

ENHANCING ECONOMIC FLEXIBILITY: WHAT IS IN IT FOR WORKERS?

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Enhancing Economic Flexibility: What Is in It for Workers?

This paper has been prepared by:

Boris Cournède

Oliver Denk

Paula Garda

Peter Hoeller

Authorised for publication by Christian Kastrop
Director of the Policy Studies Branch of the Economics Department



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Boris Cournède, Oliver Denk, Paula Garda and Peter Hoeller are in the OECD Economics Department.

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Abstract/ Résumé**Enhancing economic flexibility: What is in it for workers?**

Reforms that boost growth by enhancing economic flexibility often meet strong opposition related to concerns that they may imply adverse consequences for categories of workers. This study investigates how making product or labour market regulation more flexible changes workers' risks of moving out of employment and jobless people's chances of becoming employed. To do so, it employs specially harmonised micro-level data covering individual workers in 26 OECD countries. The micro-econometric regressions reveal that labour market reforms do not uniformly influence transitions in and out of employment but that their effects vary depending on institutions and other policy settings. For instance, making employment protection of regular contracts more flexible is associated with more transitions into employment in countries that have above-average activation programmes. As for product market reforms, they are found to boost transitions into employment, especially for women, and to have no systematic effect on exits, so that overall they tend to boost aggregate employment, in line with earlier evidence. The micro-data show that workers with low earnings potential, who, already before reforms, experience much higher transition rates in and out of employment than other groups, face particularly strong increases in employment churn when product market regulations become more flexible. Additional micro-econometric analysis focusing on sectors subject to specific product market regulation (energy, transport, communication) reveals that workers employed in tightly regulated sectors typically earn more than their peers with similar characteristics working elsewhere. Taken together, the findings can help enhance reform design, in particular by highlighting the benefits of (a) policy packages drawing on complementarities between product and labour market reforms, (b) active labour market programmes that effectively support more vulnerable workers and (c) broad reforms over narrow compensation schemes.

JEL codes: D04; J08; J63

Keywords: labour market, structural reform, employment protection legislation, product market regulation, micro data

Flexibilité économique : Que faut-il en attendre pour les travailleurs ?

Les réformes qui visent à stimuler la croissance en misant sur une plus grande flexibilité de l'économie rencontrent souvent une forte opposition en raison des retombées négatives qu'elles font craindre pour certaines catégories de travailleurs. Cette étude explore les incidences qu'un assouplissement de la réglementation du marché du travail ou du marché des produits peut avoir sur le risque de perdre son emploi pour ceux qui en ont un et sur les chances de trouver un emploi pour ceux qui n'en ont pas. Pour cela, les auteurs utilisent des microdonnées individuelles spécialement harmonisées portant sur 26 pays de l'OCDE. Les régressions micro-économétriques montrent que les réformes du marché du travail n'ont pas toute la même incidence sur les transitions professionnelles, mais que leurs effets varient en fonction du cadre institutionnel et d'autres paramètres de l'action gouvernementale. Par exemple, une protection plus souple des contrats à durée indéterminée va de pair avec une hausse des transitions vers l'emploi dans les pays où les programmes d'activation sont plus développés que la moyenne. Quant aux réformes du marché des produits, on constate qu'elles favorisent les transitions vers l'emploi, surtout chez les femmes, et qu'elles n'ont pas d'effet systématique sur les sorties, ce qui confirme leur aptitude à doper l'emploi global, comme d'autres travaux l'ont déjà démontré. Les microdonnées montrent que les travailleurs à faible potentiel de gains qui connaissent déjà, avant les réformes, des changements de situation beaucoup plus fréquents que les autres catégories sur le marché du travail, sont exposés à une hausse particulièrement forte de leur taux de rotation lorsque la réglementation du marché des produits s'assouplit. Une autre analyse micro-économétrique centrée sur les secteurs faisant l'objet de réglementations spécifiques (énergie, transports, communications) révèle que les travailleurs des secteurs strictement réglementés sont généralement mieux payés, à caractéristiques égales, que les travailleurs des autres secteurs. Considérés dans leur ensemble, les résultats de l'étude peuvent aider à améliorer la conception des réformes en soulignant notamment les avantages que présentent a) des mesures axées sur la complémentarité entre les réformes du marché des produits et du marché du travail, b) des programmes actifs du marché du travail efficaces pour venir en aide aux travailleurs les plus vulnérables, et c) des réformes de grande envergure plutôt que des systèmes de compensation limités à certains secteurs.

Classification JEL : D04 ; J08 ; J63

Mots clés : marché du travail, réforme structurelle, législation sur la protection de l'emploi, réglementation du marché des produits, microdonnées

Enhancing economic flexibility: What is in it for workers?

Executive summary

Reforms that instil greater labour or product market flexibility have long been known to boost prosperity, but this broad acceptance has not made them universally popular or easy to implement. Resistance to flexibility-enhancing reforms may have to do with how people perceive the fairness of the distribution of gains and losses. In many instances, the benefits are likely to be thinly spread across the population, while the costs are concentrated on narrower segments of society, who will lobby against reform. Loss aversion also means that the downsides of reform can have greater perceived impacts than benefits.

Various micro-level data sources have been harmonised to analyse what flexibility-enhancing reforms imply for individual workers. The investigation focuses on how reforms influence workers' wage premia, their risks of becoming jobless and their chances of finding a job when out of work. It also looks closely at what happens to workers who are active in sectors that become deregulated. The emphasis is mostly on long-term effects. This study is part of a large-scale OECD initiative: separate reports referenced in the main text probe the consequences of structural reforms on the aggregate level and distribution of income as well as short-term employment effects.

Reforms making product markets more competitive, which generally enhance prosperity, are associated with more frequent transitions out of employment for less qualified and low-income workers. Less qualified and low-income workers have a very high exposure to such transitions to start with, and reforms make them more frequent. This effect is specific to these vulnerable groups: other workers generally experience no significant increase in their risk of moving out of employment, when product market regulation becomes more flexible. On the other hand, more pro-competitive product market regulation generally increases transitions into employment. This benefit is stronger for women and younger workers. For each group, the effects of product market reforms on employment transitions leave employment rates either broadly unchanged or improved in the long term. The concentration of the increase in labour market turnover associated with product market reforms on less qualified or low-income workers suggests a case for accompanying such reforms with labour market programmes that help the most vulnerable workers transition to new jobs.

Reform strategies can also take advantage of synergies between different policy areas. This study finds that, on its own and across OECD countries, easing employment protection for regular or temporary workers has no systematic long-term effect on workers' probabilities to move in or out of employment. Such reforms can, however, affect employment transitions through their interaction with other policies and institutions. For example, easing employment protection for workers with regular contracts raises the job-finding chances of people out of work in countries that invest a lot in active labour market programmes. Employment protection legislation and product market regulation are also typically complementary in that, when either employment protection or product markets are lightly regulated, reforming the other is associated with a reduced risk of becoming jobless. Similarly, product market reforms are associated with greater hiring when wage bargaining is more decentralised.

Reforms that make product market regulation more flexible can also reduce economic rents, implying lower wage premia for workers in directly affected sectors. Micro-level empirical analysis identifies such an effect in network industries, which offer a long, data-rich experience of making regulation more competition-friendly. This consequence represents an intended effect of pro-competition reforms: reducing rents improves the allocation of resources across the economy, while boosting aggregate productivity. However, this consequence also generates opposition to reform. Compensating affected workers can help to make reform happen by alleviating opposition. However, compensation also raises questions about fairness with respect to workers who work in rent-free parts of the economy. Moreover, compensation today may also complicate reform tomorrow by encouraging incumbents to maximise rents as well as hold out for compensation in opposition to pro-competitive reform. A more effective strategy is available to improve outcomes for workers whose wage premia may fall when their sector becomes more competitive: reform packages that simultaneously cover a broad cross-section of the economy can provide sufficiently large overall gains so that no particular sector is left behind.

1. Introduction

Reforms that make economies more flexible generally boost long-term economic prosperity (Égert and Gal, 2016). However, governments often find it difficult to implement such flexibility-enhancing reforms, which the public often perceives as generating hardship for some or an uneven spread of the gains. This policy paper presents the main findings from work using micro-data to assess the effects of flexibility-enhancing reforms on workers. Four documents detail the analysis behind this report. A first part of the investigation looks at workers in sectors that experience pro-competitive reforms (Denk, 2016). A second part considers workers in all sectors to gauge how their transitions in and out of employment evolve following reforms that make product markets or employment protection more flexible (Cournède, Denk and Garda, 2016). A third report documents how the risks of becoming jobless and chances of finding jobs vary across the population (Garda, 2016). A specially commissioned survey reviews what the economic literature says about the effects of structural reforms on individuals (Boeri et al., 2015).

This report forms part of a broad OECD initiative to assess the effects of structural reforms on inclusive growth. It investigates labour market effects of flexibility-enhancing reforms at the worker level, focusing mainly on the risks of losing employment and the chances of getting a job when unemployed (Cournède, Denk and Garda, 2016). It also assesses effects on the income and job satisfaction of workers who are employed in sectors that become deregulated (Denk, 2016). The OECD Job Quality framework (Cazes et al., 2015; Hijzen and Menyhert, 2016) and Better Life Index (OECD, 2013) underline that employment, compensation and job satisfaction are important dimensions of job quality and well-being.

Complementary recent or ongoing lines of work under a broad OECD initiative evaluate consequences of structural reforms on other drivers of well-being. Dimensions covered in other work include aggregate employment, short-term sector-level employment and the growth, distribution and stability of income. Recent OECD work assessed the long-term aggregate employment effects of structural reforms (Gal and Theising, 2015). Other OECD work evaluates the short-term employment effects of structural reforms (OECD, 2016) and the aggregate effects of structural reforms on investment, multi-factor productivity and growth (Égert and Gal, 2016). Another strand of the analysis is assessing the income effects of structural reforms at various income levels (Causa et al., 2015,

2016).¹ Recent OECD work evaluated the impact of structural policies on micro-level income stability (Cournède et al., 2015).

This study considers two categories of flexibility-enhancing reforms: making product markets more competitive (in network industries or more broadly across the economy) and easing employment protection legislation.² It puts together several micro-level datasets to investigate effects of reforms on individuals. Its main objectives are to identify how reform effects vary depending on people's characteristics, such as the sector where they work, their education, age or income level, and framework conditions created by other policies and institutions. Individual characteristics, such as education, are expected to shape the effect of reforms on people by making them more or less equipped to take advantage of the opportunities created by more flexible economies or vulnerable to their downsides. Reform effects can differ depending on how they interact with framework conditions created by institutions and policy settings in other areas. This work complements previous studies, which investigated aggregate short-term and long-term effects of structural reforms on labour market outcomes (Bassanini and Duval, 2006, 2009; Bouis et al., 2012; Caldera Sánchez et al., 2016; Gal and Theising, 2015).

The report first reviews the literature regarding the effects of flexibility-enhancing reforms on individual workers (Section 2). It then zooms in on workers who are directly affected by network industry deregulation to assess what these reforms imply for them (Section 3). The report broadens the perspective by looking at the consequences of flexibility-enhancing reforms for labour market transitions across the economy and investigates how these effects differ according to framework conditions and by population groups (Section 4). A concluding section draws policy lessons (Section 5).

