Chapter 7. Fostering worker productivity

Productivity growth is a precondition for promoting better wages and working conditions and hence achieving high quality jobs for all. This chapter therefore discusses the main drivers of worker productivity and the role of policies and institutions to foster it. To this end, it focuses on the role of skills development, the performance of firms, with an emphasis on work and management practices, and the process through which workers are allocated to jobs in different firms.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction

Productivity growth is the main driving force of better wages and working conditions in the long-term, and hence rising living standards. As such, it is also a necessary, albeit not sufficient, condition for achieving high quality jobs for all. Hence, good economic and labour market performance are inextricably linked.

The objective of this chapter is to discuss the main sources of worker productivity and the role of policies and institutions. To this end, it starts by discussing the role of skills since this is one key determinant of worker productivity. At the same time, however, employers' decisions and strategies also matter. The chapter therefore also focuses on the role of good working conditions for learning and innovation in the workplace and, more specifically, the use of high-performance work and management practices. Moreover, to ensure that good performance is rewarded and translates into high-quality job creation a fluid labour market is needed that promotes an efficient allocation of workers to firms and skills to jobs.

The chapter is structured as follows. Section 7.1 provides a brief discussion of the role of skills. Section 7.2 discusses the role of public policies for promoting the conditions for learning and innovation in the workplace. Section 7.3 discusses the role of policies and institutions for promoting a more efficient allocation of workers across jobs and firms. The final section concludes.

7.1. Boosting performance through a better supply and use of skills

Good skills are crucial for the success of both workers and firms. By increasing worker productivity, skills can strengthen incentives for firms to create jobs, offer higher wages and provide better non-wage working conditions. Skills can also make work more attractive to individuals as a result of better productivity, wages and working conditions. And a greater attractiveness of work in turn will increase labour force participation. Consequently, investing in workforce skills throughout the working life is critical for achieving better labour market outcomes in terms of both job quantity and job quality. Moreover, it is important to achieve a good match between the skills acquired by workers and those needed by employers and to ensure that the skills that workers possess are fully used in their jobs.

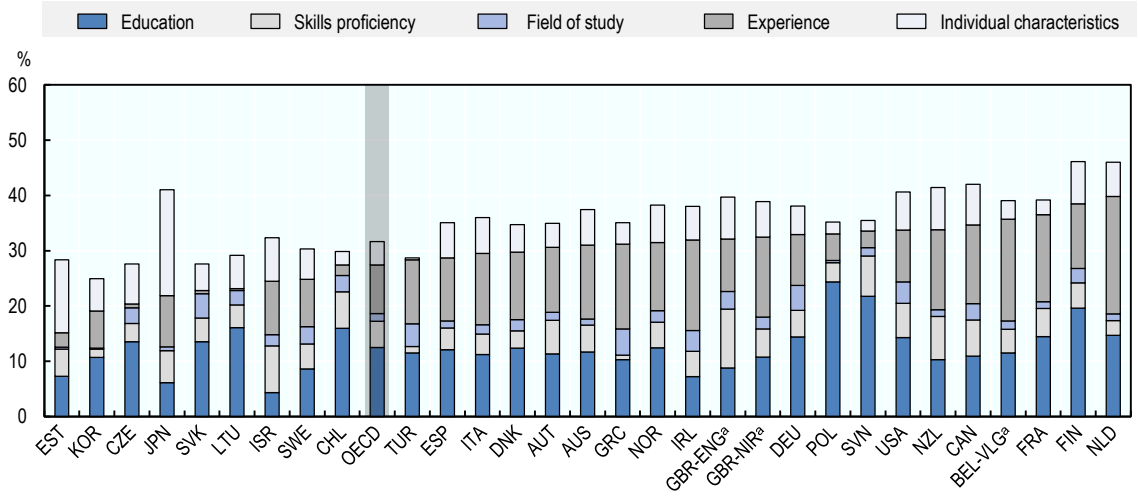
Skills are a key determinant of worker productivity and wages

Adults with higher proficiency in literacy, numeracy and digital problem-solving tend to have better outcomes in the labour market than their less proficient peers: they have greater chances of being employed and, when employed, are more productive in their jobs and earn higher wages. Across the countries participating in the Survey of Adult Skills, an adult who scores one standard deviation higher than another on the literacy test is 0.8 percentage point more likely to be employed and has a 6% higher wage, on average, after accounting for other factors, including educational attainment (OECD, 2016[1]). But literacy, numeracy and problem-solving only capture a subset of the skills that individuals possess. Educational attainment, beyond its impact on cognitive skills, further boosts labour market outcomes: an additional year of completed formal education is associated with an increase in the likelihood of being employed of about one percentage point and increases wages by 12% (OECD, 2016[1]).

A different way to assess the relative influence of skills on wages is to determine the extent to which worker characteristics predict differences in wages (Figure 7.1). According to the Survey of Adult Skills, on average across countries, one third of the variation in wages is explained by factors such as experience, years of education and skills proficiency. Educational attainment accounts for 13% of the variation, work experience for 9%, proficiency in literacy and numeracy for 5% and field of study for 1%. Individual characteristics, such as gender, immigrant background, marital status and language spoken at home, account for a further 4% of the variation. The unobserved component of wages partly reflects unobserved worker characteristics (e.g. unobserved ability). Indeed, the evidence summarised in OECD (2015[2]) suggests that the bulk of the variation in wages – about three quarters – can be traced to the (observable or unobservable) characteristics of workers, with the remainder being determined by their job or employer. In summary, adult skills are the main determinant of wages and productivity and are acquired through education and training as well as on-the-job learning.

Figure 7.1. Contribution of education, literacy and numeracy to the variation in wages

Contribution of each factor to the explained variance in hourly wages



Note: Each bar summarises the results from one regression on the log of real hourly wages. Its height represents the explained share of the variance of that regression (R-squared). The sub-components of each bar show the contribution of each factor (or set of regressors) to the total R-squared. The regressors for each factor are: years of working experience and its squared term for "Experience"; proficiency in literacy and numeracy for "Skills proficiency"; years of education for "Education"; and gender, marital status, migration status and language spoken at home for "Individual characteristics".
a) The Survey of Adult Skills only covers England (GBR-ENG), Northern Ireland (GBR-NIR) and Flanders (BEL-VLG).
Source: OECD (2016[1]), *Skills Matter: Further Results from the Survey of Adult Skills*, https://doi.org/10.1787/9789264258051-en.

StatLink http://dx.doi.org/10.1787/888933881173

Consequently, providing high-quality initial education is critical to give individuals the best possible start in the labour market. Investing in high-quality early childhood education and initial schooling, particularly for children from disadvantaged socio-economic backgrounds, has proved to be an efficient strategy to ensure that all

children are well positioned and become effective learners. This is discussed in detail in the *OECD Skills Strategy* (OECD, 2012[3]). However, people also need opportunities to maintain their skills, up-skill and/or re-skill throughout their working lives. At the country level, there is a clear relationship between the extent of participation in organised adult learning activities and average proficiency in key information-processing skills. In addition, much learning takes places outside formal education and training. It is therefore also important to recognise and certify skills proficiency to facilitate and encourage adult learners to undertake continued education and training. The design of life-long learning systems will be discussed in more detail in Chapters 10 and 14 of this Volume.

