

Bank of Italy – CEPR Conference

**Labour market participation:  
Forces at work and policy challenges**

Welcome address by the Deputy Governor of the Bank of Italy

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Ladies and Gentlemen,

it is a pleasure to welcome the participants to the Bank of Italy-CEPR conference on ‘Labour market participation: Forces at work and policy challenges’.<sup>1</sup>

A well-functioning labour market is essential for sustaining growth and maintaining social cohesion. The purpose of this conference is to improve our understanding of the secular changes affecting both labour supply and demand, the attendant threats and opportunities, and the policy challenges.

I shall briefly discuss these changes, look at some of the policy measures already undertaken in various jurisdictions, and propose a few open issues for discussion.

### ***Trends in labour supply***

In Europe, labour force participation has increased considerably over the past few decades and, despite marked heterogeneity across countries, has now drawn level with the US. According to the latest data, it was equal to 73 per cent in 2017, around ten percentage points above the level recorded in the early 1980s.

There are three main drivers of this development.

The first is the growing involvement of women in market work. Female participation in the EU has increased by about 20 percentage points since the early 1980s, reaching 68 per cent in 2017. This reflects various factors: technological progress that has reduced the time required for unpaid household work, greater availability of flexible working arrangements, increased supply of affordable childcare services and more sharing of household work between men and women. With reference to the US, the contribution of female employment to the occupational structure will be the focus of one of the papers to be presented this morning.<sup>2</sup>

The second driver is increased education, a feature that is positively associated with labour market attachment. In Europe, the share of individuals aged 20-64 with academic or advanced professional education rose by around 10 percentage points in the last 15 years, reaching 30 per cent in 2017. The greater labour market attachment of persons in central age brackets has more than compensated for the lower participation of younger individuals, who now tend to remain longer in education.

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<sup>1</sup> I wish to thank Eliana Viviano and Francesco D’Amuri for their assistance in preparing this speech.

<sup>2</sup> Cerina, F., Moro, A., and Petersen Rendall, M. (2018), ‘The role of gender in employment polarization.’

The third driver is migration. Immigrants' labour market participation is high, and their share in the working age population has increased significantly in developed countries (e.g. in Europe from 4.4 per cent in 2002 to 8.2 per cent in 2016). Few papers in the literature have found a negative impact of migration on employment of host-country workers; on the contrary, given that foreign-born and native workers have different skill sets, their respective labour services are often found to be complementary.<sup>3</sup>

The positive contribution to labour market participation of some demographic factors is likely to slow in the future. Notably, the baby-boom bulge in the age structure, which for a long time has sustained the share of working-age population, is now starting to push up the share of retirees. For given retirement rules, ageing reduces the participation rate. According to the European Commission,<sup>4</sup> however, the share of active individuals aged 20-64 will still increase by 3 percentage points between 2016 and 2070, owing in part to increases in the statutory retirement age in many countries.

Future trends in migration are exceedingly difficult to predict. Migration pressures are likely to increase, as more people in less-developed countries cross the threshold between absolute poverty (which affords no opportunity to move) and that condition where one has acquired the minimum amount of knowledge and resources required to pursue a better life elsewhere. On the other hand, in developed countries issues about the social acceptability of immigration loom increasingly large in the political debate and the management of migrants' flows and their integration are highly controversial.

### ***Trends in labour demand***

Trends in the demand for labour are driven by the twin primal forces in contemporary economies: technological progress and globalisation. Many fear that downward pressures are deriving from both of these forces in the advanced economies.

Historically, there have always been concerns that technological innovation would have negative effects on employment, especially during downturns. In this never-ending debate, views have been rather disparate, with prominent economists occasionally – and not always prudently – venturing into dismal predictions.

In the third edition of his *Principles of political economy and taxation* (1821), Ricardo wrote: 'The opinion, entertained by the labouring class, that the employment of machinery is frequently detrimental to their interests, is not founded on prejudice and error, but is conformable to the correct principles of political economy'.<sup>5</sup>

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<sup>3</sup> Peri, G. (2016), *Immigrants, Productivity, and Labor Markets* in *Journal of Economic Perspectives*, 30(4).

<sup>4</sup> European Commission (2018), *Ageing report 2018 - Underlying Assumptions and Projection Methodologies*.

<sup>5</sup> Ricardo, D. (1821), *The Principles of Political Economy & Taxation*. London: New York: J.M. Dent; E.P. Dutton, reprinted in 1911.