2. Lessons from prior research about worker-level effects of flexibility-enhancing reforms

This section lays out a framework for analysing worker-level effects of flexibility-enhancing reforms of product market regulation and employment protection based on a selective survey of the literature. This framework largely draws on a specially commissioned literature review (Boeri et al., 2015).

2.1. Making product market regulation more pro-competitive

2.1.1. Short-term effects on incumbents

Reforms that enhance product market competition lead to quick price drops, which are costly for incumbent firms and their employees as they reduce rents and the scope to share between shareholders and workers (Bertrand and Kramarz, 2002; Brown and Goolsbee, 2002; Goolsbee and Syverson, 2008; Jean and Nicoletti, 2015; Skuterud, 2005). Product market deregulation has been found to increase productivity shortly after the reform (Bouis et al., 2015; Knittel, 2002; Ng and Seabright, 2001). Productivity improvements have been found to come at least partly from job reallocations and staff cuts, implying higher rates of labour market transitions (Disney et al., 2003; Olley and Pakes, 1996).

-
1. Causa et al. (2016) cover average and distributional income effects of reforms across the economy. The sector-level results in the present study complement these results by looking at the impact of flexibility-enhancing reforms on workers who are employed in network industries.
 2. Network industries are: energy, transport and communication.

OECD (2016) indicates that reducing barriers to entry into network industries temporarily reduces employment in the reformed sectors.

2.1.2. Permanent effects in reformed sectors

Price falls due to greater competition are durable. The scope for rent sharing is thus permanently reduced, implying lower wage premia in the long run for workers in deregulated sectors (Neumark et al., 2008; Schivardi and Viviano, 2011). Lower wage premia over productivity do not necessarily translate into lower wage levels, because of reform effects on productivity (see Subsection 2.1.3 below). Narrower cost-price margins have also been found to be associated with lower job security (Aparicio-Fenoll, 2015).

Reform effects on sector-level employment can be expected to differ across sectors depending on their structure. For instance, product market deregulation could influence labour market dynamics in the retail sector, which is characterised by a large number of small incumbents, very differently from network industries, which typically comprise a small number of large incumbents. Regulatory reforms have been found to increase employment in the retail sector (Bertrand and Kramarz, 2002; Skuterud, 2005; Viviano, 2008) but not in network industries (Bouis et al., 2015, OECD, 2016).

2.1.3. Short- and long-term effects across the economy

More competitive product markets lastingly boost aggregate income levels, especially by narrowing margins and enhancing productivity across the economy (Bouis and Duval, 2011; Bourlès et al., 2010; Conway et al., 2006; Nickell, 1996). Greater competition also reduces the prices of intermediate goods and thus production costs, which generally increases employment (Alesina et al., 2005; Schiantarelli, 2010). Product market reforms boost employment more where institutions give workers more bargaining power and real wages more where workers have weaker bargaining power (Fiori et al., 2012; Griffith et al., 2007; Nicoletti and Scarpetta, 2005). Making regulation more pro-competitive has been found to generate real income gains that are broadly shared across society (Causa et al., 2016).

2.2. Easing employment protection

2.2.1. Short-term effects of easing job protection for regular contracts

Reforms that relax employment protection legislation (EPL) for regular contracts facilitate firing and encourage hiring, because they lower the expected cost of future lay-offs. Studies have generally found that EPL reforms increase lay-off rates (von Below and Thoursie, 2010; Boeri and Jimeno, 2005; Marinescu, 2009). On the other hand, positive effects on hiring rates have been found to materialise more slowly, as employers gradually incorporate the lower expected cost of job termination in their recruitment decisions (Behagel et al., 2008). Results in OECD (2016) point to a temporary reduction in aggregate employment following reforms of employment protection for regular contracts.

2.2.2. Long-term effects of easing job protection for regular contracts

In the long term, easing employment protection has been found to be associated with more hiring and firing and greater job reallocation across sectors (Gomez Salvador et al., 2004; Jackman et al., 1996; Micco and Pages, 2006). The effects on transitions into and out of unemployment appear to be symmetric, implying no permanent effect on structural unemployment rates (Bassanini and Duval, 2006, 2009). More dynamic job reallocation should boost productivity

gains. On the other hand, greater job protection can encourage the accumulation of firm-specific human capital, with positive effects for productivity. Overall, the recent empirical literature finds that more flexible EPL raises productivity (Autor et al., 2007; Bassanini et al., 2009; Cingano et al., 2013; Martins, 2009; Micco and Pagés, 2006). By raising productivity and ultimately wages, more flexible EPL could encourage more people to seek work in the long run and thus raise employment rates (Autor et al., 2007). In spite of this positive effect on the employment rate, employment protection reforms appear to have generated little income gains at the bottom of the income distribution (Causa et al., 2016).

2.2.3. Effects of easing job protection for temporary contracts

Little empirical evidence is available regarding the effects of easing employment protection for temporary contracts on transitions out of and into employment. Reforms that reduce employment protection for temporary contracts are generally seen as having an immediate positive effect on firm-level hirings and overall employment (Boeri and Garibaldi, 2007). Such reforms widen the gap between the expected costs of dismissing temporary and regular workers. Consequently, firms gradually replace permanent with temporary workers, a substitution that can adversely affect job quality and results in higher lay-off rates in downturns (Bentolila and Dolado, 1994).

3. Effects of regulatory reform in network industries on workers in these sectors

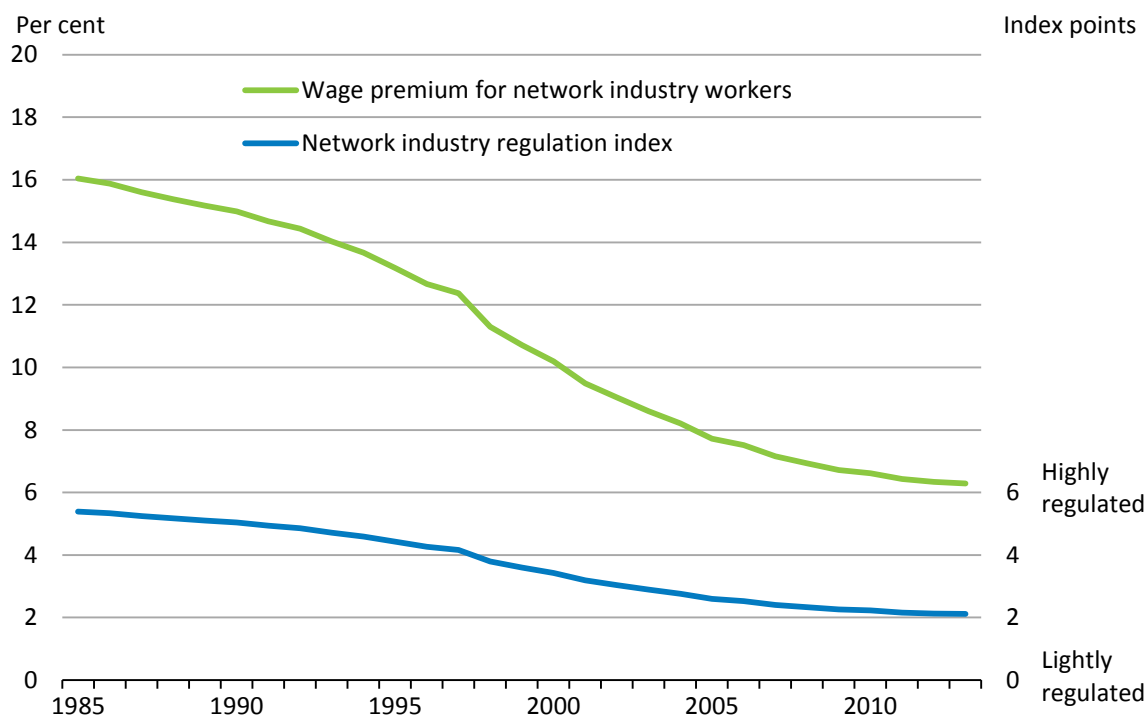
A first pillar of the analysis investigates effects of greater product market competition on workers who are active in industries that are directly affected by the reform. This investigation considers network industries (energy, transport and communication), where the decades-long multi-country experience of deregulation allows identifying reform effects. This section focuses on labour income, worker exit and entry rates and job satisfaction of workers in these industries.

The main findings are that product market deregulation changes working conditions in reformed sectors broadly in line with the above-mentioned indications from the literature: wage premia diminish, but remain positive; and worker turnover intensifies, but remains lower than elsewhere. An additional result is that reform is associated with lower job satisfaction for network industry workers.

3.1. Effects on labour income

Pro-competition reforms generally reduce network industry workers' wage premia. Sector-level wage premia measure how much a worker earns above what he or she would obtain elsewhere in the economy. The OECD index of product market regulation in energy, transport and communication gauges the stance of regulation, and its change measures the magnitude of reform (see Box 1). The finding that anticompetitive regulation of network industries boosts the labour earnings of their employees holds on average across and for the large majority of OECD countries. The wage premium is estimated at 6½ per cent of a network-industry workers' income in 2010, down from 16% in the mid-1980s as a result of reform (Figure 1). This overall estimate averages empirical results from three econometric regressions run on two different datasets, covering a total of 21 OECD countries (see Box 1 for more details).

Figure 1. Network industry reform has reduced estimated wage premia for workers in these sectors



StatLink  <http://dx.doi.org/10.1787/888933436543>

Note: This chart shows the average tightness of network industry regulation in 21 OECD countries (Australia, Belgium, the Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Luxembourg, the Netherlands, Norway, Korea, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, the United Kingdom and the United States) and the associated estimated wage premium for workers in this industry. The wage premium measures how much more workers in network industries earn compared with workers having the same observable characteristics (education, age, gender etc.) in other industries. The chart uses the average estimate according to which one unit of this indicator implies a 3.0% boost to the compensation of network industry workers. This estimate stems from empirical analysis of regulation and worker-level data across the 21 OECD countries listed above. Box 1 details the underpinnings of the estimate. Individual countries can substantially differ from the averages plotted in this chart: Denk (2016) reports country-specific results.

Source: Estimations based on Denk, O. (2016), "How Do Product Market Regulations Affect Workers? Evidence from the Network Industries", *OECD Economics Department Working Papers*, No. 1349, OECD Publishing.

Box 1. Estimating the effects of network industry regulation on labour income: A summary

This box summarises the method used to estimate the wage premia that are associated with the regulation of network industries for workers who are active in these industries. Denk (2016) presents the method, results and robustness checks in full. Worker-level data about individual characteristics, employment, earnings and sector of work underpin the estimation of the wage premia. This estimation relies on two different micro-level datasets.

- The first one was built for this study. It results from harmonising micro-level household panel surveys from six countries with overlapping but different time coverage: Australia (2001-12), Germany (1984-2012), Korea (1998-2012), Switzerland (1999-2013), the United Kingdom (1991-2012) and the United States (1969-2011). The dataset used in the estimation includes 550 000 observations with both labour income and industry affiliation.
- The second one is the 2010 wave of the Eurostat Structure of Earnings Survey (SES). It covers 15 European OECD countries. The dataset used in the estimation has 5½ million observations.