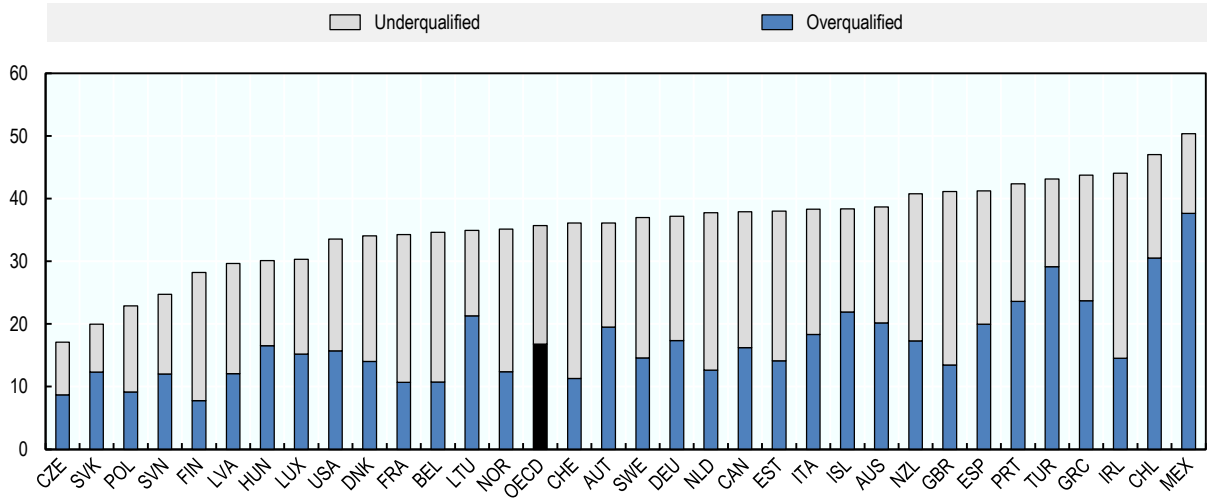
To reap the full potential of skills for worker productivity they need to be well-matched to job demands and fully used

While developing a better supply of skills is a necessary condition for achieving good labour market outcomes, it is not sufficient. It is equally important that the skills provided by the education and training system correspond to the skills that are required by firms and that the labour market matches workers to jobs in which they can put their skills to the best use. Indeed, a mismatch between the skills of workers and the demands of their jobs can have adverse economic implications: at the individual level, it affects job satisfaction and wages; at the firm level, it increases the rate of job turnover and may reduce productivity; at the macro-economic level, it increases unemployment and reduces economic growth through the waste of human capital and the implied reduction in productivity. While some mismatch is inevitable in a rapidly evolving economy in which new technologies disrupt old ones requiring new/adapted skills, the evidence suggests that the problem is pervasive. On average across OECD countries/economies that participated in the Survey of Adult Skills, 17% of workers reported that they were overqualified – i.e. that they had higher qualifications than required to perform their jobs – and 19% reported that they were underqualified for their jobs – i.e. that they had lower qualifications than required to perform their jobs (Figure 7.2).

To improve the relevance of worker skills for labour market needs, it is important to develop stronger links between the world of education and the world of work. In particular, work-based learning (whether this be structured, such as in apprenticeships, or unstructured, such as through work experience) offers a useful solution to the problem of skills matching since provision adjusts more or less automatically to the (immediate) needs of the labour market. More generally, employers and trade unions can play an important role in shaping education and training to make them more relevant to current needs of the labour market, for instance, by being involved in curriculum design. The social partners can also help in assessing and anticipating skills needs, another important tool to ensure that the skills produced by the education and training system are in line with labour market needs. Such information then needs to be translated into impartial, accurate and accessible information designed to help people make learning decisions, based on a good understanding of their abilities, skills, interests and values, as well as of the options available to them (OECD, 2011[4]). This will be particularly important for addressing skill shortages, but also will help to reduce the issue of overskilling by prioritising educational investments in line with the skills required in the labour market. Such involvement of the social partners requires a constant and effective dialogue between employers and the world of education – schools, universities, and other training institutions –, to adapt curricula to changing skills needs.

Figure 7.2. Qualification mismatch in OECD countries

Percentage of mismatched workers, 2016



Note: Data refer to 2015 for Canada, Chile and Turkey 2015 and to 2013 for Germany. Countries are ranked in descending order of the prevalence of total mismatch (underqualification and overqualification). OECD is the unweighted average of the countries shown.
Source: OECD Skills for Jobs Database, 2018, https://stats.oecd.org/Index.aspx?DataSetCode=MISMATCH.

StatLink http://dx.doi.org/10.1787//888933881192

One way of addressing the problem of overskilling in particular is to promote a better use of skills by currently employed workers in the workplace.[1] Workers who use skills more intensely in their jobs tend to be more productive, earn higher wages and be more satisfied with their job, reducing staff turnover (UKCES, 2014[5]; OECD, 2016[1]). For example, in the Survey of Adult Skills, the intensity of use of reading skills at work correlates strongly with output per hour worked at the country level – a link which remains strong even after accounting for average proficiency scores in literacy and numeracy (OECD, 2016[6]). Put simply, the intensity with which workers use information-processing skills is important in accounting for differences in labour productivity, beyond workers' level of proficiency. Using skills at work is also important for their maintenance and, hence, avoiding atrophy. Adults who engage more often in literacy- and numeracy-related activities and use information and communication technology more – both at and outside of work – have greater proficiency in literacy, numeracy and problem-solving skills, even after accounting for educational attainment (OECD, 2016[1]). The use of skills in the workplace depends to an important extent on work and management practices and the role of policies and institutions. This is discussed more fully in Section 7.2.

Finally, to ensure that workers are well-matched to firms in terms of skills, it is equally important that firms have the means to attract, retain and, if necessary, let go of workers, and workers can move freely between firms in the pursuit of better job opportunities (see Section 7.3).

7.2. Promoting the conditions for learning and innovation in the workplace

While a good supply and use of skills are key for worker productivity, it also matters for which firm one works. This section focuses on the role of good wages and working conditions for firm performance and high-performance work and management (HPWM)

practices. It is argued that good working conditions contribute to long-term employer-employee relationships, and by doing so, strengthen incentives for both workers and firms to invest in skills, technologies and innovation. The challenge for policy is to provide the conditions for learning and innovation in the workplace and, at the same time, sufficient flexibility to allow for the efficient reallocation of workers across firms.

