

# Maintaining and reinforcing achievements in Costa Rica

Stepping up structural reform efforts would be the best way to respond to challenges to reinforce achievements and seize new opportunities.

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# Korea: Stunning success and work in progress

Productivity gaps fuel inequalities and a race to win a golden ticket.

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# Informality and weak competition – a deadly cocktail for growth and equity in emerging Latin America

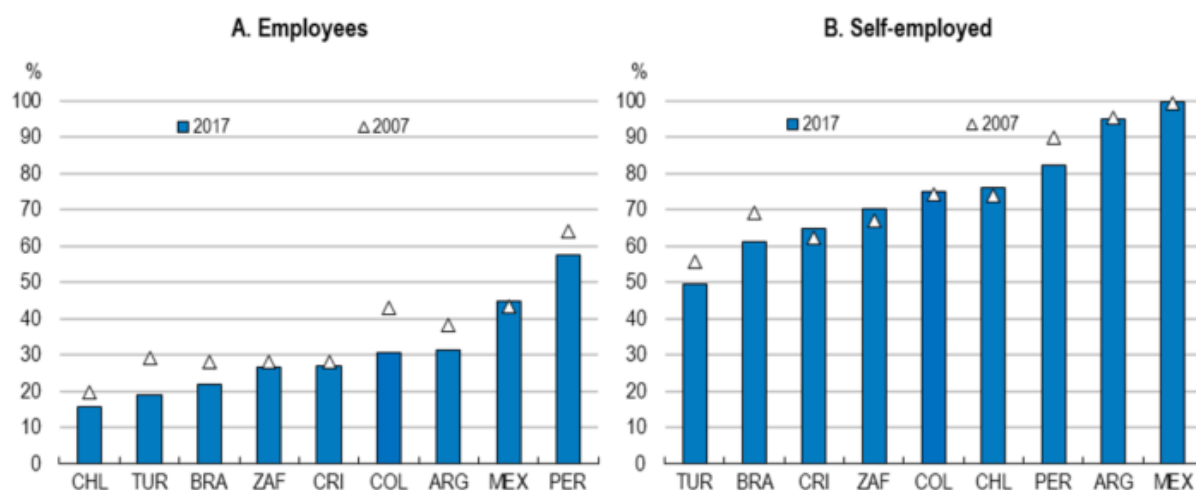
By Piritta Sorsa, Jens Arnold and Paula Garda, OECD Economics Department

Why is growth persistently low and so unevenly distributed in

**emerging Latin America** compared to emerging Asia despite a huge potential? Potential growth is ranging around 2-3% in the region. Some refer to dependence on commodities, poor education, weak business environments or corruption as possible causes. But the question is deeper and more complex. A crucial factor for Latin America is low productivity, often related to a poor use of available resources. Across the region, many workers and significant amounts of capital are stuck in activities that are not efficient. The reasons for this are many, but two important forces stand out: high informality and weak competition.

**Figure 1. Persistently high levels of informality characterise the LAC region**

Informal workers in each category as % of employment



Note: Informality is defined to include: i) employees who do not pay health contributions; and ii) self-employed who do not pay social security contributions (Brazil, Chile and Turkey), or whose business is not registered (Argentina, Colombia, Costa Rica, Mexico, Peru and South Africa). Data for Turkey refer to persons aged 15 and more. Data for Argentina refer to selected urban areas (according to the National Statistical Authority (INDEC), LFS series published after the first quarter of 2007 and until the fourth quarter of 2015 must be considered with caution).

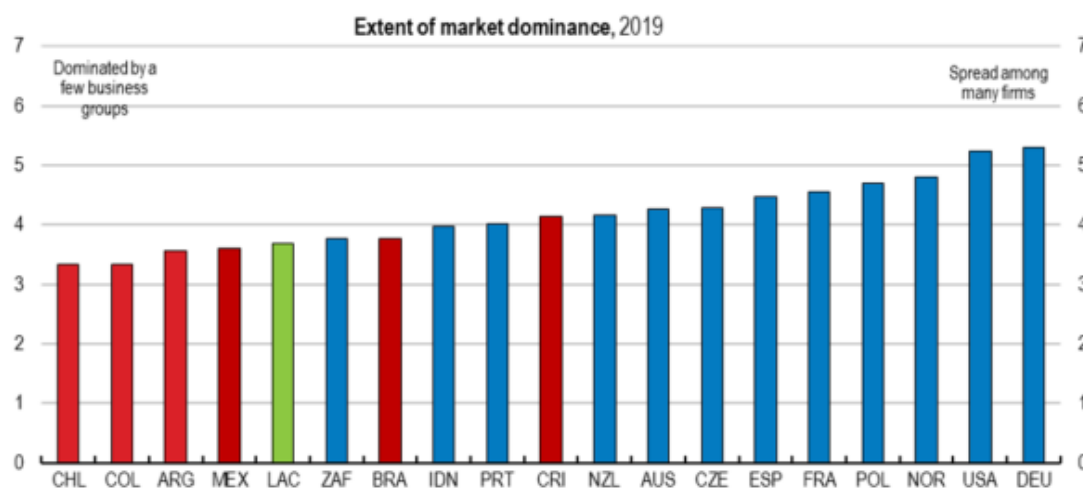
Source: OECD calculations based on the EPH for Argentina, the PNAD for Brazil, the CASEN for Chile, the GEIH for Colombia, the ECE for Costa Rica, the ENOE for Mexico, the ENAHO for Peru, the QLFS for South Africa and the HLFS for Turkey.

**High and persistent informality in the region leaves workers more vulnerable and deprives them from social protection, thus contributing to inequality.** For example, old age poverty in Colombia is high as low-skilled workers spend much of their working lives in informal employment, without pension contributions (OECD, 2019[1]). In Brazil and Argentina, informal workers retire later than others for the same reason, until they eventually reach the age to benefit from a non-contributory pension (OECD, 2019[2]; OECD, 2018[3]). In

Mexico, poverty and informality are highly correlated among regions (OECD, 2019[4]). Informality also tends to maintain companies small with often low productivity as growing would face high costs of formalisation. Indeed, informal-sector productivity in the average LAC country is only between 25 and 75 percent of total labour productivity, and productivity decreases as informality rises (Loayza, 2018[5]). Informality also reduces the tax base for corporate and personal income taxes, reducing the capacity of the public sector to boost productivity and reduce inequality, and requires a higher tax burden on larger formal companies.

**Weak competition is a second reason behind low productivity and is often reflected in high concentration** (Figure 2). Entry barriers can protect existing activities that have little future growth potential at the cost of new dynamic and productive firms. Weak competition creates rents and lowers the share of wages in value-added worsening income distribution. Higher prices for consumers reduce purchasing power, affecting disproportionately low-income households.

**Figure 2. Competition perceptions are low in LAC**



Source: World Economic Forum, [The Global Competitiveness Index 4.0](#).

## **Reducing informality for productivity and equity**

The causes of informality are multiple. Informality is often a consequence of high costs of hiring formal workers, both wage and non-wage, especially in relation to labour productivity,

given low educational outcomes.

**Where high informality and weak competition coincide, as is the case in many Latin American countries, the consequences for both growth and equity can be particularly severe.** For emerging Latin America to grow stronger and better share the fruits of growth, dealing with informality and competition should be priority.

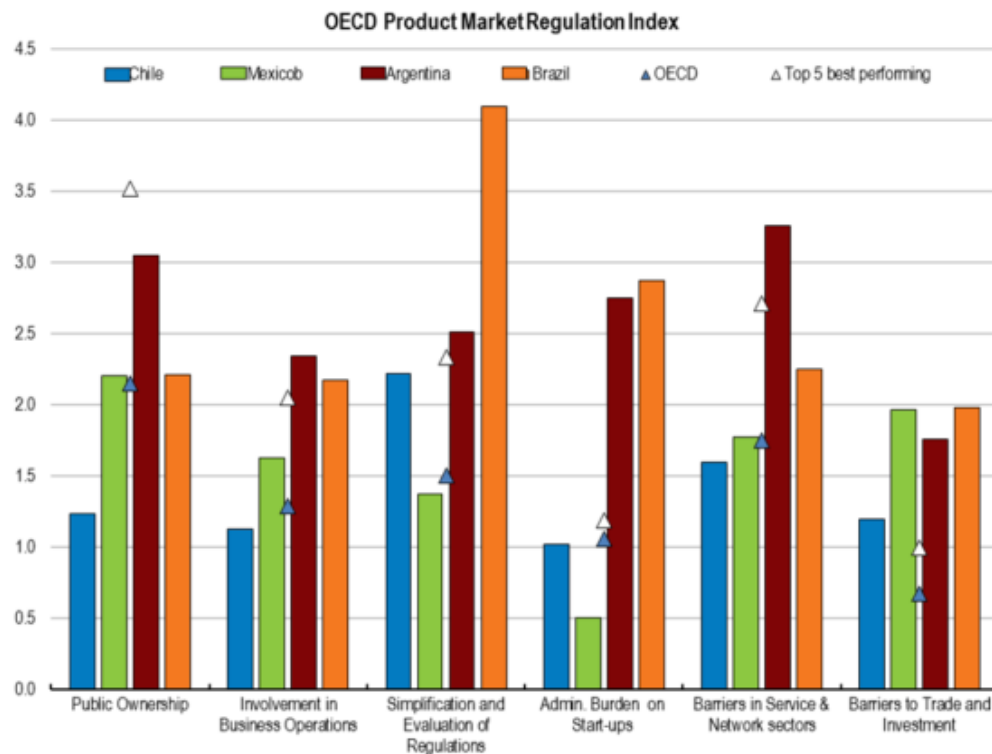
**Labour informality is often caused by rigid labour regulation.** High firing costs of workers can discourage formal-sector hiring and promote inequality (Loayza, 2018[5]; OECD, 2018[6]; Heckman and Pages, 2000[7]). In Mexico, a labour reform in 2012 reduced hiring and firing costs, introduced different models of contracting and brought changes to the resolution of labour conflicts. Formal salaried jobs increased in the aftermath (OECD, 2019[4]). Minimum wages can be high compared to productivity or average wages keeping most workers informal. In Colombia, the minimum wage is close to the median wage and two thirds of workers earn less than that (OECD, 2019[1]). High payroll taxes can also have a detrimental effect on informality rates (Bobbia, Flabbi and Levy, 2018[8]). Antón and Rastaletti (2018[9]) show how lowering employer social security contributions could lead to a substantial increase of labour formalisation. At a minimum, lower employer contributions could be offered temporarily for hiring low-skilled workers that enter the formal sector for the first time (OECD, 2017[10]). Lowering payroll taxes in Colombia helped reduce informality after the 2012 reform (Kugler et al., 2017[11]; Morales and Medina, 2016[12]; Fernández and Villar, 2016[13]; Bernal et al., 2017[14]). While incentives are crucial, better enforcement also needs to be part of any formalisation strategy.