Information about individual characteristics and pay is related to an OECD indicator of energy, transport and communication regulation (ETCR). The ETCR policy indicator measures regulatory settings from 0 (least restrictive) to 6 (most restrictive) in three network industries: energy (electricity and gas), transport (air, rail and road) and communication (telecom and post) regulation. Data are available by country separately for each of these three industries annually from 1975. Regulatory aspects entering the ETCR are: entry regulation, public ownership, vertical integration, market structure and price controls (Koske et al., 2015).

The econometric specification takes the following form:

$$\ln(\text{Inc}_{ijct}) = \beta \text{ETCR}_{jct} + x_{ijct} \gamma \text{ [+}\alpha_i\text{]} + \tau_{ct} \text{ [+}\theta_{jc}\text{]} + \varepsilon_{ijct}. \quad (\text{Equation 1})$$

It explains the natural logarithm of the labour income Inc_{ijct} of individual i who works in industry j in country c and year t (a dimension that drops out in the SES estimation because it is a cross-section) with:

- the ETCR indicator ETCR_{jct} for the industry she or he works in and 0 outside network industries; the identifying assumption is that, without regulation, labour income would be the same in network as in other industries, conditional on a person's characteristics;
- a vector of individual-level control variables, x_{ijct} , including the age of the person and age squared to capture the hump shape of labour earnings (Hyclak et al., 2013; Rios-Rull, 1996); the set of individual control variables is richer in the estimation using the SES dataset;
- country-year fixed effects, τ_{ct} , to control for overall differences in labour income across countries and time. These variables collapse to region fixed effects in the EU cross-section, which control for earnings differences across regions in the same country;
- individual fixed effects α_i in a specification (Column 1 in Table 1) using the six-country micro panel; this specification allows more robust identification than most of the wage premium literature, which uses cross-section data;
- country-specific industry fixed effects θ_{jc} ; this robustness check (Column 1b in Table 1) removes time-persistent cross-sector differences, for example in income, and allows the ETCR indicator in non-network industries to take any constant value; the identifying assumption becomes that, with no reductions in regulation, labour income would have evolved the same in network as in other industries;
- idiosyncratic disturbances ε_{ijct} .

Box 1. Estimating the effects of network industry regulation on labour income: a summary (cont.)

Standard errors are calculated at the level of the policy indicator, so that the very high number of observations does not artificially inflate statistical confidence levels. The calculation of standard errors clusters at the sector-country-year level for the six-country micro panel and sector-country level for the fifteen country SES cross-section. Sensitivity checks using a different way of aggregating ETCR subcomponents indicate that the results below are robust to the aggregation method underpinning the overall ETCR indicator. Denk (2016) reports additional robustness checks.

Table 1. Estimated effects of network industry regulation on labour income

Dataset used:	Six countries (1)	Six countries (1b)	Six countries (2)	Fifteen countries (3)
ETCR	1.2*** (0.3)	1.1* (0.6)	2.5*** (0.4)	3.1*** (0.7)
Individual fixed effects	✓	✓	No	No
Country x Year fixed effects	✓	✓	✓	Region
Country x Industry fixed effects	No	✓	No	No
Period	1975-2012	1975-2012	1975-2012	2010
Observations	538 276	538 276	525 377	5 434 323

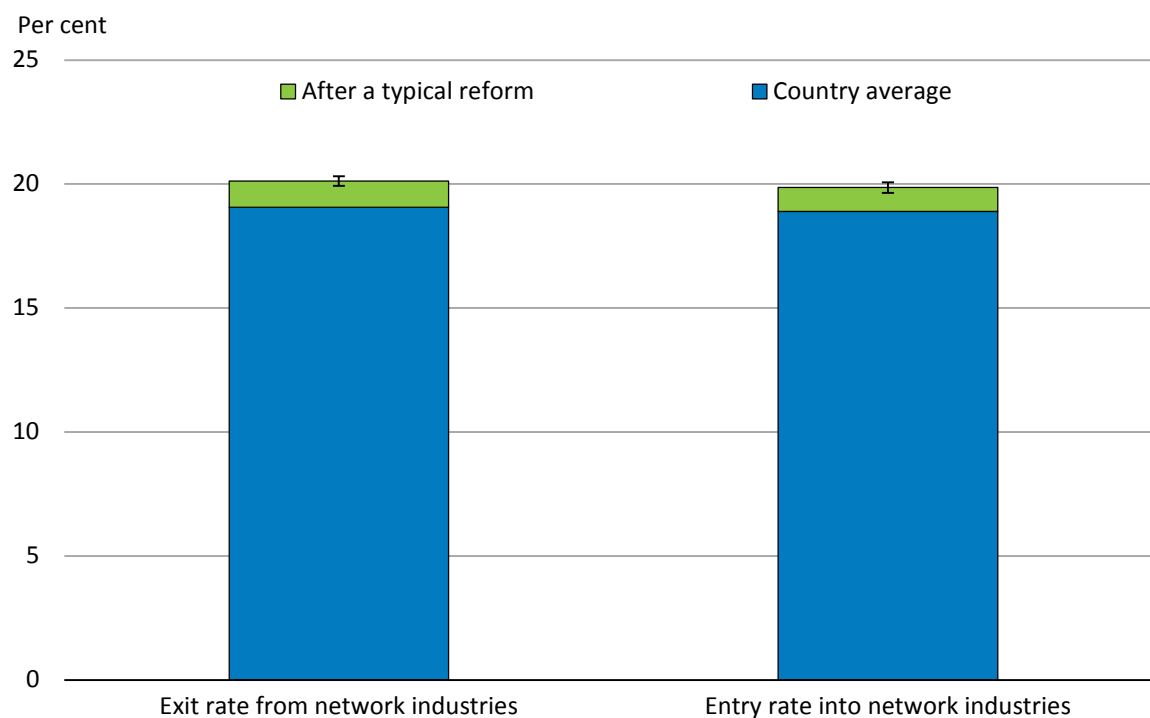
The results indicate that energy, transport and communication regulation is associated with a positive wage premium for the sectors' workers over their peers with similar characteristics in the rest of the economy. The estimate without individual dummies in the six-country dataset (2.5% higher wages for one more ETCR unit on the 0-6 scale, Column 2) lies between the ones with individual dummies (1.2%, Column 1) and from the cross-section regression with the 15-country SES (3.1%, Column 3). The overall estimate used in the main text and Figure 1 (3.0% higher wages for one more ETCR unit) averages the country-specific estimates for the 21 countries.

Source: Denk, O. (2016), "How Do Product Market Regulations Affect Workers? Evidence from the Network Industries", *OECD Economics Department Working Papers*, No. 1349, OECD Publishing.

3.2. Effects on labour market flows

Network industry reform is generally associated with higher exit and entry rates for these sectors (Figure 2). The lower exit rates for network industries due to regulation can be interpreted as a security premium for people working in these industries. The empirical investigation behind this finding uses the same six-country micro panel as described in Box 1 and micro data from the EU Labour Force Survey (LFS) for 20 European OECD countries over 1998-2008. The regression relies on the same econometric specifications as described in Box 1 after replacing labour income as the dependent variable with indicator variables for exit from and entry into the sector (for more detail, see Denk, 2016).³

3. One difference is that the transition study never adds individual-level fixed effects, because moving out of or into the sector is too infrequent to pin down a fixed effect for each individual.

Figure 2. Pro-competition reforms of network industries are linked with higher worker exit and entry rates

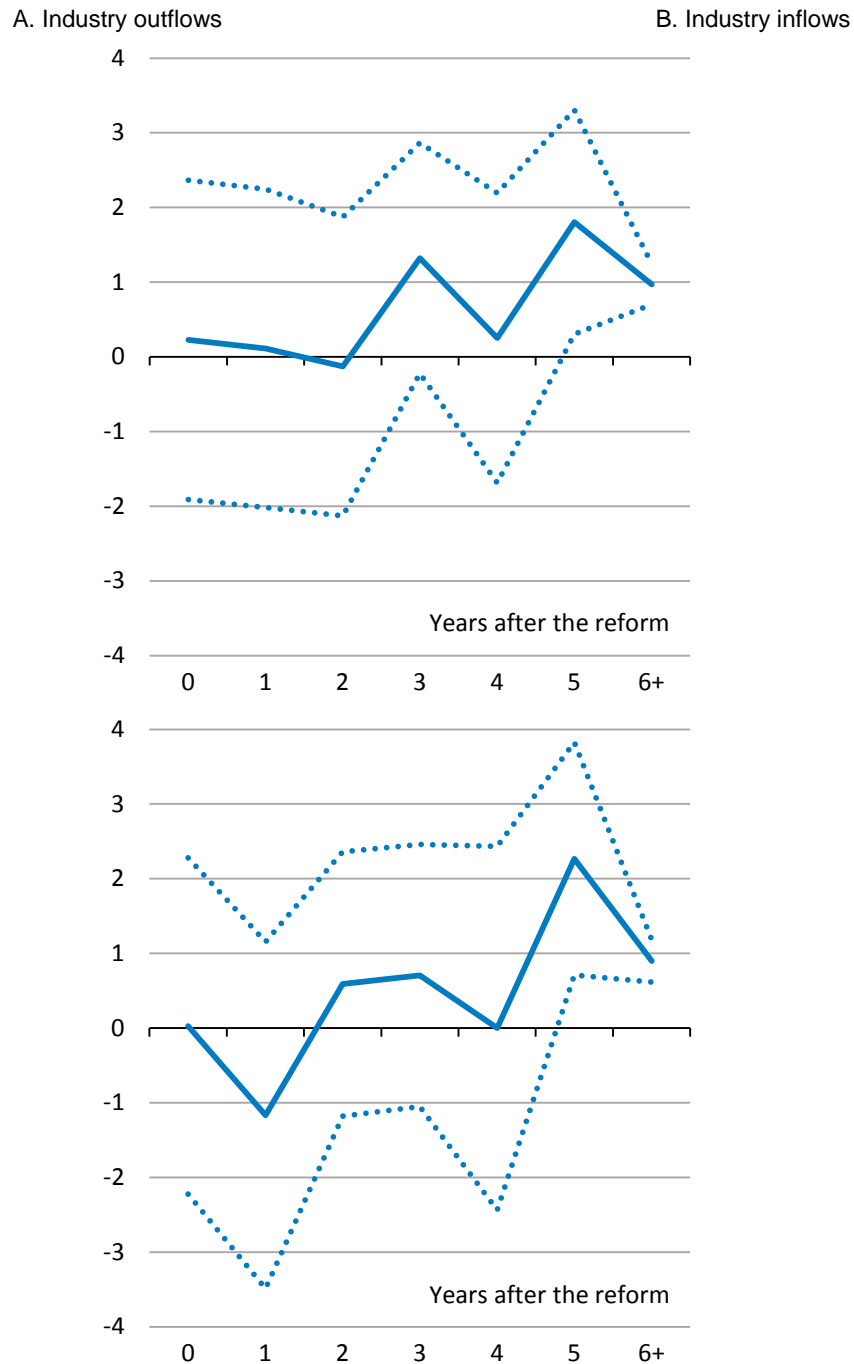
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Note: The figure shows the average annual rates of exit and entry out of and into work in network sectors, from and to unemployment or economic inactivity (blue bars), the effect of a typical reform (green rectangles) and confidence intervals (black segments). A typical network industry reform is defined as the mean 5-year change in the indicator across countries where this indicator declined, which is equal to 0.92. Effects are estimated using micro-level data covering 2001-12 for Australia, 1984-2012 for Germany, 1998-2012 for Korea, 1999-2012 for Switzerland, 1991-2012 for the United Kingdom and 1975-2007 for the United States.

