

## How will the skilled labour market develop 2011-2030?<sup>1</sup>

- The market for skilled labour is set for a major transformation between 2010 and 2030. A number of structural shifts in demographics, macroeconomics and technology pose threats and opportunities to governments and firms in developed and developing countries.
- Over the next 20 years the working age population will increase by 21%. Developing countries will see an increase of 931 million workers or 24%, but the workforce in the developed world will contract by one million. This will increase the economic power of developing countries. This shift in the balance of power will be reinforced by a structural shift in employment away from agriculture towards manufacturing and services. As these are higher productivity sectors, it will boost developing countries' share of world output.
- The increase in globalization over the next 20 years is expected to expose more markets and products to competition. This is likely to lead to more jobs being displaced from high-wage to low wage economies. Globalization also offers opportunities to developed economies. Exporters of goods and services have access to more and larger markets with rapidly growing income per capita. Increased trade should also boost demand for intermediary services.
- The increasing importance of some developing economies' skilled labour markets will be given a further stimulus by increases in the number of people with higher level qualifications. Despite the growth in their working populations, the switch to more productive sectors and increase in skilled labour, developing economies may still be hindered by a lack of experienced skilled workers in the short term. High quality university education means developed countries will remain key suppliers of skilled labour.
- Technological change and computerisation will create an 'hour glass' labour market. Demand for high- and low-skilled occupations is likely to expand, but semi-skilled jobs will be lost.
- Older workers are likely to constitute a larger proportion of the working population in many industrialised countries particularly in Europe. Older workers exhibit different characteristics from their younger counterparts. They have a greater tendency to be self-employed, part-time or temporary workers. It is not yet clear whether this reflects their preferences or is driven by what employers want. Older workers tend to change jobs and employers less frequently and are less likely to be geographically mobile. This may add to a skills mismatch over time.
- While older workers have acquired skills over time, there is a risk they have become outdated with negative impacts on innovation and productivity. A principal policy issue is the need to maintain the relevance of older workers' skills. Ageing populations in many developed countries are likely to increase the demand for healthcare workers over the next 20 years. As the ratio of workers to the elderly declines this will increase pressure to recruit from abroad.

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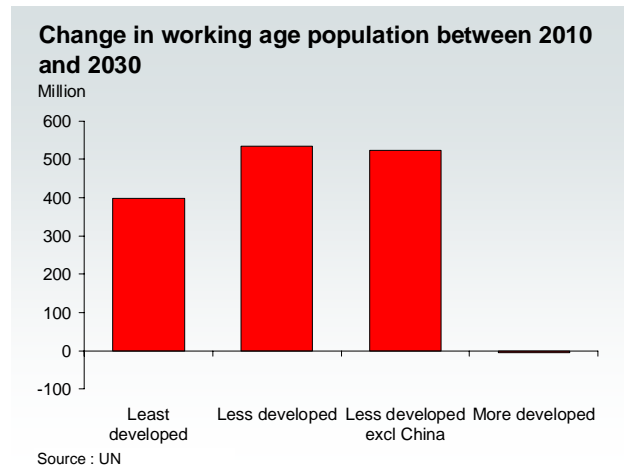
<sup>1</sup> This article is based upon the findings of a report by Oxford Economics in partnership with Hays (the global recruitment experts) entitled 'Creating jobs in a global economy 2011-2030'. We acknowledge the support of Hays in producing this report and thank them for granting permission for the main findings to be reproduced here

## Introduction

In May 2011, Oxford Economics in partnership with Hays (the global recruitment experts) released a report on how skilled labour markets are forecast to change over the next twenty years (2011 to 2030)<sup>2</sup>. This article looks at three of the major issues it addresses: the global distribution of labour, globalization and the impact of the ageing population.

## The global workforce is set for significant expansion over the next twenty years

The world's population is set for rapid expansion. The United Nations projects the number of people will increase to 8.3 billion by 2030 from 6.9 billion in 2010, a rise of just over 20% or 1.4 billion. The population of working age is also predicted to grow, by 21% or 931 million people between 2010 and 2030. But this expansion in the productive population will not be evenly spread around the globe. More than half of the increase in working age population, or 534 million people, will come from less developed countries while 398 million are expected to come from least developed nations.



While those two groups will account for an increase of 932 million, the size of developed economies' population of working age is expected to contract by one million people. This in turn means there will be a dramatic shift in the global distribution of labour that will increase the long-term economic importance of the developing economies.

But this conceals equally dramatic shifts in population within both the developed and developing worlds. Within the developed world some countries will see falls in their working age population while others will see rises over the coming 20 years. Helped by immigration and relatively high birth rates, the US will see its working age population rise by 18.1 million.<sup>3</sup> Others in contrast will see their populations shrink, with some of the greatest falls predicted for Japan (13.0 million people or -16%) and Germany (8.1 million people or -15%).

The disparate demographic trends in the developed world can also be found in the developing world. India (up 241 million people), Pakistan (up 62 million) and Nigeria (up 54 million) are forecast to experience the sharpest increases (see table over page). In contrast, developing nations such as the Russian Federation (down 16 million), Ukraine (down six million) and Romania (down 1.7 million) will see their populations contract significantly over the next 20 years.

Size does matter: changes in working age population can be an important factor in boosting economic growth. Countries with growing populations offer a larger pool of labour, and a bigger potential consumer demand.

<sup>2</sup> Hays/Oxford Economics, (2011), 'Creating jobs in a global economy 2011-2030', May

<sup>3</sup> The working age population of the US is forecast to increase by 8.5% over the next 20 years.