**Cumbersome administrative barriers and high taxes can keep companies informal.** Latin America stands out in this respect (Figure 3). The tax burden on formal companies is also high compared to the OECD and positively associated to informality

rates (Figure 4). To promote formalisation, regulatory and tax systems should be simple, with gradual increases in the tax burden as firms grow, so as not to discourage growth, and keep marginal tax rates as low as possible (Loayza, 2018[5]). These characteristics are crucial to encourage investment and employment in growing and larger companies.

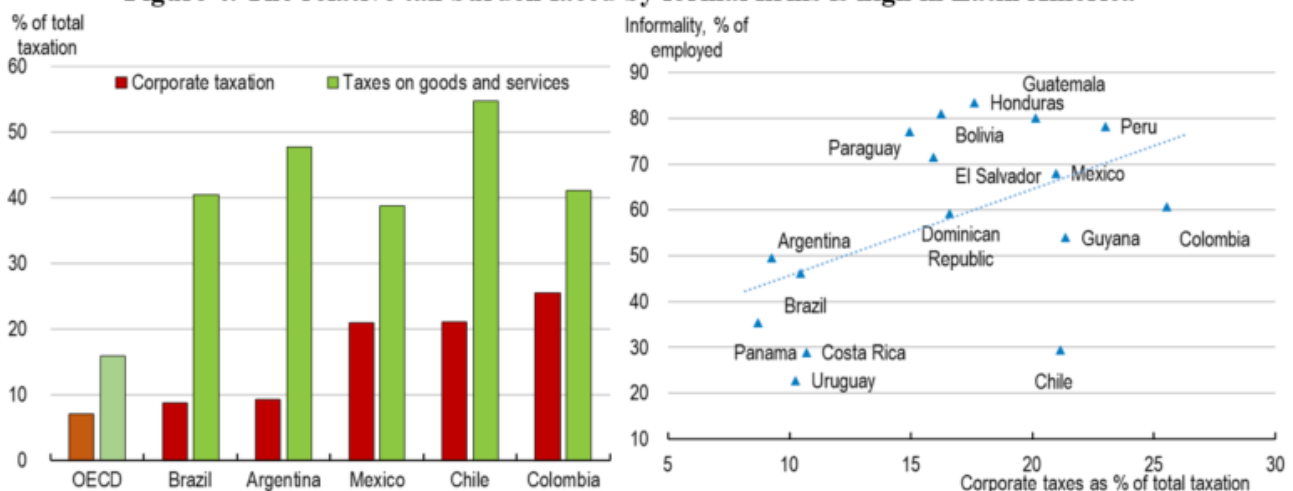
**Many countries in the region have implemented simplified schemes and reduced costs for small taxpayers with the aim of reducing informality.** For example, Mexico introduced a special simplified regime for SMEs (Regimén de Incorporación Fiscal, RIF) in 2014, which induced 1.5 million informal firms to join the tax system (OECD, 2018[15]). In Brazil, a special tax regime for microenterprises (Microempreendedor Individual, MEI) reduced the cost of formalisation and contributions to social security as of 2008. This regime helps explain the rising formalisation of the self-employed, including of women (OECD, 2012[16]). In Argentina, a simplified tax regime called Monotributo helped formalise self-employed workers. In Colombia, the tax reform in 2018 introduced a new simplified tax scheme (Simple) for small firms, and there are signs of positive impact on firm formalisation during 2019. At the same time, these regimes have to be designed carefully. When participation thresholds for special SME tax regimes are set too high, the effectiveness for formalisation declines while fiscal cost and threshold effects rise, as in the case of Brazil's Simples Nacional (OECD, 2018[3]). At times, simplifying the general tax regime may be preferable over creating exceptions.

**Figure 3. Regulation burden is high in Latin American countries**



Source: OECD, 2018 PMR database

**Figure 4. The relative tax burden faced by formal firms is high in Latin America**



Note: Informality is defined as those not contributing to pension system.

Source: OECD Revenue Statistics Latin American countries and IADB SIMS database

**Education and skill levels are also linked with informality.** Countries with lowest informality rates tend to have significantly higher levels of human capital (Docquier, Müller and Naval, 2017[17]). It is not a coincidence that the decrease in informality over recent decades in Latin America went hand in hand with steady progress towards universal education. Evidence shows that improvements in education have been an important driving force behind falling informality in Colombia and Brazil (International Monetary Fund, 2018[18];

OECD, 2018[3]).

### **Increasing competition for productivity and equity**

**In Latin America, the same complex rules that discourage formal job creation often coincide with overly strict regulations that stifle competition.** Competition is affected by how easily firms can enter or exit markets, by the extent of license requirements for starting or expanding a business and by competitive pressures from imports. Relatively high trade protection adds to this in a number Latin American countries, shielding domestic producers from international competition (OECD, 2018[3]). All of this tends to raise prices for consumers and keep resources in low-productivity activities where informality is widespread, for both workers and firms.

**These circular relationships suggest that it is important for the public sector to take stock of burdens that even well-intended regulations and codes can impose on private activity.** Disincentives for firms to go formal will inevitably preclude workers from the benefits of formal jobs, while unnecessary barriers to competition will keep more jobs in activities with limited potential for productivity and wage growth. To foster formal job creation, all parts of a country's regulatory framework should be simple and clear, promote competition, and facilitate both market entry and exit of firms (Loayza, Oviedo and Servén, 2005[19]).

### **Getting there**

A comprehensive strategy is needed to deal with both informality and competition. It involves simplifying labour regulations, keeping administrative burdens and license requirements for companies as easy as possible, facilitating market entry and reducing trade barriers. Bringing more workers and firms into the formal sector would bring about broader social and labour protection, fairer wages, a more

even tax burden and higher potential growth. Many of these policies are politically difficult as they involve dealing with vested interests and require appropriate sequencing. But that is not an excuse for inaction. These reforms should be accompanied with training and other active labour market policies for affected workers, as the informal sector often fulfils the function of absorbing excess labour supply, especially during transitions or economic recessions. Reforms to improve quality and relevance of education to raise worker productivity and policies that can raise investment and boost firm productivity should be also part of the strategy.

## References

Antón, A. and A. Rasteletti (2018), *Imposición al trabajo en contextos de alta informalidad laboral: Un marco teórico para la simulación de reformas tributarias y de seguridad social*, Inter-American Development Bank, Washington, D.C., <http://dx.doi.org/10.18235/0001467>.

Bernal, R. et al. (2017), "Switching from Payroll Taxes to Corporate Income Taxes: Firms' Employment and Wages after the Colombian 2012 Tax Reform", IDB Technical Note, No. 1268, Inter-American Development Bank.

Bobba, M., L. Flabbi and S. Levy (2018), "Labor Market Search, Informality and Schooling Investments", Interamerican Development Bank, <https://publications.iadb.org/en/publication/12928/labor-market-search-informality-and-schooling-investments>.

Docquier, F., T. Müller and J. Naval (2017), "Informality and Long-Run Growth", *The Scandinavian Journal of Economics*, Vol. 119/4, pp. 1040-1085, <http://dx.doi.org/10.1111/sjoe.12185>.

Fernández, C. and L. Villar (2016), "The Impact of Lowering the Payroll Tax on Informality in Colombia", No. 72, Fedesarrollo, <http://hdl.handle.net/11445/3300>.



Heckman, J. and C. Pages (2000), "The Cost of Job Security Regulation: Evidence from Latin American Labor Markets", NBER working paper, No. 7773, National Bureau of Economic Research, <http://dx.doi.org/10.3386/w7773>.

International Monetary Fund (2018), "Colombia: Selected Issues", Country Report, No. 18/129, <http://www.imf.org>.

Kugler, A. et al. (2017), "Do Payroll Tax Breaks Stimulate Formality? Evidence from Colombia's Reform", NBER Working Paper Series, <http://www.nber.org/papers/w23308>.

Loayza, N. (2018), "Informality : Why Is It So Widespread and How Can It Be Reduced?", Research and Policy Briefs, No. 20, World Bank, <http://documents.worldbank.org/curated/en/130391545228882358/Informality-Why-Is-It-So-Widespread-and-How-Can-It-Be-Reduced>.

Loayza, N., A. Oviedo and L. Servén (2005), "The impact of regulation on growth and informality – cross-country evidence", Policy, Research working paper World Bank 3623, <http://documents.worldbank.org/curated/en/212041468134383114/The-impact-of-regulation-on-growth-and-informality-cross-country-evidence>.

Morales, L. and C. Medina (2016), "Assessing the Effect of Payroll Taxes on Formal Employment: The Case of the 2012 Tax Reform in Colombia", Borradores de Economía, Banco de la República, <http://www.banrep.gov.co/en/borrador-971>.

OECD (2019), Economic Surveys: Colombia, <https://doi.org/10.1787/e4c64889-en>.

OECD (2019), Economic Surveys: Mexico, <https://doi.org/10.1787/a536d00e-en>.

OECD (2019), OECD Economic Surveys: Argentina 2019, OECD Publishing, Paris, <https://dx.doi.org/10.1787/0c7f002c-en>.

OECD (2018), Economic Surveys: Chile,

[https://doi.org/10.1787/eco\\_surveys-chl-2018-en](https://doi.org/10.1787/eco_surveys-chl-2018-en).

OECD (2018), Getting it Right: Strategic Priorities for Mexico, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264292062-en>.

OECD (2018), OECD Economic Surveys: Brazil 2018, OECD Publishing, Paris, [https://dx.doi.org/10.1787/eco\\_surveys-bra-2018-en](https://dx.doi.org/10.1787/eco_surveys-bra-2018-en).

OECD (2017), OECD Economic Surveys: Argentina 2017: Multi-dimensional Economic Survey, OECD Publishing, Paris, [https://dx.doi.org/10.1787/eco\\_surveys-arg-2017-en](https://dx.doi.org/10.1787/eco_surveys-arg-2017-en).

OECD (2012), Closing the Gender Gap ACT NOW: Brazil Country note, OECD, Paris, France, <http://www.oecd.org/gender/closingthegap.htm>.

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# Competition in the digital age

Laurence Boone, OECD Chief Economist, Chiara Criscuolo, OECD Science and Technology Directorate, and James Mancini, OECD Directorate for Financial and Enterprise Affairs

Digital technologies have the potential to bring huge benefits in terms of productivity, jobs and ultimately living standards. At the same time, consumers will gain access to new, innovative, and cheaper products.

However, for digitalisation to bring benefits to all firms and citizens, we need a healthy competitive environment, which encourages and

diffuses innovation, and helps bring the gains from technology to people.

There is a growing debate in the media and among policymakers about how competition is functioning in digital markets, with a focus on market power, concentration and data protection, among other concerns.

The OECD's analysis is beginning to shed light on this important issue, and develop policy options to harness the benefits of digitalisation.

To start with, let's recall what makes digital markets unique and shapes the business models and competitive dynamics in digital sectors. These characteristics include:

- **Substantial network effects** in platform markets, meaning that as the number of users grows, the value of a platform to users increases.
- **Low variable costs and high fixed costs**, meaning that there are significant economies of scale and scope in digital markets.
- **Data from users playing an increasingly important role** as an input and competitive asset. New firms may find that data constitutes a substantial barrier to entry in digital markets, and consumers may not be fully aware of the data collected when they use online services.

