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Growth with equity in Singapore: Challenges and prospects

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Ruby Toh

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And Working Conditions Branch

Growth with equity in Singapore: Challenges and prospects

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Abstract

Singapore is now at a critical juncture in its economic development path. The economic success of this small open economy in the past four decades is well known. Its effective government machinery, extensive public housing, efficient infrastructure and disciplined workforce have been the focus of admiration and emulation by many countries. However in recent years, increased concerns have surfaced over the adverse impact of the significant rise in income inequality prompting a serious rethink of its future development strategy to address simmering discontent. This paper highlights the current state of income inequality in Singapore and the labour market challenges pertaining to retirement adequacy and other social security issues. The potential implications on productivity and the labour market of recent demographic and inclusive growth policies will also be discussed.

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1. Introduction

Singapore is currently ranked fourth in the world¹ based on GDP per capita adjusted for purchasing power differences. This enviable position is achieved through the rapid expansion of the economy from effective growth policies pursued in the past three decades. However, serious concerns have been raised in recent years regarding the distribution of the fruits of Singapore's economic prosperity and the social costs associated with its rapid growth. In particular, the widening wage and income disparity, the persistent presence of low-wage workers earning declining real wages, the escalating prices of property and private transport, and the overcrowding of public transport and social spaces are the key gripes raised in public and social media. The distribution of growth which hitherto had taken a backseat in Singapore's economic development path has begun to take prominence in policy deliberations. This is also evident not only in inclusive growth issues taking centre stage in public policy discussions and debate, but also in the official branding of recent budgets as being directed at developing an inclusive Singapore society.²

This paper examines the contributing factors to the current state of affairs with regard to income inequality and assesses the prospects for the future. The paper is organised as follows. In section 2 we trace the contribution of employment and productivity to Singapore's economic growth. This is followed by an evaluation of labour market developments and policies which have contributed to the state of income inequality in the country in Section 3. The policies implemented to ameliorate the impact of inequality are discussed in Section 4. The challenges confronting the prospects of growth with equity in the Singapore economy and the policy reforms needed are examined in the section 5. Section 6 provides the concluding summary.

2. Contribution to economic growth in Singapore

Singapore's economic growth performance has enabled the city state to transit to more advanced developing country status by the beginning of the last decade. However, the analysis of the contributory components to growth would surface some troubling facts underlying its growth performance. From the record of growth in Singapore over the past 3 decades in Table 1, it is evident that economic growth was increasingly driven by employment expansion. The productivity share of economic growth has declined both in absolute terms from 5.5 per cent p.a. in the 1970s to 1.3 per cent p.a. in the 2000s. More significantly, employment as the driver of growth has increased its share from 31 per cent in the 1970s to 75 per cent in 2000s.

¹ Based on World Bank GDP per capita, Purchasing Power Parity (current international \$) 2012 International Comparison Program database.

² 'An Inclusive Society, A Stronger Singapore' Singapore Budget 2012 http://www.mof.gov.sg/budget_2012/budget_speech.html and 'A Better Singapore: Quality Growth, An Inclusive Society', Singapore Budget 2013 http://app.singaporebudget.gov.sg/budget_2013/default.aspx accessed 14 June 13

Table 1 Components of growth 1980-2010

	1980-1990	1990-2000	2000-2010
Average Annual Real GDP Growth	7.8	7.3	5.2
Average Annual Employment Growth	2.4	3.8	3.9
Average Annual Productivity Growth	5.5	3.5	1.3

Source: Singapore Department of Statistics STS database

The analysis of growth performance by industrial sector in Table 2 paints a similar pattern of declining contribution of productivity growth. The construction and services sectors' productivity growth rates are much lower compared to manufacturing, with the construction sector registering not only the lowest average increase of 0.2 per cent p.a. but also the lowest share of growth of 7 per cent in the previous decade.

Table 2 Components of sectoral growth 1980-2010

	Manufacturing			Construction			Services		
	1980-1990	1990-2000	2000-2010	1980-1990	1990-2000	2000-2010	1980-1990	1990-2000	2000-2010
Average Annual Real GDP Growth	7.3	7.0	4.8	5.5	11.7	2.9	8.4	7.6	5.9
Average Annual Employment Growth	2.0	0.1	2.8	2.6	10.2	2.7	2.7	4.3	4.5
Average Annual Productivity Growth	5.3	6.9	2.0	2.9	1.5	0.2	5.6	3.3	1.5

Source: Singapore Department of Statistics STS database

2.1 Recent economic growth performance

The growth performance of the economy in the 2000s has in fact fallen short of the targets of the Economic Review Committee (ERC 2003) formed in 2001 to chart the remaking of the Singapore economy. The ERC had forecast real GDP growth of 3 to 5 per cent driven by implied productivity growth of 2 to 3 per cent.³ In contrast to the 1990s, when productivity growth averaged 3.5 per cent per annum, the targeted productivity performance has not been achieved for the economy as a whole in the 2000s.⁴

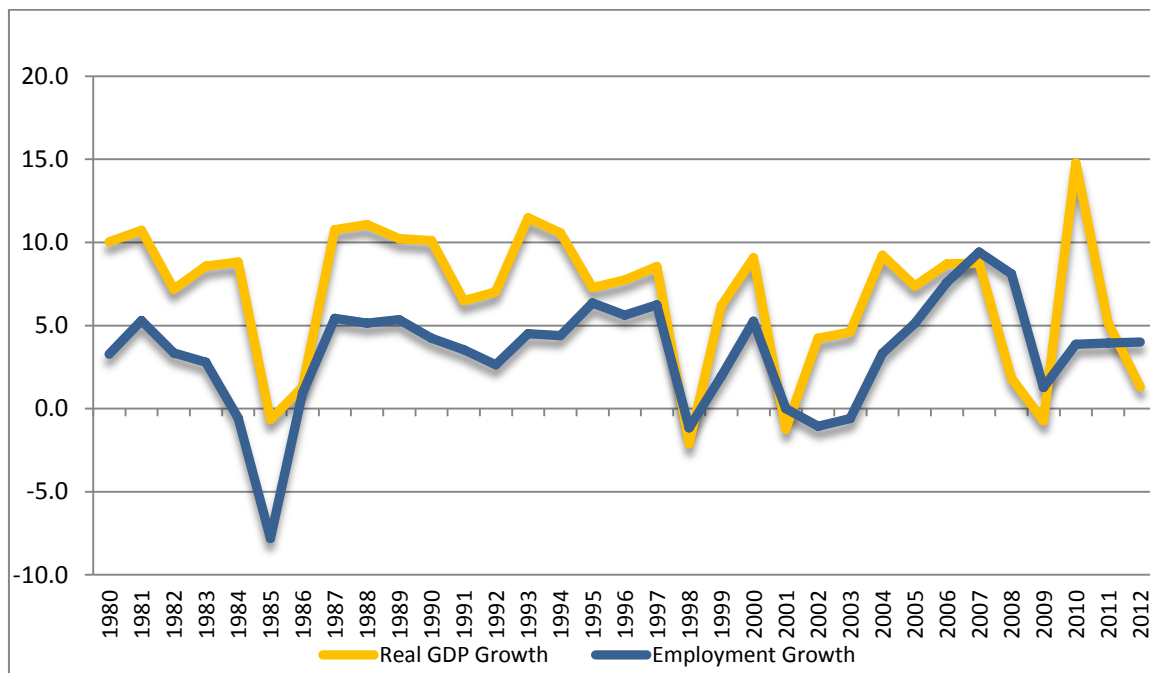
A closer look at the trend of the growth components in the past 2 decades in Figure 1 shows that in the period prior to Asian financial crisis in 1997, there had been relatively

³ The ERC had forecast real wage growth of 2 to 3 per cent with real GDP growth of 3 to 5 per cent. With the nationally accepted policy of real wages lagging behind productivity wage growth constantly espoused by the National Wages Council, this would have implicitly implied productivity growth increase of at least between 2 to 3 per cent.

⁴ The Economic Committee formed in 1986 to review the economy following the recession in 1985 had forecast growth of 4 to 6 per cent real GDP growth in next decade with productivity growth of 3 to 4 per cent (MTI 1986).

healthy contribution of productivity growth to economic growth. However since then, there had been two instances where GDP growth fell into negative territory in concert with productivity growth: in 1998, in the aftermath of the Asian financial crisis and in 2001, following the dot-com and 9/11 crises.

Figure 1. Real GDP and employment growth 1980-2010



Source: Singapore Department of Statistics STS database.

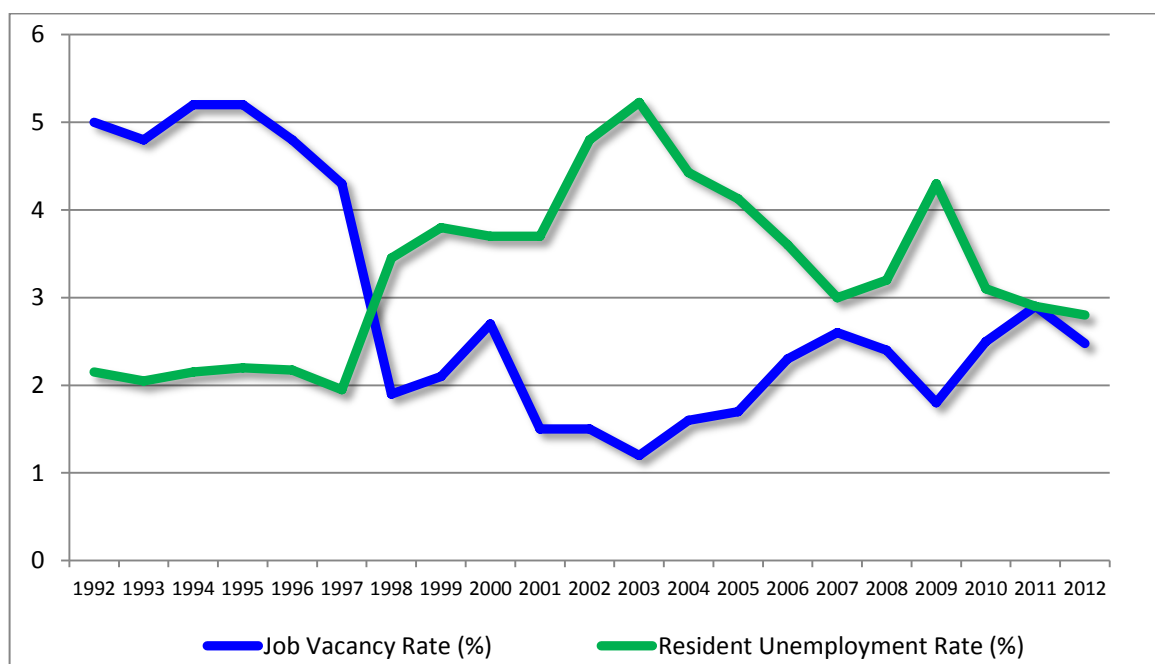
From 2007 to 2009, employment growth achieved through the significant influx of foreign workers exceeded real GDP growth. This follows the growth maximisation stance adopted by policymakers where economic growth was driven overwhelmingly by employment expansion. What is problematic is that productivity growth rate has faltered adversely affecting Singapore's GDP growth, and has been persistently negative even when there was positive economic growth rate in recent years. It is instructive to look at the reason for this development and its implications for the labour market. To do this we can identify some distinctive structural changes that have occurred in the Singapore labour market.