Working age population growth, 2011-2030					
Top 25			Bottom 25		
Rank	Country	People (000s)	Rank	Country	People (000s)
1	India	241116	1	Russian Federation	-16997
2	Pakistan	62930	2	Japan	-13037
3	Nigeria	54330	3	Germany	-8124
4	Bangladesh	34850	4	Ukraine	-6071
5	Ethiopia	34591	5	Poland	-3967
6	Indonesia	31770	6	Korea	-3723
7	DR of Congo	28953	7	Italy	-3014
8	Philippines	23648	8	Romania	-1677
9	Egypt	20675	9	Belarus	-1154
10	Tanzania	19774	10	France	-1061
11	Brazil	18412	11	Bulgaria	-1059
12	U.S.	18132	12	Cuba	-792
13	Uganda	17435	13	Netherlands	-676
14	Kenya	16177	14	Hungary	-675
15	Sudan	14339	15	Serbia & Mont.	-612
16	Iraq	13911	16	Czech Republic	-604
17	Mexico	13309	17	Portugal	-526
18	Afghanistan	13282	18	Georgia	-522
19	Turkey	11296	19	Rep of Moldova	-489
20	Yemen	11089	20	Greece	-448
21	Iran	10699	21	Lithuania	-411
22	Vietnam	10452	22	Croatia	-396
23	China	9944	23	Bosnia & Herz.	-388
24	Nepal	9124	24	Austria	-387
25	Niger	8915	25	Slovakia	-386

Source: Oxford Economics and UN

### Hatches, matches, dispatches: the factors behind the numbers

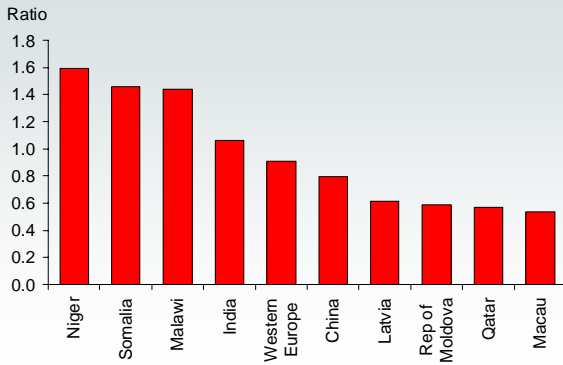
The driving force behind these contrasting changes in population is the outlook for birth rates in these countries. In Europe the fertility rate – the number of live births occurring in a year per 1,000 women of child-bearing age – peaked after the Second World War and has been falling ever since. This has two impacts on the size of the working population. The first is that the number of people joining the workforce will decline. In Eastern Europe the pattern is particularly noticeable. Here the ratio of children (5-14 year olds) to younger workers (15-24 year olds) is around 0.7, which implies that the number of new workers entering the labour force will decline significantly over the next ten years.

As the left-hand chart over the page shows, there is a markedly different pattern in Sub-Saharan Africa where the ratio is well above 1, with new entrants driving the expansion of the working age populations in these countries. India will continue to experience a demographic boom. The number of new entrants to the workforce will continue to rise (the ratio of children to young workers is 1.06) and the working population will expand by 241 million to reach over one billion by 2030.

Falling fertility rates will also have the effect of reducing the ratio of the working age population to those of pensionable age. This is particularly the case in developed countries where life expectancy is on the increase. In Western Europe a very high percentage of the working age population will retire over the next 20 years (see right-hand chart over page). As a result, 42% of the current working age population will retire in or before 2030. In contrast, in India the share is 25% and in Sub-Saharan Africa it is around 15%. This highlights the fact that shrinking labour forces in the developed world will primarily be caused by the retirement of the 'baby boomer' generation, who will leave a big gap in the working age population.<sup>4</sup>

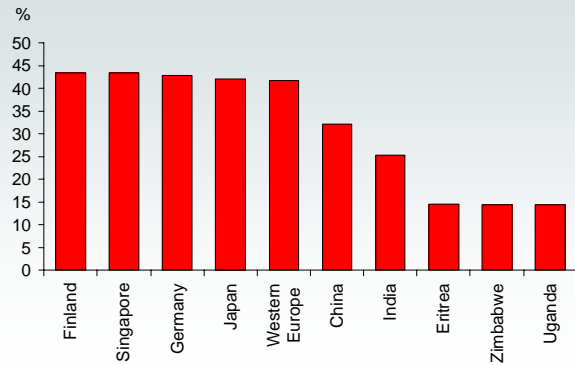
<sup>4</sup> This trend will be at least partially offset by rising retirement ages in the developed world.

**Ratio of children (5-14 years old) to young workers (15 to 24 years old) in 2010**



Source : Oxford Economics and UN

**Share of working age population that is over 40-64 years old in 2010**



Source : Oxford Economics and UN

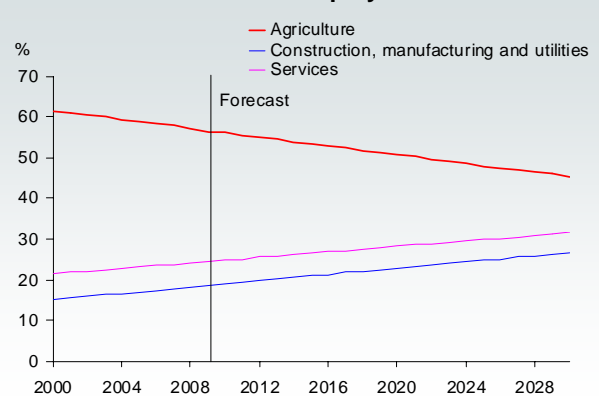
## Structural changes

The two-speed growth rates in working age populations in the developed and developing worlds raise important questions about the sort of work this larger workforce will do. Globalization has already seen profound changes in working patterns. In the developed world most workers are employed in the services and high value-added manufacturing sectors, but this is still not the case in developing countries. Although industrialisation in China and India is happening at a rapid pace, agriculture still accounts for 15% and 17% of GDP respectively<sup>5</sup>. The primary sector – which includes natural resources, forestry and fishing as well as farming – still takes up a large share of workers in developing countries because of low levels of productivity. For example, almost six out of ten Indians (58%) are employed in these primary industries.

