TJC Prelims 2017 CSQ Answers (H1)

(a) **(i)** From Figure 1, describe the trend in Singapore's residential property prices from 2010 to 2016. **[2]**

Singapore's residential property prices generally increased from 2010 to 2016. [1] Prices increased steadily from 2010 to reach a peak in late 2013 and have been on a gradual decline since. [1]

(ii) Suggest two possible reasons for the trend identified in (i) **[2]**

Explain reason for general trend - general increase in prices [1]:

"Very low interest rate environment" (Extract 3) indicates a low cost of borrowing, encouraging borrowing to buy big ticket items such as houses, thus boosting demand for property. OR "Continued income growth in Singapore" (Extract 3) leads to higher purchasing power and therefore higher demand for property.

Higher demand for property thus explains the general price increase from 2010 to 2016.

Explain reason for refinement - gradual decline since late 2013 [1]:

The gradual decline in prices since late 2013 can be attributed to government's measures to "cool demand and expand supply, so as to moderate the increase in housing prices" (Extract 3). Dampened demand and increased supply thus led to prices slowing down after 2013.

Note: 1 mark for explaining general increase and 1 mark for explaining gradual decline since 2013.

(b) (i) Explain why public housing is not a public good. **[4]**

A public good is a good which is both non-excludable and non-rivalrous, resulting in total market failure and non-provision of the good.

Non-excludable means it is impossible to prevent a person who has not paid from consuming the good. [1] Public housing not a public good as it is excludable. An HDB flat-owner has to first purchase the flat before being given the key to his apartment. HDB can also evict those who fail to make payments for their apartments.[1]

Non-rivalrous means consumption of the good by one individual does not diminish the quantity and quality enjoyed by others. [1] Public housing is not a public good as it is rivalrous. When one HDB flat has been sold to a family, there is one less HDB flat available for other families. It is impossible to house the entire community in an HDB flat without creating intolerable overcrowding. [1]

Hence, public housing is not a public good.

(ii) Explain why the government provides subsidies for public housing in Singapore. **[4]**

The consumption of public housing generates positive externalities as home-ownership "promotes rootedness and a sense of belonging among Singaporeans, thus contributing to the overall economic, social and political stability of Singapore", benefitting other Singaporeans. [1]

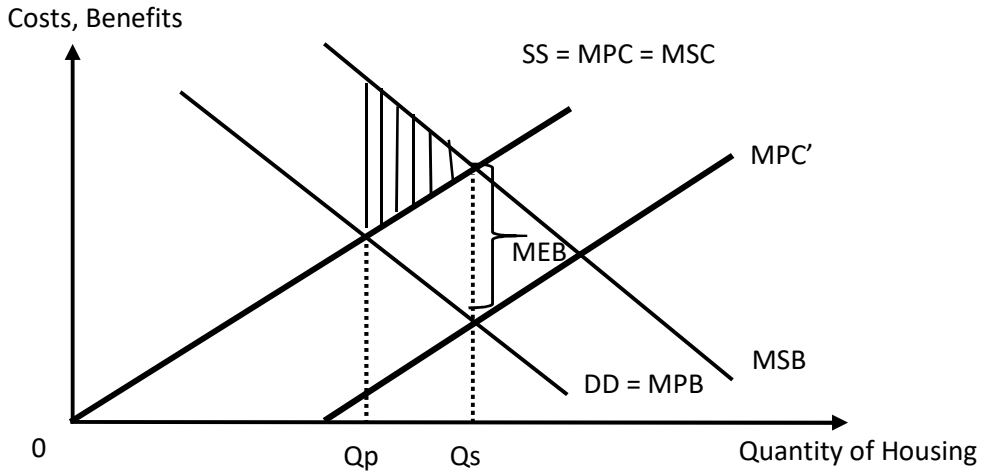

Figure 1: Positive Externalities in the Market For Housing

[1m for diagram]

Figure 1 shows the market for public housing. Marginal Social Benefit (MSB), which is the benefit derived by society, exceeds Marginal Private Benefit (MPB) by Marginal External Benefit (MEB), which represents the positive spillover effects on other people, ie political and social stability for everyone. Consumers only take into account their own MPB, ie the enjoyment of owning a house, and fails to take into account the benefit to others. Assuming no external costs, the private outcome Qp occurs where MPB=MPC and is lower than the socially optimal outcome of Qs which occurs where MSB=MSC, leading to underconsumption. This results in a deadweight loss of the shaded triangle area, and an allocatively inefficient outcome. [1]

Therefore, there is market failure and this may justify government intervention in the form of subsidies. Giving producers a per unit subsidy that is equal to the MEB lowers their production cost and shifts the MPC down to MPC'. The new private equilibrium output of Qp' where MPC' = MPB now coincides with the social equilibrium output of Qs where MSC = MSB. Allocative efficiency is achieved as output is raised to the socially optimal level. [1]

Note: Alternative reasons would be to improve equity in the distribution of public housing or to address underconsumption of merit goods - on top of the problem positive externalities, there is also an element of imperfect information as individuals are not fully aware of the benefits that public housing-ownership might bring to themselves, such as being financially secure as an asset-owner.