3. Labour market developments in Singapore

3.1 Structural changes in the Singapore labour market

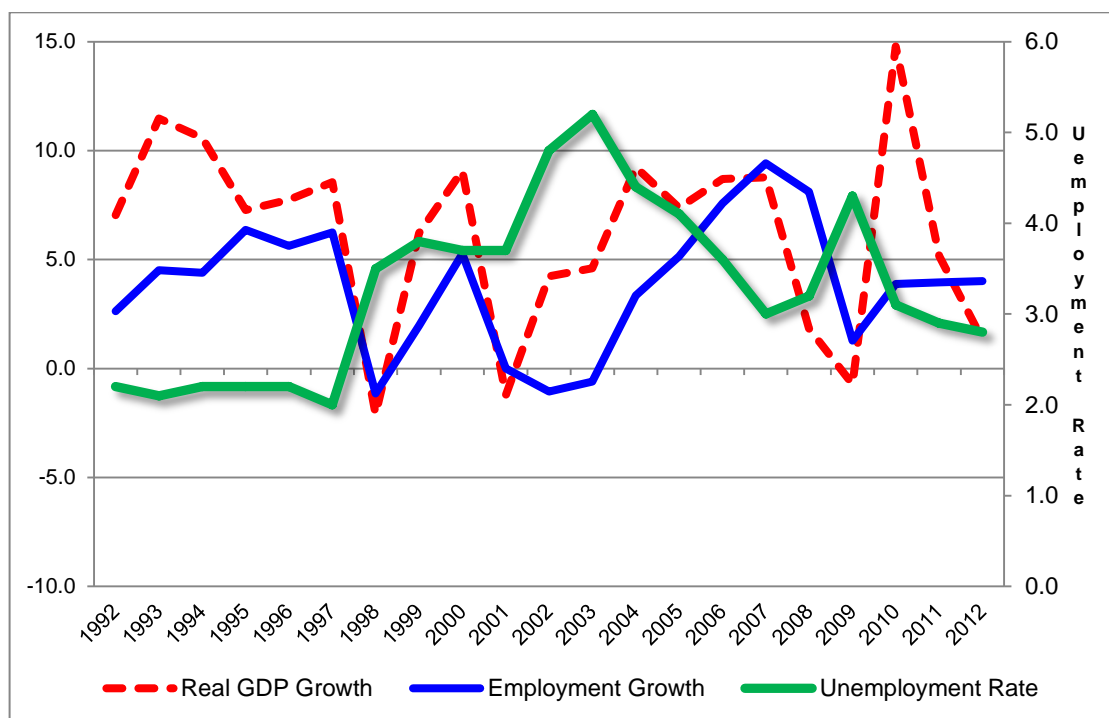
Prior to 1997 Asian Financial Crisis, Singapore was in an enviable position where job vacancy rates were higher than unemployment rates (Figure 2). However, since 1997, the number of unemployed has persistently outstripped the number of job vacancies available, and this gap had widened over the years. The unemployment rate which averaged around 2.0 per cent in the 1990s peaked at 5.2 per cent in 2003. The increased volatility of economic activity which followed in the post 1997 period resulted in two new spikes in unemployment: in 2001 following the dot-com crisis and 9/11 terrorist attack and in 2003 after the severe acute respiratory syndrome (SARS) crisis. These eventually caused the unemployment rate to rise to its post-independence high of 5.2 per cent in 2003. Strong growth led to a decline in the unemployment rate to about 3 per cent in 2007 before the global economic crisis caused the unemployment rate to climb to 4.3 per cent in 2009. This latest spike was short-lived and was followed by a rapid recovery, with resident unemployment rate falling by 1.2 percentage points from 2009 to 3.1 per cent in 2010 and gradually trending downward since. The successful containment of unemployment may be attributed to the package of measures introduced to increase the employability of workers through heavily subsidized training and retraining programmes and employment subsidies to support the retention of workers.

Figure 2. Vacancy and unemployment rates in Singapore 1992-2012



Source: : Singapore Department of Statistics STS database

Figure 3. Real GDP employment growth and unemployment



Source: Singapore Department of Statistics STS database

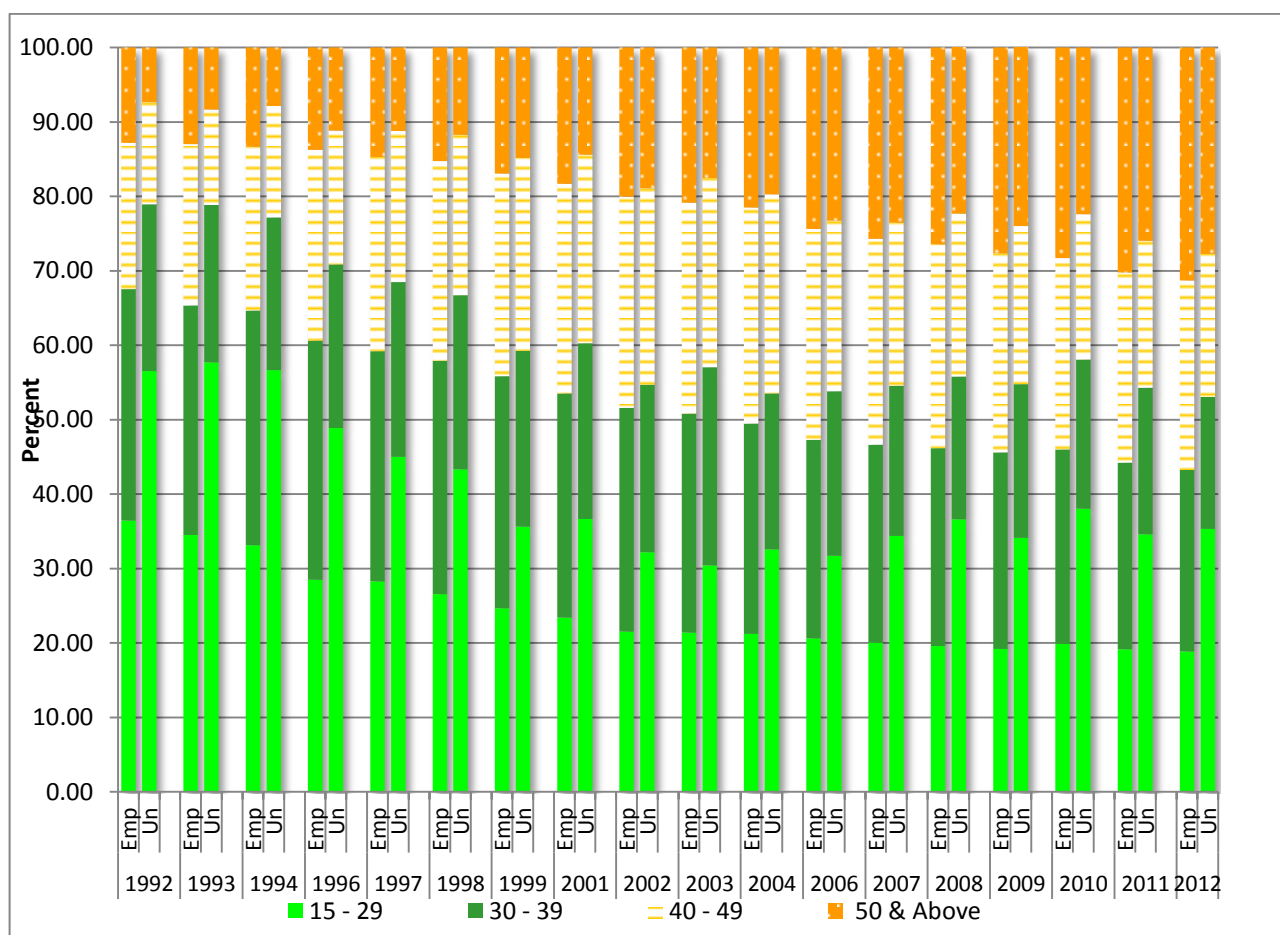
3.2 Growth maximisation policies in 2000s

The root of the growth maximisation policies pursued in the 2000s may be traced to the absence of automatic stabilising out-of-work support measures in the Singapore labour market. There are no institutional provisions for unemployment insurance or related out-of-work benefit payments for the unemployed in Singapore. As such, from the policymakers’ perspective, it was imperative that unemployment be kept to a minimum. With the prospect of increasing volatility in the economic environment, the fear of acute financial hardship faced by the unemployed with no social protection coverage was perhaps a key factor contributing to the aggressive growth maximisation policy pursued by the government in the mid-2000s. Although the growth policies adopted were successful in bringing down the unemployment rate, it also led to other unplanned outcomes with negative social costs and adverse effects on the welfare of workers. These included the surge in number of low-skilled foreign worker population which resulted in depressed wages at the lower end of the wage distribution, lower productivity growth, higher income inequality and overcrowding of the public transport system. Escalating property prices stemming the sharp rise in demand and increased shortages also reduced the affordability of housing for many (Hui 2013a). The failure of unemployment rate to revert back to the pre-Asian financial crisis levels of 2 per cent despite the aggressive employment growth pursued suggests a shift in the nature of unemployment towards increasing incidence due to structural causes. Indeed a closer examination of the unemployment data surfaced several notable observations.

3.3 Older workers in the labour market

A significant change observed in unemployment structure is the inversion in the age share of unemployment. The age structure of the unemployed stock in Figure 4 shows a falling share of younger workers in the 15 to 39 years age group and an increasing share borne by older workers especially those above 50 years of age. Although part of this phenomenon might be attributed to the general ageing of the workforce, a closer examination of older workers' unemployment share relative their employment share in Figure 5 shows that following each bout of recession in 1998, 2001 and 2003, the share of older workers (above 50 years) rose relative to their share of the employed.⁵ The problems of employment and employability which older workers faced may be attributed to several factors. Employers are generally more reluctant to hire and invest in training of older workers because of the perceived higher opportunity costs and lower returns from their training (Thangavelu *et al.* 2011). This is due to the general perception that older workers are harder to train and less adaptable to technology or the poorer education profile of older workers may affect their confidence and willingness towards training. The difficulty of older workers in securing re-employment is evident in the consistently low re-employment rates of older workers aged above 40 years who have been retrenched as shown in Table 3.