Good working conditions not only matter for worker well-being but also for firm performance

Among many other factors – see OECD (2015[7]) – working conditions may matter for both the level and growth rate of productivity. Better working conditions may support the *level* of productivity by increasing worker effort, motivation and morale (Akerlof, 1982[8]), reducing incentives for shirking by employees and the need for monitoring (Shapiro and Stiglitz, 1984[9]), reducing recruitment and training costs due to worker turnover (Salop, 1979[10]) strengthening the ability to attract and retain suitable workers (Weiss, 1980[11]) and promoting health at work (Box 7.1).[2] Working conditions may further affect the *growth rate* of productivity by providing the conditions for learning and innovation. Indeed, the main virtue of providing relatively good working conditions may be to foster long-term employer-employee relationships that create incentives for both workers and firms to invest in skills, technologies and innovation. This logic is at the heart of so-called high-performance work and management (HPWM) practices, which include aspects of work organisation – team work, autonomy, task discretion, mentoring, job rotation, applying new learning – as well as management practices – employee participation, group-based incentive pay, training practices and flexibility in working hours (Johnston et al., 2002[12]). Apart from promoting incentives for learning and innovation, they typically seek to make work more responsive to emerging challenges and opportunities by facilitating the adoption of innovative production technologies and the experimentation with new ideas.[3]

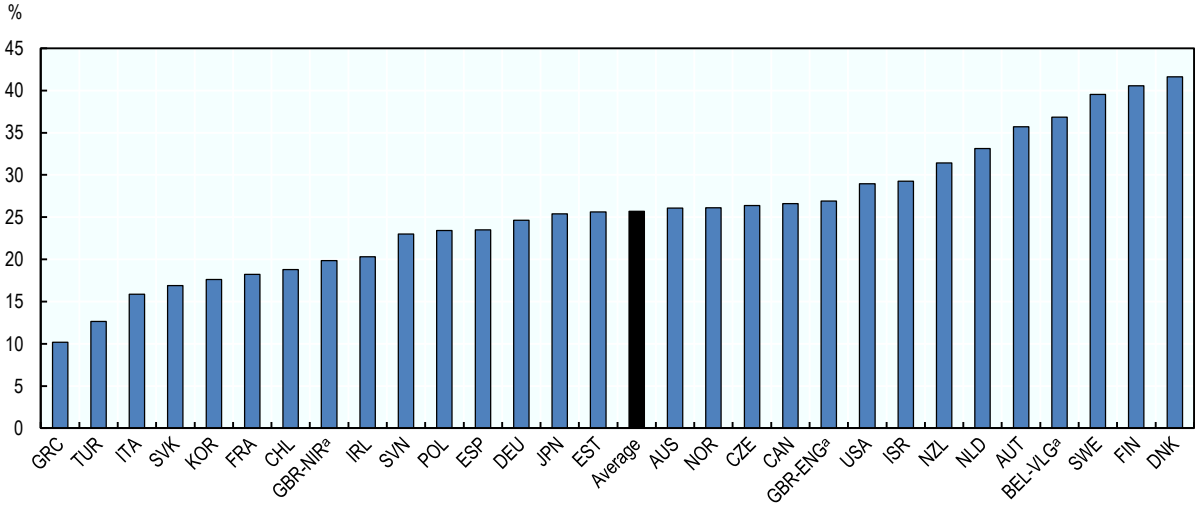
The available empirical evidence tends to support the view that HPWM practices can help promote productivity (Bloom and Reenen, 2011[13]). While the evidence typically relates to the level of productivity rather than its growth rate and causality is not always reliably established, it provides a number of plausible insights. First, individual practices that are associated with higher productivity include group-based incentive pay, decentralised decision-making and employee voice (Bloom and Reenen, 2011[13]). Second, the overall coherence of HR practices may be more important for firm performance than the use of individual practices on their own (Ichniowski, Shaw and Prennushi, 1997[14]). For example, the combination of group-based incentive pay and teamwork tends to be more effective than either measure on its own. Third, HPWM practices encourage a better use of skills in the workplace. For example, OECD (2016[6]) finds that HPWM practices explain about a fifth of the variation in the intensity with which workers use information-processing skills.

Despite the potentially important benefits of HPWM practices, there are large differences in their use across firms, industries and countries – e.g. Ichniowski and Shaw (2003[15]), Lazear and Shaw (2007[16]), Bloom and Van Reenen (2011[13]). For instance, the share of jobs in HPWM workplaces ranges from about 10% in Greece to about 40% in Denmark, Finland and Sweden (Figure 7.3). One possible explanation for these differences is that their benefits differ across firms, depending on their production technology, the availability of other input factors (e.g. skills, capital), consumer preferences and the wider institutional context. Consequently, a more widespread use of such practices may not be

optimal for firms given the environment in which they operate. Another is related to the presence of information or transaction costs. Information or transaction costs may relate to the acquisition of management expertise, the introduction of new management systems and the adjustment of the workforce to new tasks and work practices. This could explain why HPWM practices spread more easily among firms with a certain size or a strong ICT infrastructure (Bresnahan, Brynjolfsson and Hitt, 2002[17]; Bartel, Ichniowski and Shaw, 2007[18]).

Figure 7.3. High-performance work and management practices

Share of jobs with HPWM practices



Note: Share of workers in jobs where the summary HPWM practices is above the top 25th percentile of the pooled distribution.
a) The Survey of Adult Skills only covers England (GBR-ENG), Northern Ireland (GBR-NIR) and Flanders (BEL-VLG).
Source: OECD (2016[6]), "Skills use at work: Why does it matter and what influences it?", in *OECD Employment Outlook 2016*, https://doi.org/10.1787/empl_outlook-2016-6-en.

StatLink http://dx.doi.org/10.1787/888933881211

Box 7.1. High-performance work and management practices and the OECD Job Quality framework

High-performance work and management (HPWM) practices are likely to affect many aspects of job quality. They tend to place a particularly strong emphasis on the intrinsic value of work by investing in people and the organisation of work. This box briefly reviews some of the links between HPWM practices and the key dimensions of job quality as defined in the *OECD Job Quality framework* – e.g. OECD (2014[19]), Cazes et al. (2015[20]).

1. **Earnings**. In firms characterised by HPWM practices, reward packages are likely to be: i) relatively generous to attract and retain good workers; ii) closely aligned with firm performance to maintain strong group incentives; and iii) not too dispersed within firms to promote teamwork and harmonious work relationships. However, such pay practices may also induce increased wage dispersion across firms since they promote assortative matching between firms and workers based on the presence of complementarities between high-performance firms and high-ability workers.
2. **Security.** In firms characterised by HPWM practices, job security is likely to be higher. The emphasis on training and skills development requires a commitment of firms to longer-term employer-employee relationships. Among other things, this is likely to result in increased labour hoarding during temporary downturns. Moreover, the use of flexible forms of work organisation can help finding internal solutions to structural challenges rather than external ones based on hiring and firing.
3. **Work environment.** HPWM practices are likely to be particularly important for the quality of the work environment. The OECD measures the quality of the work environment in terms of the balance between job demands and job resources. Job demands relate to physical demands, work intensity and the flexibility of working time. Job resources include various HPWM practices and relate to task discretion and work autonomy, training and learning opportunities and the scope for career advancement. By investing in job resources, HPWM practices allow workers to cope with greater job demands, reduce psycho-social health risks and boost worker and firm performance (Arends, Prinz and Abma, 2017[21]).