There is clearly a large potential for major structural changes over the coming two decades. Investment in infrastructure and closer integration of rural areas into national economies should deliver improvements in agricultural productivity. More workers will leave the land as food security becomes less of a problem and increased wealth levels will open up opportunities in manufacturing and services. As these are higher productivity sectors, it will boost these countries' share of world output.

In all newly industrialized economies, infrastructure investment is the key to sustaining the pace of transition from an agrarian to an industrial economy. Using Japan and South Korea as a guide, one can expect agriculture's share of GDP and employment to decline rapidly over the next 20 years in those countries that make those investments<sup>6</sup>. However the pace and smoothness of the transition will be determined by governments' ability to upgrade their infrastructure. India, for example, is being held back by its poor provision of transport, power and telecommunications. The high levels of investment being undertaken to rectify this will create opportunities for both individuals and multinational firms. The chart to the right outlines how this investment is likely to engineer a shift of employment out of farming and into industry and services.

**Sectoral shares of total employment in India**



Source : Oxford Economics

<sup>5</sup> In contrast, agriculture accounts for less than 1% of output in the developed world.

<sup>6</sup> A. Singh (2007) 'Globalization, industrial revolutions in India and China and labour markets in advanced countries', Policy Integration Department, ILO, WP No. 81.

Unfortunately the African continent is not expected to mirror the performance of East Asia. Ongoing civil disputes, weak governance, poor infrastructure and high levels of corruption will limit the ability of Sub-Saharan Africa to fully participate in the global economy in the next 20 years. Africa may boast the raw population but, without infrastructure and good governance, it will be difficult to leverage economic growth. As a result, foreign direct investment will continue to be limited and most of their rapidly expanding workforce will be confined to the primary sector. There are exceptions however: South Africa and Botswana have performed relatively well in the recent past, and as a result both have lifted themselves into the upper middle income group of countries.

## Skilled labour markets

This combination of a growing workforce and a shift into more advanced economic activities raises the question of whether developing countries can ensure that their workers have the skills needed to compete in the global economy. Defining and measuring skills is very hard, especially when trying to take into account the so-called 'soft' skills such as teamwork and the ability to communicate that are just as important to productivity, but even more difficult to quantify.

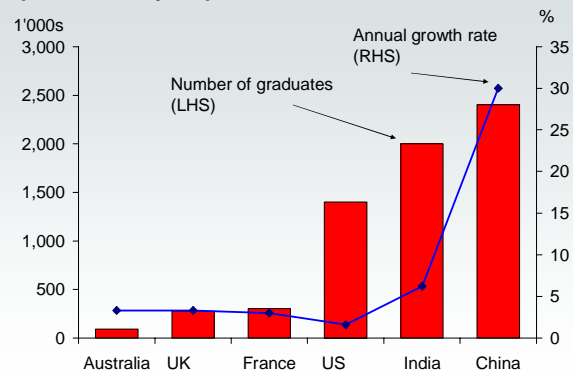
One method is to look at the number of university degrees awarded. The figures in the chart show that the trends in population growth in developed and developing countries are mirrored by the number of people gaining a university education, with the developing nations pushing ahead in terms of the absolute number of degrees awarded. In 2006 China and India awarded 2.4 million and two million degrees respectively, compared to 1.4 million in the US and 275,000 in the UK.

The rapid growth rate in the number of graduates in India and China over the last ten years is also expected to continue into the next two decades. As the chart to the right highlights, just 12% of school leavers in China go on to become university graduates (in contrast to almost 60% of young people in Australia). The shares in the chart suggest that there is significant scope to increase the number of graduates in East Asia, and the increase in skilled labour in these economies will increase their attractiveness to multinational firms from the West.

Whilst the dramatic rises in the number of graduates in India and China suggests that they should be able to satisfy their demand for skilled labour domestically, the quality of the degrees awarded may result in short-term skill shortages in these economies. The UNESCO data that underpin the chart to the right assume the quality of degrees to be uniform around the world. This is unlikely to be true. Developing economies will need to make major investments in higher education to close the gap with the West.

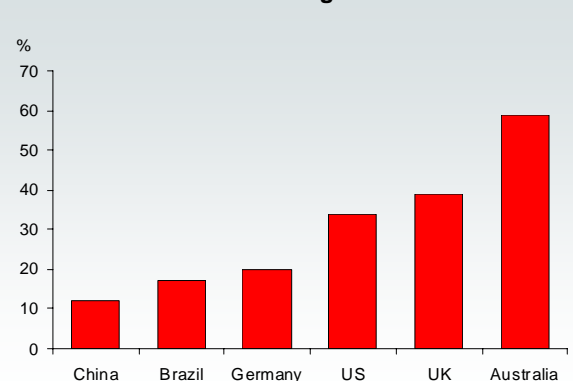
However, over the next ten years at least there will be a shortage of experienced skilled labour in developing economies despite the growing number of new graduates. This higher education divide will reinforce the drive of multinationals into developing economies.

**Number and growth rate of graduates in 2006 over previous ten-year period**



Source : UNESCO

**Graduates' share of their age cohort in 2005**



Source : UNESCO

For governments in developing economies this may raise questions about migration laws. Acute shortages of experienced skilled labour could limit the potential for growth and development, and governments across the world will need to ensure that their migration laws allow the right kind of skilled labour to enter their economies and contribute to its prosperity. Developing countries will see a marked increase in the size of their working age populations while developed countries will stagnate. This will bolster the growing importance of developing countries in the global economy. This trend will be reinforced by a structural shift in employment in those economies away from agriculture towards manufacturing and services. As these are higher productivity sectors, it will boost these countries' share of world output.