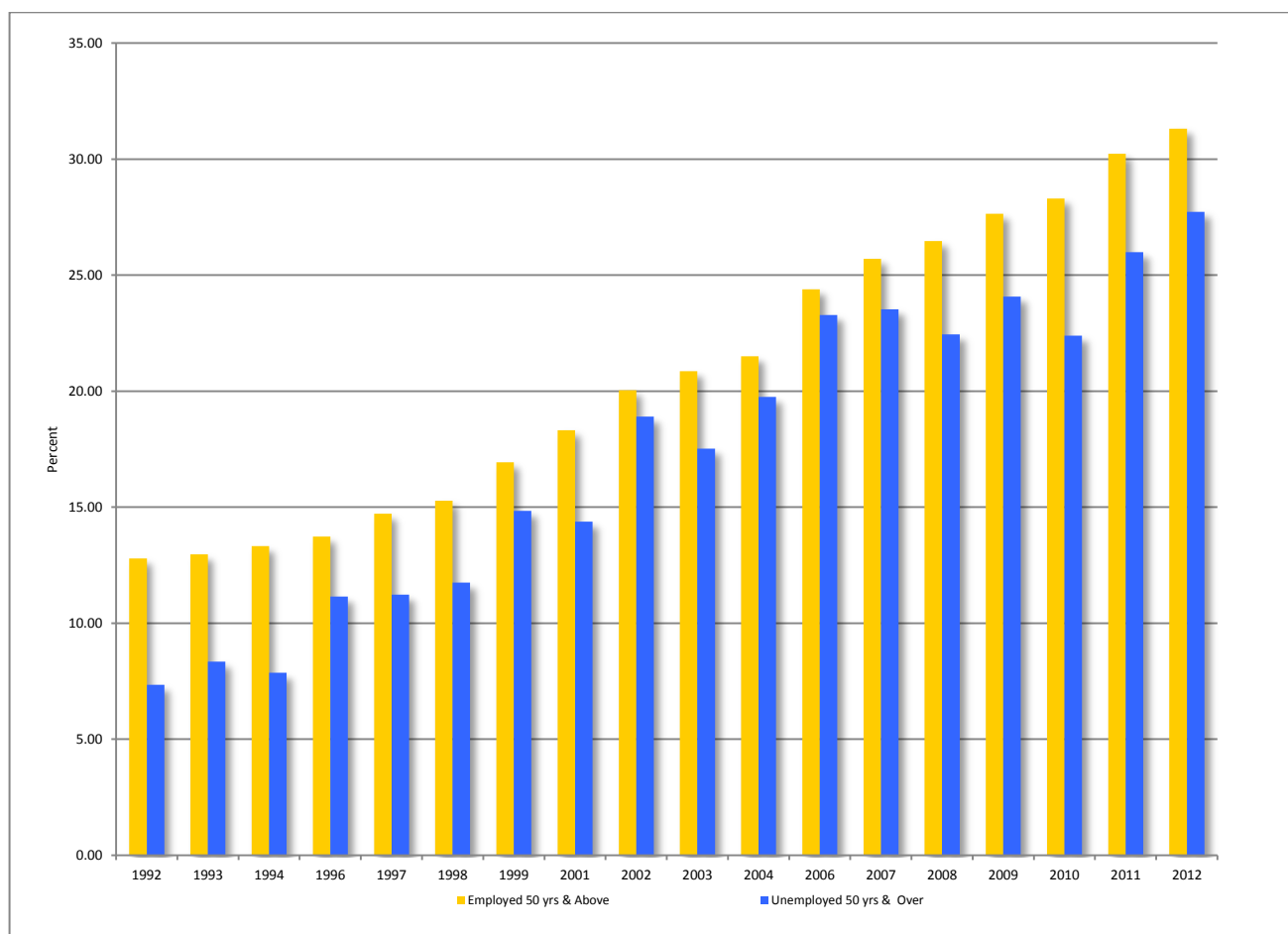
Figure 4. Age composition of employment and unemployment 1992-2012



Source: Report on Labour Force in Singapore, various issues, Ministry of Manpower

⁵ The exception is in 2009. This may be attributed to the success of special incentives introduced that were directed at the retention of older workers.

Figure 5. Share of older workers in the labour force 1992-2012



Source: Report on Labour Force in Singapore, various issues, Ministry of Manpower.

Table 3. Average re-employment rate of retrenched residents 1997 - 2010

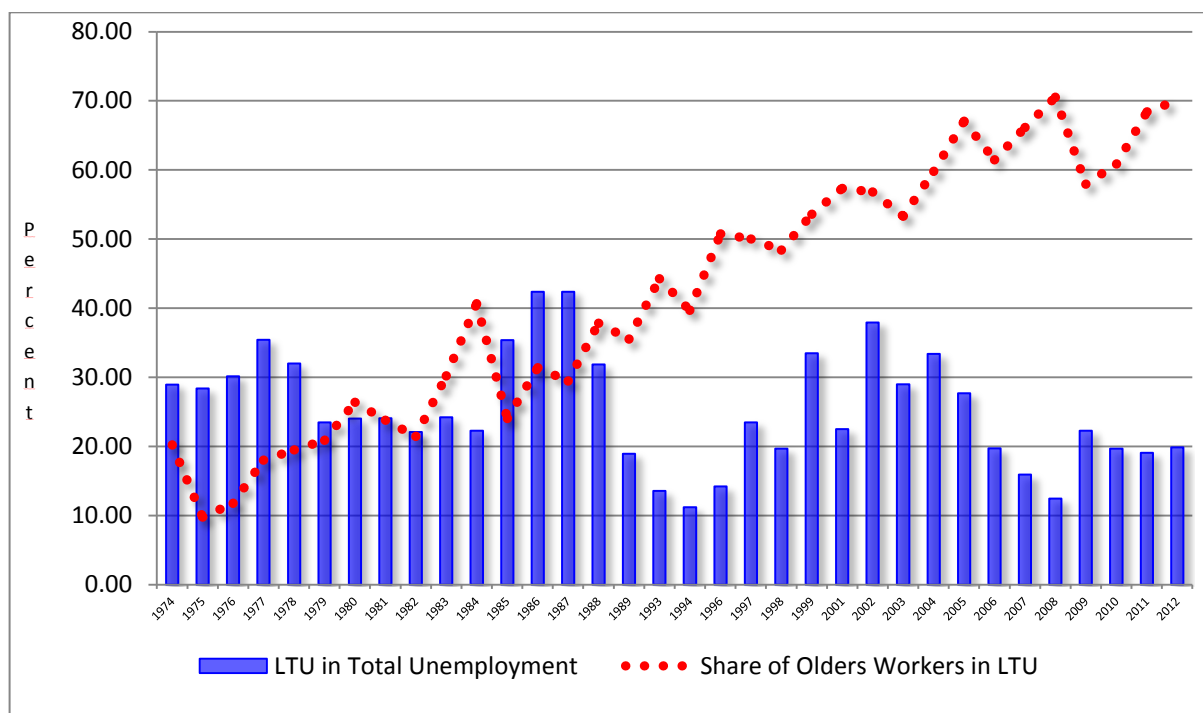
	97	98	99	00	01	02	03	04	05	06	07	08	08 ^a	09 ^a	10 ^a
Below 30 yrs.	78.4	68.3	69.9	77.3	73.2	68.4	70.1	73.8	72.2	73.5	76.3	77.4	85.7	77.2	80.8
30-39	72.0	63.9	64.1	69.3	64.4	61.9	63.8	64.7	66.6	71.1	71.9	73.3	82.0	69.9	72.9
40-49	70.0	60.0	60.9	64.2	58.6	59.8	61.6	57.8	62.5	63.7	66.5	70.5	78.4	63.9	67.7
50 & over	58.7	49.9	49.1	52.2	43.1	51.7	56.0	44.7	51.6	58.6	52.0	59.8	68.1	51.7	52.2

Note: Re-employment rate is defined as the percentage of retrenched who find employment within 6 months of retrenchment for 1997-2008. From 2008, data refers to those who find employment within 12 months.

Source: Report on Labour Force in Singapore, various issues, Ministry of Manpower.

The difficulties faced by older workers are seen in their rising share of long term unemployed shown in Figure 6. Each recessionary period brought about an increase in total number of long term unemployed. However, the relative difficulty encountered by older workers has caused their share of the long term unemployed to persistently trend upwards.

Figure 6. Long term unemployment in Singapore 1974-2012



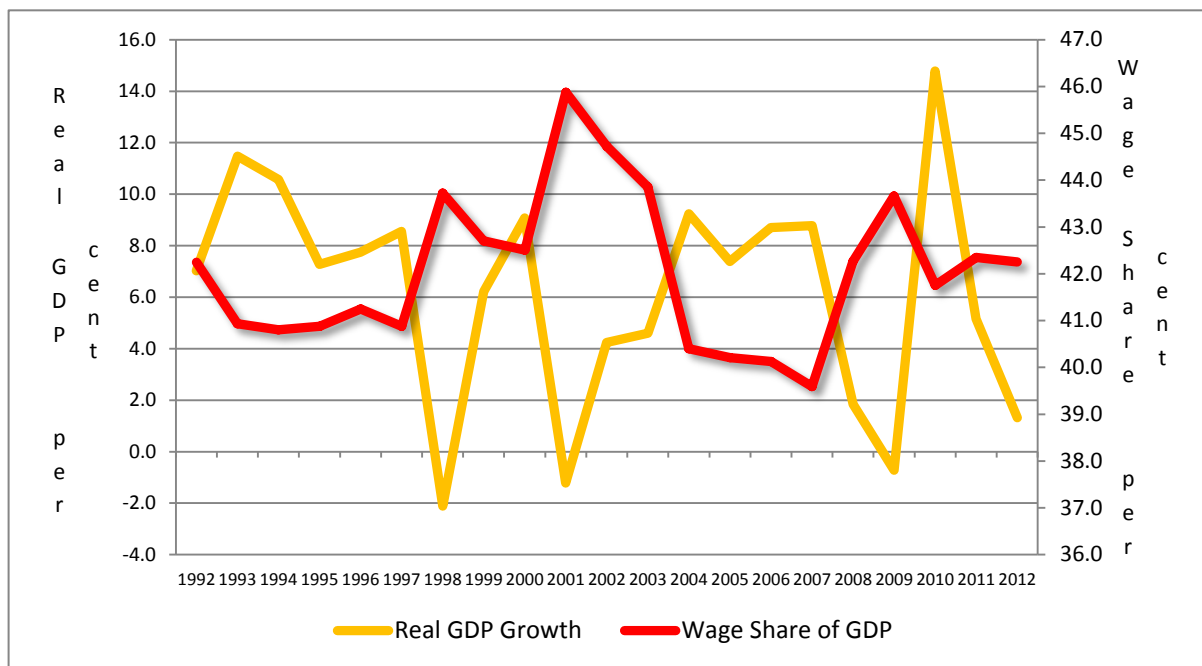
Source: Report on Labour Force in Singapore, various issues, Ministry of Manpower

3.4 Wage share and economic growth

Singapore’s wage share in GDP which currently stands at about 42 per cent is low in relation to other developed countries⁶ (OECD 2012 and ILO 2010). Looking at how wage share has changed and its relation to economic growth in the past 2 decades in Figure 7, it can be seen that falling wage share has been associated with periods of strong economic growth. As noted earlier, Singapore’s economic growth in the past two decades has been driven by employment expansion through the import of foreign labour which surged between 2004 and 2008. A large majority of these foreign workers are employed in lower skilled occupations, earning below median wages and hence contributing to the reduction in wage share. This negative relationship between the expansion of foreign labour inflow and the wage share generally predominates over the period 1998-2010 as seen in Figure 8.