In his famous essay ‘Economic possibilities for our grandchildren’ (1930), Keynes wrote: ‘We are being afflicted with a new disease of which some readers may not yet have heard the name, but of which they will hear a great deal in the years to come – namely, technological unemployment. This means unemployment due to our discovery of means of economising the use of labour outrunning the pace at which we can find new uses for labour.’<sup>6</sup> He also thought that in one hundred years there would no longer be a need for humans to work much at all. Three hours of work per day would suffice to satisfy the ‘old Adam in most of us’, he said, that is, mankind’s innate urge to produce with ‘the sweat of his brow’. We have twelve years left to reach this goal.<sup>7</sup>

In the words of Mokyr et al.,<sup>8</sup> ‘if someone as brilliant as David Ricardo could be so terribly wrong in how machinery would reduce the overall demand for labour, modern economists should be cautious in making pronouncements about the end of work.’ Our experience so far is that, in the long run, technological change improves living standards by boosting productivity and increasing output and consumption, without destroying jobs in the aggregate.<sup>9</sup> Average working hours have indeed come down, but they are nowhere near the level Keynes imagined. Doomy predictions suggesting that machines would at a certain point in the future have ‘an absolute and a comparative advantage over humans in all activities’<sup>10</sup> are likely to prove misplaced.<sup>11</sup>

However, technological advances do imply changes in the occupational structure. In recent years, many have detected one such change in the form of a ‘polarization’ of the labour market. Middle-range jobs involving routine-intensive tasks, which can be easily automated, have been hardest hit; as a share of total employment, they have fallen by about 7 percentage points in the US and 9 points in Europe.<sup>12</sup> At the same time, increased employment opportunities have arisen at both ends of the skill distribution. The demand for high-skill professionals has increased because their skills complement technology. But the demand for low-skill workers has also increased, because jobs that are intensive in certain manual tasks (such as personal care services) are not easily replaced by technology, while greater productivity in the rest of the economy and higher incomes translate into greater demand for such services.

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<sup>6</sup> Keynes, J.M. (1930), ‘Economic Possibilities for Our Grandchildren’, in *Essays in Persuasion*, New York: W.W. Norton & Co., reprinted in 1963.

<sup>7</sup> *Ibid*, Chapter II.

<sup>8</sup> Mokyr, J., Vickers, C. and Ziebarth, N.L. (2015), ‘The History of Technological Anxiety and the Future of Economic Growth: Is This Time Different?’, in *Journal of Economic Perspectives*, 29(3).

<sup>9</sup> Autor, D. (2015), ‘Why are there still so many jobs?’, *Journal of Economic Perspectives*, 29(3).

<sup>10</sup> Mokyr, J., et al, *op. cit.*

<sup>11</sup> DeLong, B. (2017), ‘Inclusive AI: Technology and Policy for a Diverse Urban Future’, speech delivered at the Citris and Banatao institute.

<sup>12</sup> *OECD Employment Outlook 2017*, Chapter 3, p. 121, Figure 3.A1.1. Middle-skill occupations include jobs classified under the ISCO-88 major groups 4, 7, and 8 (clerks, craft and related trades workers, and plant and machine operators and assemblers).

Globalisation reinforces this trend. Stronger international competition favours the rise of ‘superstar’, winner-takes-all firms, thus improving the conditions of their workers (not to mention their owners or managers) over all others. At the same time, in many advanced economies delocalisation depresses the demand for intermediate-skill workers employed in the production of tradable goods.

The implications in terms of income polarisation are not always obvious. One paper that will be presented here shows that the increase in labour demand at the opposite poles of the skill distribution has also generated endogenous supply responses, such as higher female labour market participation and a rise in immigration.<sup>13</sup> Another paper shows that more innovative firms pay higher wages not only on average, but even to low-skilled workers.<sup>14</sup>

However, while the long-run effect of technological change, based on historical evidence, is likely to be entirely beneficial, in the short run disruptions and displacements are to be expected, and many jobs will be at risk. Policies cannot ignore this.

## ***Reforms***

The challenge is therefore to find ways to enable economic systems to reap as many of the long-run benefits as possible, while alleviating any short-run costs of structural change. While a unique first-best solution does not exist, both theory and experience point to the usefulness of certain structural reforms to foster widespread, inclusive growth of employment opportunities.