(c) Explain the possible impact of a bursting of the real estate bubble in China on Singapore's balance of payments. **[4]**

A bursting of the real estate bubble in China would mean a sharp drop in the

property prices, leading to a fall in the level of wealth. This causes individuals and firms to feel poorer and hence cut back on their consumption and investment respectively. [1]

As consumers in China cut back on their spending on both domestically and imported goods and services, their demand for Singapore's exports is likely to fall, because China is a significant export market for Singapore. Therefore, Singapore's export revenue is likely to fall, causing the trade balance and hence current account to deteriorate. [1]

"Excessive bubble expansion in the property sector" are associated with higher debt levels, and "analysts are sounding the alarm about growing Chinese debt loads". A subsequent sharp correction of property prices may trigger a banking crisis as banks become increasingly saddled with bad loans that were used to finance the purchases of these assets. Banks may find difficulty in lending to other business, which hampers production and investment. There may also be bank failures, lowering business and consumer confidence. [1]

Therefore, China's investments abroad, including to Singapore, is likely to be greatly reduced due to troubles at home. With long-term capital inflows sharply reduced, Singapore's capital account could deteriorate too. [1]

With both current account and capital account deteriorating, a bursting of China's property bubble is likely to cause Singapore's Balance of Payments to worsen.

Note: Answers which argue that capital account could improve if "hot money" flows into Singapore due to its safe-haven reputation are acceptable.

(d) Using an economic framework, analyse how the factors mentioned in Extract 4 affect the market for housing in Singapore. **[6]**

The market for housing in Singapore is affected by various demand and supply factors. The demand factors include "very low interest rate environment and continued income growth in Singapore**"** as well as macro-prudential cooling measures by the government aimed at preventing the formation of a property bubble. On the supply side, "a large supply of public and private housing – up to 200,000 units in total – will be completed in the coming years". The overall impact on equilibrium price and quantity depends on the extent of the shift in demand compared to the shift in supply, as well as the price-elasticity of demand (PED) and price-elasticity of supply (PES) for housing.

Examining demand factors

The demand factors mentioned in the extracts work in opposing ways. Low interest rates indicates low cost of borrowing for home-buyers. Households are more willing to borrow to consume big-ticket items such as housing and hence, demand for housing increases. [1]

This is coupled with continued income growth, which boosts households' purchasing power and hence demand for housing. [1]

However, the macro-prudential cooling measures on "property ownership for investments as well as on foreign buyers" reduces speculative demand for property, raising expectations of a price fall, causing demand to fall. [1]

Whether overall demand increases or falls depends on which factor has a stronger impact. It is likely that cooling measures will be a more important factor as they affect market sentiment significantly, and could lower economic growth and thus income growth, overall causing demand for housing to fall. [1]

Examining supply factors

Housing supply will rise due to the "completion of 200,000 units" in the years ahead. [1]

Overall impact

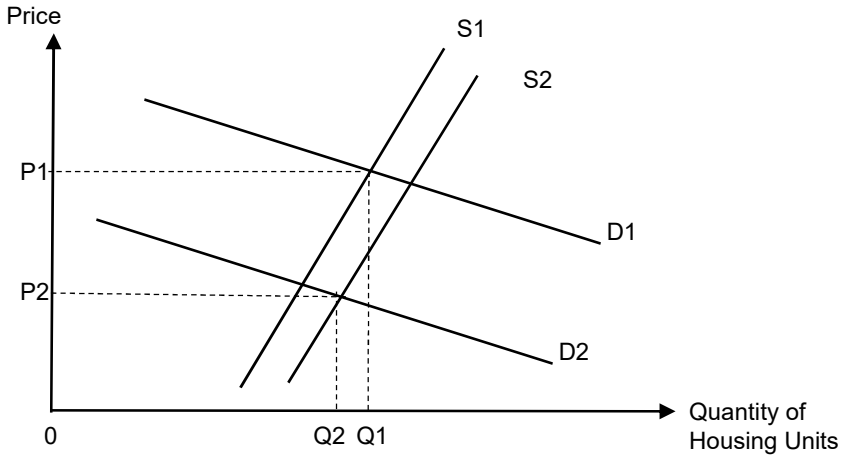

Figure 2: Concurrent shifts in demand & supply of housing market

[1m for diagram]

The combined impact of the fall in demand and increase in supply is represented in Figure 3. Demand is likely to fall more, from D1 to D2, than supply increase, from S1 to S2, and the fall in housing prices is more significant, from P1 to P2 than the fall in quantity, from Q1 to Q2. This is because cooling measures have a strong impact on consumer and investor sentiment, resulting in expected price falls in the housing market, and buyers holding back their purchases. While there is a large supply coming on-stream, this is likely to be spread out over a few years, and will not be significant in the immediate term. Moreover, current owners are likely to hold out and wait for a price recovery before selling, thus limiting the increase in supply. [up to 3]

Note: This question has a broad scope and there are many possible analyses that students can write to earn marks. Students are expected to determine the scope of the answer based on the number of marks allocated.