⁶ The unadjusted median wage share of 26 developed OECD nations is about 61.7 per cent (OECD 2012)

Figure 7. GDP growth and wage share

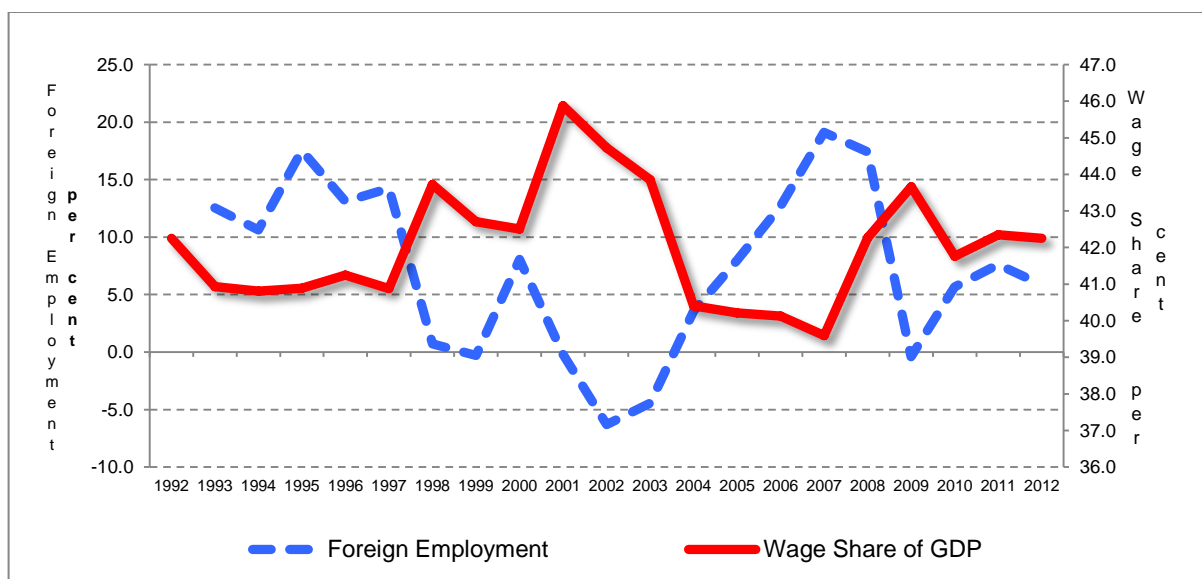


Source: Singapore Department of Statistics STS database

3.5 Foreign labour inflow and wage depression

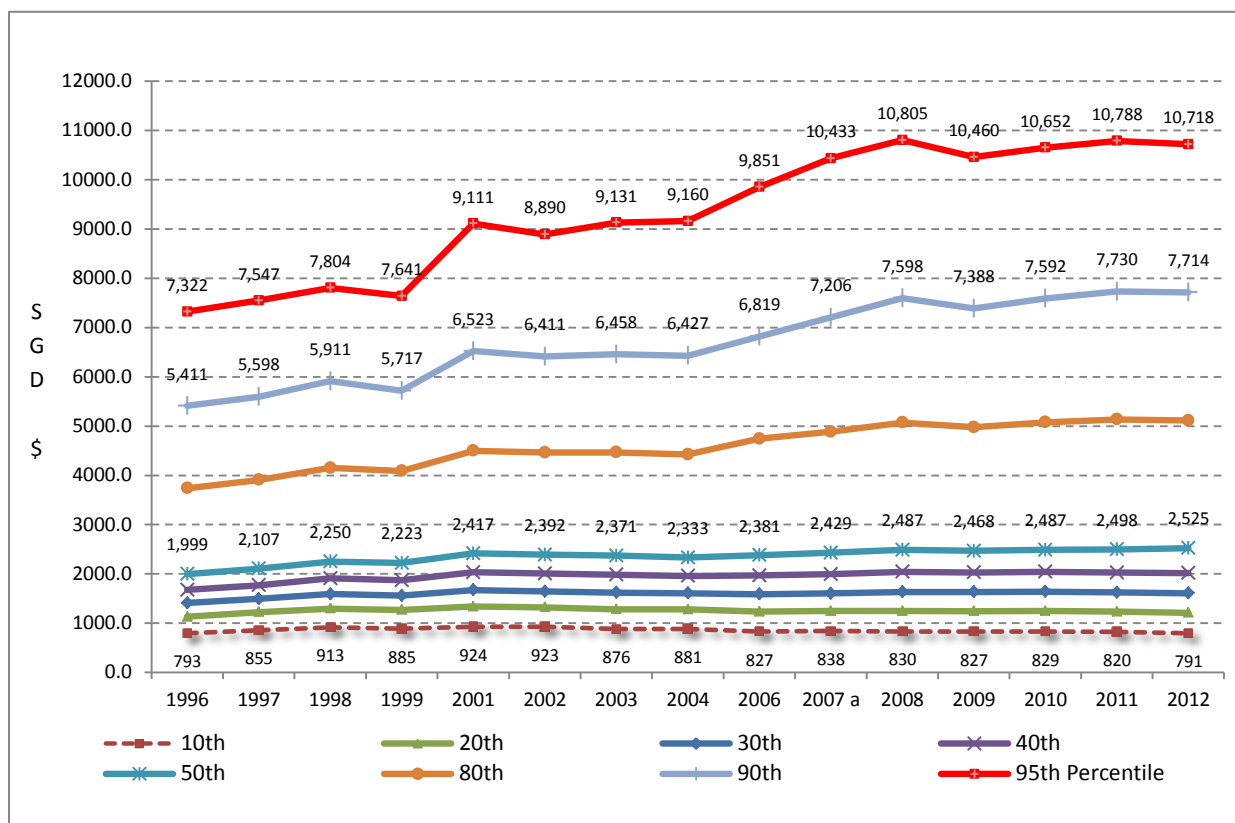
The massive inflow of foreign labour employed in lower skilled and lower wage jobs has not only brought about the fall in share of national wages in total income but also increased disparity of income among the resident labour force. This higher income inequality has resulted from the depression of wages at the lower half of the wage distribution (Figure 9).

Figure 8. Foreign labour growth and wage share



Source: Singapore Department of Statistics STS database, Ministry of Manpower Statistical Information

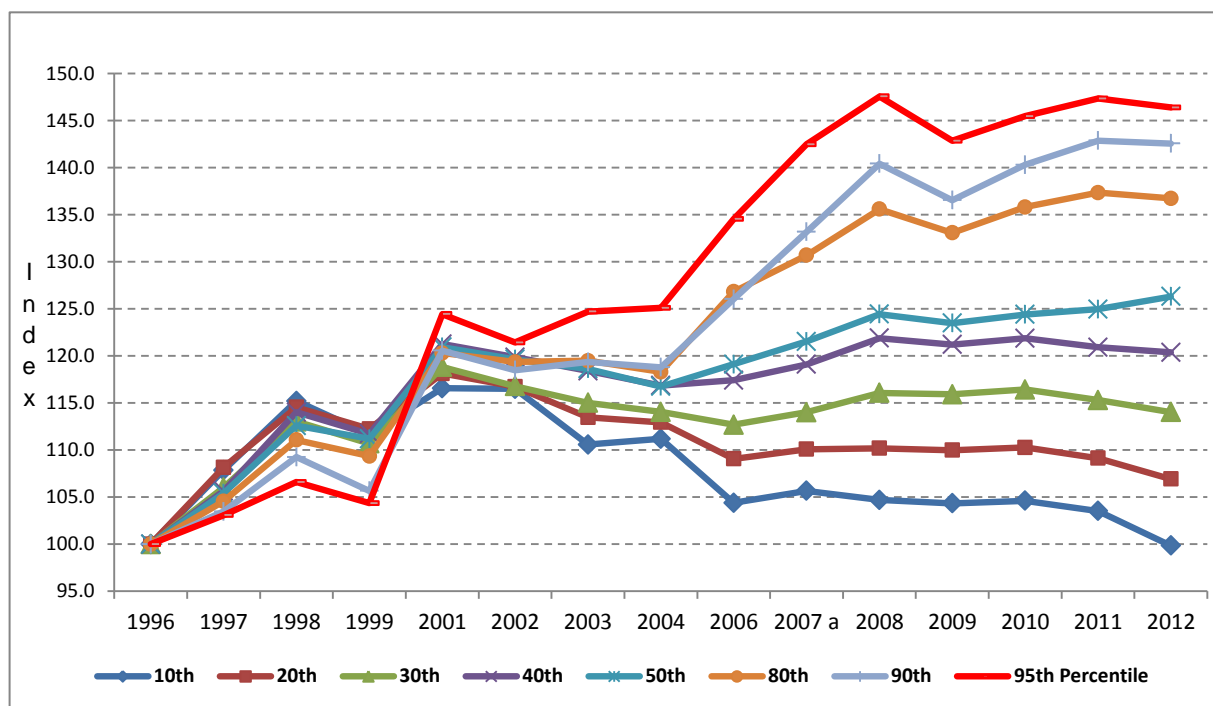
Figure 9. Real median wages of employed residents 1996-2012



Source: Computed by author using data from Singapore Ministry of Manpower

The increased divergence of income is most clearly demonstrated in Figure 10. Prior to 1999, wages of working residents in the upper end of the wage distribution were rising more slowly compared to those with lower wages so that there was actually a narrowing of the wage gap. However, income disparity began to widen rapidly after 2004 coinciding with the rapid expansion of employment supported by high foreign labour inflow.

Figure 10. Indices of real median wages of employed residents 1996-2012



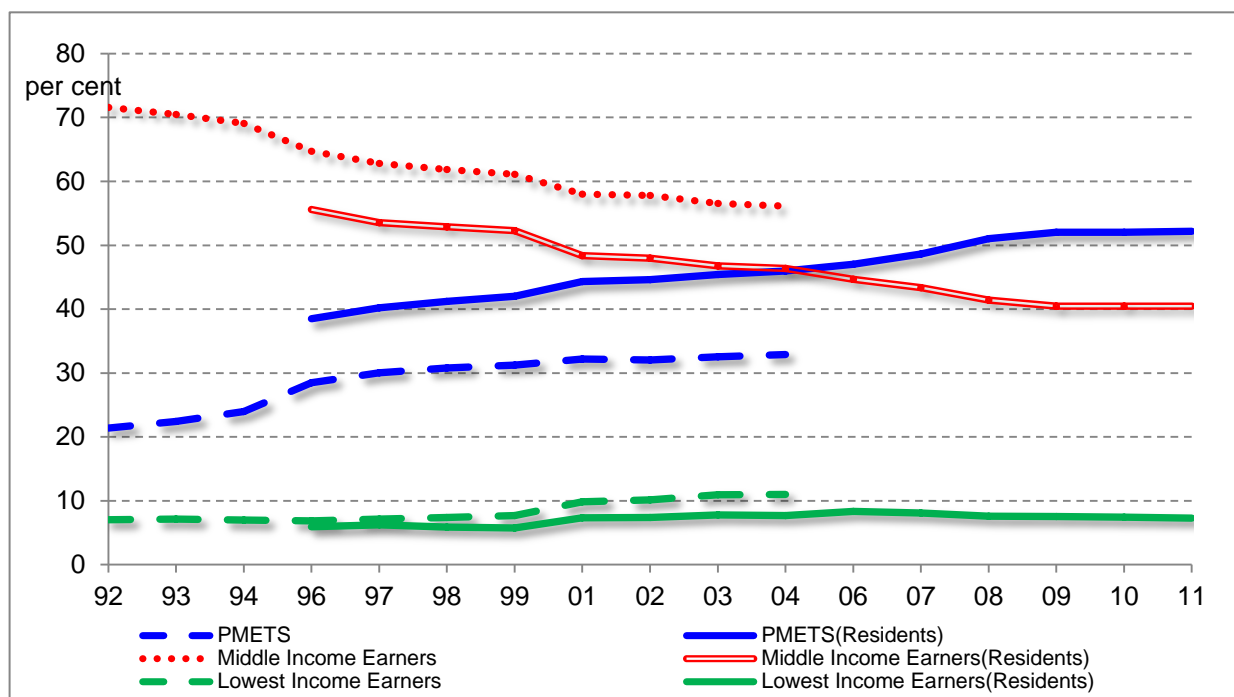
Source: Computed by author with data from Singapore Ministry of Manpower

3.6 Job polarisation in the labour market

There has been a noticeable change in the structure of occupations in Singapore which is consistent with the job polarisation hypothesis from nuanced technological change (Autor et. al. 2006, Goos & Manning 2007). According to this hypothesis, technological advancement and computerisation displace human labour in jobs with tasks that follow established procedures. Such jobs are usually associated with medium skilled workers. At the same time, the knowledge economy results in strong growth of high-paying jobs, requiring performance of non-routine abstract tasks, which are filled by high wage workers while lower-skilled, low-wage labour continues to be engaged in jobs requiring non-routine manual service. The increase in number of high income earners and an ageing population will also increase the need for more of such non-offshorable manual service jobs. The job polarisation hypothesis therefore posits strong growth in share of employment of high-paying professional, managerial, executive and technical (PMET) occupations; falling share of employment in middle-income clerical, sales, machine operators and production-related occupations; and modest growth in share of employment in low-paying cleaners, labourers and related occupations. In Figure 11, we observe that the trend in employment shares of these occupations in over the past two decades in the Singapore labour market is consistent with the predictions of the job polarisation hypothesis.