The role of policies and institutions for good firm performance

Work and organisational practices are ultimately decided by employers. But public policies have also a role to play by promoting the conditions for learning and innovation in the workplace and the adoption of HPWM practices.[4] Beyond the key role of developing and adapting skills, which has already been discussed above, this could involve setting standards to rule out unsustainable work practices, while preserving incentives for good performance of firms. Social dialogue in the workplace between management and worker representatives also has a potentially important role to play.

Work and organisational practices are set by firms subject to legal standards and social norms

Policies and institutions can rule out unsustainable work practices that undermine worker well-being as well as business performance in the medium to longer-term by setting legal working standards. Despite being in the long-term interest of firms themselves, not all firms might meet minimum standards in the absence of regulation due to the role of poor management, liquidity constraints or an excessive focus on short-term outcomes. Working standards may relate to: occupational health and safety to reduce physical and mental health risks; working time to limit excessive working hours and the use of night shifts, while establishing the right to rest breaks and paid leave; work-life balance policies in the form of parental leave, as well as; a balanced employment protection that strengthens incentives for learning, without undermining experimentation or job reallocation. It may also include a moderate minimum wage that strikes a balance between strengthening incentives for the adoption of more efficient organisation and management practices, including a better use of skills, and maintaining good employment prospects for low-skilled workers.

But governments should also leave sufficient space to provide incentives for good performance and reap the benefits of HPMW practices. High performance firms need flexibility to allow experimenting with new ideas and adapting to emerging challenges and opportunities. Moreover, product market competition typically strengthens incentives for more efficient work and management practices. Simple cross-country correlations provide some indication that firms are more likely to adopt HPMW practices the more flexible the institutional environment – e.g. Hall and Soskice (2001[22]), Frege and Godard (2014[23]), Bloom and Van Reenen (2011[13]).[5] This, however, does not necessarily mean that more market-oriented policies are required for stronger productivity growth within firms. OECD (2007[24]) shows that countries with more interventionist, but coherent employment and social policies, recorded similar levels of economic growth as more market-reliant countries. These countries tend to be characterised by government policies that focus on the protection of workers rather than their jobs and a strong reliance on the social partners for the determination of working conditions.

Governments can also actively promote HPWM practices by setting clear expectations on the behaviour of business through the establishment of social norms. While compliance with norms is voluntary, firms often prefer to abide by them when they can. Norms can be particularly important in emerging and developing economies where regulatory standards can be weak or enforcement lax. The impact of norms can be reinforced through information dissemination and advice on best practices, as well as through the provision of management training. There exist a number of multilateral initiatives that seek to promote responsible business conduct in the area of employment and industrial relations. The OECD Guidelines for Multinational Enterprises are the most comprehensive government-supported corporate responsibility instrument (see Box 7.2). A unique feature of the Guidelines is that they come with a system of National Contact Points (NCPs) to disseminate them, provide training and offer mediation in specific instances.

Box 7.2. The OECD Guidelines for Multinational Enterprises

The OECD Guidelines for Multinational Enterprises, adopted in 1976 and revised in 2000 and 2011, are the most comprehensive government-supported corporate responsibility instrument in existence today. Their forty-six adhering governments – 35 OECD countries and 11 non-OECD countries – are committed to encourage enterprises in their country to observe a set of widely recognised principles and standards for responsible business conduct in their business operations and supply chains. In the area of employment and industrial relations, it commits government to encourage enterprises and their supply chains amongst others to:

- Contribute to the effective abolition of child and forced labour, non-discrimination and equality of opportunity, respect the right to worker representation and ensure the health and safety of workers in their operations.
- In the event of collective lay-offs, provide reasonable notice to worker representatives and co-operate with the worker representatives and appropriate governmental authorities so as to mitigate to the maximum extent practicable adverse effects.
- In the context of *bona fide* negotiations with workers' representatives on conditions of employment, not threaten to transfer activities from the country concerned to other countries in order to influence those negotiations unfairly.
- Refrain from seeking or accepting exemptions to labour and other regulatory standards.

Adhering countries take up the obligation to set up national contact points (NCPs), with the general aim of furthering the effectiveness of the guidelines. NCPs undertake promotional activities, handle enquiries and contribute to the resolution of grievances related to the non-observance of the Guidelines in specific instances. Most specific instances relate to human rights, employment and industrial relations. NCPs may be organised as tripartite, government or independent agencies.

Source: OECD (2008[25]), "Do Multinationals Promote Better Pay and Working Conditions?", in *OECD Employment Outlook 2008*, https://doi.org/10.1787/empl_outlook-2008-7-en; and OECD (2017[26]), Annual Report on the OECD Guidelines for Multinational Enterprises 2016, http://mneguidelines.oecd.org/2016-Annual-Report-MNE-Guidelines-EN.pdf .

Social dialogue in the workplace has the potential to promote better outcomes for firms and workers

Social dialogue and collective bargaining not only contribute to better conditions for workers, but may also affect productivity. Their impact on firm productivity depends in theory on two potentially opposing channels (Freedom and Medoff, 1984[27]). By providing a voice to workers, collective worker representation can help overcome common challenges (e.g. adoption of new technologies or the prevention of work-related health problems) and promote productivity ("voice" channel). At the same time, by strengthening the bargaining power of workers, collective bargaining can lead to a larger share of rents for workers, induce a more compressed wage structure and stronger worker protections, with potentially adverse effects for resource allocation, profitability,

investment and human capital accumulation, as well as productivity ("monopoly" channel).

The empirical evidence on social dialogue and collective bargaining in the workplace tentatively suggests either no or small positive net effects on firm productivity, with considerable heterogeneity across workplaces, industries and countries – e.g. Hirsch (2004[28]), Addison (2016[29]), Doucouliagos et al. (2018[30]).[6] The effects are likely to be more positive the better the quality of the labour relations (Krueger and Mas, 2004[31]; OECD, 2016[6]),[7] the higher the degree of product market competition (Freedom and Medoff, 1984[27]) and when collective worker representation in the workplace is present (OECD, 2018[32]). It may also help if the voice and monopoly channels are clearly separated as is the case in dual systems that combine sector-level collective bargaining with works councils in the workplace (Marsden, 2015[33]; Freeman and Lazear, 1995[34]).

In principle, collective worker representation in the workplace could strengthen the use and effectiveness of HPWM practices, by promoting the use of skills in the workplace, facilitating the flow of information, encouraging the participation of workers in management decisions and building employee support for organisational change. However, the evidence on the role of collective worker representation for either the use or effectiveness of HPWM practices tends to be relatively weak, albeit mostly positive e.g. Addison (2016[29]), OECD (2016[6]), Laroche and Salesina (2017[35]).

