

**REMARKS BY 2nd MINISTER JOSEPHINE TEO
AT THE MILKEN INSTITUTE ASIA SUMMIT 2017 CLOSING PANEL
“JOBS OF 2037: PREPARING FOR THE FUTURE”,
15 SEPTEMBER 2017**

1. Future-gazing is an inherently risky enterprise. Before 1997, who would have thought Asia was headed for a financial crisis? Just three years later, the Dotcom bubble burst almost as quickly as it built up. I remember the shock of the September 11 attacks the following year, and the terrifying SARS epidemic of 2003. In more recent times, we've witnessed a global financial crisis, the Arab Spring and the Brexit vote.
2. None of these events in the last two decades had been predicted with any degree of confidence. I therefore approach the subject of preparing for the jobs of 2037 with great humility, starting with what we already know and outlining the broad strategies Singapore will take in response.

What we know

3. There are few things as certain as the ageing of the global population and declining birth rates.
4. Improved longevity is one reason why global population will still grow. But it is also why having more people does not automatically mean an expanded workforce. In fact, the working-age share of population is expected to fall marginally from 65% today¹. Singapore could expect a sharper decline from 72% to below 60% among the resident population². Except in the developing world, shrinking workforces elsewhere will dampen economic growth.
5. Another certainty is the relentless pace at which technology will change how we manufacture products, deliver services and create enterprise value. Disruptors are blurring the lines between industries – think ride-hailing platforms offering financial services.

¹ According to the World Bank's Health, Nutrition and Population statistics, the working-age share of population will decline marginally from 65% today to 63% in 2050.

² Singapore Department of Statistics

6. Seven of the top 10 companies by market capitalisation today³ are already tech companies which did not exist before 1975. No business should believe it can avoid riding the bumpy waves of digitalisation and still stay afloat.

Outlook for jobs not all gloomy

7. No wonder then that an often-asked question is whether robots will put millions of workers out of work. Do disruptive technologies lead inevitably to disrupted livelihoods?
8. There's no doubt that advances in Artificial Intelligence and machine learning will increase the prevalence of workplace automation. The impact will be widely felt across the whole spectrum of jobs and not just at the lower-end. For instance, natural language processing software can already search massive legal archives more quickly than paralegals.
9. However, concerns about massive job losses may be over-stated as most jobs are made up of many tasks, not all of which can be easily automated. A recent OECD study suggests that just about 9% jobs stood a high chance of being substantially automated, far lower than previous estimates. For the vast majority of jobs, human beings will still be needed although the use of technology will intensify. You can call it "tech touch".
10. Even as routine tasks are automated, technology can have positive "knock-on effects". For example, the introduction of ATMs reduced the number of bank tellers needed and also brought operational costs down, thus allowing more branches to be opened to meet customer demand and creating more work for sales and customer service personnel.
11. If the past is any guide to the future, technology has often resulted in a net creation of jobs. The wave of mechanisation that hit industrialising economies in late 19th century also ushered in a new era of job creation, from machine operators and technicians to railways and electrical workers.
12. In more recent times, new job roles such as digital marketers and cybersecurity specialists have emerged. E-commerce may have displaced

³ Market capitalisation data as of 2Q 2017

retail workers in brick-and-mortar stores but it also created many more jobs in supply chain management.

13. There is a catch though. The prospect of a net addition of jobs available is comforting only to the extent that displaced workers can find ways to access the new opportunities. Otherwise, we will have an unhappy situation of rising unemployment coupled with below-potential growth for businesses.

Businesses need to transform and people need to adapt

14. For Singapore, two other factors shape our response to the potential impact of technology. First, the imminent slowdown of workforce growth as a result of smaller cohorts coming of age, “baby boomers” retiring, an already-high labour force participation rate and moderated inflows of foreign manpower. Second, there is a risk productivity and wage growth will stagnate, especially in domestically-oriented sectors.

15. Against this backdrop, we have a real interest in helping businesses be more productive and manpower-lean. It is essential to their continued success in Singapore and ability to provide better jobs. Far from cold-shouldering technology and innovation, we welcome their potential to uplift productivity for our businesses and help sustain wage growth for our people.

16. This is why Singapore’s approach is to embrace technology and innovation. Our focus is to support businesses as they transform, and enable our citizens to adapt. It is an activist approach with initiatives relevant to both businesses and individuals.

17. More than 20 Industry Transformation Maps (ITMs) have been charted together with stakeholders, each encompassing specific plans to promote productivity and innovation with a special focus on digitalisation. These ITMs also identify the skills gaps measures to future-proof the workforce.

18. Through the SkillsFuture initiative, jobseekers and incumbents in every sector have a customised framework to guide them as they advance in their careers. To help individuals transit to new jobs and industries, wage and training support are available. In the first half of 2017, well over

10,000 workers were placed by Workforce Singapore (WSG) and NTUC's Employment and Employability Institute through the Adapt and Grow initiative.

19. Five growth sectors offer considerable potential for experienced professionals, managers, executives and technicians (PMETs). They are healthcare, financial and insurance services, infocomms technology, professional services and wholesale trade.

20. Collectively, they will account for half of the 25-40 thousand new jobs created annually for the new few years. Many of these are suitable for PMETs with valuable and hard-to-automate skills such as interfacing with customers and suppliers, complex decision-making, managing and developing people.

Cultivate a sense of solidarity

21. I've outlined the Singapore's strategies for preparing our businesses and people for jobs of the future. The key lies in implementation. We also need to be nimble and keep evolving our specific measures.

22. I started by saying that we need a great sense of humility when talking about the future. As I bring my remarks to a close, I would like to suggest that we also need a generous dose of empathy, for the businesses and individuals who will inevitably be stressed by the need to transform and adapt.

23. It would help if we acknowledged the uncertainties even as we enthuse about the opportunities. But perhaps more importantly, we need to cultivate a sense of solidarity that we're in this together.

24. It can't be about businesses winning with technology and innovation at the expense of their people. Neither should it be about people winning more protection against disruption at the expense of new and more efficient business models.

25. It is about both businesses and people finding new ways forward and winning together. Only then, can society maintain a sense of solidarity and sustain a culture that embraces technology and innovation. Only then, can we have a future of jobs worth looking forward to.