

Continued Education and Productivity

Table 1: Singapore Productivity Growth

	2010	2011	2012	2013
Multifactor Productivity Growth (%)	9.7	1.5	-1.5	-0.3
Labour Productivity Growth (%)	11.6	2.3	-0.5	0.3

Table 2: UK Productivity Growth

	2010	2011	2012	2013
Multifactor Productivity Growth (%)	1.08	0.76	-1.36	-0.23
Labour Productivity Growth (%)	1.5	1.16	-1.3	-0.12

Extract 1: Global Productivity Woes

A productivity crisis is stalking the global economy with most countries failing last year to improve their overall efficiency for the first time in decades. Globally, it found that labour productivity growth declined to 1.7 per cent in 2013 while multifactor productivity dipped 0.1 per cent.

The failure of overall efficiency – known to economists as multifactor productivity – to grow in 2013 results from slower economic growth in emerging economies alongside continued rapid increases in capital used and labour inputs. Labour productivity growth also slowed for the third consecutive year.

Bart van Ark, chief economist of the Conference Board, said it was not clear whether the decline in productivity growth was the result of weak demand reducing the output of economies, or that there is an over-emphasis on the product innovation rather than production innovation. While concerns about the usefulness of modern technology in improving productive efficiency have been raised by Prof Robert Gordon, of Northwestern University.

For the US it found that productivity gains of the early years of the crisis continued to be elusive in 2013, with labour productivity growth stable at 0.9 per cent in 2013. The US trends were, however, better than those in Europe, which has seen extremely weak productivity growth alongside relatively muted unemployment in most large economies with the exception of Spain, where joblessness soared.

Mr van Ark said Europe's problem in achieving more efficiency from its labour force stemmed from structural rigidities. "We really see the need for more people to move quickly from one company to another and where [innovative] firms do not see huge risks in taking on these people."

Source: Adapted from Financial Times, 14 Jan 2014

Extract 2: Challenges of Higher Education

The higher-education model of lecturing, cramming and examination has barely changed for centuries. Now, a technological revolution is challenging higher education's business model. Universities face a new competitor in the form of massive open online courses, or MOOCs.

These digitally-delivered courses, which teach students via the web or tablet apps, have big advantages over their established rivals. With low startup costs and powerful economies of scale, it has created an explosion in online learning.

Around the world demand for continuing education is soaring among workers of all ages. Globalisation and improvements in machine intelligence are enabling automation to creep into new sectors of the economy, from book-keeping to retail, have shrunk the number of jobs requiring a middling level of education. Those workers with the means to do so have sought higher education, in an attempt to stay ahead of the labour-demand curve. Carl Benedikt Frey and Michael Osborne, of Oxford University, reckon that perhaps 47% of occupations could be automated in the next few decades. They find that the odds of displacement drop sharply as educational attainment rises.

Source: Adapted from The Economist, 28 June 2014

Extract 3:

Axing the redundant skill programmes

The UK government is to cut funding to 5,000 adult vocational courses to "simplify and streamline" the adult skills system in England, among the courses to go are self-tanning, balloon artistry and instructing pole fitness. Nearly £200m of the Department for Business, Innovation and Skills budget for adult skills will now be redirected towards the "most relevant" qualifications that is valuable to employers and that it makes a real contribution to long-term economic recovery.

Mr Hancock said there are currently 15,400 regulated qualifications, and even with the restrictions in place, 11,000 of them are eligible for government funding. Hence the savings plan aims to make courses respond more closely to employers' needs and give learners a clear route either to employment or further training.

Source: Adapted from BBC.com, 5 Mar 2014

Extract 4: Ramping up the financial support for skill upgrading programme

Training providers are planning to ramp up capacity to cope with a likely rise in demand after new moves were introduced to encourage lifelong learning.

The expected boost to the training industry comes after a range of SkillsFuture initiatives were announced earlier this week, to help workers deepen their skills. Over \$1 billion in the form of new grants and higher subsidies have been introduced to encourage workers to take on training to sharpen their skills, and training firms expect to see more workers sign up for programmes.

However, human resource consultants warned that quality could suffer amid the expansion in supply, and said workers should be discerning about how they spend their money. As the number of training places is ramped up, the quality of courses must also be maintained, said National Trades Union Congress assistant secretary-general Zainal Sapari.

Mr David Ang, a director at training and consultancy provider Human Capital Singapore, said: "You should not be going for training just because there is more financial help to do so. Training must be focused." The Employment and Employability Institute, which funded more

than 50,000 workers for training last year, will work with job-seekers and workers to provide career coaching advice and help them understand industry needs, said its chief executive Gilbert Tan.

It may take a while for demand to heat up, cautioned Singapore Human Resources Institute president Erman Tan. "We still lack the culture of lifelong learning, that's one of the weak points of us as a workforce," he said.

Source: Adapted from The Straits Times, 28 Feb 2015

Extract 5: Risk to Singapore Economic Growth

In its annual review of Singapore's economic and financial policies, the IMF noted that the "slowing inflow of foreign workers, as part of the ongoing economic restructuring towards productivity growth, could moderate potential economic growth and lower competitiveness".

The IMF noted that as Singapore continues with its restructuring policies, tighter labour supply due to the slowing inflow of foreign workers and an ageing population will boost wages. Singapore's ambitious restructuring efforts could "set the stage for a new era of sustainable growth". But it cautioned that productivity improvements might take some time to materialise and may not fully offset the effects of declining labour force growth.

It was also noted that the country's dependence on trade flows has left it particularly vulnerable to a slowdown in the growth of trading partners with concerns mounted over the United States economy, which seems to be losing steam, while recent euro zone data has been weak. The moderating of growth in China is also another concern

The IMF recommend Singapore to further her efforts to promote external rebalancing, which is to move from a reliance on exports to one on domestic demand, and reducing inequality.