These characteristics can result in a small number of firms holding very high market shares and potentially dominant positions in some digital markets.

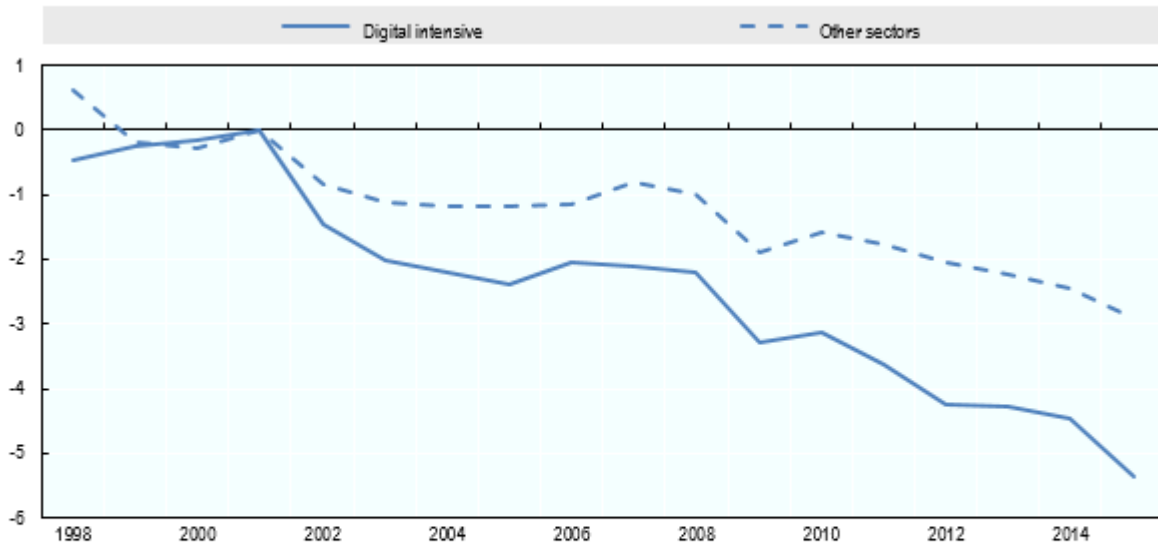
However, it is important to recognise that a firm having a

large share of a given market is not automatically a cause for concern. In fact, it may simply be the reward for having the most innovative ideas, or attracting the highest number of users to increase the usefulness of a digital platform. As long as the large market share is not defended through anticompetitive conduct, and the market is accessible enough for new entrants, the market can function well.

However, there are some signs that markets are becoming less dynamic than before

- First, the OECD and others have found that mark-ups (defined as the ratio of unit price over marginal cost) charged by firms are increasing. This could be an indicator that competitive intensity is weaker than before.
- Second, there is evidence that fewer start-ups are being created, particularly in the digital sector, which also has implications for the entrenchment of large firms, as shown in Figure 1 below.

**Figure 1: Falling firm entry rates**

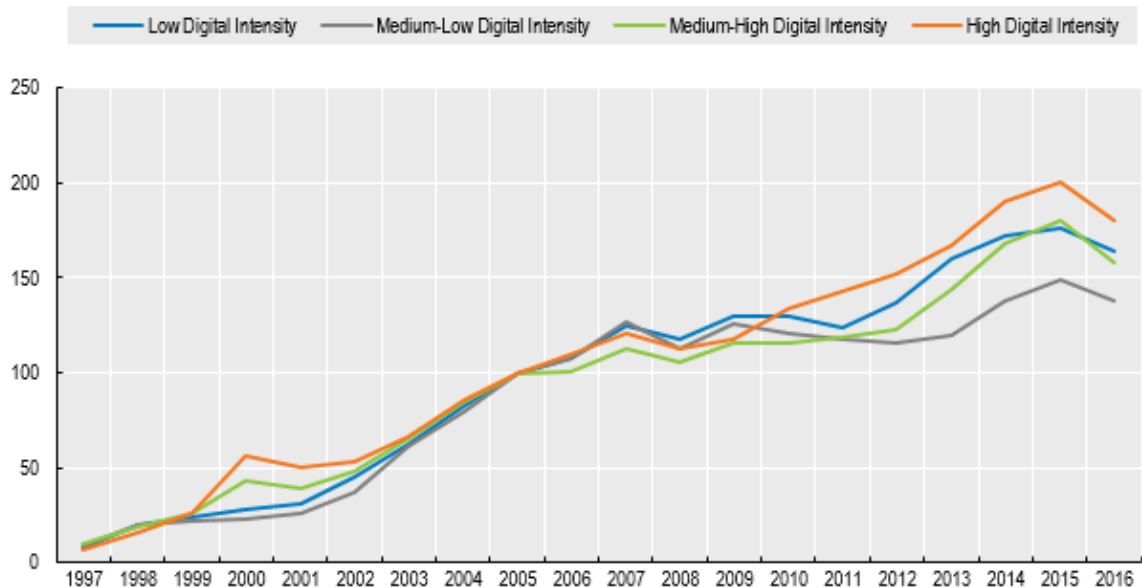


Source: Calvino and Criscuolo (2019) based on the OECD DynEmp3 database

Note: The figure reports average within-country-industry trends based on the year coefficients of regressions within country-sector, with and without interaction with the digital intensity dummy. Digital intensive sectors are reported with a blue line and other sectors with an orange line. The dependent variables is entry rates in panel. Each point represents cumulative change in percentage points since 2001.

- Third, there has been an acceleration of M&A activity that focuses on digital firms (see Figure 2 below). Many mergers can have broadly procompetitive benefits, for example in terms of innovation. But there is concern about transactions involving small start-ups that are not captured by competition authorities, and which may have anticompetitive effects.

**Figure 2: Number of M&As per Year by Digital Intensity of the Target Firm**



*Note: The digital intensity of sectors is defined using the industry of the target firm and the STAN A38 global digital intensity indicator of 2013-15 constructed by (Calvino et al., 2017). The M&A data reflects the annual total number of acquisitions (i.e. result in a majority stake), purchasing minority stakes and issuing of new share capital involving target firms in the non-farm non-financial business sector (i.e. NACE rev.2 codes 10-82, excluding 64-66). Note M&A data has global coverage from 2003 onwards, statistics before that point should be interpreted cautiously.*

*Source: Zephyr M&A database*

- Fourth, there are signs that the largest firms are earning an increasing share of revenues. While revenue concentration is not a very meaningful indicator of competition on its own, in combination with the other evidence above, it may suggest that something is changing about competitive dynamics in markets.

The OECD is working to understand the implications of these findings, especially the role of digitalisation. There is currently no single “smoking gun”, whether technological entry barriers, regulatory distortions to competition, or firm misconduct. A variety of factors may be at play.

In the meantime, policymakers can take

steps to address competition risks in digital markets.

First, there are opportunities to strengthen competition law enforcement. Agencies may need to adjust merger notification thresholds to ensure they capture potentially anticompetitive acquisitions of digital start-ups. They will also require vigilance in assessing merger harms associated with dynamic competition (i.e. effects on potential future competition) and innovation, as well as addressing potential abusive conduct by firms. Ex-post assessments of merger decisions can also help authorities review the analysis and tools used in past cases in order to draw lessons going forward. Authorities may also need additional tools to analyse and detect novel forms of firm misconduct, such as algorithmic collusion.

Second, we need to consider whether current legislative frameworks are themselves contributing to problems regarding digital competition. For example, the OECD is adapting its Competition Assessment Toolkit to assist policymakers in identifying regulatory barriers to competition in digital sectors. The adapted toolkit for digital markets will be released later this year.

Third, new policy solutions may be needed to protect and promote competition in digital markets, such as data portability measures. Such measures could potentially help innovative new firms overcome the barriers to entry associated with data, and empower consumers by reducing switching costs. New business models could emerge that involve paying consumers for their data, allowing them to share in the value generated by their online activities.

Consumer and data protection regulators can also address growing consumer concerns about digital firms while at the same time promoting competition. This can include clarifying the rights consumers have, and ensuring that they are given meaningful opportunities to exercise those rights through fair contracting standards and default options

Fourth, competition authorities can strengthen cooperation with international counterparts given the global scale of many digital businesses. Investigation and advocacy cooperation is also needed with consumer protection and data protection authorities, who may be dealing with overlapping concerns. The OECD has a range of resources for competition authorities on emerging digital competition issues, assessing their past decisions, and using non-enforcement tools.

More broadly, policymakers must ensure that the fundamentals are in place for new businesses to succeed, namely by ensuring the right skills mix in the economy, keeping administrative burdens to a minimum, and promoting broadband internet access.

OECD will be jointly hosting with the French Ministry of the Economy and Finance, and the French Autorité de la concurrence, a conference exploring many of these issues on June 3, 2019. The conference, Competition in the Digital Economy, will be webcast, and available to watch during and after the event [here](#).



## Further reading

Bajgar, M., et al. (2019), "Industry Concentration in Europe and North America", *OECD Productivity Working Papers*, No. 18, OECD Publishing, Paris, <https://doi.org/10.1787/2ff98246-en>.

Calvino, F. and C. Criscuolo (2019), "Business dynamics and digitalisation", *OECD Science, Technology and Industry Policy Papers*, No. 62, OECD Publishing, Paris, <https://doi.org/10.1787/6e0b011a-en>.

More resources on the digital economy, innovation and competition

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# Boosting export performance in Chile

by Antoine Goujard, Chile Desk, Economics Department

**Chile's export growth has disappointed over the past two decades.** In particular, exports of goods and services – in volume – have only grown at 1.1% annually over 2009-17 and at around 2.0% for non-copper products and services, compared to 4.2% in the average Latin American country (Panels A and B).