Source: Estimations based on Denk, O. (2016), "How Do Product Market Regulations Affect Workers? Evidence from the Network Industries", *OECD Economics Department Working Papers*, No. 1349, OECD Publishing.

A pro-competition reform boosts entry into network industries by as much as it increases exit (Section 4.2 in Denk, 2016). In dynamic estimations, the effects on exit and entry rates become statistically significant after five years (Figure 3 and Section 5 in Denk, 2016). These results mean that, in the long term, regulatory reform raises labour market turnover in network industries without changing their employment levels. OECD (2016) finds in sector-level data for 23 OECD countries that reforming network industries typically reduces their employment levels for about four years, after which the effect vanishes, implying long-term stability of employment in the reformed sectors.

Figure 3. Changes in worker exit and entry rates for network industries after pro-competition reforms



StatLink  <http://dx.doi.org/10.1787/888933436568>

Note: Coefficients are expressed in percentage points and depict the response to a typical network industry reform of worker exit and entry rates. Exit and entry relate to moves between a network sector and the rest of the economy, unemployment or economic inactivity. A typical network industry reform is defined as the mean 5-year change in the indicator across countries where this indicator declined, which is equal to 0.92. The dotted lines represent the 90% confidence band. Effects are estimated using micro-level data covering 2001-12 for Australia, 1984-2012 for Germany, 1998-2012 for Korea, 1999-2012 for Switzerland, 1991-2012 for the United Kingdom and 1975-2007 for the United States.

Source: Denk, O. (2016), "How Do Product Market Regulations Affect Workers? Evidence from the Network Industries", *OECD Economics Department Working Papers*, No. 1349, OECD Publishing.

3.3. Effects on well-being

Network industry regulatory reform appears to reduce job satisfaction for the sector's workers. Micro-level panel data information about self-reported job satisfaction is available for Australia, Germany, Korea, Switzerland and the United States. Analysis reported in Denk (2016) identifies that deregulation reduces job satisfaction primarily because it reduces income growth but also through an additional effect, which may reflect reduced job security (see Section 4.3 in Denk, 2016). Lower income growth than in the absence of deregulation hurts subjective well-being, since income significantly contributes to well-being (OECD, 2011). A typical reform that enhances competition in network industries reduces subjective well-being because annual earnings decline by 1.7% and by an amount equivalent to 0.3% of annual earnings through an additional effect. This additional effect may relate to the lower job security due to higher labour market turnover when regulation is more flexible. Denk (2016) reports more detailed analysis regarding effects on well-being.

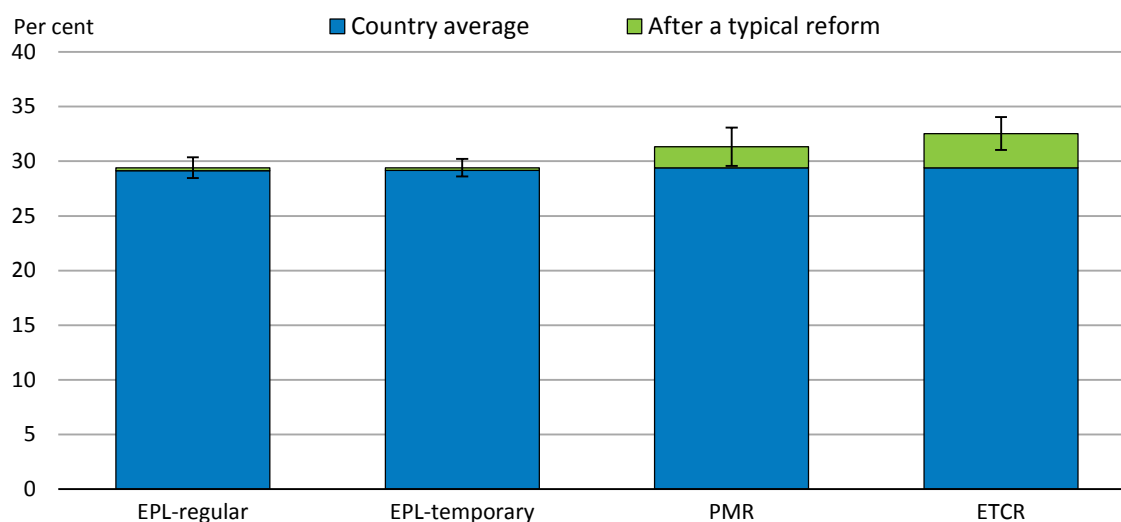
4. Effects of sector-specific and broader flexibility-enhancing reforms on workers across the economy

Pro-competitive reforms in certain industries can have knock-on labour market effects in other sectors, and other reforms, such as of employment protection or economy-wide product market regulation, directly affect workers across the economy. This section documents how reforms of product market regulation, in network industries and also across the economy, and of employment protection influence workers' transitions out of and into employment. By doing so, it provides a worker-level complement to existing and recent evidence that these reforms boost long-term output (Bouis and Duval, 2011) and can affect the distribution of income (Causa et al., 2015, 2016).

4.1. Overall effects of reforms that ease product market regulation and employment protection

Investigations using micro data for individual workers mainly find that reforms easing product market regulation (PMR), in network industries or more broadly, boost the chances of finding a job among those who don't have one (Figure 4). This effect arises for workers across the economy, even when the reform only applies to network industries, suggesting positive spillovers across sectors, consistent with OECD (2016) findings. The estimates result from econometric analysis of especially assembled micro-level data for 26 OECD countries (Box 2).

Figure 4. The chances to become employed are higher after reforms easing product market regulation
Average transition probabilities into employment before and after typical reforms, per cent



StatLink  <http://dx.doi.org/10.1787/888933436574>

Note: The blue bars indicate the average rate across 26 countries in the sample. The green bars indicate the estimated impacts of typical flexibility-enhancing reforms. For the measurement of typical reforms, see Box 2, especially Table 2. The effects are estimated using micro-level data covering 26 OECD countries over 1994-2012 (see Table 1 in Cournède, Denk and Garda, 2016, for details on the years covered for each country). Vertical segments show 90% confidence bands. EPL stands for employment protection legislation, PMR for product market regulation and ETCR for energy, transport and communication regulation.

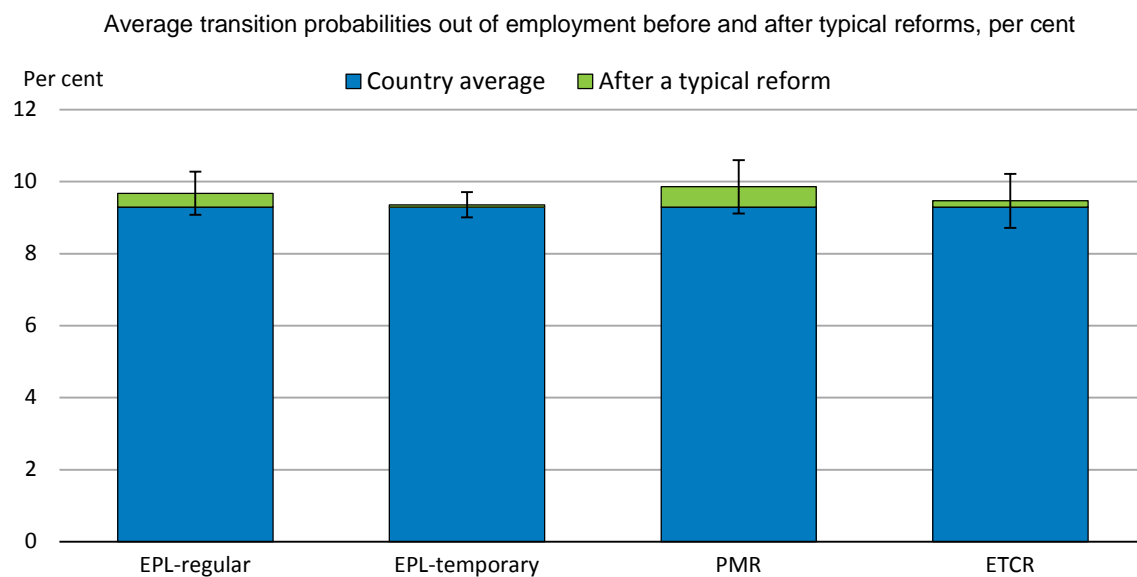
Source: Cournède, B., O. Denk and P. Garda (2016), "Effects of Flexibility-Enhancing Reforms on Employment Transitions", *OECD Economics Department Working Papers*, No. 1348, OECD Publishing.

Reforms easing job protection, for regular or temporary contracts, do not change the probabilities of entering or leaving employment across the population in a statistically significant way (Figure 5). This lack of statistical significance hides effects that arise under certain framework conditions (Section 4.2). Changes in the OECD indicators of employment protection legislation for regular and temporary contracts measure policy reforms of job protection. The study covers the product market and job protection reforms that the corresponding OECD indicators record in 26 countries over 1994-2011.⁴

The lack of significant effects of greater EPL flexibility on transition probabilities is in line with the findings of OECD (2007) and Gal and Theising (2015) that such reforms do not modify employment levels. The positive effect of product market reforms on job-finding chances and the lack of a significant negative influence on the risk of becoming jobless are consistent with Bassanini and Duval's (2006) and Gal and Theising's (2015) conclusions that greater product market competition boosts employment.

4. Cournède, Denk and Garda (2016) provide more detailed information about the data collection and limitations, the identification strategy and robustness checks.

Figure 5. Product market and employment protection reforms have no significant effects on transitions out of employment



StatLink  <http://dx.doi.org/10.1787/888933436587>

Note: The blue bars indicate the average rate across 26 countries in the sample. The green bars indicate the estimated impacts of typical flexibility-enhancing reforms. For the measurement of typical reforms, see Box 2, especially Table 2. The effects are estimated using micro-level data covering 26 OECD countries over 1994-2012 (see Table 1 in Cournède, Denk and Garda, 2016, for details on the years covered for each country). Vertical segments show 90% confidence bands. EPL stands for employment protection legislation, PMR for product market regulation and ETCR for energy, transport and communication regulation.

Source: Cournède, B., O. Denk and P. Garda (2016), "Effects of Flexibility-Enhancing Reforms on Employment Transitions", *OECD Economics Department Working Papers*, No. 1348, OECD Publishing.

The analysis could not uncover effects of reforms enhancing economic flexibility on job-to-job transitions that do not involve a period of unemployment. The reason is not necessarily that flexibility-enhancing reforms have no such effects but that the micro-level panel data used for this study do not track job-to-job changes as well as transitions in and out of employment.⁵ Earlier OECD analysis documented that more stringent employment protection for regular contracts substantially reduces job-to-job flows (Bassanini and Garnero, 2013; OECD, 2010a).

5. The datasets gathered and harmonised for this study measure job-to-job transitions at annual frequency and employment transitions at monthly frequency.