## Impact of globalization

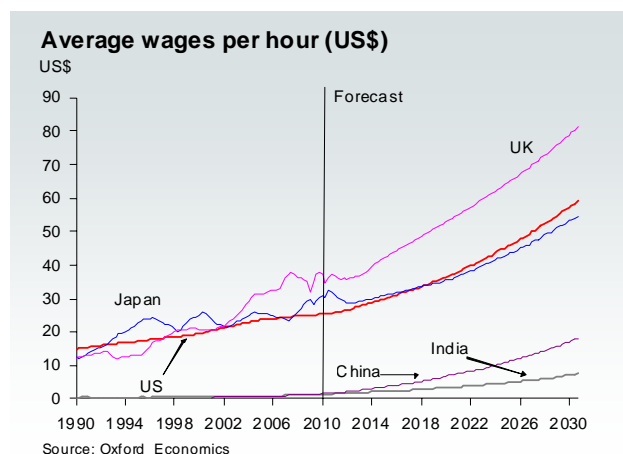
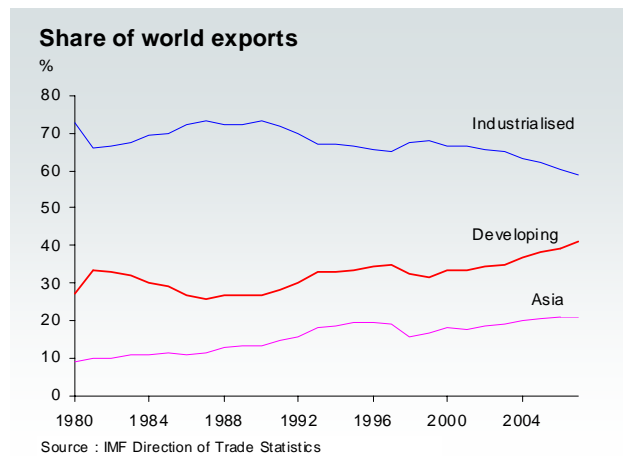
We have established that emerging and developing economies are set for a massive increase in their populations and a heightened focus on economic activities traditionally dominated by the West. But this transition is only the latest stage in a major structural shift in the make-up of the global economy that has been going on since the end of the Second World War.

At the heart of this transformation is globalization. Low skilled manufacturing industries such as iron and steel production have all but disappeared from the developed world in the face of intense competition from developing economies, led by countries in South and East Asia. At the same time the Japanese economy has developed and expanded rapidly, overtaking the US in productivity terms in industries such as electronics and car manufacturing. The growth of the Japanese economy facilitated the transfer of technology to lower wage economies in Asia.

The net effect was to fuel a boost in the export capacity of these countries. The share of world exports produced by developing countries has risen significantly over the last few decades, from 27% in 1980 to 41% in 2007 (chart to the right). Within developing nations, Asian countries are responsible for most of the growth in their market share. Asia's combined share of exports increased from 9% to 21% over the period, whilst the rest of the developing markets' share has remained relatively constant.

Despite the shock to world trade from the financial crisis, globalization looks set to be the dominant economic trend over the next two decades, so labour-intensive manufacturing will continue to move to low-wage economies. As the chart to the right shows, countries such as China and India are likely to maintain their competitive advantage over the rich countries in terms of wages over the forecast period.

As China and India invest more in education and training and skills levels rise, they will be better equipped to compete for advanced manufacturing and services not only with the East Asian tiger economies but increasingly with developed countries. One needs look no further than the software industry to see this shift in action. In India, IT development and support already accounts for annual revenues of \$73 billion.



Over the next decade, growth rates of over 10% per annum will see this rise to \$225 billion by 2020, which will make India a global leader. Similar shifts are also happening in China. While low-skill manufactured goods are still the biggest exports, firms are beginning to move up the value chain and outcompete firms in Korea and Taiwan.

This will have a knock-on effect throughout the developing world. China and India are taking advantage of lower wage levels than those seen in the East Asian tigers, allowing them to undercut their rivals to take a greater share of the export market for goods and services. As this success is passed on in the form of higher wages – and there are signs of this shift currently taking place in China – this will allow other economies, chiefly in Africa, to in turn undercut China and India on wages for lower skilled work. Having said this, it will be a slow process, and given the structural and institutional problems endemic in Africa, China and India will remain comparatively cheap locations for production for the foreseeable future.

### **Developed economies must act to stay competitive**

This shift clearly poses a threat to economic growth and employment in developed countries, just as the first waves of globalization did. But it is important to remember that globalization offers great opportunities to Western companies. Some industries and jobs will inevitably be lost to low wage economies, but others will grow in importance. It is therefore crucial that governments adopt policies that ensure they are best placed to take advantage of the opportunities.

There are two aspects to this. The first is to ensure that they continue to move up the value chain. The US, UK and other advanced economies have significant competitive advantage in higher education and continued investment in this area is vital to ensure that countries continue to nurture the skills needed to compete in the globalised economy.

Europe and North America already have a dominant position in several high value-added sectors. Financial services, information technology, R&D, pharmaceuticals research and aerospace engineering are just a few sectors where the developed world out-competes countries in East Asia. By adopting and adapting to the latest technology and employing highly skilled labour, firms in the developed world will continue to be global leaders in these industries. The reality for newly industrialized economies is that they will find these well-established industries harder to enter, as the experience built up over a number of years of production cannot be immediately undercut by cheaper labour.