7.3. Promoting an efficient allocation of workers across jobs and firms

Providing the conditions for learning and innovation in the workplace also requires that good performance is rewarded by allowing high-performing firms to thrive and grow and ensuring that workers are employed in firms that fit their skills. This not only would strengthen incentives for good performance and skill acquisition, but also would amplify their benefits by increasing the contribution of high-performing firms and human capital to overall economic growth. However, the extent to which good performance is rewarded differs importantly across countries due to differences in the efficiency and effectiveness of job reallocation across firms. There are also important differences in the extent to which the skills of workers match those required by the firms for which they work.

An efficient allocation of jobs is needed to ensure that high-performance firms create high-quality jobs

All modern economies are characterised by sizeable labour reallocation across firms, industries and regions. Each year, more than 20% of jobs, on average, are created and/or terminated, and around one-third of all workers are hired and/or separate from their employer, with most of these flows occurring within industries (OECD, 2009[36]). There are large differences in job reallocation rates across countries, ranging from 15% of jobs being created or destroyed in a number of continental European countries to 25% in countries such as the United Kingdom and the United States.

Labour reallocation is an important driver of aggregate productivity growth (OECD, 2009[36]; OECD, 2010[37])[8] and differences in its efficiency can account for sizeable differences in productivity performance across countries (Hsieh and Klenow, 2009[38]; Bartelsman, Haltiwanger and Scarpetta, 2013[39]). Moreover, OECD research suggests that skill mismatch reduces productivity as a result of inefficiencies in the process of job reallocation across firms (McGowan and Andrews, 2015[40]).[9] For policy, this implies that aggregate productivity can be promoted and skills mismatch reduced by removing

barriers to the efficient reallocation of workers across firms, provided this is not offset by weaker incentives for learning and innovation within continuing firms.

The efficiency of job reallocation depends on the ease with which firms adjust their workforce in response to changing business conditions, entrepreneurs can start or liquidate a business and workers move across firms and places in search of better career opportunities. This section focuses mainly on the role of employment protection for reallocation, but also discusses some issues in relation to the regulation of product markets and worker mobility. A more in-depth discussion of entry and exit barriers in product market markets and geographical mobility is presented in Chapter 14 of this Volume.

To allow for efficient job reallocation employment protection should not be overly strict

Employment protection legislation defines the rules that govern the hiring and firing of workers (see Box 7.3 for a general introduction to employment protection). It is generally justified by the need to protect workers from unfair behaviour on the part of their employers, to internalise some of the social cost of labour turnover and to preserve firm-specific human capital by preventing the destruction of jobs that are viable in the longer-term (Pissarides, 2010[41]). However, overly restrictive regulations hinder productivity growth by reducing job turnover and the efficient reallocation of resources. It can also have a negative impact on the employment opportunities of outsiders. The inclusiveness aspects of employment protection will be discussed in Chapter 10.

Employment protection has raised concerns over labour market fluidity and duality

Employment protection for workers on open-ended contracts reduces job dismissals, but in doing so, also reduces incentives for hiring on open-ended contracts by employers and on-the-job search by workers. As a result, employment protection tends to have either no or a small negative effect on employment – see OECD (2006[42]) and Kemperer (2016[43]) for surveys. Its main effect is therefore to reduce overall labour market fluidity in terms of worker and job flows (Micco and Pagés, 2006[44]; OECD, 2010[37]; Bartelsman, Haltiwanger and Scarpetta, 2013[39]).[10] A detailed look at the impact of different employment-protection provisions suggests that this is mainly driven by high severance pay, long trial periods and strict reinstatement rules (Bassanini and Garnero, 2013[45]).

The productivity effects of employment protection tend to be mostly negative, suggesting that its adverse effects on job reallocation tend to dominate any potentially positive effects on learning and innovation. Using cross-country industry data, Bassanini, Nunziata and Venn (2009[46]) show that dismissal regulations depress productivity growth in industries where layoff restrictions are most likely to be binding.[11] These effects may reflect the role of employment protection for the efficiency of job reallocation, the engagement of firms and entrepreneurs in risky activities such as innovation (Bartelsman, Gautier and De Wind, 2016[47]; Griffith and Macartney, 2014[48]), or the excessive use of temporary contracts (Dolado, Ortigueira and Stucchi, 2016[49]).

Box 7.3. The regulation of employment protection in OECD and key emerging economies

The OECD employment protection indicators measure the costs and procedures involved in dismissing workers on open-ended contacts – either individually or collectively – (Figure 7.4, Panel A) or hiring workers on fixed-term contracts or temporary-agency workers (Figure 7.4, Panel B). The regulation of individual dismissals of workers on open-ended contracts consists of three key aspects: i) procedural inconveniences for employers engaging in a dismissal process, such as notification and consultation requirements; ii) notice periods and severance pay in the case of fair dismissal; and iii) difficulty of dismissal, which relates to the permissible grounds for dismissal and the repercussions for the employer if a dismissal is found to be unfair. Most countries further impose additional restrictions for collective dismissals of a large group of workers at the same time. The regulation of the use of fixed-term contracts or temporary-agency workers relates to the circumstances where they can be used, the number of times they can be renewed and their cumulative duration.