Box 2. Estimating the effects of product market and job protection reforms on employment transitions

This box summarises the data sources and empirical methods to assess how reforms easing product market regulation or employment protection influence transitions out of and into employment.¹ Three sources of micro-level data are used:

- The European Community Household Panel (ECHP), which covers 15 European OECD countries from 1994 to 2001. The ECHP follows individuals over time.
- The European Union Statistics on Income and Living Conditions (EU-SILC) covering 24 European OECD countries from 2003 to 2013. Participants rotate quickly in EU-SILC: individuals are replaced within four years in most countries.
- These panels are complemented with the household surveys mentioned in Box 1 for three OECD countries: Australia (2001-12), Germany (1994-2012) and Switzerland (1999-2013). For Germany, the study uses the national SOEP survey, instead of ECHP and EU-SILC, because SOEP covers a longer period and follows individuals for longer.

This dataset has two strengths. First, it provides monthly information about whether people are working, unemployed or economically inactive. This high frequency allows observing labour market transitions out of and into employment at a high level of detail, including for people who alternate between precarious jobs, unemployment and economic inactivity. Second, the dataset contains individual-level information about income, which makes it possible to look at differences in outcomes depending on where people stand in the income distribution.

Transition probabilities out of and into employment are built to meet two objectives. The first purpose of the transition variables is to measure employed workers' risk of becoming jobless and jobless people's chances of getting a job. The two states are employment and joblessness, which comprises unemployment and economic inactivity. Choi et al. (2015) underline the importance of taking into account transitions into and from inactivity in order to understand employment dynamics. The second goal is to allow linking changes in transition probabilities to changes in employment, as a way of relating the findings from this study with ongoing complementary OECD work that re-evaluates the impact of structural policies on employment in the short (OECD, 2016) and long term (Gal and Theising, 2015).

Transition probabilities average individual-level variables. Variable f_{it}^{EL} measures the number of transitions that a worker i experiences into joblessness in year t (for its full definition, see Cournède, Denk and Garda, 2016). This definition captures the experience of people who undergo precarious employment spells in a detailed manner. Symmetrically, f_{it}^{LE} measures transitions into employment in a granular way. Transition probabilities λ_t^{EL} and λ_t^{LE} average f_{it}^{EL} and f_{it}^{LE} over the population or a particular group. These variables λ_t^{EL} and λ_t^{LE} are generalised probabilities, since they could take a maximum value of six, if everybody in the working-age population hopped in and out of employment month after month. The name probability has been kept, because at monthly frequency they correspond to probabilities. Many people experience no or very few transitions, so that λ_t^{EL} and λ_t^{LE} remain well below unity. Transitions defined in this way are closely linked with aggregate employment (see Box 1 in Cournède, Denk and Garda, 2016, and Figure 1 in Garda, 2016).

In a first step, the investigation focuses on reforms that make product markets or employment protection more flexible, using OECD indicators of regulation ranging from 0 (most flexible) to 6 (tightest):

- Job protection is measured by the OECD indices of employment protection legislation for regular and temporary contracts (EPL-R and EPL-T).
- Product market regulation is measured by
 - the economy-wide OECD PMR index, which summarises the economy-wide regulatory environment for product market competition. However, the OECD PMR indicator is only available every five years from 1998, implying that it cannot be used to analyse the dynamics of adjustment toward long-term effects;
 - the OECD indicator of regulation in energy, transport and communication (ETCR). The ETCR indicator is available annually from 1975.

In a second step, the analysis looks at how the effects of flexibility-enhancing reforms on transition probabilities vary depending on framework conditions. Two main indicators measure framework conditions: spending on active labour market policies (ALMPs), expressed as spending per unemployed as a percentage of GDP per capita following de Serres and Murtin (2013), and coordination in wage setting, using the ICTWSS index. Spending on active labour market programmes comprises employment services, training, employment incentives, integration of the disabled, direct job creation and start-up incentives (Adema et al., 2011).

Box 2. Estimating the effects of product market and job protection reforms on employment transitions (cont.)

The investigation uses the levels of the EPL and PMR indicators to identify long-term effects of flexibility-enhancing reforms and their changes to study adjustment paths. A decline in any of these indicators signals flexibility-enhancing reforms. The size of a typical reform is measured as the mean 5-year change in the indicator across countries where this indicator declined (Table 2).²

Table 2. Average five-year change in policy indicators over reform episodes

EPL regular	EPL fixed-term	PMR	ETCR
0.30	0.81	0.34	0.92

A typical flexibility-enhancing reform of temporary contracts reduces EPL-T by 0.8 points, while a typical reform of regular contracts reduces EPL-R by 0.3 points. Product market regulation (PMR) indices, which measure regulations affecting competition across the economy, are only available for 1998, 2003 and 2008 in the sample period. A typical reform that increases product market competition lowers the PMR indicator by 0.34 points over five years. By comparison, a typical liberalisation in network industries lowers the ETCR indicator by 0.92 over five years. All figures normalise the change in the indicator to show the effects of a typical regulatory reform.

The following baseline specification, akin to Bassanini and Duval's (2009), estimates long-term policy effects on transitions out of employment:

$$f_{ict}^{EL} = \alpha_c + \tau_t + x_{ict}\beta + z_{ct}\gamma + \rho P_{ct} + \varepsilon_{ict}. \quad (\text{Equation 2})$$

The parameter of interest ρ estimates the average long-term impact of policy P_{ct} across the population. The regression includes country fixed effects, α_c , and year fixed effects, τ_t . The vector of individual control variables, x_{ict} covers: age and its squared value, being head of household, being in a couple, education level and lagged income quartile. The vector of country-level control variables, z_{ct} , comprises government employment, population growth and the output gap. The idiosyncratic disturbances are denoted by ε_{ict} . The regressions use a linear generalised probability estimator. The same specification is used for transitions into employment after substituting f_{ict}^{LE} for f_{ict}^{EL} . The analysis explored but could not robustly establish non-linear effects, whereby the impact of enhancing economic flexibility would depend on the starting point for the policy stance.

Each country and year is considered as providing one observation from a policy perspective. First, all regressions cluster standard errors at the country-year level to match the level of variation of the policy indicator. This choice ensures that the very high number of observations does not artificially narrow standard errors, which instead reflect how indicators vary within countries over years. Second, each observation receives a weight equal to the inverse of the total sample in a given country. This weighting avoids giving more importance to one country because it has more people in its sample.

Finally, the framework is augmented to analyse how reform effects vary across population groups:

$$f_{ict}^{EL} = \alpha_c + \tau_t + x_{ict}\beta + \rho P_{ct} + \rho_d G_d(x_{ict})P_{ct} + \varepsilon_{ict}. \quad (\text{Equation 3})$$

This model interacts the policy indicator P_{ct} with a vector of dummy variables $G_d(x_{ict})$ indicating the group to which the individual belongs along the dimension of interest d . For instance, estimating whether effects vary depending on education uses a vector $G_{education}(x_{ict})$ of two dummy variables: less than high school and more than high school. Individuals who finished high school and took no higher education serve as the reference group. The parameter of interest, ρ_d , indicates the additional long-term impact of the reform for each population group in $G_d(x_{ict})$ with respect to the omitted group. In addition, a demanding sensitivity check on heterogeneous effects estimated with (3) adds country-year fixed effects, which in particular control for all unmeasured year-by-year policy changes at the country level. The results about variation across groups reported in this paper are qualitatively robust to this strong check.

1. See Causa et al. (2015, 2016) for analyses of how structural reforms influence the distribution of income.
2. A very few temporary up-ticks occurred during the trend decline in regulation indicators. These up-ticks are excluded when calculating the mean change across countries.

Source: Cournède, B., O. Denk and P. Garda (2016), "Effects of Flexibility-Enhancing Reforms on Employment Transitions", *OECD Economics Department Working Papers*, No. 1348, OECD Publishing.

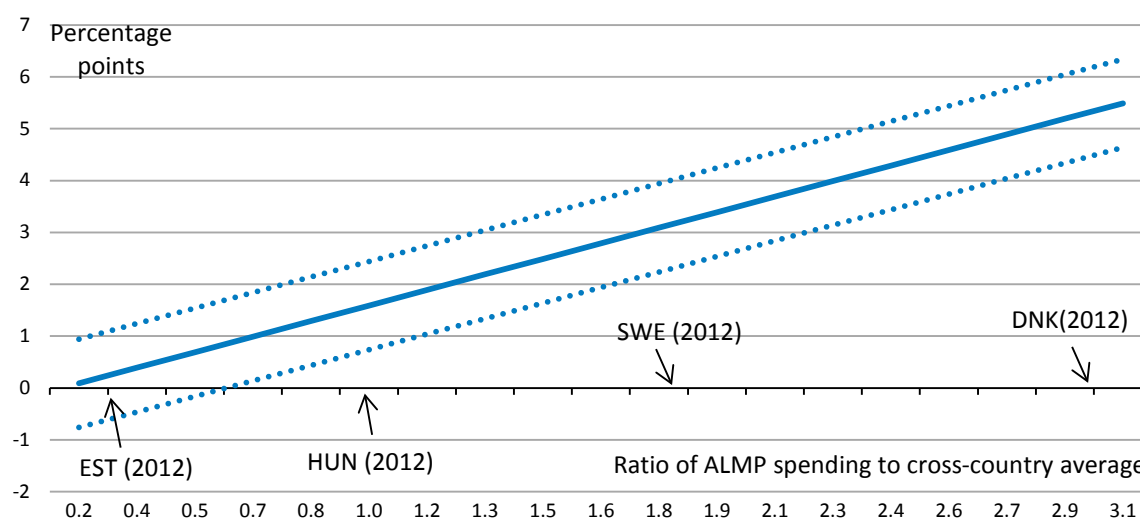
4.2. Influence of framework conditions on reform effects

Other policies and institutions create framework conditions that can shape the effect of flexibility-enhancing reforms of employment protection and product markets on labour market transitions. Framework conditions and greater flexibility can interact in many ways: this subsection focuses on interactions that matter from a policy perspective and for which the empirical analysis uncovered significant effects.

Active labour market policies (ALMP) contribute to creating an environment where making regular-contract protection more flexible translates into greater hiring chances for jobless people. Jobless people's chances of finding jobs increase after reforms that ease employment protection of regular contracts in countries that spend more than the sample average (Figure 6). This finding contrasts with the above-mentioned observation that reforms of employment protection for regular contracts have no significant effects on hiring when evaluated over all situations. One of the reasons behind the large amount of statistical uncertainty apparent in Figure 6 is that the results from activation policies depend not only on the amount of ALMP expenditure but also crucially on the quality and efficiency of the programmes (OECD, 2015).

Figure 6. Making employment protection more flexible yields greater hiring benefits in countries with stronger activation programmes

Estimated percentage point changes in job-finding probabilities among jobless people after a typical reform of job protection for regular contracts depending on ALMP spending relative to the average country



StatLink  <http://dx.doi.org/10.1787/888933436590>

Note: Depending on how much a country spends on active labour market programmes (ALMP) for each person unemployed relative to the sample average, which determines its position on the horizontal axis, the solid line plots the impact of a typical reform of employment protection for regular contracts (EPL-R) on transition probabilities into employment from unemployment or economic inactivity. For the measurement of typical reforms, see Table 2 in Box 2. The estimation uses Equation 2 in Box 2 augmented with interaction terms. The dotted lines show 90% confidence intervals. ALMP spending stands for expenditure on active labour market programmes per person unemployed as a percentage of GDP per capita. The effects are estimated with micro-level data covering 26 OECD countries over 1994-2012. Table 1 in Cournède, Denk and Garda (2016) details the years covered for each country in the sample.