Over the period 2000-2010, the wage gap between the high-wage skilled labour (professionals, managers and technicians or PMETs) and low-wage lower-skilled labour widened at an average rate of 1.44 per cent per annum.

Figure 11. Job polarisation in the Singapore labour market



Source: Report on the Labour Force Survey, various issues

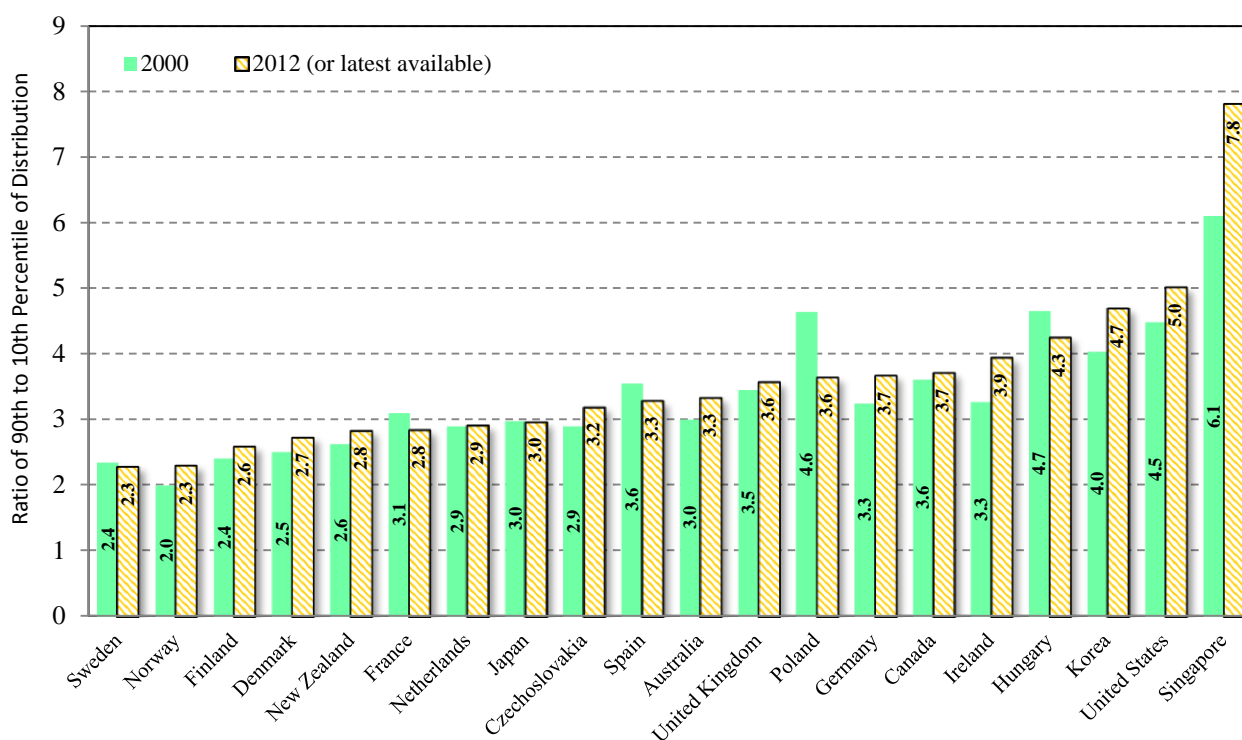
Note: Data for total employed persons by occupation available up to 2004. Data not available for 2000, 2005

High income earners = professionals, managers, executives and technicians (PMETS), Lowest income earners = cleaners, labourers & related workers, Middle income earners = all other categories.

3.7 Growing wage disparity

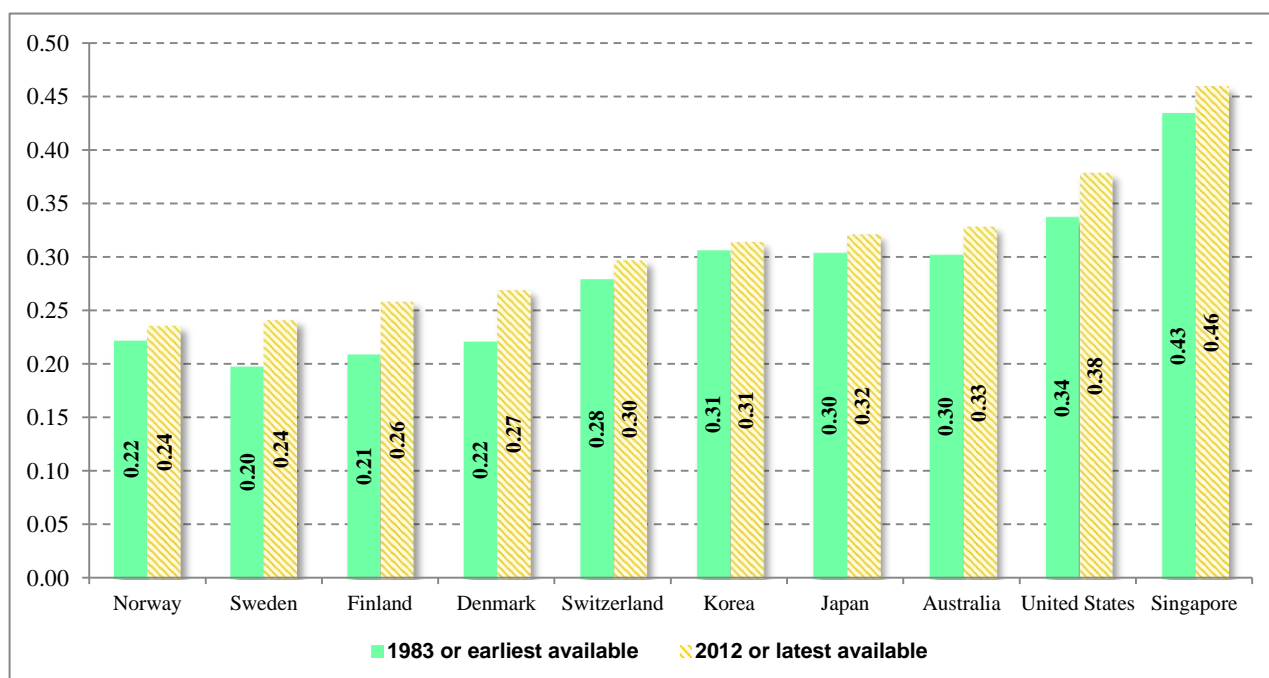
The combined influence of low wage depression, the absence of relevant income support for those in work-transitions, an ageing workforce and job polarisation has contributed to Singapore having one of the highest income disparity among developed countries whether measured by wage disparity between those in the 90th percentile (D9) and 10th percentile (D1) of the wage distribution (Figure 12) or by the Gini coefficient of per capita household disposable income (Figure 13).

Figure 12. Wage disparity in selected countries



Source: OECD Stats; Singapore ratio computed from Report of Labour Force in Singapore

Figure 13. International comparison of Gini coefficient (per capita household disposable income)



Source: OECD Stats; UNWIDER and Singapore Department of Statistics.

4. Policies measures to counter adverse labour market developments

Various policy measures have been introduced to deal with the challenges of increased volatility of the labour market, low labour productivity and widening income inequality. We can broadly categorise these measures under supply-side or demand-side policies

4.1 Supply-side policies

4.1.1 Skills infrastructure

In both recessionary and non-recessionary periods, the government has actively encouraged skills upgrading and improved employee competency to enhance employability. A key institution for skills acquisition in Singapore is the Singapore Workforce Development Agency (WDA), which was established in 2003 to advance national workforce development through adult continuing education and training, and to facilitate employment and re-employment through skills development.

The national Continuing Education and Training (CET) infrastructure which is managed by WDA provides for training at different skills levels. The Employability and Skills System (ESS) provides training in industry-portable foundational skills in literacy, numeracy and information and communications and is targeted at lower-skilled workers. This is part of the Workforce Skills Qualification (WSQ) System, a national skills accreditation system that provides frameworks of industry and occupation-specific skills, standards, courses and qualifications. Each industry framework is supported and validated by a council of key industry partners comprising employers, industry associations, training organisations and union representatives. The WSQ system provides pathways for progressive training and certification of skills and awards qualifications that are nationally recognised by employers. It is aimed at improving the quality of training through professionalization of the training industry and the employability and mobility of workers through skills acquisition and upgrading.⁷ By 2010, five years after the launch of WSQ, more than 600,000 workers had benefited from WSQ training conducted by some 500 WSQ Approved Training Organisations (ATOs).⁸

4.1.2 Counter-recessionary skills training and upgrading

In the wake of the global economic crisis in 2008, the Skills Program for Upgrading and Resilience (SPURS) was launched in early 2009 as part of the counter-recession efforts to help employers and workers manage the economic downturn. This was premised on cutting costs to save jobs during the period of low demand and equipping workers with new skills and knowledge in preparation for the recovery. Financial incentives were

⁷ A recent independent study conducted by WDA found that WSQ had a positive wage impact in 2009 and 2010. Trainees with at least one statement of attainment (SOA) which certified that the trainee is assessed competent on completion of a WSQ module received higher wages of 1.3 per cent and 4.3 per cent respectively, compared to those without SOAs. Trainees with full WSQ qualifications received higher wages of 5.36 per cent in 2009 compared to those with SOAs but without full qualifications (http://www.wda.gov.sg/content/wdawebbsite/L209-001About-Us/L219-PressReleases/06_Jun_2013.html accessed 20 June 2013)

⁸ 9 March 2011 Parliament Committee of Supply Speech by Minister of State for Trade and Industry and Manpower (<http://www.mom.gov.sg/newsroom/Pages/SpeechesDetail.aspx?listid=317> accessed 20 June 2013)

offered to companies to send employees for SPUR courses. Companies enjoyed up to 90 per cent government subsidies of SPUR courses and employers' absentee payroll subsidy was increased by 50 per cent. Grants were also given to companies employing locals to subsidise the cost of recruitment, training and redesign of jobs. Businesses are eligible to enjoy tax deduction/allowances of 400 per cent or up to \$400,000 of their employee training expenditure per year under the Productivity and Innovation Credit scheme. SPUR benefits were also made accessible to the unemployed. These included the same funding support given to employers for WSQ or other certified CET courses, and participation in professional skills programmes for PMETs. As of end 2010, some 334,000 workers had benefited from SPUR at a cost of \$635 million (MOM COS 2011). From Dec 2008, amounts of up to \$6 per hour were given for workers below 40 years and \$6.80 per hour for those above 40 years. From May 2009, to further induce companies to send older workers for training, those above 40yrs were given up to 90 per cent of their hourly wage subject to a cap of \$10 per hour. A Professional Skills Programme Traineeships (PSPT) initiative targeted at PMETs was also introduced to develop strong PMETs' capabilities for selected sectors with good growth potentials. These traineeships aim to equip new graduates and retrenched professionals with relevant job experience to improve their employability.