The second positive aspect for advanced economies is that globalization, industrialization and population expansion in China and India offer many opportunities. This combination will increase the number of potential customers developed countries' firms have access to. Moreover, in many of the developing countries per capita incomes are rising, enabling large numbers of people to afford new products for the first time. This is in stark contrast to saturated developed markets that are still struggling to emerge from recession.

The increasing integration of the global economy will require rising levels of intermediation, to ensure that expectations of both producers and consumers are met in spite of any differences in location. This will result in increased demand for services such as banking, law, consultancy and accountancy, as multinational firms increasingly need to understand how to efficiently move goods and services between their producers and final consumers.

### **Technological change, globalization and the 'hour glass'**

The dual package of threat and opportunity that globalization will bring over the coming two decades will be exacerbated by technological change. In the last 20 years the computer revolution has changed the workplace almost beyond recognition, and this trend will continue over the next two decades. So far, technological change has mostly affected the manufacturing sector, with jobs that involve repeated, routine

actions, such as assembly line construction, being replaced by automated machines and robots. Routine service sector jobs, such as bookkeeping, data processing and call centre operation, are also under threat from automation.

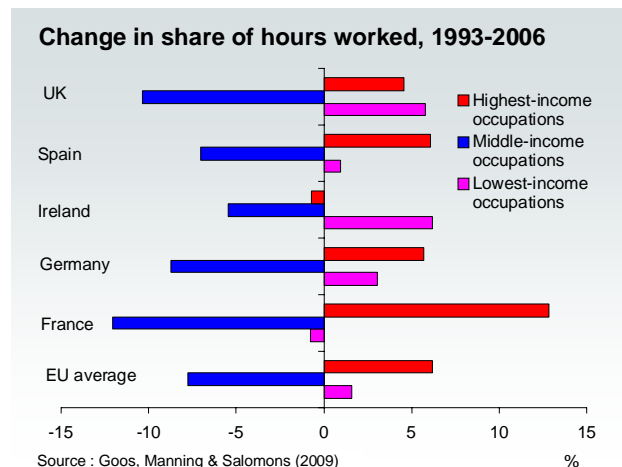
On the other hand, non-routine jobs have generally benefitted from the new technology in both high- and low-skilled sectors. Professionals such as managers, doctors and consultants have become more productive and valuable over time. Improvements in technology have taken away many of the routine aspects of occupations that require constant decision-making and analyzing information, leaving them more time for the non-routine analysis.

At the same time, demand for labour in routine low-skilled occupations that computers and machines cannot replace, such as cooking, cleaning, building, driving, home maintenance and hairdressing, has increased. Indeed, technology has in some cases enabled them to increase their productivity, such as the computerisation of restaurant bills.

The same will apply to non-routine occupations where face-to-face contact cannot be replaced with a machine, such as in healthcare and education, and so cannot be outsourced. However, while these jobs cannot be moved offshore, recent decades have seen a trend of migrant workers from poorer countries moving to rich countries to take up jobs in sectors such as building, catering and local transport. Assuming that globalization will not be reversed, this trend is likely to continue.

In the developing world, more advanced emerging economies will continue to attract non-routine occupations such as software support from Europe and North America. As income and skills levels rise in those economies, workers will be less willing to carry out routine assembly line jobs, which workers in poorer developing countries will be well placed to take on, in turn fuelling their economic development.

The combination of increased employment at the top and bottom ends of the skills ladder will create an 'hour glass' economy, where low skilled and high skilled workers squeeze out the middle group of semi-skilled workers whose job can be outsourced. In the middle are those occupations where computers or machines can perform relatively intricate processes that were typically done by people, such as fitting a car engine. These shifts have already resulted in a hollowing-out of the labour market in the developed world. As the chart shows, workers in occupations which placed them in the middle third of the income distribution in the 1990s have seen their share of hours worked fall, whilst conversely the bottom and top thirds have gained.



This trend also has implications for relative wage levels across groups. Those occupations that have remained at the top of the income distribution have seen their wages rise relatively quickly over the last decade. However, the middle group in particular has seen stagnation – and even falls – in real terms. The 'hour glass' pattern seen in terms of job numbers is reflected by a similar pattern in terms of earnings growth.

## Onus on governments to act

These trends in the labour market have profound implications for governments in developed economies. Firms in the developed world will increasingly have to compete with developing countries, and innovate to overcome the competitive disadvantage of higher wages. By adopting the latest technologies and employing workers with high levels of skill, the West can still compete, but action is needed from governments to ensure

this continues.

Political leaders must act swiftly to ensure that their workforces can both withstand the challenges and take advantage of the opportunities. There are important steps they can take:

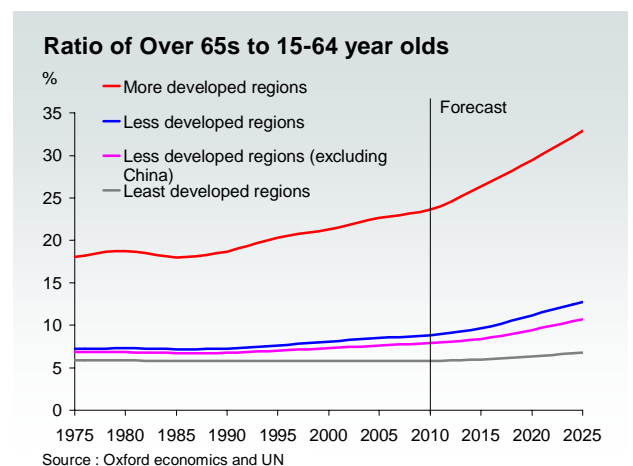
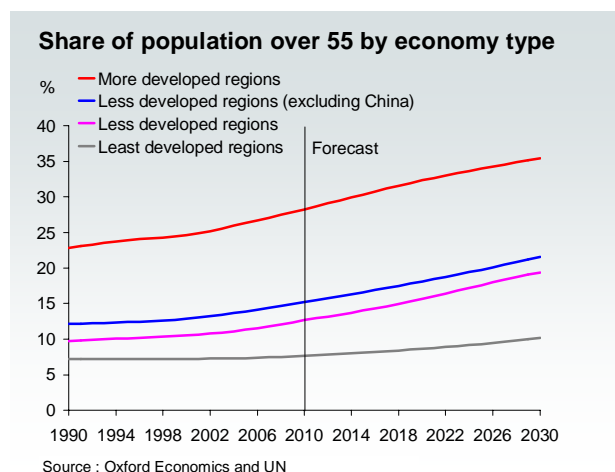
- New entrants to the labour force should be encouraged to join industries where technology improvements increase productivity rather than ultimately replace workers.
- Focus on sectors where developed nations have an advantage (such as pharmaceuticals and business services) or that involve face-to-face contact (such as healthcare and education), as these cannot be outsourced to developing nations.
- Workers that are left behind by technological innovation and outsourcing need to have access to retraining and be encouraged to move into industries with a more viable long term future.
- Review the need for social safety nets in the intervening period for affected workers.