**Chile's weak export performance reveals structural weaknesses.** Beyond copper and copper-related products that are highly dependent on external demand, export growth has been weak in manufacturing and services sectors. At the same time, with low investment in innovation and skills, productivity gains have stalled (Panel C). Exports remain mostly natural-resource based (Panel D) and highly concentrated across products, firms and destinations, with SMEs participating little in

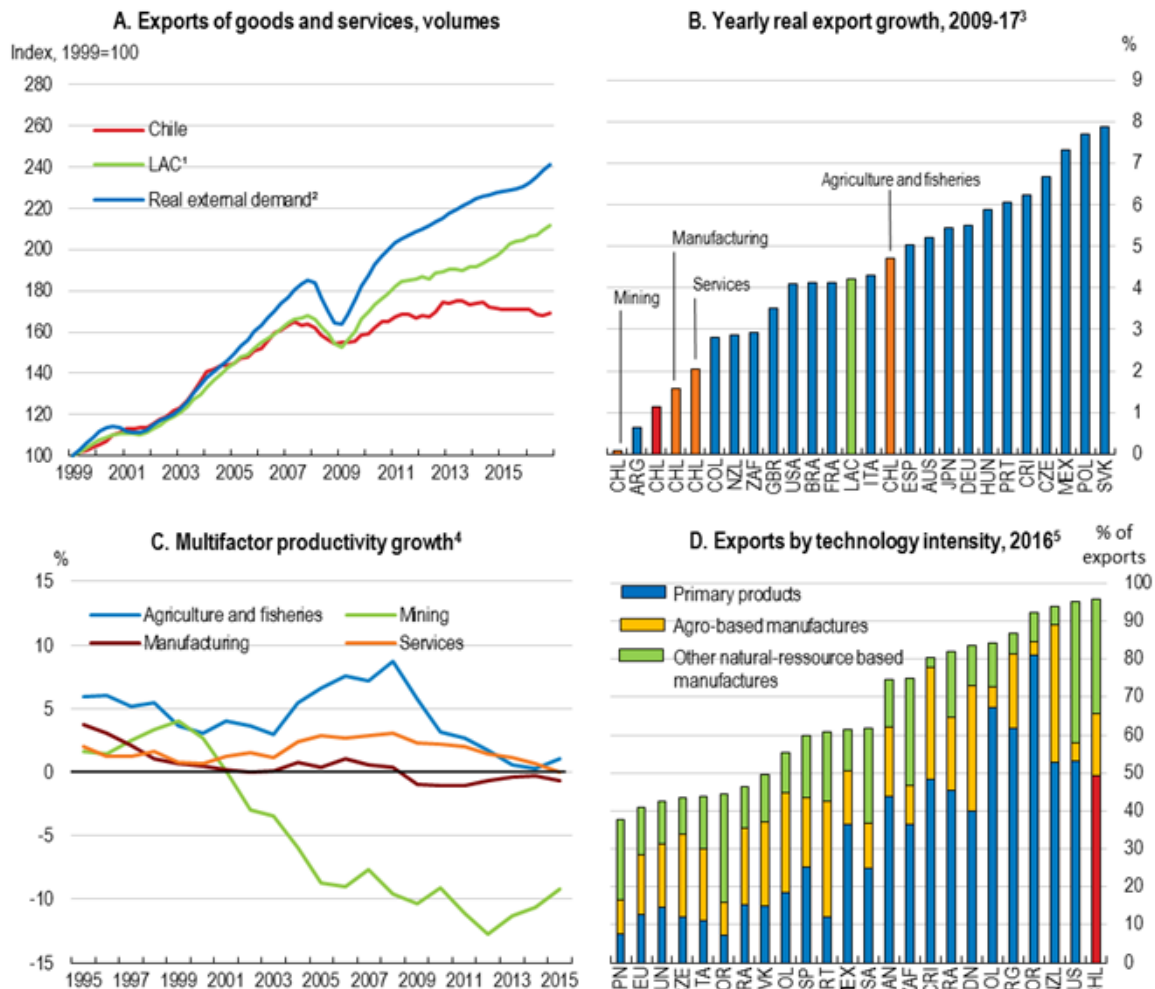
international trade.

**To enhance inclusive growth potential decisive policy efforts are needed to improve productivity and competitiveness, and broaden the export base.** The 2018 OECD Economic Survey shows that while the implementation of the 2014-18 Productivity Agenda and measures to raise the efficiency of electricity markets have been positive steps, more efforts are needed to raise productivity in four key areas:

1. **Strengthening competition.** Perceived market dominance that tends to reduce efficiency and raise rents, is among the worst in the OECD. Competition is limited in key sectors, such as telecommunications, maritime services and railways. The recent strengthening of the competition framework is welcome, but systematic reviews of competitive pressures are needed. Moreover, the guidelines issued by the OECD (2016b) should be used to review existing regulations from a competition perspective according to a set schedule, and pro-competitive and streamlining measures should be implemented rapidly.
2. **Simplifying the business environment.** Administrative procedures, such as licenses and permits, are burdensome, notably for smaller and younger firms complicating entry of new businesses. Streamlining unnecessary and complex regulations would allow substantial productivity gains. Improving the digital procedures for firms (*Escritorio Empresa*), and focusing on ex-post controls for businesses that have low associated sanitary and environmental risks, would ease firm creation and growth. On the trade side, simplifying regulations of preferential trade agreements would help SMEs to go global. Going forward, the regulatory process should build on all stakeholders and strengthened ex-ante and ex post evaluations such as the new productivity assessments (OECD, 2016a).

3. **Increasing innovation and skills.** Business investment in R&D and innovation is particularly weak, while entrepreneurial and managing skills are low and unequal. Increasing public support for R&D and innovation, and strengthening its evaluation, would help develop public-private links and ease R&D financing for SMEs. Additional technical assistance and mentoring for young and smaller firms, building on the recent *Centros de Desarrollo de Negocios*, would also support firm growth, innovation and access to export markets.
4. **Improving logistic and digital infrastructure.** Investment in intermodal connections, railways and digital networks is needed to bridge connectedness gaps (OECD, 2017b). Developing national and local infrastructure strategies, integrating the regulation of public and private ports and better accounting for environmental damages in transport taxes and road pricing would ensure money is well spent. Fully integrating the single window mechanism for exports and imports (*SICEX*) with the domestic logistic infrastructure and with regional partners would deliver significant synergies and gains for exports.

## Chile's export performance has broadly disappointed



1. LAC is the unweighted average of Argentina, Brazil, Colombia, Costa Rica and Mexico.

2. Export markets' growth for goods and services, in volume terms (unweighted average of Argentina, Brazil, Chile, Colombia, Costa Rica and Mexico with export market shares as of 2010).

3. Annualised growth between 2009 and the last four available quarters.

4. Five-year moving average. Multi-factor Productivity is adjusted for human capital and hours of work (CNP, 2017).

5. According to Lall (2000)'s classification.

Source: OECD (2017), Economic Outlook 102 Database; Central Bank of Chile (2017), Statistical Database; CNP (2017), *Informe de Productividad Anual 2016*, Comisión Nacional de Productividad and OECD calculations. OECD calculations based on CEPII (2017), BACI Database and World Bank (2017), World Development Indicators; Comtrade Database and Lall, S. (2000), "The technological structure and performance of

## Find out more:

OECD (2018), *OECD Economic Surveys: Chile 2018*, OECD Publishing.

OECD (2017a), *OECD Economic Outlook (November 2017)*, OECD Publishing.

OECD (2017b), *Infrastructure Governance Review: Chile – Gaps and governance standards of public infrastructure*, OECD publishing.

OECD (2016a), *OECD Reviews of Regulatory Reform – Regulatory Policy in Chile, Government Capacity to Ensure High –Quality Regulation*, OECD Publishing.

OECD (2016b), *Competition Assessment Toolkit – Volume I: Principles*, OECD Publishing.

Goujard, A. (2018), “Boosting export performance in Chile”, *OECD Economics Department Working Papers*, forthcoming, OECD Publishing.

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# **Will the inflation genie escape the bottle? New evidence on globalisation, competition and inflation**

By Dan Andrews, Peter Gal and William Witheridge, Economics Department

Markets and commentators are speculating that there may be a sustained pick-up in inflation in the United States, after years of subdued price pressures. Along with continued solid US jobs growth and low unemployment, there are tentative signs of higher wage growth and the fiscal stimulus will also boost short-term growth. Global growth is also getting stronger (OECD, 2018a).

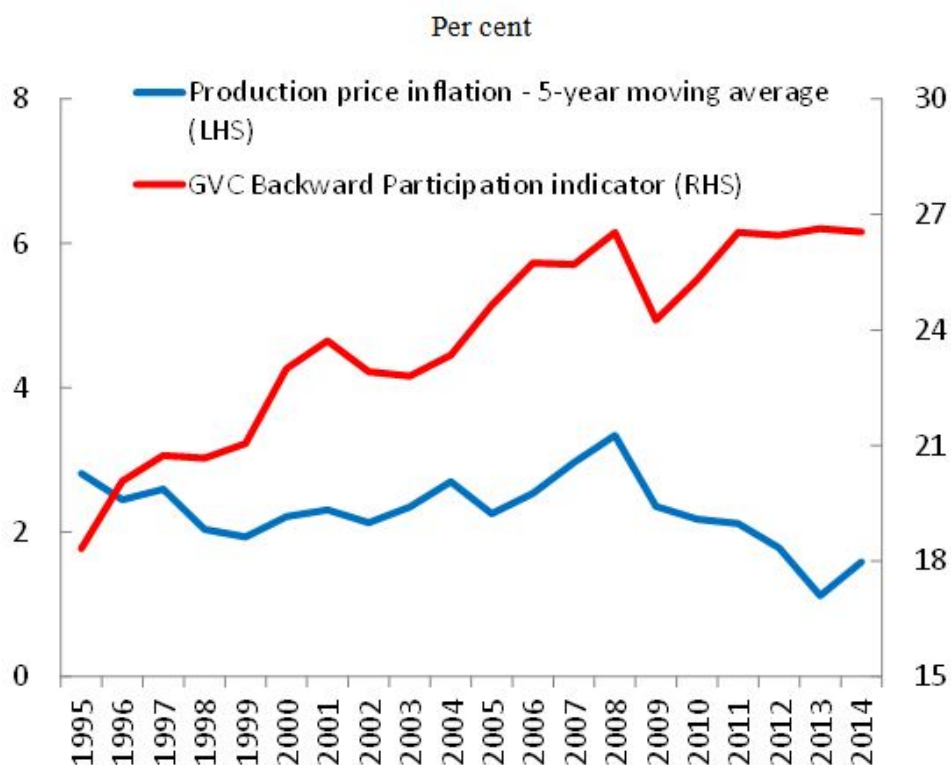
As well as these recent developments, longer-term worldwide trends which have kept inflation generally low since the mid-1990s may also be reversing. In particular, globalisation appears to have stalled since the crisis, aggregate demand in

strengthening and output gaps have closed or are generally close to zero in most major countries. Moreover, there is mounting evidence of rising market power in services sectors. Together, these trends risk letting the inflation genie out of the bottle.

Declining inflation in many countries over the past few decades at the same time as rising global competition has led to a debate on the importance of globalisation for domestic inflation. Auer, Borio and Filardo (2017) at the BIS have argued that rising GVC integration has accentuated the importance of global factors – particularly global economic slack – for domestic inflation. However, recent research at the ECB (Tagliabracci, Osbat and Koester, forthcoming) and at the US Federal Reserve (Yellen, 2017) has disputed this conjecture.

