligible as the job creation and rising wages may be confined within healthcare-related sectors and not in other sectors.
* The increase in wages is dependent on the interaction between demand and supply of labour. Wages may not go up much if supply of labour increases with the use of foreign labour or the extent of the increase in demand is reduced by automation of services.
* Wage inequality has been majorly contributed by the faster rising earnings of individuals in higher paying jobs or the capital owners benefiting from technology and investment driven economic growth. If their earnings continue to rise faster and larger, income inequality will continue to be larger despite rising wages of jobs in healthcare-related sectors.

**(d) With reference to Extract 8, discuss the macroeconomic opportunities which ageing population might bring about to Singapore economy. [6]**

* *Explain the macroeconomic opportunities to economic growth and employment creation.*
* *Examine the opportunities by pointing out factors which are needed for these opportunities to be realised*
* **Context:** Ageing population can weaken a country’s capacity for economic growth. Apart from imposing limits on future labour supply, labour productivity and consumption demand, the funding to support the elderly will draw away resources from uses which promote economic growth.
* **The opportunities:** However, meeting the needs of elderly population and the structural adjustments to accommodate the constraints on labour force may bring about opportunities for economic growth and employment. They can still contribute to productive capacity and quality of labour force **(supply-side contributions)** and the spending by the government on elderly support and the consumption of travel and hospitality services by the older population will create **demand for the economy**. Some ways these may come about:
  + **Employment creation** in some industries such as healthcare services, pharmaceuticals and elderly-support services.
  + Investment opportunities for firms from the construction projects for building eldercare infrastructure.
  + While older workers may lack the physical agility, they can offer deeper skills and experience to support the growth of companies and boosting competitiveness **(demand and supply-side effects).**
  + **Creation of domestic demand** from the growth of elderly-focused travel and leisure spending. While this target group may lack in their shopping habits and even spending power, the spending of those with high savings offers a market niche in travel and hospitality services.
  + **Creation of external demand** through the export of the expertise in developing eldercare services and facilities, e.g. part of urban planning in cities with ageing population.
* **Factors needed**: Whether ageing population imposes heavy burden or offering macroeconomic opportunities to Singapore would require several factors such as
  + How much **funds** are allocated by the government for investing into elderly care and infrastructure.
  + The **extent of skills upgrading** among the older workforce. Singapore’s policy in extending the retirement age (Extract 8) is an example of leveraging the capacity of the older workforce through training.
  + How well domestic firms (SMEs) respond to the challenges posed by ageing population. If they constantly **innovate** to reduce labour dependence as suggested in Extract 9, these firms will be more cost and internationally competitive.
  + A **sound safety net for the elderly** to be more self-reliant in their consumption and healthcare expenditures. Singapore’s CPF savings and insurance policies (Extract 8) suggests that this policy approach is already present. The government has had to do much explanation to convince the population of the importance of savings and public insurance policies for healthcare and post-retirement earnings as part of preparing the economy to cope with ageing population.
* **Synthesis:** Coping and dealing with the constraints and needs of ageing population needs conscious and forward-looking public policies. Whether ageing population is a problem or a positive challenge depends on the comprehensiveness and effectiveness of policies built into the country’s long term economic growth and development. For now, the Singapore government’s emphasis on skills upgrading, insurance for the future, extension of retirement age points to the ability of the economy to leverage the opportunities which ageing population offers.

**(e)**

**In light of the problems of massive public debt and weak economic growth which the Japanese economy is facing, discuss the merits of raising consumption tax to tackle these problems.**

**[8]**

**Context:** Raising consumption tax appears to be a measure implemented to resolve the dilemma between raising tax revenue to reduce the debt and the problem of weak economic growth. By raising consumption tax, on goods and services, the government hence avoids having to raise taxes on personal and corporate earnings which will have more adverse effects on both aggregate demand and productive capacity. It could also be that the government might reduce earnings-based taxes accompanying higher consumption tax.

**The merits of raising consumption tax**: Raising consumption tax is justifiable and needed for the Japanese government to raise tax revenue, either for debt repayment or to finance fiscal stimulus without incurring further debt.

* In view of Japan’s ageing population issue, Extract 6 mentions rising retirement, the greater emphasis on consumption tax will incorporate the elderly into the tax net, through their consumption. Without such a tax system, tax revenue will be severely reduced.
* Consumption tax 🡪 as it is broad-based, the lower tax rates compared to income taxes will generate large tax revenue🡪 ability to finance for fiscal stimulus or ageing population without busting the budget further (incurring even more public debt).
* Through fiscal stimulus or cuts in income tax made possible through higher consumption tax→ stimulate AD and national income.
* Unlike income taxes, consumption does not have a negative effect on motivation to work, save and invest 🡪 hence does not slow down economic growth like income tax.
* The use of additional tax revenue for debt repayment can help restore confidence in the economy and thus bolster confidence and investment, increasing AD and national income.

**Evaluation:** Raising consumption tax may worsen the weak economic growth or create other problems.

* Raising consumption tax 🡪 rising prices. With no change in households’ income 🡪 real income falls →falling household spending 🡪 lower AD 🡪 worsens the recession.
* Given the already weak economic growth, raising consumption tax will worsen confidence in the Japanese economy 🡪 preventing investment demand → economy will continue to limp.
* The consumption tax should be implemented alongside a fiscal stimulus and structural adjustments involving promoting innovation and efficiency of the ageing workforce. Abe’s macroeconomic policy arrows have indicated that the government is adopting three-pronged policies incorporating monetary, fiscal and supply side policies.
* Consumption tax is regressive in nature and can worsen income inequality. By raising it, the lower-income groups will be more affected as it takes up a larger proportion of their income.

**Synthesis**

* While raising the consumption tax can be considered appropriate in view of Japan’s adverse debt problem and the ageing population, it was not a timely adjustment as the policy would weaken Japan’s already sluggish economic growth.
* Even if the increase was felt necessary as a signalling of the government intending to adjust its tax orientation towards economic growth, the increase could be smaller than the 3% (in Extract 6).
* Indeed, the government is in a dilemma. The prolonged recessionary condition has led to ballooning debt and yet to reduce the debt will depress GDP further. There are no easy and fast solutions to the deep-seated economic issues Japan is facing.