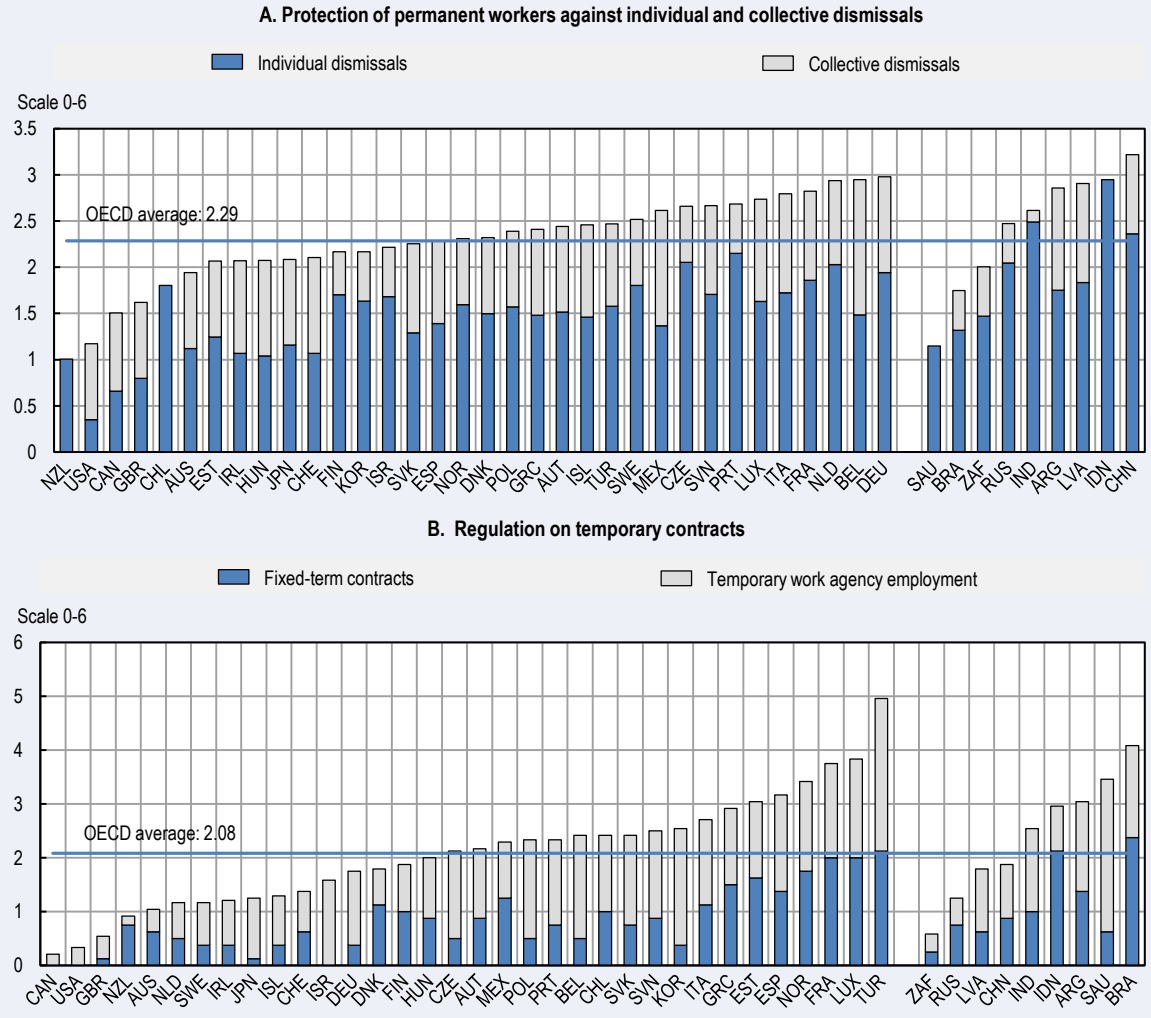
As of 2013, the employment protection rules for the individual dismissal of workers on open-ended contracts were most stringent in a number of key emerging economies and also tended to be rather stringent in countries such as Czech Republic, Germany, the Netherlands and Portugal (before recent reforms in some of these countries). They are least strict in the United States, Canada and the United Kingdom. The use of fixed-term and temporary contracts is least stringent in common-law countries where employment protection for workers on open-ended contacts is relatively weak, but also in some countries that maintain relatively strict rules for workers on open-ended contracts such as the Netherlands and Sweden. With few exceptions, countries with more stringent rules for the use of temporary contracts also tend to have more stringent rules for temporary-agency work.

Firing and hiring regulations across countries exhibit a number of patterns (OECD, 2013[50]). First, one can distinguish two broad classes of employment protection systems across countries: i) countries where the definition of unfair dismissal is very narrow but workers are usually compensated, no matter whether termination was fair or not; ii) countries where compensation for fair dismissals tends to be low or zero, but the definition of unfair dismissal is broad and compensation high. Second, beyond common-law countries, there is no obvious relationship between the difficulty of dismissing workers on open-ended contracts and the ease of using fixed-term contracts or temporary-agency workers.

Over the past decade, there has been a clear tendency towards reducing the strictness of employment protection in relation to workers on open-ended contracts. Reforms have tended to focus on limiting the possibility of reinstatement in the case of unfair dismissal and the extension of the probation period. At the same time, there has also been some tendency to restrict the use of temporary contracts and temporary-agency work, albeit reforms have tended to be modest and some went in the opposite direction (e.g. Mexico). The recent convergence in the protection of open-ended and fixed-term contracts stands in marked contrast with developments during the 1990s, when many countries deregulated hiring on temporary contracts, while maintaining stringent rules for regular contracts.

Figure 7.4. Employment protection in OECD and key emerging economies

2013



Source: OECD (2013[501]), "Protecting jobs, enhancing flexibility: A new look at employment protection legislation", in *OECD Employment Outlook 2013*, https://doi.org/10.1787/empl_outlook-2013-6-en.

StatLink http://dx.doi.org/10.1787/888933881230

There is little indication that strict employment protection contributes to better job quality. While employment protection reduces the risk of involuntary job loss, and hence objective concerns over job security, it also reduces the probability of finding another job. Aghion et al. (2016[51]) and Hijzen and Menyhert (2016[52]) suggest that, for a given level of unemployment, the speed of job reallocation tends to be positively related to well-being, suggesting that its impact on job-finding dominates that on job loss. This also may explain the apparent paradox documented in Postel-Vinay and Saint-Martin (2005),

Clark and Postel-Vinay (2009[53]) and Saucier-Lepage and Wasmer (2016[54]) that, across countries, more stringent employment protection is associated with weaker perceived job security, lower life satisfaction, and increased stress levels. Apart from affecting labour market security, employment protection may also affect earnings. It may lower wages to the extent that expected dismissal costs are passed on from employers to employees[12] or, alternatively, increase them by strengthening the bargaining position of workers (Leonardi and Pica, 2013[55]).

Beyond the direct effects of employment protection on workers with open-ended contracts, employment protection can also have consequences for the composition of open-ended and fixed-term contracts. More specifically, when employment protection is rather strict employers can circumvent employment-protection provisions by substituting open-ended contracts by fixed-term or service contracts, with potentially important adverse consequences for job quality, inclusiveness and productivity performance. This will be discussed in more detail in Chapter 10.

Employment protection needs to balance flexibility for firms with security for workers

Well-designed employment-protection rules protect workers against abuse, limit excessive layoffs, while supporting a dynamic business environment. This requires a balanced employment-protection framework that provides flexibility for firms and protection for workers, while avoiding excessive differences in legal treatment by reason of dismissal and type of contract. Large differences in compensation by reason of dismissal increase the risk that this becomes a source of conflict between employer and employee that needs to be resolved in court. Large differences by contract generate incentives for firms to circumvent provisions for open-ended contracts by relying more heavily on fixed-term contracts (OECD, 2014[56]).