Figure 1 shows that global value chain (GVC) integration expanded significantly from 1995 until the crisis, while inflation remained relatively subdued. In the post-crisis period, GVCs flattened off and remained around the pre-crisis peak, while producer price inflation has fallen dramatically and remains very low on average across industries for our sample of countries.\*

**Figure 1. Global value chains and inflation**

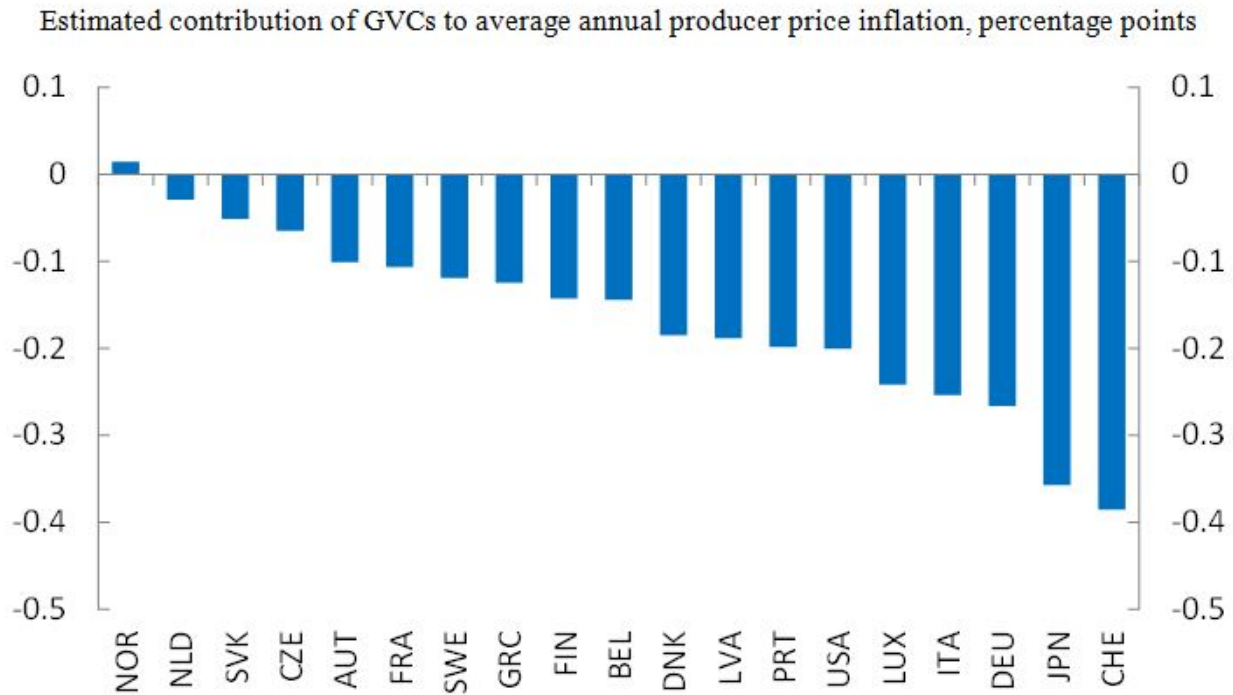


*Note:* Unweighted averages across all country-industry cells where data are available. Backward participation in GVCs is the foreign value added share of a sector's gross exports.

*Source:* Andrews, Gal and Witheridge (2018) based on OECD STructural ANalysis (STAN) database; OECD Trade in Value-Added (TiVA) database; OECD TiVA Nowcast; and authors' calculations.

Motivated by this pattern, our new analysis of prices and globalisation (Andrews, Gal and Witheridge, 2018) goes beyond existing research by using recently released cross-country OECD data on prices and GVCs by industry, rather than at the country level, which allow us to control for time-varying country-specific and global shocks. We find that stronger Backward GVC Participation – that is, domestic producers relying more on foreign value added content – is associated with lower producer price inflation at the industry level. For example, we estimate that the rise in GVCs from the mid-1990s up to the crisis reduced annual producer price inflation by 0.15 percentage points on average, but this effect is more than double in some OECD countries (Figure 2).

**Figure 2. Impact of GVC expansion on inflation over 1996-2008**



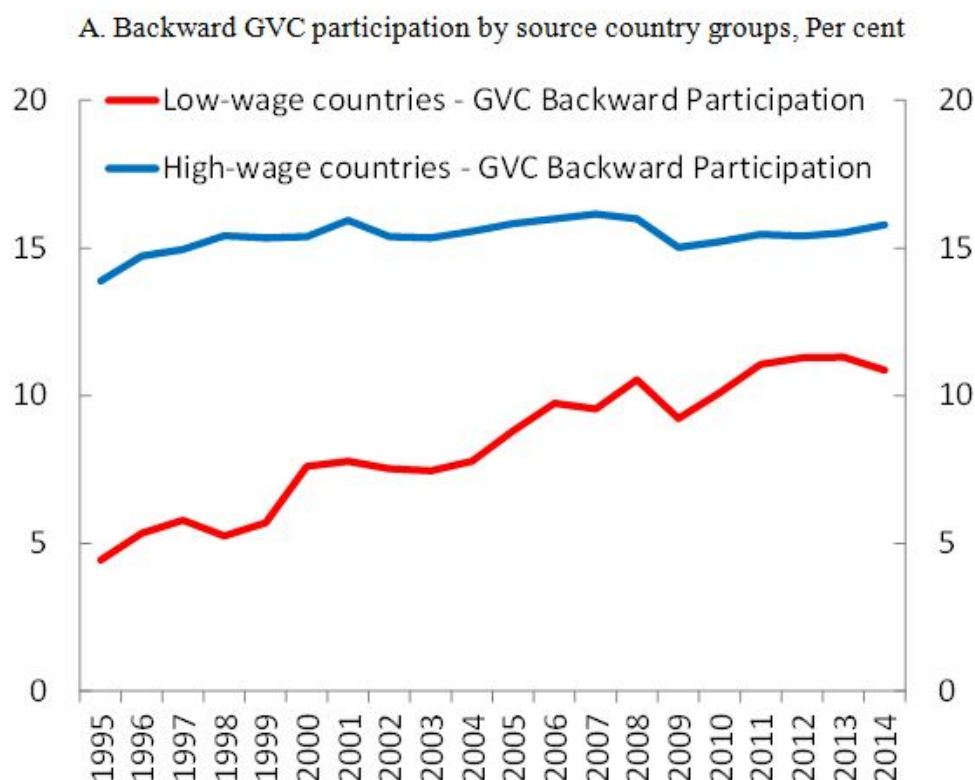
*Note:* The figure shows the annual change in producer price inflation based on the change in the production deflator that is explained by rising GVCs using the coefficient estimate in column 1 of Table 1. The estimates are the unweighted averages over industries in each country from 1996 to 2008. MEX, POL and SVN not shown as data on GVCs are not available for 1996.

*Source:* Andrews, Gal and Witheridge (2018) based on calculations using estimation results and the OECD Trade in Value-Added (TiVA) database.

Confirming the existence of a cost-reduction and wage moderation channel, we also show that higher backward GVC participation is associated with lower wages and rising productivity in the importing countries and industries, especially when low-wage countries are integrated in their supply chains. This channel is likely to have contributed to lower inflation in recent years as the structure of the source (i.e. supplying) countries in GVCs has moved increasingly towards low-wage countries (Figure 3), despite a stall in the overall level of GVC integration (Figure 1). Therefore, inflation in advanced economies could remain low if the composition of GVCs continues to shift towards low-wage countries.



**Figure 3. Countries with lower wages have been contributing more and more to GVCs**



*Note:* “High-wage countries” are those that are part of the EU-15 (EU members prior to 2004) plus Australia, Canada, Japan, New Zealand, Norway, Switzerland and the United States; “Low-wage countries” are all other countries in the TiVA database. Unweighted average across all country-industry cells where data are available. Backward participation in GVCs is the foreign value added share of a sector’s gross exports.

*Source:* Andrews, Gal and Witheridge (2018) based on OECD Trade in Value-Added (TiVA) database; OECD TiVA Nowcast; and authors’ calculations.

Moreover, we find that a high level of GVC integration can also dampen producer price inflation by accentuating the impact of global economic slack on domestic inflation. This provides new industry-level evidence to support the finding of Auer et al (2017) who use aggregate data covering the pre-crisis period. We show this by using a similar approach combining bilateral industry-level GVC and national output gap data to measure changes in global slack over time.

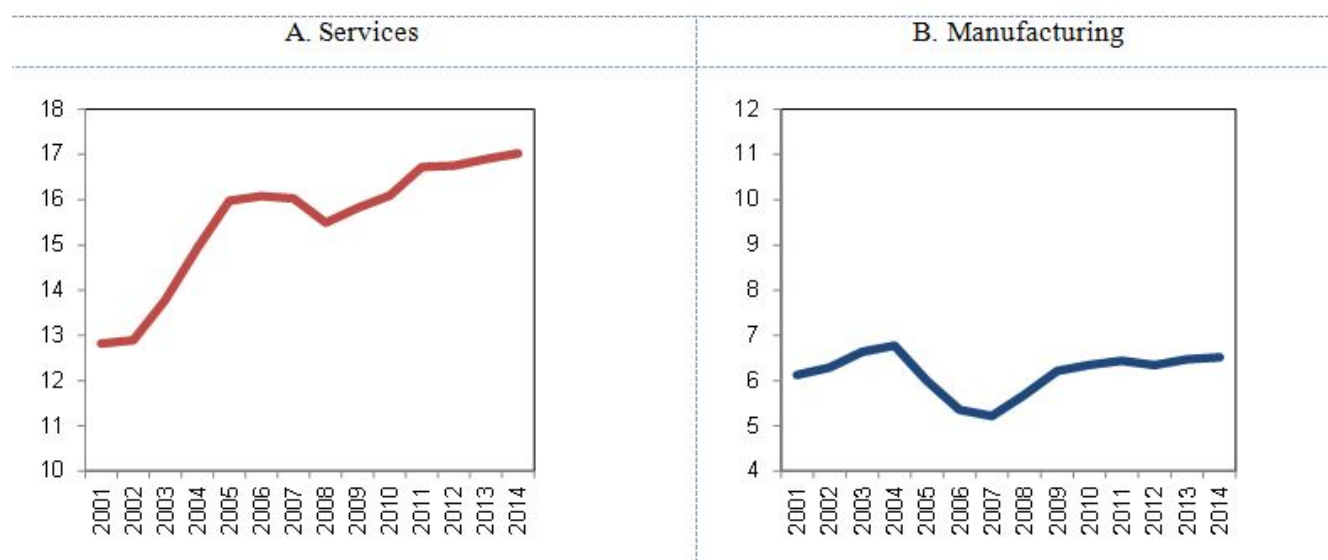
This implies that weak global demand has a larger disinflationary impact when GVC participation is higher. For example, given our sample of countries facing an average global output gap of -1.5 per cent in 2014, we estimate that annual producer price inflation was on average 0.25 percentage points lower in 2014 than for 1996 GVC levels. This figure is more than 0.5 percentage points, however, for countries that

experienced a particularly large rise in GVC participation. But with slowing expansion of GVCs since the crisis, coupled with stronger aggregate demand and output gaps closing in most countries, this could lead to greater inflationary pressures in the medium term.

The third longer-term trend posing an upside risk to inflation is declining competition and market contestability. We exploit harmonised cross-country firm-level data to show an increasing trend in mark-ups, which suggests rising market power in services sectors (Figure 4). This upward trend in mark-ups is consistent with other estimates for the United States (De Loecker and Eeckhout, 2017) and other OECD countries (Calligaris et al, 2018). In turn, in these market services sectors we find a significant positive correlation between producer price inflation and mark-ups within industries since the early 2000s. This leads us to conjecture that if market power continues to rise it may pose a further risk to letting the inflation genie out of the bottle.

**Figure 4. Mark-ups are on the rise in services**

Estimated firm-level mark-ups averaged across broad sectors and countries, percentage points



*Note:* The figure shows the 3-year moving average of size-weighted mark-ups aggregate to the 2-digit sector for each country and year, and then averaged across them by two sector-groups, manufacturing and non-financial business services.