Marks are also awarded for elasticity analysis.

When demand changes, the relevant elasticity concept is Price Elasticity of Supply (PES), which measures the responsiveness of quantity supplied for a given change in own-price, ceteris paribus. Supply for housing is likely to be price-inelastic (PES<1) as it takes a few years for developers to bid for land and build housing units in response to a price change. When demand falls, price falls, leading to a less than proportionate increase in quantity supplied of housing as PES<1. [1]

A relevant elasticity concept when supply changes is price elasticity of demand (PED), which measures the responsiveness of quantitity demanded for a given change in own-price, ceteris paribus. Demand for housing is likely to be price-elastic (PED>1) as expenditure on housing forms a high proportion of a typical buyer's income. When supply increases, price falls, leading to a more than proportionate increase in quantity supplied of housing as PED>1. [1]

(e) As an economic advisor to the Singapore government, discuss whether you will recommend the removal of cooling measures in Singapore. **[8]**

Macro-prudential property cooling measures were first imposed to prevent a property bubble from forming as well as to ensure affordability of housing in Singapore. According to Extract 3, in 2013, further measures were adopted as according to Minister for Finance then, "interest rates are extraordinarily low" and "continue to add fuel to our property market". These measures were said to be needed in order to "avoid a more serious correction in prices futher down the road."

Thesis Point 1: Property prices have fallen, thus achieving original intent of cooling measures.

There is merit to the argument that cooling measures should be removed. Firstly, these measures have borne fruit and achieved their original intent. According to Extract 4, "property prices are now at one of the most affordable levels on record." URA data also shows that private home prices have fallen for "13 consecutive quarters" to reach "their lowest level in six years."

Thesis Point 2: Interest rates are rising, thus dampening speculative demand

Moreover, real estate consultant JLL argues that "house prices are under considerable pressure" given "subdued economic outlook both globally and in Singapore" as well as "expectations of rising interest rates." Property prices are highly-sensitive to interest rates movements. Singapore is a price-taker and its interest rates track US interest rates closely. US interest rates have bottomed as its economy recovers from the sub-prime crisis. Higher interest rates raise the cost of borrowing for buyers, and this lowers their purchasing power, reducing demand for property. As such, there is less need for cooling measures to rein in demand and they can be removed without fear of speculative demand being fuelled by hot money returning to the market.

Thesis Point 3: Removal of cooling measures could help boost economic growth

Extract 5 noted that in 2017, Singapore's GDP growth stood at 1.8%, narrowly averting a recession. Hence, the removal of cooling measures could boost consumption and investment in the property development market. As such, the aggregate demand could increase. Since Singapore is still on the phrase of economic recovery, there could still be excess resources, allowing the real output to increase further, thereby boosting economic growth.

Anti-Thesis Point 1: Global interest rates are still at historic lows

Although US interest rates have bottomed out, they are still at historically low levels. As mentioned by Minister Tharman, "The reality we face is that interest

rates are extraordinarily low, globally and in Singapore, and continue to add fuel to our property market." Low interest rates means continued affordability for buyers of property and removal of cooling measures could encourage speculative buying again. There is thus a need to be cautious about making such a move.

Anti-Thesis Point 2: China factor

Chinese policymakers have instituted measures aimed at cooling the overheating housing market, and analysts expect "these measures may lead investors to funnel money into property in cities where real estate has been appreciating less quickly." These cities include Singapore, and if cooling measures are removed prematurely, demand from China investors could cause the property market to reach exuberant levels again.

Conclusion

The government is rightfully cautious when deciding whether to remove the cooling measures. Removal of cooling measures sends a strong signal to the market and could fuel speculative buying again. This is especially so in Singapore where there is latent demand for property given the Asian culture of preference for property ownership. On the other hand, these measures are forms of market distortions, which cause allocative inefficiency. The government thus faces a fine balancing act between maximising societal welfare, ensuring equitable outcomes and preventing macroeconomic instability. The most important factor that the government might consider is likely to be the supply-demand conditions, as a huge surplus could lead to sharp falls in prices, which could cause an economic downturn. Given the present market conditions and global economic environment, I would recommend a wait-and-see approach and not recommend a removal of the cooling measures.

Levels of Response Marking Scheme (LORMS)

Levels	**Descriptor**	**Marks**
L2	A well-developed balanced answer with economic analysis that thoroughly explains whether property cooling measures in Singapore should be removed, with reference to case material.	4-6
L1	Lacks balance: One-sided answer that rigourously explains EITHER why Singapore's property cooling measures should be removed OR why they shouldn't be removed. **OR** Lacks rigour: Two-sided answer that is not thoroughly explained OR merely lifting evidence from the passage but no clear link to the issues. **OR** Lacks reference to case material and the application to the issues.	1-3
E	Evaluative judgement and comments based on economic or contextual analysis.	1-2