This cocktail of technological innovation and globalization will also have implications for developing countries and particularly for fast-growing emerging economies. On the positive side, the wage differential between East and West will enable East Asian countries to continue to capture service sector activities that can be outsourced. On the other hand, while their development has typically been built on capturing routine assembly line occupations from the West, falling capital costs mean machines can out-compete even the cheapest sources of labour for routine assembly line work that has hitherto underpinned their economic development. Governments in India and China in particular will need to plan for this, and encourage workers to move into more sustainable industries.

## Implications of population ageing for the skilled labour market

The world's population is not only set for rapid expansion, it is also ageing very fast. This phenomenon is taking place across all types of economy, albeit at different paces. From 1990-2009, the percentage of people aged over 55 years increased in developed economies by 5.0 percentage points (pp) to 27.9%, rose 2.6 pp to 12.4% for less developed economies and by 0.4 pp to 7.6% for the least developed economies.

Forecasts suggest this trend is likely to continue. The UN forecasts show the share of the population over 55 years old will increase by 7.1 percentage points (pp) between 2010 and 2030 for the more developed economies, 6.7% pp for less developed economies, and 2.5 pp for the least developed economies. This reflects two factors. First, people are living longer thanks to advances in medical technologies, improvements in diets and working conditions, and, particularly in developing countries, higher standards of sanitation and water quality. Second, fertility rates have declined due to higher standards of living, education and healthcare.



One of the consequences of the growing numbers of older people is an increase in the age dependency ratio. This is the ratio of people aged over 65 to those of working age (defined using the UN data as 15 to 64 years old). This has adverse implications for the affordability of public sector financed pensions. It explains why various countries have announced increases in the age at which people become eligible for state pensions and reductions in their generosity in real terms.

The increase in retirement ages and growing number of older people is likely to increase the share of older people in the labour force. This will likely impact the skilled labour market, as older workers offer a different set of skills and characteristics to labour markets.

## Employees versus the self-employed

Research shows self-employment rates increase with age, rising sharply after the age of 60 years old<sup>7</sup>. This is confirmed by 2009 data for the UK that show 22.8% of those over the state pension age (SPA) are self-employed compared with 12.7% of those aged 25 to 49 years old. This may be explained by the self-employed not adhering to normal retirement age practices common amongst employees, or that significant numbers of ex-employees become self-employed after retiring from their employee jobs.

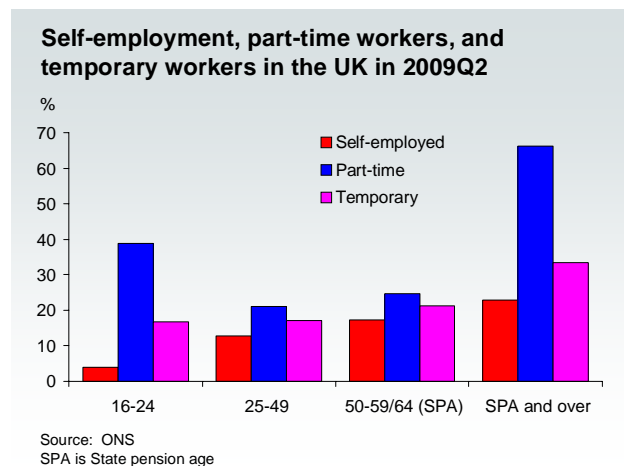
Older workers' greater tendency to be self-employed may reflect their skill sets and resources. It may only be possible for an individual to become self-employed when they have accumulated sufficient human and financial capital. The human capital is likely to include both the technical skills to produce a product or service customers want and the managerial ability to run a business. These skills take time to accumulate.

Older workers may also prefer being self-employed as it can be a more flexible way of working. It can offer the ability to work fewer hours (consistent with older workers' greater tendency to work part-time) or the choice of when to work. This may reflect a preference for a staged retirement – with people reducing the hours they work as they get older, rather than switching from full-time employment to retirement.

It is worth pointing out that the impact on employers will vary depending on whether the decision is one that tends to be taken by the worker (supply-led), or is one which is guided by what businesses want (demand-led). If older workers' greater tendency to be self-employed is supply-led, it is likely to reduce the supply of skilled labour available for businesses to recruit. However, if it is demand-led, then it is a sign that older workers will change their work patterns to fit employers' needs. As of now, it is unclear which factor is dominant.

## Sectoral differences

Older workers are more likely to work in health and community services, education and government and administration. Research by the New Zealand Department of Labour showed the share of older employees working in those sectors was 4pp higher than for all employees<sup>8</sup>. Older workers were less likely to work in retail, hotels and catering, and finance and insurance. In fact, the share of older workers working in the retail sector was 5 pp less than all workers. As the share of older workers in the labour force grows, it is these



<sup>7</sup> Weir, G, (2003), 'Self-employment in the UK labour market', *Labour Market Trends*, Office for National Statistics.