*Source:* Andrews, Gal and Witheridge (2018) based on calculations using the Orbis database of Bureau van Dijk.

This analysis suggests that the expansion of GVCs facilitated

by trade liberalisation and advances in technology has put downward pressure on producer prices, with potential implications for monetary policy. Looking forward, a continuation of the stalling globalisation observed since the crisis poses an upside risk to future inflation. This provides a further reason to resist the rising threat of trade protectionism in the global economy.

In addition, if more intense competition in product and labour markets contributed to global disinflation in over recent decades (Rogoff, 2003), then it follows that waning structural reform ambition (OECD, 2018b) – against the backdrop of strengthening global growth – could lead to inflationary pressures. Given the growing importance of ICT-based activities in the economy, as well as evidence of increasing market power in those industries, policy efforts to adapt anti-trust and pro-competitive market regulations to the digital age will not only bring benefits to long-run productivity growth but will also be desirable from a monetary policy perspective.

## **References:**

Andrews, D., P. Gal and W. Witheridge (2018), “A Genie in a Bottle? Globalisation, Competition and Inflation”, *OECD Economics Department Working Papers*, No. 1462.

Auer, R., C. Borio and A. Filardo (2017), “The globalisation of inflation: The growing importance of global value chains”, *BIS Working Papers*, No. 602, January.

Calligaris, S., C. Criscuolo and L. Marcolini (2018), “Digital and market transformations”, *OECD Science, technology and industry working papers*, *forthcoming*.

De Loecker, J. and J. Eeckhout (2017), “The Rise of Market Power and the Macroeconomic Implications”, *NBER Working Papers* No. 23687.

\* The sample of countries are: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Italy, Japan, Luxembourg, Latvia, Mexico, Netherlands, Norway, Poland, Portugal, Slovenia, Slovak Republic, Sweden, Switzerland and the United States.

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# Unleashing private sector productivity in the United States

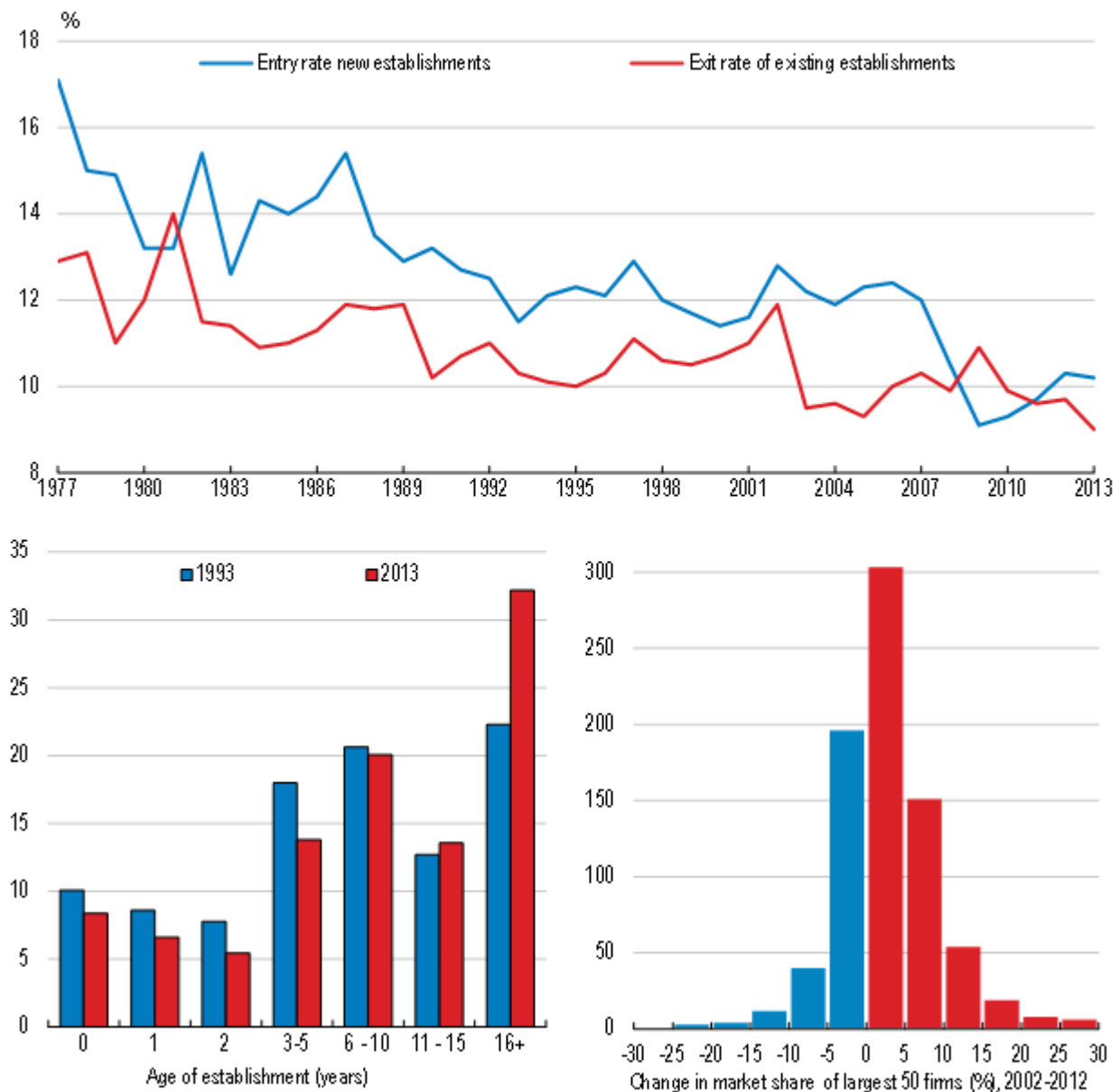
By Douglas Sutherland, Head of the United States Desk, OECD Economics Department

With the global economy mired in low- growth and no signs of strong acceleration, a lot of attention has been paid to the meagre pace of productivity growth in OECD countries. In the United States, the most watched indicator of productivity (nonfarm business productivity growth) decelerated about  $\frac{3}{4}$  percentage point from 2009 to 2014 relative to the preceding 5-year period. This is not just the result of the crisis holding back investment. Productivity growth had already been slowing from the early 2000s.

Economic research reveals competitive markets stimulate productivity: faced with competitors, firms survive by becoming more efficient and bringing new products to the market. Competitive markets see a lot of firm entry and exit. However, this dynamism has declined: new firms are not being created as frequently as in the past (See figure, top panel) and the most productive of these firms are not growing as fast as they once did. This matters because advances in productivity typically result from the rapid growth of young

dynamic firms. Instead, start-ups appear to be failing more often and the remaining firms are getting older with larger firms increasingly dominating markets (See figure, bottom panels).

Business dynamism is slowing, firms are ageing and market concentration is rising



Source: Census Bureau, Bureau of Economic Analysis.

When this happens, markets become more concentrated, with large incumbent firms gaining market power. This has many disadvantages because gains in productivity are not being passed onto consumers in lower prices or to workers in higher wages. Faced with these worrying trends, competition/antitrust

policy needs to adapt. This is particularly the case in markets transformed by digitalisation, financial innovation and globalisation – such as e-commerce and those dependent on access to information. The decline in business dynamism sometimes comes from barriers to competition being erected by the States. For example, state-level prohibitions on municipalities creating their own fixed broadband networks have hindered the development of stronger competition in this sector. In other cases, States have blunted competitive pressure through imposing state-specific occupational licensing requirements.

Amongst other factors, changes to bankruptcy laws have also contributed to more sluggish business formation. Reforms in 2005 increased the cost of bankruptcy for failed entrepreneurs and made it more difficult for them to try again (see the recent Ecoscope blog on the importance of this for productivity growth). The reforms appear to have stymied the creation of sole proprietorships and partnership, particularly in States that do not exempt some of the entrepreneur's assets from bankruptcy proceedings. Given the importance of bankruptcy for long-run prospects, a better balance needs to be struck between supporting entrepreneurship and creditor rights.

#### References:

Millar, Jonathan and Douglas Sutherland (2016), "Unleashing private sector productivity in the United States", OECD Economics Department Working Paper no. 1328.

OECD (2016), Economic Surveys: United States 2016, OECD Publishing, Paris.

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# What do pro-competitive policies imply for workers?

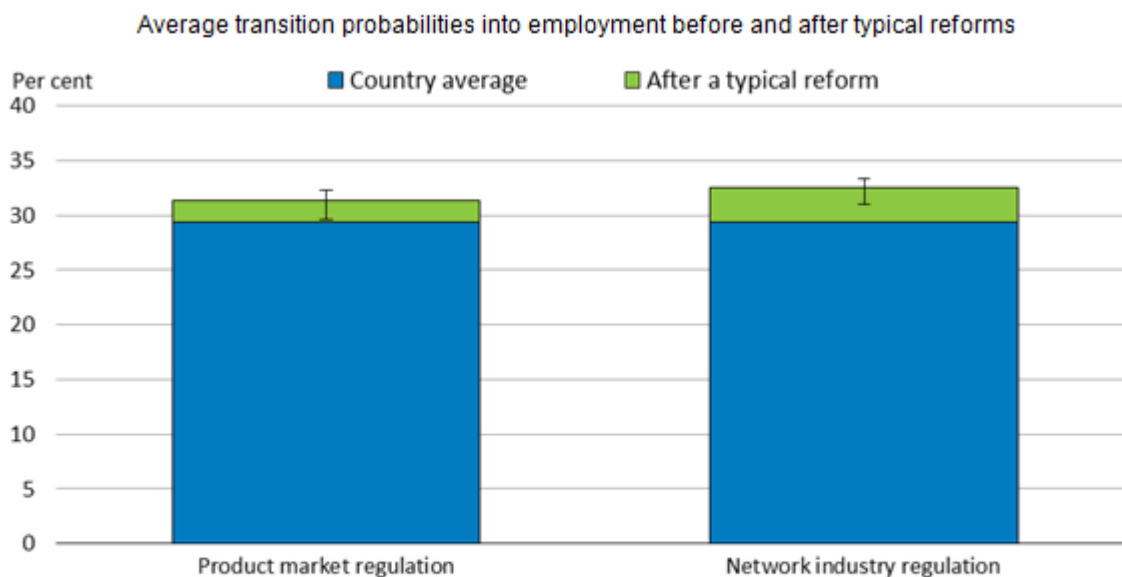
By Boris Cournede, Senior Economist, Public Economics Division, OECD Economics Department

Reforms that make economies more competitive have become a polarising subject. On one side, they are well established as a core staple of reform programmes: they are known to boost growth. On the opposite side, they often come up as lightning rods for criticism, as some perceive that such reforms make life more difficult for workers. And some people may lose from such reforms.

What do the data say? And what can economic policy makers do to achieve better results? The OECD has gathered, harmonised and probed micro-level data covering individual households in 26 countries over the past two decades to answer these questions.