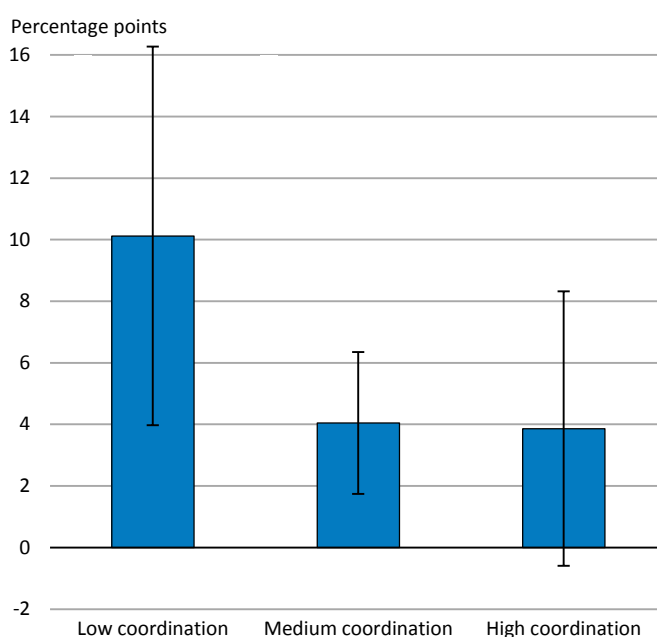
Source: Cournède, B., O. Denk and P. Garda (2016), "Effects of Flexibility-Enhancing Reforms on Employment Transitions", *OECD Economics Department Working Papers*, No. 1348, OECD Publishing.

Labour market institutions also shape the impact of product market reforms on employment transitions:

- More decentralised wage bargaining arrangements strongly magnify the hiring benefits of boosting product market competition (Figure 7).
- Product market reforms reduce the risk of becoming jobless when employment protection for regular workers is highly flexible but not in other settings (see Section 5.4 in Cournède, Denk and Garda, 2016).

Figure 7. The hiring benefits of product market reforms are greater under more decentralised wage bargaining

Estimated changes in job finding probabilities among jobless people after a typical product market reform of network industries



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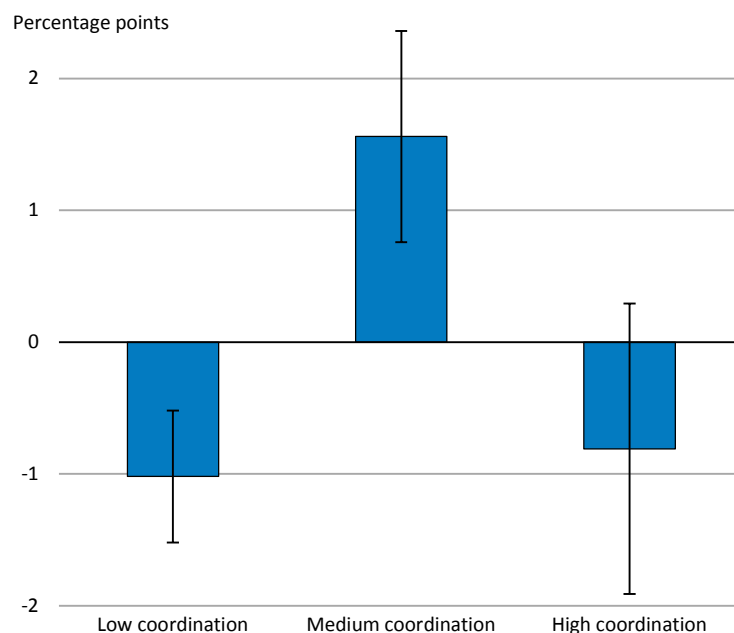
Note: The blue bars reflect the impact of a typical product market reform in network industries (measured by the ETCR index) on economy-wide transition probabilities into employment from unemployment or economic inactivity. For the measurement of typical reforms, see Table 2 in Box 2. The estimation uses Equation 2 in Box 2 augmented with interaction terms. The thin lines show 90% confidence intervals. Coordination is measured with the indicator of the degree of wage-setting coordination in the database on institutional characteristics of trade unions, wage setting, state intervention and social pacts (ICTWSS; see Visser, 2015). This indicator evaluates the degree, rather than the legal type, of coordination (Kenworthy, 2001; Visser, 2015). The effects are estimated with micro-level data covering 26 OECD countries over 1994-2012. Table 1 in Cournède, Denk and Garda (2016) details the years covered for each country in the sample.

Source: Cournède, B., O. Denk and P. Garda (2016), "Effects of Flexibility-Enhancing Reforms on Employment Transitions", *OECD Economics Department Working Papers*, No. 1348, OECD Publishing.

On the negative side, intermediate levels of coordination in wage bargaining are associated with a significant increase in job-loss risk when reforms reduce job protection for regular contracts (Figure 8). A typical reform of employment protection for regular contracts (as defined in Box 2, Table 2) raises job-loss risk by 1½ percentage points (from a 10% average) in countries with intermediate levels of coordination in wage setting. By contrast, such a reform significantly reduces the risk of becoming jobless where wage setting is decentralised.

Figure 8. More flexible protection of regular contracts is associated with higher transitions out of employment in countries with intermediate levels of wage bargaining coordination

Estimated changes in transition probabilities out of employment after a typical reform of job protection for regular contracts



StatLink <http://dx.doi.org/10.1787/888933436615>

Note: The blue bars reflect the impact of a typical reform of employment protection for regular contracts on transition probabilities out of employment into unemployment or economic inactivity. For the measurement of typical reforms, see Table 2 in Box 2. The estimation uses Equation 2 in Box 2 augmented with interaction terms. The thin lines show 90% confidence intervals. Coordination is measured with the indicator of the degree of wage-setting coordination in the database on institutional characteristics of trade unions, wage setting, state intervention and social pacts (ICTWSS; see Visser, 2015). This indicator evaluates the degree, rather than the legal type, of coordination (Kenworthy, 2001; Visser, 2015). The effects are estimated with micro-level data covering 26 OECD countries over 1994-2012. Table 1 in Cournède, Denk and Garda (2016) details the years covered for each country in the sample.

Source: Cournède, B., O. Denk and P. Garda (2016), "Effects of Flexibility-Enhancing Reforms on Employment Transitions", *OECD Economics Department Working Papers*, No. 1348, OECD Publishing.

4.3. Reform effects depend on worker characteristics

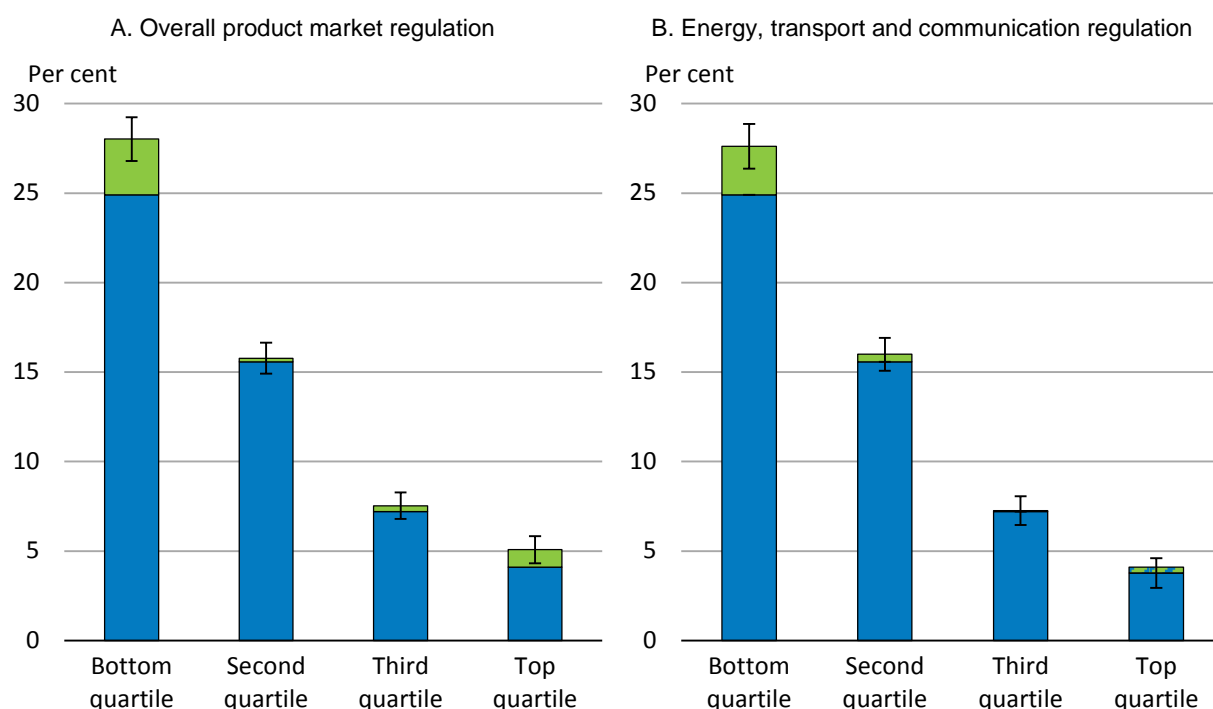
Low-income and low-skilled workers experience more acute unfavourable effects of product market reforms, in terms of an increased risk of becoming jobless, than the rest of the population. Typical product market reforms, measured by the PMR or ETCR index, raise the annual risk of becoming jobless by about 3 percentage points for workers in the bottom income quartile, while leaving it broadly unchanged for others (Figure 9).⁶

Low educational attainment, which is frequent among low-income workers, appears to be a driving force behind the specific adverse effects of reforms on job-loss probabilities for this group of workers. Analysis by education level indicates that typical product market reforms increase the risk of becoming jobless by 1½ to 2 percentage points for workers with no high-school degree without significantly changing it for more educated workers (Cournède, Denk and Garda, 2016).

6. The identified variation across groups is qualitatively robust to including country-year fixed effects (see Box 2).

Figure 9. Product market reforms particularly increase low-income workers' risk of becoming jobless

Transition probabilities out of employment into unemployment or economic inactivity, percentages, by income quartile


 StatLink  <http://dx.doi.org/10.1787/888933436627>

Note: The blue bars indicate the average rate across the 26 countries in the sample. The green bars indicate the impact of a typical product market reform (as defined in Table 2 of Box 2). Hatched areas indicate negative effects. Black segments indicate 90% confidence intervals. Quartiles are calculated over the average monthly labour income that an individual obtained in months of the preceding year during which she or he worked. The effects are estimated with micro-level data covering 26 OECD countries over 1994-2012. The estimated variation across income groups is qualitatively robust to including country-year fixed effects. Table 1 in Cournède, Denk and Garda (2016) details the years covered for each country in the sample.