This first of all requires that workers are effectively protected against unfair dismissals, i.e. dismissals that relate to false reasons and reasons unrelated to work, including discrimination, harassment and prohibited grounds. However, to avoid harming the economic flexibility of firms, it is important that the definition of unfair dismissal is restricted to those reasons alone and that dismissals for serious economic and personal reasons are considered fair. While such a restrictive definition of unfair dismissal already exists in most common-law countries, implementing this in civil-law countries could be challenging in practice. To an important extent, this reflects the difficulty of unambiguously defining the boundary between fair and unfair dismissal in the law. This is particularly an issue in the case of dismissals for personal reasons since it can be difficult to establish whether they are work-related or not.[13]

At the same time, the conditions for economic dismissals in terms of advance notice and severance pay should strike the right balance between containing excessive layoffs, insuring workers against the risk of job loss and providing flexibility to firms.[14] While it is difficult to determine the optimal levels of severance pay and advance notice, the predominantly negative productivity effects of employment protection in the empirical literature suggest that they should not be too high.[15] Since this would imply limited insurance against the risk of unemployment, it is important that high-coverage unemployment benefits are available to unemployed workers as part of a broader activation strategy based on mutual obligations (see Chapter 9).[16]

Regulations that limit the gap in protection between workers on open-ended and fixed-term contracts can further help to strengthen incentives for learning and innovation

without undermining the efficient reallocation of resources.[17] Importantly, having balanced employment-protection regulations across contract types would also help to reduce labour market segmentation and related concerns about low quality jobs with poor opportunities for career advancement (see Chapter 10). Full convergence in termination costs could be achieved through the introduction of either a single contract – with termination costs increasing with job tenure and applied to all workers, while suppressing fixed-term contracts – or a unified contract – with the same termination costs applying to all contracts, independently of whether they are permanent or temporary. However, their effective implementation would require extending the definition of fair dismissal and restricting that of unfair dismissal.[18]

The cost and effectiveness of employment protection also depend on the efficiency of the system for dispute resolution. For employers, costly, complex or time-consuming legal processes can add significantly to the effective costs of dismissing workers. But equally, if it is difficult or costly for employees to pursue cases of unfair dismissal, they might be exposed to arbitrary actions from employers. More than half of OECD countries have specialised courts or procedures to handle unfair dismissal cases, making courts more accessible, reducing the time taken to deal with cases and improving satisfaction with outcomes. In addition, alternative dispute resolution mechanisms are often in place (OECD, 2013[50]). Resolving disputes early (either through pre-court dispute resolution mechanisms or pre-trial conciliation) saves time and money compared with waiting for a court decision (Knight and Latreille, 2000[57]; Montes Rojas and Santamaría, 2007[58]; Hayward, 2004[59]).

Reduce barriers to firm entry and exit

Supressing anti-competitive product market regulations can spur productivity growth by promoting entry, enhancing market discipline and facilitating access to intermediate inputs. Product market regulations also shape the diffusion of existing technologies from the national frontier to laggard firms. Reducing the stringency of product market regulations, particularly entry barriers, is associated with higher productivity growth, stronger catch-up of firms to the national frontier (Andrews and Gal, 2015[60])) and higher investment and job creation (Gal and Hijzen, 2016[61]). While much progress has been made in opening up markets in energy, transport, and communications since the 1990s, substantial scope for reform remains in retail and professional services in many countries (Gal and Hijzen, 2016[61]). Restrictions in retail have tended to slow the transition from small-scale, low productivity, often family-owned businesses to larger, more productive businesses using more sophisticated management and work practices, with adverse consequences for the creation of quality jobs. Restrictions in professional services typically relate to the recognition of qualifications and occupational licencing. In some countries, occupational licensing has acted as a barrier to mobility, without clear benefits in terms of service quality, consumer health or safety.

Bankruptcy regimes make it less likely that inefficient firms with low growth potential will continue to operate, underpinning the reallocation of capital and labour toward high-performing firms. In principle, it can also foster experimentation with risky technologies, technology diffusion and innovation. However, this is less likely if credit conditions are tightened as a result of reduced loss recovery in case of bankruptcy. Striking the right balance between these two forces makes the design of bankruptcy provisions complicated. Adalet McGowan, Andrews and Millot (2017[62]) show that there is much scope to improve the design of insolvency regimes in order to reduce the barriers to the restructuring of weak firms and the personal costs associated with entrepreneurial

failure. Since the survival of low productivity firms that would typically exit in a competitive market may partly stem from bank forbearance, complementary reforms to insolvency regimes are essential to ensure that a more aggressive policy to resolve non-performing loans is effective.

The ability of high-performing firms to create high quality jobs also hinges on their access to credit (Aghion, Fally and Scarpetta, 2007[63]). Financing constraints tend to be more acute for young firms to the extent that they have limited internal funds and lack a track record to signal their "quality" to investors. This financing gap is partly bridged by venture capitalists or business angels, who address informational asymmetries by intensively scrutinising firms before providing capital and subsequent monitoring (Hall and Lerner, 2010[64]). Empirical evidence suggests that venture capital has a sizeable positive impact on innovation and growth (Andrews and Gal, 2015[60]).

Promote the mobility of workers across jobs

The policy discussion on job reallocation typically focuses on the role of flexibility on the employer side, with less attention being paid to the role of barriers to and incentives for mobility on the worker side. This section briefly reviews some of the elements that are important for worker mobility.

Efficiency-enhancing job reallocation can be costly for both firms and workers, particularly when associated with involuntary worker movements, due to the role of dismissal and displacement costs. Voluntary worker mobility, where workers quit their job for another one in a different firm, induces downsizing in low-productivity firms even if firm flexibility is limited. Davis, Faberman and Haltiwanger (2006[65]) show for the United States that small reductions in employment – which account for a very large part of overall job destruction – are largely accommodated through quits rather than layoffs. Voluntary worker mobility is to an important extent driven by the ability of high-performing firms to offer higher wages, provide better working conditions and more appealing career perspectives than their less productive competitors. This highlights the role of wage-setting for job reallocation (Haltiwanger et al., 2018[66]).

Wage-setting institutions, such as statutory minimum wages and collective bargaining, are mainly motivated by concerns about fair pay and working conditions, but can also have implications for the cost and effectiveness of job reallocation. By compressing the distribution of wages across firms for similar jobs, they potentially reduce worker incentives for job-to-job mobility, while increasing the risk that low-productivity workers are displaced, with potentially important implications for the cost and effectiveness of labour reallocation. OECD (2018[32]), for instance, suggests that centralised bargaining systems tend to be associated with lower productivity growth if coverage of collective agreements is high. In the same vein, McGowan and Andrews (2015[40]) suggest that flexible wage-setting policies reduce skills mismatch. Concerns about the adverse effects of centralised bargaining on productivity growth have motivated calls for more decentralised forms of collective bargaining that provide more space to firms for setting wage and working conditions according to business conditions (see Chapter 8 for more details).[19]

While wage incentives are important for job-to-job mobility they are not sufficient. Workers also should have the right skills required for the job. In general, skills barriers to job mobility tend to be less important when skills are transferable across jobs (Montt, 2015[67]). Skills transferability can be promoted by placing more emphasis on the provision of general or cognitive skills in the education and training system while relying

more on the job-learning for the acquisition of additional job-specific skills. To limit the adverse effects of occupational licensing on job mobility, one possibility may be to rely more heavily on occupational competences rather than formal qualifications for the attribution of licenses. The portability of accrued rights and protections related to, for example, severance pay, unemployment insurance or training across jobs also matters. To address the role of limited portability for job-to-job mobility a number of countries have introduced mandatory individual saving accounts. For example, Austria and Brazil have mandatory individual saving accounts for the purpose of severance pay, while France has made training rights portable by making use of individual training accounts. The portability of entitlements for social protection is particularly important given the increasing prevalence of new forms of work, such as those associated with the platform economy.