4.1.3 Workfare income supplement scheme

To address the problem of low participation rates of older workers and to encourage older unemployed workers to take up jobs which might be perceived as having unattractive wage offers, the Workfare Income Supplement (WIS) was introduced in 2006. It has since become a permanent pillar of Singapore's social safety net from 2007. Under the WIS scheme, eligible older low-wage working Singaporeans above 35 years who earn an average monthly income of S\$1700⁹ or less over a minimum 3-month period are entitled to annual income supplements which vary, according to their age, monthly income and duration of employment within a given year, from S\$150 (for a 35 to 44 year old worker earning S\$1600 per month) to S\$2800 (for a worker 60 years and above earning S\$1000 per month). The supplements awarded increase with the age category to induce otherwise unemployed or inactive older workers to become employed and to improve their savings to sustain their retirement needs. Wage supplements are paid in cash and CPF contributions to citizens in the ratio 1:2.5 to augment both take home pay and retirement funds. Higher cash pay-outs to enable low-wage workers to benefit from the strong economic recovery in 2010, were effected through the payment of one-off Workfare Special Bonus (WSB) amounting to 50 per cent of WIS for work done in 2010, and 25 per cent of WIS for each year of work in 2011 and 2012.

The Workfare Training Support (WTS) Scheme, launched in 2010 to complement the WIS Scheme, is specially targeted at low wage older workers to upgrade their skills to improve employability. Courses under the WTS are recognised under the WSQ system to give older workers the needed industry qualifications recognition. WTS reimburses employers with 90 per cent to 95 per cent funding¹⁰ of absentee payroll and course fees. To motivate workers to go for skills upgrading, trainees are offered cash rewards if their training are completed within a year.

⁹ The monthly income cap for the Workfare Income Supplement (WIS) Scheme has been raised from \$1,700 to \$1,900 from 2013 with higher WIS payouts of up to \$3,500.

¹⁰ This subsidy for course fees and absentee payrolls was increased to 95 per cent from July 2013. Low wage workers who undergo foundational skills training receive 100 per cent funding.

4.2 Demand-side measures

4.2.1 Targeted employment subsidies

In economic recessions before 2009, bouts of negative real GDP growth were associated with increases in the resident unemployment rate which persisted over more than one period (Hui 2011). However, the situation as shown earlier in Figure 3 was different in recent global recession which began in late 2008. Resident unemployment rate increased by 1.1 percentage points from 2008 to 4.3 per cent in 2009 in sync with the 0.8 per cent decline in real GDP registered that year. But this was followed by a rapid recovery and resident unemployment rate fell to 3.1 per cent in 2010. The successful containment of unemployment could be attributed to the Jobs Credit Scheme (JCS), a one-year demand-side measure, which constituted a major part of special budgetary measures introduced in 2009.¹¹ The Jobs Credit Scheme (JCS) provided for a total of S\$4.5 billion (US\$3 billion) wage subsidies, to directly lower employment cost and to encourage businesses to retain existing local workers or employ new ones through a 12 per cent subsidy of the first S\$2500 monthly wage bill of some 1.4 million local employees. This specific targeting of local workers was a response to the growing unhappiness to further foreign labour inflow and was successful in averting massive retrenchment of local workers.

Further support for the hiring of older workers came in the form of the Special Employment Credit (SEC) initiative in the 2011 Budget. The SEC provides a subsidy ranging from 50 per cent to 80 per cent of employer CPF contributions depending on the age of the employee or a maximum of \$33 for employees age 55 to 60 years and \$35 for those above 60 years. The subsidy provided declines from income of \$1000 onwards and is cut off at the wage of \$1700 and upwards. A substantially enhanced SEC, operational for five years and introduced from 2012 to enable employers to adjust to the re-employment legislation, provides employers with up to 8 per cent of the monthly wages of Singaporean employees aged above 50 years earning up to \$3,000 monthly.¹² With the 2012 enhancements, the SEC which cost the Government about \$470m annually is expected to benefit about 73,000 employers employing 350,000 Singaporean employees.

4.2.2 Raising retirement age

Raising the statutory retirement age is another demand-side measure directed at improving employment opportunities for older workers.¹³ The statutory retirement age has been raised from 55 years to 60 years through the enactment of the Retirement Age Act in 1993. It was further raised to 62 years in 1999 alongside cost cutting measures for employers such as a reduction in employers' CPF contribution rate and the possibility of reducing wages of up to 10 per cent for workers above 60 years. The passing of the Retirement and Re-employment Act (RRA) in 2012 to facilitate re-employment of older workers beyond 62 years provided another boost to enhancing older worker's employment. Under the RRA, employers are required to offer re-employment up to age 65 to eligible employees reaching age 62 or pay out a one-off Employment Assistance Payment (EAP)

¹¹ The Jobs Credit Scheme was subsequently extended for a further six months with two additional stepped-down payouts in March and June 2010 costing \$675 million.

¹² The SEC payout is lowered for employees with a monthly wage of above \$3,000 and cut off completely at \$4,000 and above.

¹³ It may be argued that instituting higher retirement age could have negative consequences such as increasing reluctance on the part of employers to recruit mature workers for fear of having to retain them for extended periods. Other offsetting cost measures may therefore be needed.

for those not re-employed to help tide over a period of time while they look for alternative employment.

Other demand side policy measures aimed at increasing job opportunities for unemployed workers include the Job Re-creation Programme (JRP) and the Special Employment Credit (SEC). The JRP, which is funded by WDA and implemented in partnership with the trade union movement, awards firms with grants to re-design and re-create existing low wage jobs to improve working conditions, enhance job image and increase productivity and job worth of workers.

4.3 Recent policy measures

With the persistence of low-wage workers, negative productivity growth in recent years and the growing discontent among local workers over competition from foreign labour, new policy measures were introduced in the recent 2013 budget to further tighten the inflow of foreign labour, reinforce the impetus to economic restructuring and quality growth and improve the employment prospects for locals. The new measures involved increases in foreign worker levies to further moderate demand, improve foreign workers' skill sets and reductions in sectoral foreign worker quotas. Minimum qualifying salaries of higher-skilled employment pass holders were also raised to improve employment prospects and address the issue of displacement of local graduates and older mid-level professionals.

A S\$3.6bn (US\$2.9bn) Wage Credit Scheme was also introduced to induce employers to pay higher wages to local employees with monthly earnings below \$4,000. This is achieved through a 40 per cent government co-payment of wage increases of new or existing employees for 3 years starting from 2013.

5. Challenges and prospects to future growth with equity

The Singapore labour market faces significant future challenges arising from the ageing population and the continuing high dependence on low-skilled foreign labour. The major challenges that will have direct impact on improving equity in future economic growth are linked with issues pertaining to:

- a. Managing sustainable population;
- b. Raising productivity growth;
- c. Ensuring retirement adequacy
- d. Helping low-wage workers
- e. Expanding social safety net

5.1 Managing sustainable population

A recent widely-debated white paper proposal attempted to spell out the key considerations and roadmap for Singapore's population policies to address the demographic challenges (PMO 2013). This white paper, which has its main focus on the maintenance of a strong Singaporean core population to create good jobs for Singaporeans in a dynamic economy and provide a high quality environment to build a good home, has recommended raising the total population from the current 5.3 million to 6.9 million in 2030. This effectively requires population strategies that would halve the workforce growth rate to the range of 1.5 per cent -1.6 per cent p.a. for 2010-2020 and further reduce

it to 1.0 per cent p.a. for 2020-2030. Despite these lower rates of growth, the report provoked an unprecedented groundswell of negative responses to its recommendations. This highlights the stark reality that with strong political pressure and lower limits placed on population and employment growth, even greater concerted efforts will be needed to drive productivity improvements to sustain future economic growth.

With a slower growing or constant ageing population, the wages of a relatively smaller group of young skilled workers equipped with latest advanced skills will rise relative to older skilled workers who are poor substitutes. The wages of young unskilled workers, in contrast, will remain unchanged or increase less relative to the wages of old unskilled workers who are closer substitutes (MacKellar *et. al.* 2004). The net result of this is further widening of income inequality between the skilled and unskilled if efforts to raise the relative skills levels of older workers are not stepped up or are ineffective.

5.2 Raising productivity growth

If the key inputs to the pace of innovation tend to degenerate with age, it could be argued that an ageing and slower growing population could potentially result in a less creative and entrepreneurial population with consequential adverse impact on productivity. Notwithstanding this possibility, there are other peculiar pitfalls in Singapore's pursuit of productivity growth due to its heavy dependence on the large number of lower-skilled foreign labour and its continued reliance on the use of foreign worker levy to moderate the demand for foreign manpower. The design flaw (described below) in the recently introduced Wage Credit Scheme (WCS) which is intended to motivate productivity gains from economic restructuring is also a concern.

There are potential adverse consequences on the productivity of foreign workers from a higher foreign worker levy. The reason is that competition among employment agents to offset the higher levy cost for businesses will lead them to source for lower cost and less productive foreign workers (Hui 2013a). From the recent rounds of levy hikes to be implemented, it would appear that policy-makers continue to overlook the detrimental impact that they would have on the productivity of foreign workers. Higher levies also tend to create greater disparity in wages received by local and foreign workers. The damaging effect on workers' morale and workplace relations arising from the presence of an unfair wage divide is best exemplified by the November 2012 foreign bus drivers' strike in Singapore, the first strike after 26 years (Hui 2013b). It points to an urgent need for a rethink of the current policies which can colour foreign workers' perception of just and fair treatment at the workplace which will have adverse impact on work performance and labour productivity in the economy.

The rationale for the WCS is to help businesses shoulder the higher wage costs following the tightening of foreign labour inflow, and to encourage them to share the fruits of productivity gains from restructuring towards more efficient and innovative production. The intended outcome is for higher wages to lift workers' morale and spur productivity improvements, setting in place a virtuous circle which sustains further wage increases supported by productivity improvements. However, as noted by Hui (2013c) the transient nature of the WCS and the absence of any link between the award of the wage credit and productivity enhancing efforts, or specific components of wage increase, could produce unintended negative outcomes. Because the WCS is (as announced) only a temporary scheme in place for three years, firms are therefore likely to pay most of the additional wage increases in the form of bonuses which can be easily stopped after three years, rather than higher permanent basic salary pay rises which would have more definite positive effects on workers' morale, motivation and productivity. The automatic computation of wage credit payments using administrative records of CPF contributions by employers also creates a moral hazard problem as firms will have incentive to game the system by over-

declaring actual wage increases through deliberate overpayment of CPF contributions. This is a lucrative exercise as WCS rebates could yield as high as \$4.15 for every \$1 of CPF over-contribution by the employer. Collusion between employers and employees to reap such high returns may also occur. As a result, the WCS rebates could end up prolonging the existence of unproductive firms instead of hastening productivity improvements by businesses.

5.3 Ensuring retirement adequacy

At current birth rates and with no immigration inflow, the number of those aged 65 and above is projected to triple to 900,000 by 2030 (PMO 2013). Ensuring adequate retirement living for those in this group will be another major challenge in the quest for more inclusive growth.