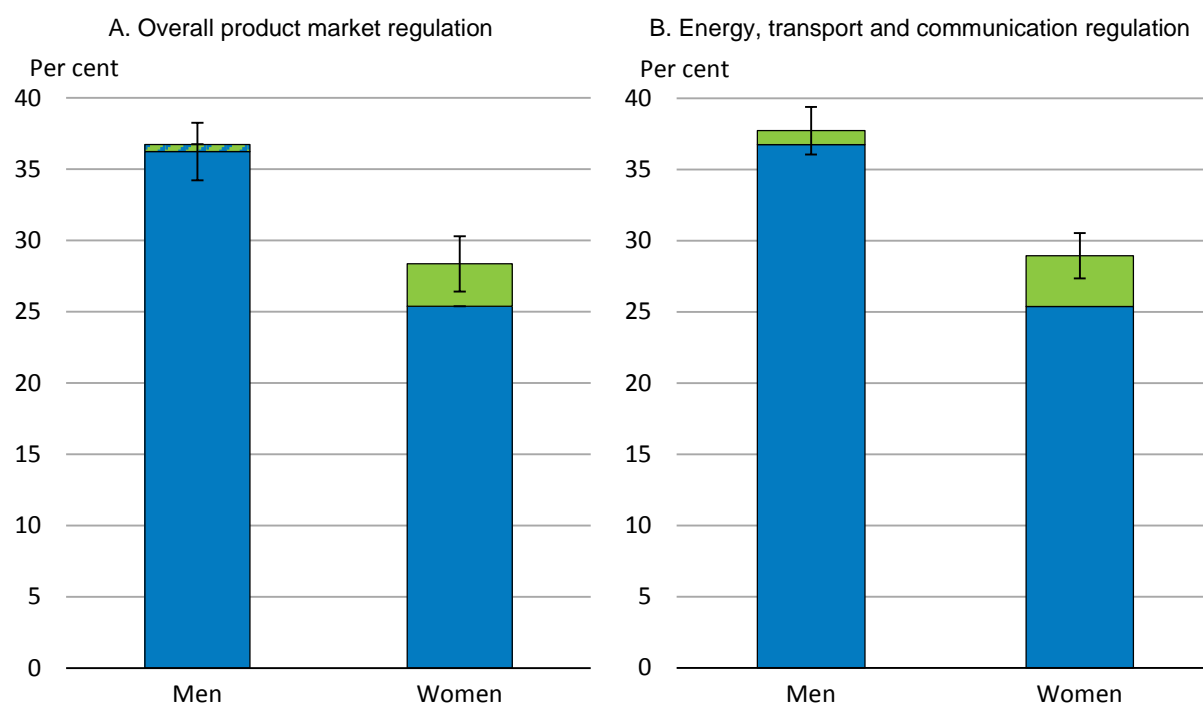
Source: Estimations based on Cournède, B., O. Denk and P. Garda (2016), "Effects of Flexibility-Enhancing Reforms on Employment Transitions", *OECD Economics Department Working Papers*, No. 1348, OECD Publishing.

These unfavourable effects of product market reforms add to the labour market difficulties that low-income and low-skilled workers generally experience. For instance, workers in the first income quartile have a 25% annual risk of becoming jobless against 9% for the rest of the population and only 4% in the top quartile.

On the other hand, the benefits of product market reforms in terms of higher job-finding chances are broadly similar across income or education levels. All income and education groups experience increases of about 3 percentage points in their chances of finding a job for a typical network industry reform. Simulations using the estimates suggest that the increases in job finding chances from instilling greater competition in network industries or across product markets are large enough to offset higher job loss risk and leave employment rates broadly unchanged or improved for every group (Cournède, Denk and Garda, 2016). For people who did not complete high school, the higher job finding chances following product market reforms just offset the higher risk of getting out of employment, so that any net employment effects appear to be negligible for this group.

The job finding benefits of product market reforms vary by gender and age: women and young people are their main beneficiaries. Product market reforms significantly boost women's chances of becoming employed but leave men's essentially unchanged, implying some convergence (Figure 10). This effect may stem from transitions into employment from inactivity rather than unemployment. A potential explanation is that the pool of economically inactive women may contain significantly better matches for the jobs created by more flexible product markets than the pool of economically inactive men. This possible explanation could be related to the observation that women are four times more likely to leave the labour force than men (Garda, 2016). Following product market reforms, young workers experience particularly large increases in job finding probabilities (Figure 11), from levels that on average are higher than for other people out of employment (Garda, 2016).

Figure 10. Product market reforms boost women's job finding chances and have little impact on men's
Transition probabilities from unemployment or economic inactivity to employment, percentages

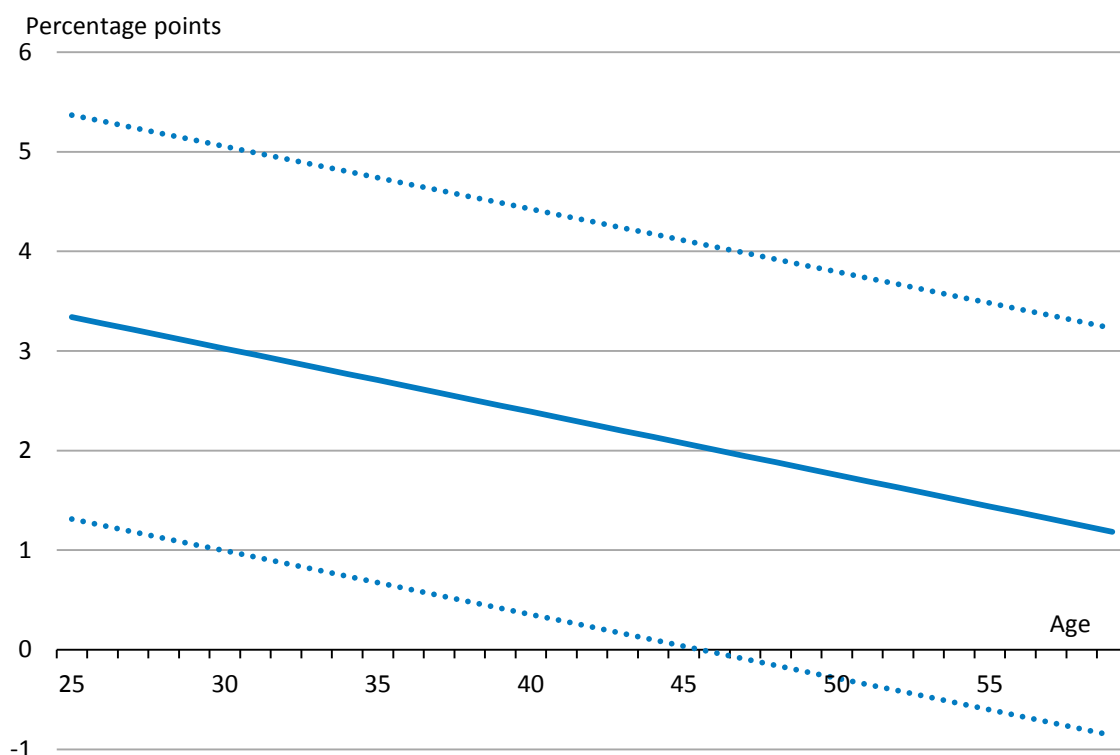


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Note: The blue bars indicate the average rate across the 26 countries in the sample. The green bars indicate the impact of a typical reform (as defined in Table 2 of Box 2). Hatched areas indicate negative effects. Black segments indicate 90% confidence intervals. The effects are estimated with micro-level data covering 26 OECD countries over 1994-2012. The estimated variation between men and women is qualitatively robust to including country-year fixed effects. Table 1 in Cournède, Denk and Garda (2016) details the years covered for each country in the sample.

Source: Cournède, B., O. Denk and P. Garda (2016), "Effects of Flexibility-Enhancing Reforms on Employment Transitions", *OECD Economics Department Working Papers*, No. 1348, OECD Publishing.

Figure 11. Product market reforms increase job finding chances mostly for the young
Estimated percentage point changes in job finding probabilities after a typical product market reform



StatLink  <http://dx.doi.org/10.1787/888933436644>

Note: The solid line indicates the estimated impact of a typical product market reform, measured by the PMR index, on transition probabilities into employment from unemployment or economic inactivity (see Box 2). The dotted lines indicate the 90% confidence interval. The effects are estimated with micro-level data covering 26 OECD countries over 1994-2012. Table 1 in Cournède, Denk and Garda (2016) details the years covered for each country in the sample.

Source: Cournède, B., O. Denk and P. Garda (2016), "Effects of Flexibility-Enhancing Reforms on Employment Transitions", *OECD Economics Department Working Papers*, No. 1348, OECD Publishing.

The effects of employment protection reforms on labour market transitions do not vary across population groups in a systematic and statistically significant manner. Cournède, Denk and Garda (2016) present more detailed results. Future research could investigate the extent to which other worker characteristics such as immigration status influence reform effects.

5. Policy considerations

Flexibility-enhancing reforms generally boost aggregate living standards but can entail adverse consequences for some individuals, as the above-reported investigations have highlighted. The favourable aggregate effects of reforms mean that they are advisable for governments who largely pursue prosperity objectives. The unequal, and for some groups negative, effects of more flexible policies raise questions about compensating losers to facilitate acceptance, designing reform strategies that reduce side-effects and helping workers who are most adversely affected. This section addresses these three questions in turn.

5.1. *Compensating losers?*

The findings summarised in Section 3.1 underscore that network industry deregulation lowers wages for workers who are employed in these industries relative to other sectors. This effect also arises in other regulated sectors (Jean and Nicoletti, 2015). Faced with the prospect of reform, adversely affected incumbents generally organise themselves much more effectively than beneficiaries, who are more numerous, but each beneficiary gains much less (Olson, 1965; Boeri et al., 2006; Tompson, 2009).

Compensating people who are adversely affected by reforms has in some instances helped make structural reforms happen (Tompson, 2009; OECD, 2010b; Trebilcock, 2014). Compensation efforts mostly belong to two categories. The first one provides side payments, in one form or another, to reform losers while implementing the reform according to first principles. The second one includes exemptions or long phase-in periods to protect incumbents (see Høj et al., 2006, for examples).

Compensating losers, however, raises issues of fairness. People funding compensation to workers or capital owners for whom reforms (e.g. greater network competition) reduce economic rents, but still leaving substantial rents, can consider this compensation unfair. Reforms that lower regulated-sector wage premia do not necessarily reduce directly affected workers' wage growth, if the overall wage increase generated by a more competitive economy offsets the fall in their relative wages. In network industries, simulations suggest the overall income-enhancing effects of reform almost exactly offset the fall in wage premia: by implication, network industry workers experience a relative but not an absolute fall in wage growth following reform. Questions of fairness could arise regarding policies to compensate workers in reformed industries for their loss of a relative status, which was due to regulation, even when they keep the same wage level.

Compensation can encourage behaviour that reduces efficiency. The anticipation of compensation may induce ex-ante rent-seeking and reduce incentives to improve productivity (Kaplow, 2003). Compensation can also harden resistance to reform, as incumbents may seek to maximise pay-outs.

A fairer and more efficient compensation strategy involves reforming product markets very broadly rather than narrowly in certain sectors. Such a broad strategy offsets the relative losses in wage growth that workers may experience from greater competition in their sector with purchasing-power gains from reforms in other sectors (Blanchard and Giavazzi, 2003; Gersbach, 2004).