A key conclusion is that reforms that improve competition in goods and services markets generally boost job-finding chances for people out of work (Figure 1). At the same time, they do not increase job-loss rates much, so that overall they have a small but positive net effect on employment. This micro-level finding that pro-competition reforms boost employment corroborates previous OECD and other research identified at the macro level: such confluence of different studies using different methods is reassuring about the robustness of the conclusion.

**Figure 1. The chances to become employed are higher after reforms easing product market regulation**



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

Note: The blue bars indicate the average rate across 26 OECD countries. The green bars indicate the estimated impacts of typical flexibility-enhancing reforms. For the measurement of typical reforms, see Box 2 in Cournède, Denk and Garda (2016). The effects are estimated using micro-level data over 1994-2012. Vertical segments show 90% confidence bands.

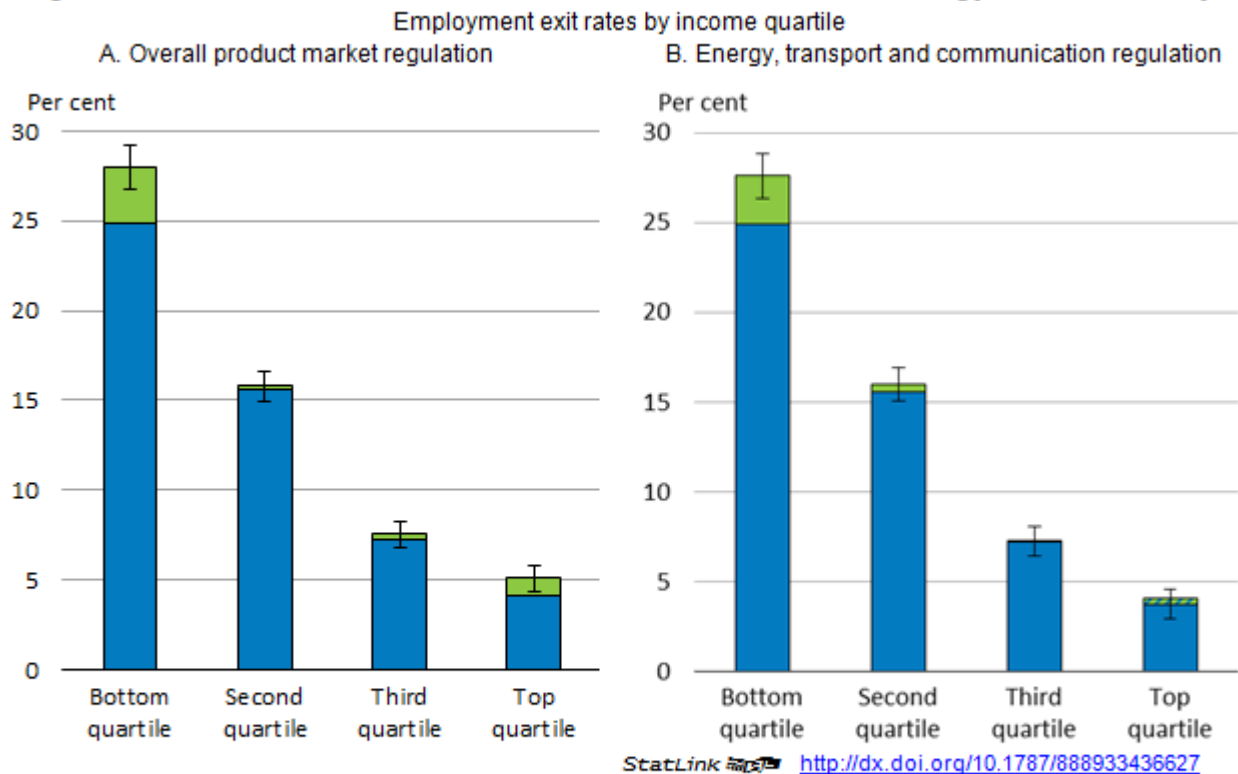
Source: Cournède, B., O. Denk, P. Garda and P. Hoeller (2016), "Enhancing Economic Flexibility: What is In It for Workers?", *OECD Economic Policy Papers*, No. 19, OECD Publishing.

Effects differ a lot across different people. The job-finding benefits of more competitive markets accrue primarily to young workers and women. More competitive markets leave jobless men's chances to find jobs essentially unchanged.

More competitive markets imply a greater number of job exits for workers who are less qualified or more generally have low earnings capacity (Figure 2). This effect adds to a starting point where, in the absence of reform, low-income workers already face a much higher risk than others to become unemployed or quit the labour market altogether. However, job-finding probabilities also rise, leaving employment unchanged for low-income workers. In other words, more competitive markets imply that low-income workers face higher labour market rotation, with more frequent but shorter spells out of employment, for unchanged average employment prospects over time.



**Figure 2. Product market reforms increase low-income workers' risk of becoming jobless considerably**



*Note:* The blue bars indicate the average rate across 26 OECD countries. The green bars indicate the impact of a typical product market reform (see Box 2 of Cournède, Denk and Garda, 2016). 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 over 1994-2012.

*Source:* Cournède, B., O. Denk, P. Garda and P. Hoeller (2016), "Enhancing Economic Flexibility: What is In It for Workers?", *OECD Economic Policy Papers*, No. 19, OECD Publishing.

The greater labour market instability that pro-competition reforms generate for low-income workers calls for ensuring that employment assistance programmes reach them and are effective. These programmes are particularly helpful when they develop vulnerable workers' employability in all situations: this can be done by allowing vulnerable programmes to tap active employment assistance programmes not only when they are unemployed but also when they work or are out of the labour force.

The OECD inquiry into the effects of flexibility-enhancing reforms on workers also delved into labour market reforms, the influence of other policies and specific impacts on workers employed in reformed sectors. These areas have important policy implications that forthcoming blog posts will outline.

## References

Cournède, B., O. Denk, P. Garda and P. Hoeller (2016),

“Enhancing Economic Flexibility: What is in it for Workers?”, *OECD Economic Policy Papers*, No. 19, OECD Publishing.

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.

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

Garda, P. (2016), “The Ins and Outs of Employment in 25 OECD Countries”, *OECD Economics Department Working Papers*, No. 1350, OECD Publishing.

Boeri, T., P. Cahuc and A. Zylberberg (2015), “The Costs of Flexibility-Enhancing Structural Reforms: A Literature Review”, *OECD Economics Department Working Papers*, No. 1227, OECD Publishing.

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## Product market reforms under the microscope

by Alexander Hijzen, Senior Economist, Directorate for Employment, Labour and Social Affairs, OECD and Peter N. Gal, Economist, Economics Department, OECD

Given the secular decline in productivity growth and the persistent weakness of the economic recovery in many advanced economies, increased attention is being paid to the potential role of structural reforms for restoring economic growth. While structural reforms concern many policy areas (e.g.

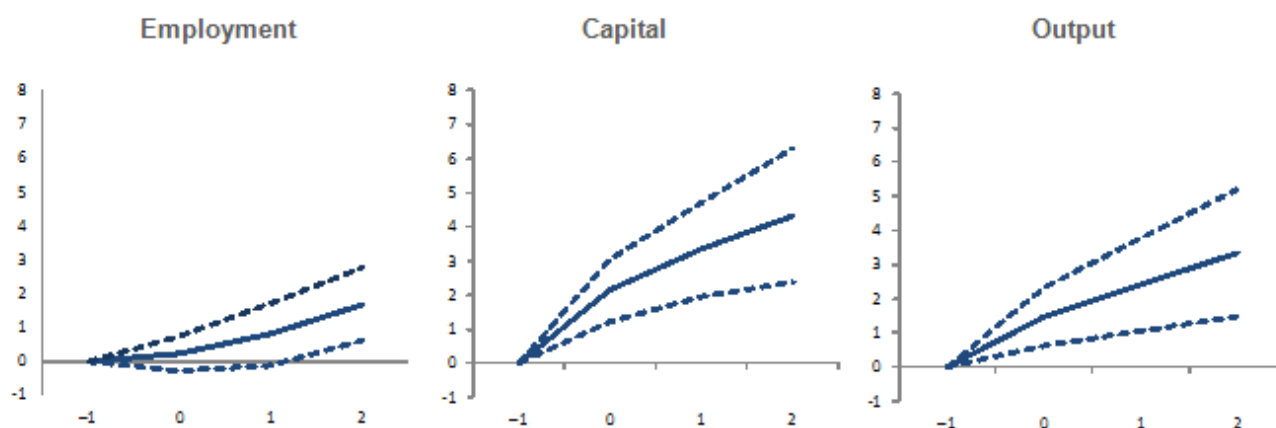
banking supervision, property right laws and employment-protection rules), product market regulation (PMR) feature particularly prominently on the agenda of many advanced economies (OECD, 2015). Understanding the dynamics effects of reforms in this area may provide important insights with respect to the way such reforms are designed, the political economy of reforms and the potential need for complementary policies. In a recent paper (Gal and Hijzen, 2016), we attempt to open up the black box of pro-competition product market reforms by providing a comprehensive analysis of their short-term impacts across firms that differ in terms of the main sector in which they operate, the size of their operations and their financial health.

Our main findings on the impacts of major product market reforms are as follows:

- *First, the short-term, firm-level effects of reducing regulatory barriers to product market competition are positive and strengthen over time (Figure 1). The effects are immediate for both output and investment, and increase further to 4% and 3% respectively after two years. The effects for employment are considerably smaller and only materialize after two years.*