The Central Provident Fund (CPF) scheme, established in 1955, is the main pillar of Singapore's social security system that is expected to accumulate savings to ensure a secure retirement for retirees. The fully-funded nature of this mandatory defined contribution scheme, where benefits depends on individual contributions and where each generation saves for itself, has the distinct advantage of being fiscally sustainable even with an ageing population. The current total contribution rate of 36 per cent of salary for those below 55 years old consists of the employee's contribution of 20 per cent and the employer's contribution of 16 per cent for monthly income up to \$5000. At age of 55, contributors are allowed to withdraw savings in excess of two ring-fenced minimum sums – one in the Medisave Account to provide for co-payment of hospitalisation expenses and specified medical expenses and the other in the Retirement Account from which the contributor will receive a monthly pay-out after the age of 62. Although originally conceived to provide only for retirement savings, the CPF scheme has been liberalised over the years to allow withdrawals for housing, medical, investments and education purposes. Such leakages, in particular for housing purchases and mortgage repayments, have raised doubts about the ability of CPF savings to adequately provide for retirement living of the majority of retirees who are essentially 'asset-rich but cash-poor' (McCarthy *et. al.* 2002, Hui 2012).

5.3.1 Retirement adequacy simulation

Following Hui (2012), we conduct some simulations that take into consideration the latest changes in CPF contribution rates and as well as dynamic wage growth effects to assess the retirement adequacy of the existing CPF system. The measure of retirement adequacy used is the income replacement rate (IRR). This is the percentage of pre-retirement working income earnings that an individual can obtain in retirement to maintain their pre-retirement consumption. The 'rule of the thumb' percentage which an individual needs in order to maintain the same standard of living in retirement is conventionally around 60 per cent to 80 per cent. In this study, an IRR of 66 per cent is set as the target for retirement adequacy.

The assumptions which have been incorporated in the simulations are as follows:

- a. The person begins work at age 22 with starting salaries and real wage growth as shown in Table 4 with CPF contribution rates applicable from 2012 (Table 5).
- b. The CPF Minimum Sum is kept at \$120,000 (in 2003 dollars) or \$140,350 in 2011 prices. Any Ordinary Account (OA) contribution in excess of the Minimum Sum will be transferred to the Special Account (SA).
- c. The Medisave Contribution Ceiling (MCC), is fixed at \$5,000 above the Medisave Minimum Sum (MMS) of \$36,000 at 2011 prices. Any Medisave contribution in

excess of the MMC will be transferred to the Special Account for members below 55 years old.

- d. At the point of retirement at age 65, the retiree is expected to live till age of 85. No withdrawal from over the minimum sum were made at age 55 but the total savings in the CPF OA and Retirement Account (RA) are used to purchase a 20-year annuity at 4 per cent return that pays till age 85. The income replacement ratio (IRR) is computed based on the income stream from this annuity.
- e. Rates of return on CPF balances are is 2.5 per cent p.a. for OA and 4 per cent p.a. for the SA, MA and RA. An additional 1 per cent interest p.a. is paid on the first \$60,000 on combined CPF balances with up to \$20,000 from the OA.
- f. Real wage growth is adjusted to increase with age and for dynamic growth over time. Two wage paths are assumed. The first path assumes a constant real increase with age and the second optimistic path allows for higher increases in the earlier part of the individual's career and slower increase in the later part but with the same total real wage increase as the first constant growth path. Earnings are reduced by 10 per cent at age 62.
- g. The CPF salary ceiling is inflation-adjusted beyond 2012 and is maintained at its real level in 2012
- h. The price of the HDB housing is the maximum price that could be supported by the CPF contributions at age 30 by a working couple who are assumed to be earning similar wages. This worked out to be around \$240,000, \$310,000 and \$580,000 for those with basic salaries of \$1200, \$1500 and \$2560 respectively at age 22. Loans are taken over a 30 year period at HDB lending rates of 2.6 per cent

Table 4. Median income and growth rate by highest qualification attained

Highest qualification	Basic wage at 22 yrs.	Real growth rate
Secondary/ Lower Sec	\$1,200	1.80 per cent
Post-secondary	\$1,500	2.50 per cent
Tertiary	\$2,560	3.60 per cent

Note: US\$ at constant 2005 prices.

Source: CEPALSTAT

Table 5. CPF account contribution rates

Age	Total	Ordinary	Special	Medisave
Below 35 yrs.	36	23.0	6.0	7.0
35-45	36	21.0	7.0	8.0
45-50	36	19.0	8.0	9.0
50-55	32.5	13.0	9.0	9.0
55-60	23.5	12.0	2.0	9.0
60-65	14.5	3.5	1.5	9.5
65+	11.5	1.0	1.0	9.5

Source: Central Provident Fund Board, Singapore

The simulation results in Table 6 show that CPF savings at existing contribution rates will be adequate for retirement living at age 65 for those with post-secondary education who earned wages below the median wage in 2010. However, for those earning the median wage and above at age 22, the IRR at age 65 suggests that CPF savings will not be enough for retirement living. With the inclusion of HDB housing purchases (Table 7) retirement adequacy is substantially reduced as IRR falls by 13 per cent to 28 per cent at age 65.

Table 6. Income replacement ratios at various retirement ages

Constant wage growth path			
Basic Salary at 22 yr.	55yr	60 yr.	65 yr.
A: \$1,200	51.0 per cent	60.1 per cent	77.0 per cent
B: \$1,500	47.8 per cent	55.0 per cent	68.3 per cent
C: \$2,560	37.1 per cent	38.5 per cent	44.0 per cent
Optimistic wage growth path			
Basic Salary at 22 yr.	55yr	60 yr.	65 yr.
A: \$1,200	62.7 per cent	78.2 per cent	106.9 per cent
B: \$1,500	62.9 per cent	76.6 per cent	102.0 per cent
C: \$2,560	38.5 per cent	45.1 per cent	58.1 per cent

Source: Author

Table 7. Income replacement ratios with housing purchase

Constant wage growth path				
Starting salary	HDB Apt price	55yr	60 yr.	65 yr.
A: \$1,200	\$240,000	33.3 per cent	40.6 per cent	54.7 per cent
B: \$1,500	\$310,000	33.1 per cent	39.4 per cent	51.0 per cent
C: \$2,560	\$580,000	25.6 per cent	27.0 per cent	30.7 per cent
Optimistic wage growth path				
A: \$1,200	\$240,000	44.1 per cent	55.9 per cent	79.1 per cent
B: \$1,500	\$310,000	47.0 per cent	58.1 per cent	79.9 per cent
C: \$2,560	\$580,000	27.6 per cent	32.5 per cent	41.8 per cent

Source: Author

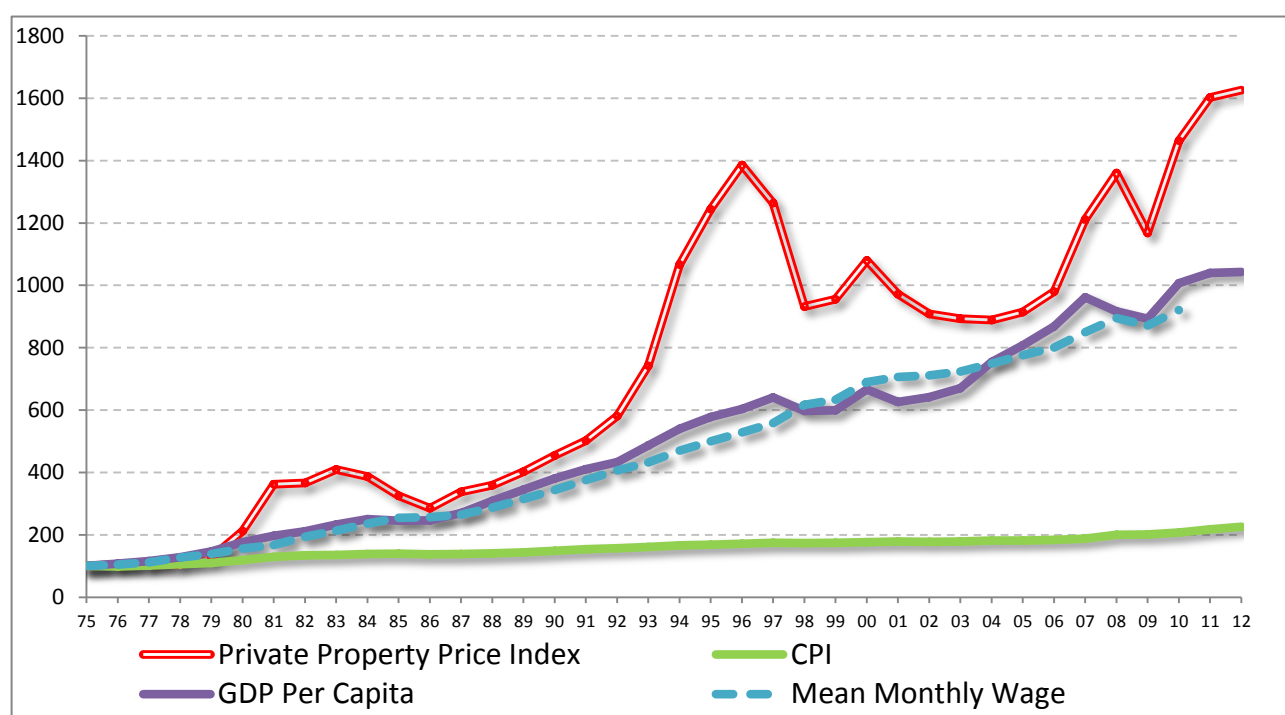
The combination of policy measures that would be needed to address the issue of retirement adequacy involves the following (Hui 2012):

a. Increase the CPF contribution ceiling - the real value of CPF contributions have been halved between 1985 and 2011 as a result of the reduction in the contribution ceiling. Going forward, it is vital for the contribution ceiling to be inflation-adjusted or increased from the current real level.

b. Increase interest returns on CPF savings – simulations at existing contribution rates have shown that a 1 per cent increase in the CPF rate of return on Ordinary Account can increase the IRR by up to 9 per cent.

c. Defuse and deflate property prices – property price inflation (Figure 14) presents the most serious threat to retirement adequacy. The growing divergence between property price and wage increases has not only seriously affected retirement living but will further aggravate income inequality through the capital gains of the very high income earners. The urgency to divert resources away from socially unproductive housing investments towards welfare enhancing consumption and other productive investments cannot be overstated. The deflation and containment of property prices will not only improve retirement adequacy but will also have positive impact on the long term sustainability of the Singapore economy.

Figure 14. Property price escalation in Singapore



Source: Singapore Department of Statistics STS database, Urban Redevelopment Authority.

5.4 Helping low wage workers

The depression of lower-end wages due to the influx of lower-skilled foreign labour has led to the continuing presence of a significant group of low-wage resident workers in the Singapore economy. In 2012, among the employed persons whose median wage was \$2855,¹⁴ there were about 455,000 residents (constituting 23 per cent of total employed residents) who earned less than \$1500 per month. Among full-time employed workers whose median wage was \$3149, there were about 302,000 (about 17 per cent of total full-time employed residents) who earned less than \$1500 per month. As shown in Figure 11, the real median wages of those in the lowest 40 per cent of the wage ladder had experienced a decline in the past 5 to 10 years.