<sup>8</sup> Department of Labour, (2009), 'The working patterns of older workers', *New Zealand Government*.

private sector industries that are likely to feel the significant changes in labour supply.

## Tendency to work on a part-time or temporary basis

Official data suggests older workers have a greater tendency to work part-time or work on temporary contracts than other workers. For example, in the second quarter of 2009, 25% of people with a job aged between 50 and the SPA were employed part-time. This rose to 66% for employees above the SPA. This compares with 21% for those employees aged 25 to 49.

Just over a fifth (21%) of people with a job aged between 50 and the SPA were employed part-time. This rose to a third (33%) for those beyond the SPA, compared with 17% for those aged 25 to 49. Again, the implications for employers will vary depending on whether this trend is driven by workers' desires or by businesses' needs. If it is supply led, it could be a sign that workers want staged retirements to help alleviate pension worries. If this is the case, then the availability and range of part-time and temporary employment opportunities will become increasingly important as populations age.

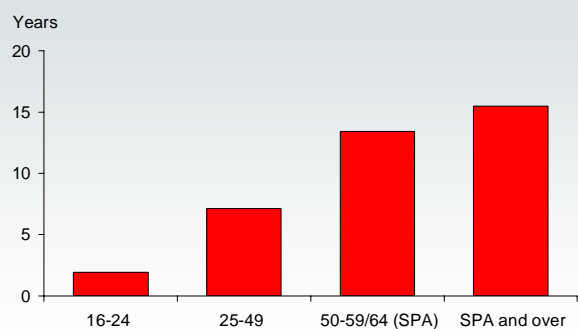
## Older workers may be more loyal

Older workers tend to remain with an employer for longer periods of time than other workers. Official UK data shows that the average time in current job is 15.5 years for those employees over the SPA and 13.4 years for those between 50 and SPA. This compares with 7.1 years for those employees between 25 and 49 years old. The New Zealand data show mean job tenure was about twice as long for older employees compared with prime-aged employees.

There are both positive and negative reasons why older workers may typically remain with the same employer for a longer period of time. On the plus side, older workers are more likely to have found a good match between their skills and the job through career changes earlier on. Economists believe another reason is that many employers, often in large organisations, remunerate employees according to tenure or seniority in order to retain workers and reduce turnover costs<sup>9</sup>. One form of remuneration that may be particularly important in incentivising older workers to remain with their current employer is a good pension scheme. On the other hand, the reason older workers tend to remain with the same employers for long periods of time may be that the costs of voluntary redundancy increase over time, making it more expensive to dismiss older workers.

This tendency to stay with an employer feeds through to lower rates of geographical and occupational mobility. Research has shown that regional migration rates decline with age, peaking among young adults and typically decline with age until retirement<sup>10</sup>. Job changes incur costs (for example, moving home) which older workers have less time to recoup than younger workers. Lower voluntary separation rates may also reflect the difficulties older people have relative to younger workers in getting jobs.

**Average length of time UK employees have been in current job in 2009Q2**



Source: ONS  
SPA is State pension age

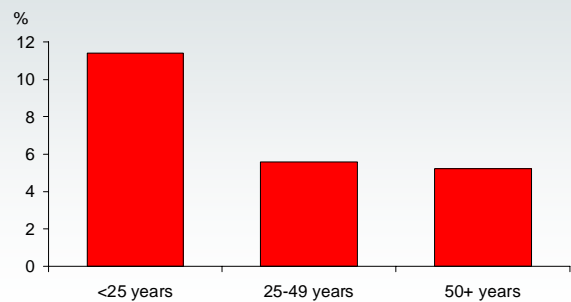
<sup>9</sup> Groot, W, and Verberne, M, (1997). 'Ageing job mobility and compensation'. *Oxford Economics Papers*, 49, pp380-403.

<sup>10</sup> Champion et al. (1998), 'The determinants of migration flows in England: A review of existing data and evidence', Report for the Department of the Environment, Transport and the Regions.

## Involuntary dismissal is less common

The rate at which older workers leave their existing employer because of redundancy, dismissal or termination of a temporary contract declines with age<sup>11</sup>. This may also reflect the higher costs of dismissing older employees with many years of service compared with younger ones, as many redundancy schemes are linked to years of service. It may also be that firms value some of the characteristics that older workers exhibit (for example, lower absenteeism) and so select other workers for redundancy.

Rate at which workers in different age groups lose their jobs through redundancy, dismissal or termination of temporary contract per year in the UK (1991-1996)



Source : Gregg, Knight and Wadsworth (1999)

## Jobless older workers take longer to find new work

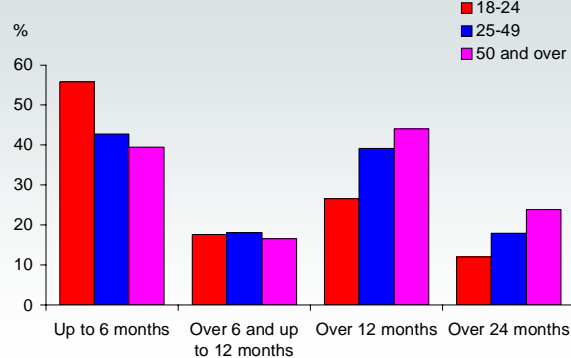
If older workers become unemployed, they tend to remain unemployed for longer durations than other workers. ONS data for the UK show the share of each group of unemployed people who have been unemployed for various lengths of time. The 50 and over age group has the highest share of people who have been unemployed for over 12 months and 24 months. It has the lowest share of the two durations of unemployment under a year.