5.2. *Designing strategies that reduce adverse job loss effects and maximise job-finding benefits*

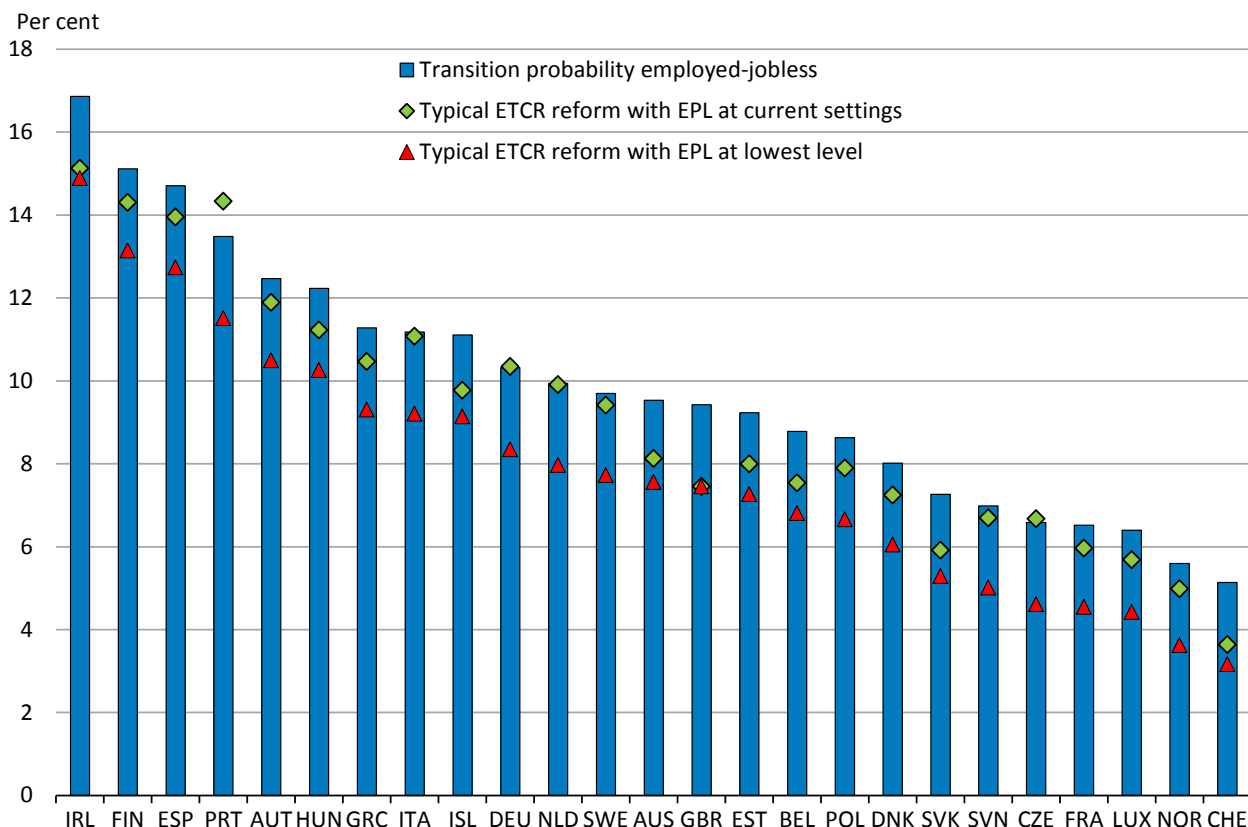
The analysis reported in Section 4.2 suggests benefits from combining labour and product market reforms. Decentralised wage setting arrangements enhance the job-finding benefits of product market reforms.⁷ Low or moderate levels of employment protection for regular contracts mitigate the risk that product market reforms increase workers' probability of becoming jobless. These findings indicate that, in terms of labour market transitions, product market reforms deliver larger gains at lower cost in more flexible labour market settings.

Across countries, product market reforms of the same size can have quite different effects on transitions out of employment due to differences in the stance of employment protection, according to

7. See Section 4.2 and Cournède, Denk and Garda (2016) for a discussion of the statistical margins of uncertainty surrounding the estimates.

simulations using the estimation results (Figure 12, green squares). These simulations also suggest that the same product market reform would reduce the risk of getting out of employment by much more if, for the sake of illustration, all countries hypothetically adopted the lowest observed level of employment protection in the sample (Figure 12, red triangles).

Figure 12. Product market reforms of network industries can substantially reduce transitions out of employment under flexible employment protection



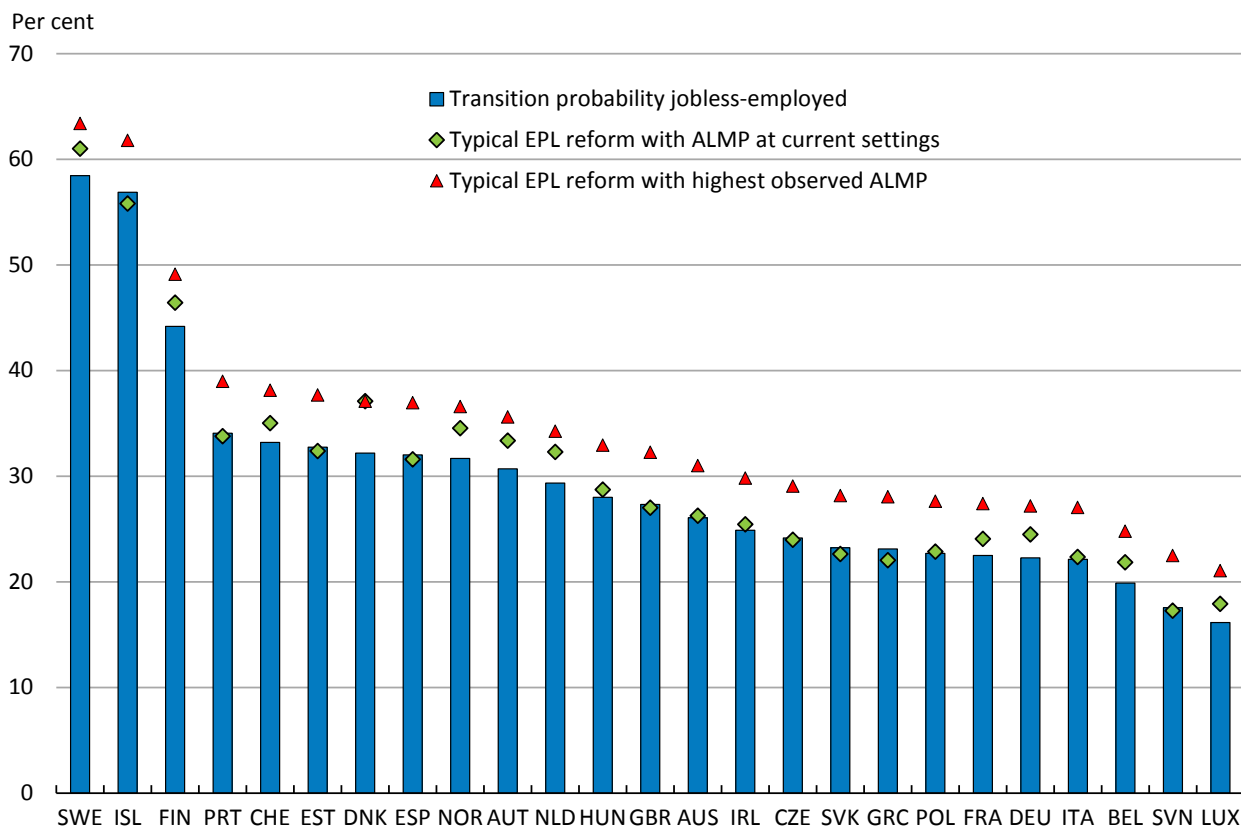
StatLink  <http://dx.doi.org/10.1787/888933436659>

Note: The probability of getting out of employment is the average during the period 2005 to 2012 or the latest available year (for details of the calculation, see Garda, 2016). A typical product market reform of network industries reduces the ETCR indicator by 0.92 from its 2012 value. Illustrative simulations with EPL at the lowest level reduce employment protection of regular contracts for each country in 2012 to the lowest observed level in the sample, which is the United Kingdom (GBR).

Source: Estimations based on Cournède, B., O. Denk and P. Garda (2016), "Effects of Flexibility-Enhancing Reforms on Employment Transitions", *OECD Economics Department Working Papers*, No. 1348, OECD Publishing.

Findings in Section 4.2 underline gains from ambitious and well-designed active labour market programmes (ALMP). The interaction of employment protection with ALMP spending implies that reforms of employment protection for regular contracts and increases in ALMP are associated with greater job finding benefits when implemented together than the sum of what they can achieve separately. Simulations indicate that employment protection reforms are likely to have very different effects on transitions into employment across countries (Figure 13). The main reason is that spending on active labour market policies varies considerably, although different starting points for employment protection also play a role. Consequently, countries where ALMP spending is low may consider investing in activation before easing employment protection to generate positive job finding benefits for people who are unemployed or out of the labour force.

Figure 13. Reforms of employment protection can substantially increase jobless people's chances of becoming employed with high spending on activation



StatLink  <http://dx.doi.org/10.1787/888933436663>

Note: The probability of becoming employed is the average during the period 2005 to 2012 or the latest available year (for details of the calculation, see Garda, 2016). A typical reform of employment protection for regular contracts reduces the indicator by 0.30 from its 2012 value. Spending on active labour market programmes (ALMP) (measured per unemployed as percentage of GDP per capita) takes its highest observed 2012 value in Denmark.

Source: Estimations based on Cournède, B., O. Denk and P. Garda (2016), "Effects of Flexibility-Enhancing Reforms on Employment Transitions", *OECD Economics Department Working Papers*, No. 1348, OECD Publishing.

5.3. Further concentrating assistance on the most vulnerable groups

The uneven effects of product market reforms underline the importance of ensuring that employment assistance programmes effectively help workers who are less qualified or have low income. Independently of reform, transitions out of employment are particularly frequent in these groups, implying that existing labour market programmes largely focus on them. However, product market reforms exacerbate transitions out of employment much more for less qualified or low-income workers than for others. Product market reforms increase job finding chances broadly evenly across groups. As a result, employment prospects remain broadly unchanged for vulnerable groups, while they improve for others. Higher labour market turnover for broadly unchanged employment generally means higher well-being, because it implies shorter unemployment spells (Hijzen and Menyhert, 2016). However, by comparison with low-income and less qualified workers, well-being benefits of product market reforms are likely to be larger for groups that experience increases in both labour market turnover and employment.

Making active labour market programmes more effective for vulnerable workers would therefore make the labour market gains from product market reforms more evenly shared. The findings from this study that workers with lower earning potential have much higher transition rates in and out of employment (Figure 9 and Garda, 2016) and are particularly affected by reforms (Figure 9 and Cournède, Denk and Garda, 2016) underline the benefits of active labour market programmes that help workers develop their employability before they become unemployed. These results underscore the importance of OECD's (2015) recommendation that vulnerable workers should be allowed to tap active labour market programmes not only when they are unemployed but also when they work or are out of the labour force.

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Acronyms

ALMP	Active labour market policies
ETCR	Energy, transport and communication regulation
EPL	Employment protection legislation
EPL-R	Employment protection legislation for regular contracts
EPL-T	Employment protection legislation for temporary contracts
ICTWWS	Database on Institutional Characteristics of Trade Union, Wage Setting, State Intervention and Social Pacts
LFS	Labour force survey
PMR	Product market regulation
SES	Structure of Earnings Survey