Singapore policy makers have a strong aversion to legislated minimum wages to raise the well-being of low wage residents despite the arguments for its adoption as documented in Hui (2013a) and ignoring more recent research evidence (Dube *et. al.* 2010 Schmitt 2013 and Dube 2013) of consistent insignificant effect of minimum wages on employment and significant effect in raising low-wage incomes. Instead they have preferred to help the low-wage stay employed and to supplement their wages through WIS transfers to individuals and wage subsidies to companies. However, as noted in ILO (2010), in-work benefit schemes such as the WIS, which are primarily designed to address the low-pay and poverty linkage should not be regarded as replacement for minimum wages which are intended to address the failure of labour market to provide decent pay. Instead, a well-coordinated strategy which draws on the complementary strengths of each of these policies should be adopted. The Economic Strategy Committee has already emphasised that Singapore's "success ultimately depends on the abilities and drive of our people and businesses [and] [t]he Government cannot substitute for the dynamism created by the skills, talent and ingenuity of our workforce, or by entrepreneurs imagining new products and finding new market niches" (ESC 2010 pg. 11). Hence it is important to adopt a policy stance that does not shield companies from the reality of the urgent need to raise wages to motivate and attract good workers and to hasten the development and emergence of dynamic and innovative enterprises which continually seek innovative labour-saving solutions for their business activities. The existing paternalistic approach of providing WIS 'wage subsidies' to low wage employees sends conflicting signals which encourage companies to defer wage increases and pass on the higher wage costs, in the face of the tighter rein on foreign inflow, to WIS payments rather than allow market forces to raise wages. With a minimum wage in place, the WIS scheme could be redesigned to play the complementary role of providing 'living income' supplements to low income household based on household rather than individual considerations.

In a continuing attempt to raise the wages of cleaners which had been languishing over the last decade, the National Trade Union Congress recently championed a tripartite recommendation¹⁵ of a Progressive Wage Model (PWM) to replace the Best Sourcing initiative¹⁶ which had been in place since 2006 but had failed to lift wages of cleaners for reasons already highlighted in Hui (2013a). Cleaning companies bidding for government contacts were required to be accredited from April 2013. Companies seeking accreditation and had to pay a recommended starting basic wage of \$1000 to its workers and submit

¹⁴ The median wages exclude employer CPF contributions are estimated by the author using the relevant data for resident employed (excluding full-time National Servicemen).

¹⁵ Recommendations of the Tripartite Cluster for Cleaners on Progressive Wages

¹⁶ Under the Best Sourcing initiative, government departments, as service buyers, were persuaded to outsource responsibly by selecting companies, bidding for contracts in landscaping, cleaning and building maintenance, on the basis of quality, performance and good terms of employment for its low wage workers.

their company's progressive wage structure, to demonstrate that they have in place a pay structure that enables their cleaners to earn higher wages through skills upgrading or assuming greater responsibilities. However, there are doubts whether this 'pseudo' or de facto minimum wage initiative, enforced through accreditation requirements, will make a difference. It has already been acknowledged by the PWM tripartite committee that the market has failed to ensure that reasonable wage increases despite the presence of subsidised skills training and job re-design programmes directed at improving productivity in the past decade. If cleaning companies previously did not see the need to train their workers or to re-design jobs to increase their wages, it is difficult to see how having a PWM structure will make a difference to existing practices without an extensive audit and effective enforcement system in place to ensure adherence to the intent of the model. There is also a limit to the extent to which general cleaners, who form the bulk of the 70,000 workers in the cleaning industry, can improve on their productivity through training or job redesign.

Indeed in the latest policy development,¹⁷ it has been announced that the PWM will be made a compulsory licensing condition for all cleaning businesses through the changes in the Environmental Public Health Act, which is expected to be effective in September 2014. A key requirement in this mandatory licencing of all cleaning businesses, is that business owners must pay resident cleaners recommended wages which will be determined by tripartite negotiations. Firms which do not implement PWM recommended wages will have their licences suspended or revoked and buyers of cleaning services from unlicensed vendors will also be punished under the law. Given this, wages of general cleaners could only improve in the future if there is a revision of the recommended entry wages. However, if employers are required to adopt the recommended starting wages, it is not obvious how this business licensing approach will be more effective and less costly than simply having a statutory minimum wage in place.

5.5 Expanding social safety net

Singapore's social safety net currently comprises the following 4 key pillars:

- i. Compulsory Central Provident Fund savings to provide financial security in retirement
- ii. Subsidised public housing through the Housing and Development Board to encourage home ownership
- iii. Medisave mandatory savings to meet hospitalisation needs, Medishield to provide insurance for catastrophic medical expenses and Medifund to enable access to hospitalization services and primary healthcare needs for the poor
- iv. Wage income supplements to low-wage older workers through the Workfare Income Supplement scheme to encourage them to continue to work and increase the retirement savings.

Singapore's social safety net is based on the philosophy of having four levels of security which are (in rank order): self-reliance where every person is encouraged to work; family support with family as building block; community helping hands which involve collaboration among the voluntary and the private sectors and finally government as a last resort where all the above fail.

¹⁷ Speech by Mr Tharman Shanmugaratnam, Deputy Prime Minister & Minister for Finance, At The e2i Best Sourcing Symposium 8 January 2014.

The official policy stance for social protection has been one of minimising social hand-outs to avoid moral hazards and the perceived negative effects on work ethic. There is no unemployment insurance or unemployment benefits system dedicated to helping the unemployed. The preferred way to assist the retrenched or unemployed is to help them seek reemployment instead of handing out financial support. However, vulnerable workers, especially older workers with lower education in the lowest income quintiles need additional, more systematic assistance to help them tide through periods of increasingly persistent structural and more frequent cyclical unemployment.

This absence of protection of temporary income loss could potentially be inefficient (Mitra and Ranjan 2011) and is at odds with the need to sustain quality growth through supporting increased risk-taking and entrepreneurship in dynamic value-creating industries that generally experience higher turnover of the workforce. However, the call for more robust social safety nets incorporating unemployment credit scheme and wage insurance scheme without the disincentive work effects (Hui 2010 and ESS 2009) has not gained traction. The presence of these social protection schemes which provide income support for the jobless and those in transition to new jobs would go a long way towards improving job matches and mobility and ensure efficient allocation of labour to facilitate the necessary restructuring efforts to sustain quality growth (Bertola 2009, Boeri and Macis 2010).

Enhancing the effectiveness of the four pillars of social security net is the basic premise of improved equity with growth. The extent of leakages out of the CPF could be reduced through greater innovation in managing public health care costs through insurance, public spending and higher productivity. Also helpful are recent measures to cool the heated property market and efforts to delink new public housing prices from resale values.

6. Concluding remarks

Singapore's economic development strategies which has facilitated its successful transition from third world developing status to the current position as the country with the third highest GDP per capita in purchasing power parity terms (IMF 2013) is facing fundamental challenges in its next phase of economic transformation. A 'rising tide that lifts all boats' approach which has been driver and motivation for its economic transformation until the end of the last decade is now widely regarded as unworkable in a society that has experienced unacceptably wide income disparities, persistent infrastructural bottlenecks in transport and steep escalation of housing prices that have adversely affected living standards. As a country situated in fast growing and dynamic region of the world, job creation per se is not the major concern of policy makers. Indeed, the recent population debate which surfaced widespread opposition and concerns about the rate of immigration inflow to fuel economic growth effectively sets the boundary for employment expansion as the driver of future growth. PMET jobs especially those that require tertiary education will comprise a major share of future employment. Productivity-led quality growth through continuing education and skills development will have to be an integral part of the process. Critical to this are policy measures that are directed at improving productivity of foreign workers. The physical constraints of land and infrastructure would also require a rethink of the importance and contribution of certain economic sectors in the national industrial strategy. In particular, the sustainability and efficiency of relying on continued tourism growth in the quest for the creation of high value-added economic activity and decent jobs will have to be seriously re-examined. Individual and corporate energies that have been consumed by the obsession with short-term private gains in socially unproductive housing investments must be firmly checked in the interest of long term national benefits.

The potential negative effects of inequality on growth will require remedial policy intervention. While disinclination towards the development of a European-style welfare state is understandable in the Singapore context, policy reforms that will improve social stability while maintaining or enhancing market efficiency are needed. Of concern are not only the need for adequate social protection of unemployed to reduce their vulnerability to more frequent employment disruptions and to promote greater flexibility in the labour market, but also the retirement needs of the precarious group of older low-wage, low-educated workers. Future retirement adequacy of the tertiary educated who forms 60 per cent of new labour force entrants would also need to be improved through requisite changes in CPF policies. In line with global developments, there is a case for increased taxes¹⁸ and transfers to reduce income disparity. Policy reforms in these areas would go a long way towards improving the economic security and hence the quality of life of Singaporeans.

Table 8. What does Singapore aspire to achieve?

	Norway	Switzerland	Denmark	Singapore
GDP per capita, PPP (current \$)	60,392	51,227	40,933	60,688
Population Density (per km ²)	16	195	130	7,546
Total labour force (million)	2.63	4.90	2.87	3.24
Foreign labour force (per cent)	11.5*	27.9	8.8	35.7
Employment	2.54	4.71	2.65	3.05
Primary industry (per cent)	2.8*	3.4	2.4	1.2
Secondary industry (per cent)	21.1*	21.1	19.9	19.6
Tertiary industry (per cent)	76.1*	71.2	77.6	79.2
Employment rate (per cent)	68.8	65.4	59.2	63.5
Unemployment rate (per cent)	3.3	2.8	7.6	2.7
Labour force with university education (per cent)	36.4	31.8 [^]	25.1*	28.3
Average wage (US\$)	6,790	7,770	6,086	3,445
Human Development Index (rank)	1	11	16	26
Total fertility rate (per female)	1.95	1.5	1.8	1.2
Life expectancy (years)	81.3	82.7	79.8	82.0
Gini coefficient gross income	0.41 [^]	0.409 [^]	0.416+	0.473
Gini coefficient disposable income	0.25 [^]	0.303 [^]	0.248+	0.448

Source: Compiled from national sources, UN and OECD. Data are for 2011 unless otherwise indicated.

Notes: +2007 >2009 [^]2008 *2010.

¹⁸ International competition for foreign direct investments has gradually reduced progressivity of taxes in Singapore. Taxation reform following the Economic Committee recommendations in 1986 reduced top corporate and personal taxation rate from 40 per cent to 30 per cent and increased reliance on indirect tax as source of revenue. In 2001 the Economic Review Committee further recommended the reduction in corporate tax and income tax from max of 25 per cent to 20 per cent. The current corporate tax rate stands at 17 per cent.

A comparison of Singapore with Switzerland and two other Nordic countries (Table 8) reveals the significant relative distributional impact of taxes and transfers in reducing inequality in disposable incomes in these countries. The striking contrasts between Singapore and these countries are obviously in the huge differences in environmental conditions such as population density which will undoubtedly have an important bearing on the well-being of its residents.¹⁹

However, the share of foreigners in the labour force and the mean wages are other major contrasts worthy of note. Switzerland, despite its relatively high share of foreigners, has an average wage which is more than twice that of Singapore and median wages of foreign workers are on average about 89 per cent of local Swiss.²⁰ This highlights the importance of transitioning away from growth that is dependent on continued use of cheap foreign labour which can have detrimental effect on productivity performance towards a system that can sustain increasing productivity through higher wages. These key labour market reforms could ultimately determine the successful transition of the Singapore economy from factor-driven economy to efficient innovation-driven economy with higher living standards for its residents.

¹⁹ It is instructive to note that Singapore which once aspired to achieve the Swiss standard of living has, in the past 2 decades, increased its total population by 1 million every decade compared to Switzerland which has the same increase in population every 2 decades. Since Switzerland has a land area that is 56 times that of Singapore, this effectively means that Singapore has increased its population density by an amount that is 110 times that of Switzerland. This is clearly an unsustainable policy for Singapore given our already very high population density and very limited land area.

²⁰ Based on data of gross monthly median wages of Swiss and foreigners in 2012, Swiss Federal Statistical Office.

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