**Figure 1. The short-term effects of product market reforms on incumbent firms**

Percentage change in the outcome variable of interest in years after the reform

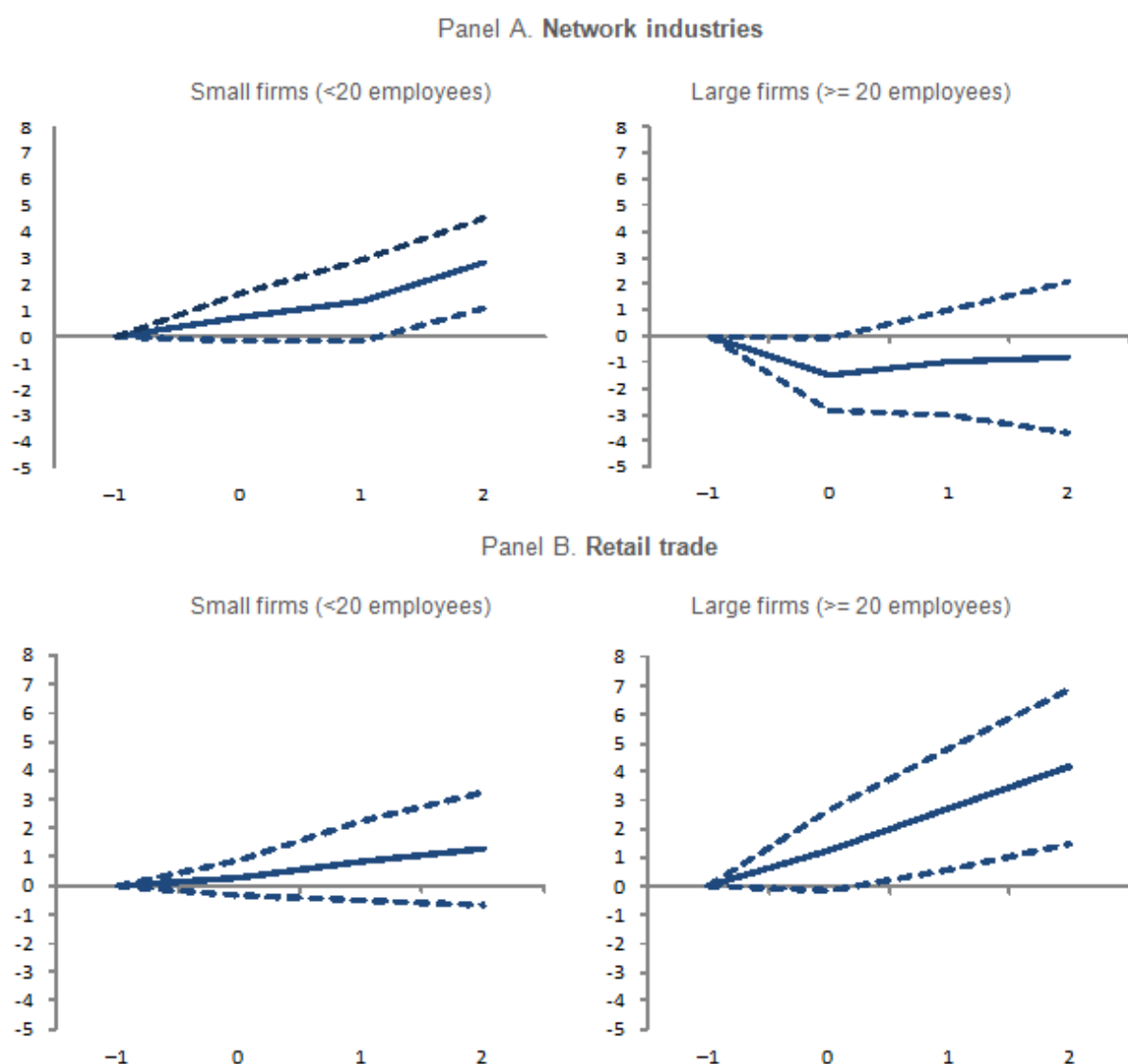


Solid lines represent impulse response functions based on the estimated coefficients of major product market reforms; dashed lines represent 90% confidence intervals. Major reforms are defined to be those that correspond to absolute changes in the extended OECD PMR indicator larger than 0.5, which roughly capture the 5% most intensive changes. See Gal and Hijzen (2016) for details.

- *Second, there are systematic and plausible differences in the effects of reforms across firms of different sizes across different industries (Figure 2). More specifically, in network industries, small firms tend to benefit most from pro-competitive product market reforms, while larger ones downsize to reduce costs and maintain market shares. By contrast, in retail trade, large and potentially more efficient firms tend to benefit more from such reforms.*

**Figure 2. The short-term effects of product market reforms on incumbent firms**

Percentage change in employment in years after the reform



Solid lines represent impulse response functions based on the estimated coefficients; dashed lines represent 90% confidence intervals. See Gal and Hijzen (2016) for details.

- *Third, financial difficulties faced by firms weaken the*

*short-term impact of product market reforms on investment.* These findings highlight the importance of addressing the problem of weak bank balance sheets when considering product market reforms, and points to the complementary role of financial sector reform more generally. This is particularly relevant in those countries where the flow of credit is still weak and the case for product market reform is relatively strong (e.g. some countries in Southern Europe).

In sum, the present findings confirm the positive effects of pro-competitive product market reforms on economic performance in the medium to longer term, while also providing rich new insights on the way the effects of such reforms materialize over time across different types of firms. More specifically, these findings help to understand why it can be difficult to implement product market reforms in certain sectors, but less so in others. For example, the pace of product market reforms could be slowed down in network industries since large incumbent firms have a tendency to lose out in terms of jobs and profitability. The tendency of financial difficulties to mitigate the impact of product market reforms on investment may also suggest that the effects of product market reforms materialize more slowly in times when the economy is depressed and credit is hard to get by.

These insights can be used to enhance the design of product market reforms and to motivate the need for complementary measures to promote aggregate demand, restore bank balance sheets and to alleviate the social cost of adjustment (IMF, 2016; OECD, 2016).

## **References**

Gal, P. N. and A. Hijzen (2016), "The Short-Term Impact of Product Market Reforms : A cross-country firm-level analysis", *OECD Economics Department Working Papers No. 1311*.  
Also appeared as *IMF Working Paper No. 16/116*.

IMF (2016), *World Economic Outlook*, Chapter 3, April, International Monetary Fund, Washington, D.C.

OECD (2015), *Economic Policy Reforms: Going for Growth*, Organization for Economic Cooperation and Development, Paris.

OECD (2016), "Short-term labour market effects of structural reforms: Pain before the gain?", in *OECD Employment Outlook 2016*, OECD Publishing, Paris.

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# Structural reforms in a difficult time

By Naomitsu Yashiro,  
Structural Surveillance Division, OECD Economics Department

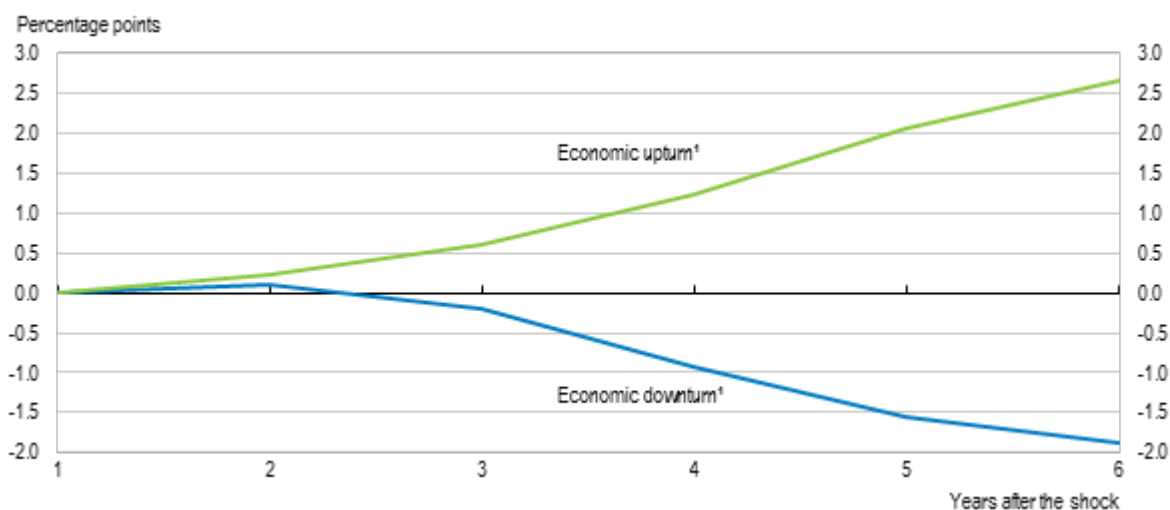
The pace of structural reforms is slowing just when the world economy needs decisive policy actions to strengthen fundamentals and restore healthy growth (the 2016 *Going for Growth* report). Policy makers may be concerned that introducing structural reforms in the current context involve trade-offs between the mid- to long-run gains in employment and productivity and short-run losses.

In our recent paper (Caldera Sánchez, de Serres and Yashiro, 2016), we note that when the economy is near its potential, and confidence among consumers and investors is high, gains from growth-enhancing reforms have been found to exceed potential losses even in the short run, as demand increases on the anticipation of the future benefits. However, the short-term impact of reforms may be less favourable when they are introduced in difficult macroeconomic conditions, as several factors may prevent a pick-up in demand. In some

circumstances, specific reforms may even entail short-term reductions in demand.

There are several conflicting channels through which reforms affect the real economy. The strength of the channel can change under different macroeconomic conditions. Take reforms of unemployment benefits that aim to improve work incentives by strengthening the conditionality of income support in the case of a lay-off on intensive job-search efforts. By facilitating the return to work, such reforms raise employment, household income and thus consumption. However, uncertainty regarding disposable income also increases, potentially discouraging consumption. In good times, employment gains can be quick, so that output increases within 2-3 years after reforms. But during recessions when the unemployed are less likely to find jobs the gains in employment can even turn negative (See figure).

### **The gains in employment of an unemployment benefit reform can turn negative during a downturn**



**Note:** The lower (upper) line corresponds to the impact of the reduction in the initial unemployment benefit replacement rate during economic downturn (upturn), where the economic cycle is measured through the level of the pre-reform unemployment gap

(i.e. the difference between the structural unemployment rate and the unemployment rate). The economic downturn (upturn) corresponds to the case where unemployment gap is set to the minimum (maximum) value within the sample.

**Source: Bouis et al. (2012).**

Other reforms that seek to restore competitiveness through lower relative costs and prices can also depress demand if conducted during downturns. This is because in bad times labour and goods demand respond little to the lower wages and product prices resulting from reforms, while workers or firms see their income and profit eroded in the short term. Ideally, governments can deploy expansionary fiscal policies or monetary policies to support demand. But, in some cases, macro policies may also be constrained, as has been the case for several countries in the past few years. Strong external demand can help to bring forward the benefits of reforms as well. For instance, our review of case studies suggests that Canada's labour market reforms around the mid-1990s benefited from strong demand from the United States. This supported the gains in employment following the reforms.

Even under limited supports from fiscal and monetary policies or external demand, a smart packaging or sequencing of reforms can alleviate the negative short-run impacts on demand: (1) reforms of labour and product markets can be conducted in tandem, so that the lower prices from stronger competition limit the impact of labour market reforms on real wages; (2) addressing dysfunctions in the financial sector as early as possible can improve access to credit and allow households and firms to capitalise on the future benefits of reforms and expand consumption and investment today; (3) reducing policy uncertainty through well-communicated, credible reform strategies can prevent the deterioration of confidence among business and consumers.

Many reforms can boost demand by themselves even during difficult macroeconomic conditions. For instance, measures



aimed at raising investment in knowledge-based capital, including through infrastructure spending, as well as tax structure reforms can bring short benefits. Also, reducing regulatory barriers to entry in services sectors with large pent-up demand and relatively low entry costs (like professional services or taxis) can boost business expansion and employment relatively quickly. Similarly, reducing barriers to geographic or jobs mobility can increase the speed of employment gains in difficult times. Strengthening active labour market policies and to alleviate skill shortages and mismatch can unleash business activities that were previously constrained by skills bottlenecks. Reforms that contribute to the long-term sustainability of public finance and to the cost-effectiveness of healthcare or pension systems can reduce uncertainties on household's future income, thereby boosting consumption today.

## **References:**

Caldera Sánchez, A., A. de Serres and N. Yashiro (2016), "Reforming in a difficult macroeconomic context: A review of the issues and recent literature", OECD Economics Department Working Papers, No. 1297, OECD Publishing, Paris.

OECD. (2016), Economic Policy Reforms 2016: Going for Growth Interim Report, OECD Publishing, Paris.