Additional measures to reduce the costs of job transitions may also be needed. These could include targeted policies for displaced workers or policies to help people move to the regions where the best jobs are available (see Chapter 14). Policies targeted at displaced workers typically complement standard activation policies with specific measures to intervene early during the advance-notice period and address specific barriers to re-employment through, for example, retraining or the use of financial incentives. In some countries, sector-level initiatives between the social partners also exist with the aim of facilitating job transitions and ensure that the skills of workers remain up-to-date. Geographical mobility can be promoted through housing policies that do not impede residential mobility (e.g. transaction costs on buying property and stringent planning regulations) or the use of financial incentives for relocation. In some countries, occupational licensing has acted as a barrier to mobility. Such licensing should be used judiciously and standards should be harmonised across regions as much as possible.

Conclusions

This chapter discussed the main sources of worker productivity and the role of policies and institutions. To this end, it focused on the role of skills development, the performance of firms, with an emphasis on high-performance work and management practices, and the process through which workers are allocated to jobs in different firms.

Skills are paramount for worker productivity and success in the labour market more generally. Skills do not only allow workers to be more effective in their jobs, but they also promote learning, innovation and the adoption of new technologies. However, just having a skilled workforce is not enough. It is equally important that the skills of workers are effectively matched to the needs of employers. This highlights the importance of education and training systems that equip workers with the skills that are required by employers, the use of high-performance work and management practices built around long-term employer-employee relationships and an efficient matching process that allocates workers to firms and skills to jobs according to their most productive use.

To promote both learning and innovation in the workplace and an efficient job reallocation process, policies need to strike the right balance between stability – to promote incentives for human capital accumulation – and flexibility – to allow for efficient job reallocation. While this may suggest a possible trade-off for policy, in practice, stability is best achieved by human-resources policies that seek to promote firm performance by investing in the workforce. Indeed, high-performance work and management practices rely to an important extent on the flexibility of such practices to adapt to emerging challenges. The main focus of regulation should therefore be to protect

workers against exploitation and abuse (and entrepreneurs against the personal cost of failure), while leaving employers, along with social partners, sufficient space to manage their business. The next chapter will discuss the role of regulation in more detail by focusing on the role of wage-setting institutions for achieving a broader sharing of productivity gains.

Looking ahead, in a rapidly changing world of work, it will be increasingly important to ensure that workers can move easily across jobs according to their skills and opportunities. This will put a premium on policies that support flexible product and labour markets, but also on policies that facilitate job transitions related to skills, social protection and social dialogue. Chapter 14 will provide a deeper discussion of policies that can help the labour market become more adaptable in a context of rapid structural change.

Notes

[1] There is also a need to make better use of the skills of those out of employment. The importance of "activating" those skills and the policies required to do so are discussed in the Chapter 9.

[2] Early studies emphasised that if all firms act alike, the benefits of efficiency wages in terms of productivity disappear and their main consequence will be to depress employment by increasing labour costs. This is known as the "efficiency-wage" explanation for unemployment. Similar to the standard competitive model of the labour market, this yields a negative relationship between job quality and job quantity. The relevance of efficiency wages as an explanation for unemployment may nevertheless be limited. In practice, different human-resource practices are likely to co-exist due to differences in the benefits of efficiency wages across firms or the availability of other, more tailored, instruments for motivating and selecting workers, such as performance pay (Lazear and Shaw, 2007[16]).

[3] This way, HPWM practices help to transform firms in effective learning organisations (Senge, 1990[69]).

[4] Barriers derive from the lack of management skills and expertise as well as the need for significant upfront investments in organisational capital. Incentives are shaped by the context in which firms operate.

[5] Bloom and Van Reenen (2010[70]), for example, show that firms in countries with more flexible employment protection rules tend to invest more in people management. This may reflect the possibility that in such countries worker turnover tends to be higher and that this increases the importance of investing in people management.

[6] While there is no evidence of a negative effect of social dialogue or collective bargaining within firms, there are number of studies that have found negative effects at the sector or country level (OECD, 2018[32]).

[7] OECD (2016[6]) shows that strong collective bargaining institutions are found to be positively associated with a higher utilisation of workers' skills in the workplace. It is argued that this reflects the role of good industrial relations, institutions and practices for encouraging the participation of workers in firm decisions and facilitating the buy-in of employees to changes in work organisation and management practices associated with higher skills use.

[8] The link between job reallocation and productivity is typically investigated using dynamic accounting decompositions. This entails decomposing aggregate productivity growth into the contribution of firm entry and exit – which is positive if entrants are more productive than exiting firms – and, for continuing firms, the contribution of within-firm productivity growth at a given

employment level and that of job reallocation between firms. The evidence tends to suggest large positive contributions of within-firm productivity growth independent of labour reallocation, but also a positive contribution of firm entry and exit and job reallocation between continuing firms.

[9] Further analysis shows that the impact of skills mismatch on productivity mainly reflects overskilling, suggesting there is a close connection between skills mismatch and skills use.

[10] Reduced worker flows tend to be mainly associated with reduced job-to-job mobility, at least in normal times, while job-to-non-employment mobility is largely unaffected (Bassanini and Garnero, 2013[46]).

[11] Autor, Kerr and Kugler (2007[68]) provide tentative evidence for the United States suggesting that wrongful-discharge protections reduce productivity growth.

[12] However, this should not affect overall job quality to the extent that the reduction of wages reflects the value of employment protection to workers.

[13] However, worker incentives for filing a legal complaint in the case of dismissal also play a role, since this increases the number of cases in which the courts need to establish the precise nature of dismissal. Incentives for filing legal complaints tend to be larger in countries where the level of compensation for unfair dismissals is much higher than that of fair dismissals and the costs of court cases to workers are small or non-existent (Venn, 2009[71]).

[14] An alternative way of limiting excessive layoffs is to make use of experience-rated unemployment insurance contributions as in the United States.

[15] Progressive tenure profiles are typically considered most appropriate for striking the right balance between providing incentives for worker investment in their job on the one hand and experimentation and hiring on the other.

[16] To insure workers specifically against the *risk of severance* (as opposed to unemployment) one could envisage the use of employer-funded insurance accounts (e.g. Ireland) or individual savings accounts (e.g. Austria, Brazil) which can be accessed upon dismissal.

[17] While temporary contracts can help in principle facilitate job matching and reallocation, such contracts tend to be disproportionately used by low-productivity firms, and particularly those with business models that place little weight on learning and innovation. Firms with HPWM practices are in general less inclined to make use of temporary contracts.

[18] Moreover, suppressing fixed-term contracts in the case of a single contract runs the risk of promoting alternative and potentially more vulnerable forms of independent work (see also Chapter 12 on new forms of work).

[19] However, it should be noted that other interpretations are possible as well and additional research is needed to better understand the relationship between wage-setting, job mobility and reallocation.

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