A number of reasons have been advanced as to why older workers are less successful at regaining employment. Hurd (1996) argues that employers that hire and train new staff members incur considerable costs. Employers may be more reluctant to hire an older worker in preference to a younger one as there is less time for these costs to be recouped. This may be particularly the case if older workers prefer part-time employment. Hurd (1996) also argues that jobs that require team working cannot accommodate part time workers.

Another reason older unemployed people are less successful at getting jobs may be the relevance of their skills. Although, they are likely to have accumulated more human capital through their longer working lives, some or all of this knowledge may be redundant if technology has changed. The employer will therefore have to incur expenditure on training the new older recruit rather than employing someone younger with more up to date skills.

An argument for employing and training older workers is that although they have fewer expected years on the job, they have lower propensity to voluntarily separate from the firm. In addition, older workers can be well placed to compete against younger ones where technology is changing rapidly, since the skills required can be acquired and depreciate relatively quickly. In such a scenario, older peoples' shorter-employment time frame is less important. The converse can also be true. Landis (2000) argues that the greatest threat for older workers is the introduction of an entirely new type of technology – such as digital technology – that requires extensive and lengthy training.

Duration of unemployment in the UK (Feb – Apr 2011)



Source : ONS

<sup>11</sup> Gregg, P, Knight, G, and Wadsworth, J, (1999) 'The Cost of Job Loss'. In *The State of Working Britain*, edited by Gregg, P and Wadsworth, J.

Gregg, Knight and Wadsworth (1999) find that if older workers are successful in gaining another job they experience a larger reduction in their average earnings than do other workers. In part, this may be due to the fact they have accumulated higher-levels of job and employer specific skills with their previous employer. If these skills are not of value to the new employer, they are not remunerated.

### Which countries are forecast to be most affected?

To give an indication of which countries will be most affected by having a high percentage of older workers, this analysis uses the UN population forecasts for 2010 and 2030 to show the countries with the highest proportion of people of working age who are over 55 years old. Just over half of the 25 countries predicted to have the largest shares of older workers are in Europe.

By 2030, the UN forecasts that 26.5% of Italy's potential workforce will be between 55 and 64 years old. Spain, Greece, Portugal, Austria, Bulgaria, the Netherlands, the Czech Republic, and Denmark are also forecast to appear in the top 25 countries. The average for Europe is forecast to be 21.5% by 2030.

The only region that is forecast to exceed Europe in the proportion of its potential work force over 55 is Eastern Asia at 22.6%<sup>12</sup>. Six out of the seven component countries (excluding Mongolia) are forecast to appear in the top 25 countries by 2030. Of these, three (Japan, Macau and South Korea) appear in the top ten. The clear implication is that the skilled labour markets in the countries identified in the table will change to reflect the higher percentage of older workers.

Proportion of people of working age who are between 55 and 64 years old			
Rank	Country	2010	2030
1	Italy	18.8	26.5
2	Cuba	14.8	26.4
3	Japan	23.0	26.1
4	Macau	14.1	25.9
5	N. Antilles	16.5	25.2
6	Germany	18.4	25.1
7	S Korea	14.2	25.0
8	Singapore	18.1	24.9
9	Channel Islands	19.2	24.7
10	Spain	16.1	24.4
11	Greece	18.2	24.3
12	Portugal	18.0	24.0
13	Austria	16.9	23.5
14	Bulgaria	20.3	23.4
15	Hong Kong	16.8	23.4
16	Romania	17.5	23.0
17	Slovenia	19.2	22.8
18	Barbados	16.1	22.7
19	Martinique	16.9	22.4
20	Netherlands	19.6	22.3
21	China	13.7	22.3
22	Bosnia & Herzegovina	17.1	22.1
23	N. Korea	11.6	22.1
24	Czech Republic	20.1	22.0
25	Denmark	20.1	21.9

Source: Oxford Economics and UN

<sup>12</sup> Eastern Asia includes China, Hong Kong, Macau, S. Korea, Japan, Mongolia, and N. Korea.

## Conclusion

The developed and developing worlds will face different challenges over the next 20 years. Whilst developed economies face a declining worker population, many developing countries will see a significant increase in worker populations which will help their shift to more productive sectors. However, their economies may be hindered by a lack of experienced workers, at least in the short term, and they will continue to look to the developed economies to meet their skills shortages. At the same time, the developing economies will see an increase in the number of people attending university as they seek to plug their advanced skills gap over time.

Globalization is both a threat and an opportunity to developed countries' labour markets. It offers low wage economies greater scope to use wage differentials to attract routine work. But it also offers access to very large markets, where incomes are growing. The growth in trade also offers developed economies' financial and business service firms significant opportunities for expansion.

The policy response by developed economies to globalization and technological change must be to focus on education and vocational training. This should offer workers the opportunity to acquire the right skills in dynamic changing economies. Social safety nets and retraining opportunities may also be needed to assist workers through that painful transition.

Older workers exhibit different labour market characteristics than their younger counterparts. They have a far greater tendency to be self-employed or work on a part-time or temporary basis. It is unclear whether this is due older peoples' preferences, employers only offering them these roles, or a combination of the two. The challenge for the economy, businesses and policy makers going forward is to understand why older workers are over-represented amongst the self-employed, part-time and temporary workers. If it reflects older workers' preferences, the challenge is to ensure the labour market delivers sufficient range and quality of part-time and temporary roles. If it is demand led, the issue is how to prevent the mismatch between older workers wanting to work in full-time, permanent jobs, yet only being offered part time or temporary roles.

It will be very important that older workers have sufficient opportunities to develop new and up-to-date skills. This should lower skills mismatch and foster occupational mobility. This is likely to require considerable training efforts and investment by both government and employers.