Source: Adapted from The Straits Times, 19 Oct 2014

Questions:

(a)	<p>(i) Compare the trend of multifactor productivity growth between Singapore and UK for the period of 2010 – 2013.</p> <p>1 mark – Both countries faces a decreasing trend in their productivity growth</p> <p>1 mark – Singapore's productivity growth falls faster/more than UK's.</p>	[2]
	<p>(ii) How far does labour productivity explain for the trend seen in a(i)</p> <p>Labour productivity does explain for the falling trend</p> <ul style="list-style-type: none"> - as labour productivity falls in both UK and Singapore, the multifactor productivity growth falls (as seen in table 1) - Explanation: <ul style="list-style-type: none"> a) Labour productivity falling due to structural rigidity as the economy undergo structural change, workers from the sunset industries are lacking the skills to move over to the sunrise industries/industries in demand. Hence increasing workers who are working in less suited industries → fall in the multifactor productivity growth b) Labour productivity fall due to lower demand → hence lower production → under-utilise the workers. <p>However, fall in labour productivity growth does not fully explain for the trend</p> <ul style="list-style-type: none"> - in 2013, Singapore experience an increase in the labour productivity but multifactor productivity has decrease. In additional, there was more than proportionate fall in the multifactor productivity for both UK and Singapore as compared to their labour productivity. This could be due to the change in other factor productivity such as capital goods/technology - Other Reasons: 1) falling in the efficient use of capital goods and less adoption technology hence lowering productivity level. 	[4]
(b)	<p>From extract 2, what can you infer about the change in the price elasticity of demand of higher education that is based on the “model of lecturing, cramming and examination”.</p> <p>Price elasticity of demand for higher education that is based on the model of lecturing, is <u>becoming less price inelastic</u> as there is an increase in the no. of substitute due to more online higher education providers</p>	[2]
(c)	<p>Explain how “technological advancement” will affect the price of higher education market.</p> <p>Demand increase → due to Technology advancement in production replace workers for lower skill task → job available require higher skill workers --> rise in demand for higher education</p>	[4]

	<p>Supply increase → due to develop of MOOC → lower cost of production</p> <p>Supply increase < demand increase because online platform provision of education is not is significant contribution to the overall cost of production → price will increase</p>										
(d)	<p>Account for why government intervene in the market for vocational training</p> <p>Positive externalities → rise the level of skill of workers and increase labour productivity → lower cost of production and increase attraction of FDI</p> <p>Explain how positive externality lead to market failure (3marks)</p>	[4]									
(e)	<p>Evaluate the effectiveness of subsidy for vocational training in improving productivity.</p> <p>Effective: Explain how it increase consumption of vocational training (3) (with digram)</p> <p>With subsidy → lower the cost of production → increase SS → lower price of course and more affordable → increase consumption of vocational training → increase the skill labour force → higher efficiency, hence with same amount of labour input, more output can be produced → higher productivity.</p> <p>Ineffective:</p> <ul style="list-style-type: none"> – lack of information → under-provision of subsidy and unable to sufficiently lower the cost of production to incentivise higher production and lower price for workers → limit the increase in consumption of vocation training - lack of information → unaware of the relevant skills required of the current industries → courses subsidised are irrelevant that does not meet industrial needs → unable the increase productivity as the mismatch of skills still exist - lack proper or strict monitoring and regulation system to ensure the quality of the course provided → training providers may be lack incentive to ensure the quality of the course provided. As govt has artificially lower the cost of production for training providers → removing the incentive to ensure the quality of trainers and design of course → trainees will not effectively master/learn the skills → hinder productivity growth - Singapore lack culture of lifelong learning (extract 4) → workers may not be willing to take on the courses despite having subsidy → no improvement in productivity. <table border="1"> <thead> <tr> <th></th><th>Description</th><th>Marks</th></tr> </thead> <tbody> <tr> <td>L2</td><td>For an answer which a well-developed and balanced analysis on the effectiveness of subsidy including a stand on the effectiveness of the policy</td><td>4-6</td></tr> <tr> <td></td><td>No stand – max 5</td><td></td></tr> </tbody> </table>		Description	Marks	L2	For an answer which a well-developed and balanced analysis on the effectiveness of subsidy including a stand on the effectiveness of the policy	4-6		No stand – max 5		[6]
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		Max 4m for a well-developed and balanced analysis of 1 policy including evaluation of policy.		
	L1	For an answer which is is one-sided i.e. missing either effectiveness or limitations of subsidy; or for an under-developed answer	1-3	
(f)	With reference to the data and your own knowledge, discuss if productivity growth is the key to sustain economic growth in Singapore. Thesis: Productivity growth is key to sustain economic growth in Singapore With productivity growth => more efficient workforce → with same amt of input lead to more output → increase production capacity → LRAS → increase potential economic growth In addition, the more efficient and skilled workforce → attraction to investment → increase in AD → increase Real National income → higher economic growth Anti-thesis: Weak external demand due to falling growth in emerging countries & unstable growth in US and Europe → fall in export demand & investment inflow despite having a productivity growth → AD falls → fall in EG In order to increase achieve productivity growth → tightening of labour force → increase in wages → increase COP → SRAS fall → slower economic growth resulting in GPL. Hence in the near future, Singapore will lose out in price competitiveness of our export → fall in export demand → AD might continue to fall. In addition, the increase in labour cost → higher investment cost → deter investor if the productivity growth does not increase more than the labour cost → fall in I → hinder economic growth			[8]

**[Total:
30m]**