I shall briefly mention three policies that are (or should be) on the agenda of most countries: (i) measures to sustain participation; (ii) measures to improve human capital; (iii) measures to make structural adaptation easier and fairer (‘flexicurity’).

*Sustaining participation* – There are three main developments that can affect participation:

- achieving gender parity in participation rates;
- extending the working life;
- managing migration flows and effectively integrating immigrants.

Progress in women’s participation has been substantial in Europe, but in most countries parity remains a distant prospect. The difference between male and female participation rates is currently around 10 percentage points in the European Union and in the United States; despite recent progress, the difference is twice as large in Italy. More flexible working hours and family-friendly workplace arrangements are two ways of

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<sup>13</sup> Basso, G., Peri, G. and Rathman, A. (2017), ‘Computerization and immigration: theory and evidence from the United States’, NBER WP 23935.

<sup>14</sup> Aghion, P., Bergeaud, P., Blundell R. and Griffith, R. (2018), ‘The Innovation Premium to Low Skill Jobs’.

achieving more inclusive participation (and, incidentally, a more equitable distribution of household chores). In many European countries there is plenty of scope for further improvement, e.g. concerning the supply of childcare facilities.

The continuing increase in life expectancy makes raising the retirement age unavoidable to ensure that pension systems are sustainable; this in turn is bound to result in higher participation rates in the older age brackets. Many European countries are revising, or need to revise, their public pension systems. According to the assessment made in the Macroeconomic Imbalances Procedure by the European Commission released one week ago, 12 members of the European Union have issues concerning the long-term sustainability of their public finances, partly due to pension expenditures.<sup>15</sup> For those countries that adopted ambitious reforms it is important not to backtrack on them in the future.

Already legislated pension reforms will imply in Europe, between 2016 and 2070, an increase in the statutory retirement age of more than two years;<sup>16</sup> the impact on labour force participation for the 55-64 age class will be substantial (12 percentage points). The increase will be much stronger in Italy, where radical reforms enacted gradually over the past two decades have transformed what used to be one of the *least* sustainable public pension systems into one of the *most* sustainable. Between 1990 and 2016, average age at retirement had already increased from 57 to more than 62; it is expected to have increased by a further five years by 2070. Participation rates in the 55-64 age class are projected to be among the highest in large European countries. (Let me add that we need to revise the age brackets we typically use: '65+' can no longer be taken as synonymous with 'presumed retired'.)

One might think that an ageing workforce would be less productive or innovative, or that grey heads keeping their jobs for longer will displace younger workers. There can be different points of view on this. On the one hand, recent research concerning Italy<sup>17</sup> shows that the unexpected increase in the employment of mature workers that took place after changes in public pension rules in 2012 did not reduce employment in other age classes. On the other hand, a paper<sup>18</sup> to be presented tomorrow finds a negative impact of ageing on dynamism and growth.

Managing migration is the trickiest challenge of all. Good, dispassionate, data-based economic research may help set the stage for an informed public-policy debate. One paper that will be presented tomorrow<sup>19</sup> on the impact of the regularisation of undocumented migrants on the labour market in Spain is very much in this spirit and provides interesting, nuanced results.

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<sup>15</sup> European Commission (2018), *European Semester Winter Package: reviewing Member States' progress on their economic and social priorities*.

<sup>16</sup> European Commission (2018), *The 2018 Ageing Report: Underlying Assumptions and Projection Methodologies*.

<sup>17</sup> Carta, F., D'Amuri, F. and von Wachter, T. (2018), 'Workforce ageing, pension reform and firms' dynamics', Bank of Italy Occasional Papers (forthcoming).

<sup>18</sup> Engbom, N. (2018), 'Firm and Worker Dynamics in an Aging Labor Market'.

<sup>19</sup> Monras, J., Vazquez-Grenno, J. and Elias, F. (2018), 'Understanding the Effects of Legalizing Undocumented Immigrants'.

*Education* – The improvement in the education level of the European workforce during the past ten years is partly due to targeted policies (though the latter differ greatly across countries). For all the progress that has been made, however, there is evidence that European education systems are still struggling to equip workers with the skills they need.

A recent survey<sup>20</sup> shows that, especially in southern European countries, an increasingly large share of workers are both *over-educated*, i.e., they received extra education not required for the job, and *under-skilled*, i.e., they lack certain specific task-related abilities. This suggests that many European education systems have not quite succeeded in integrating general and vocational education in an efficient, balanced way. The former appears to be biased towards purely academic knowledge, and to neglect the adaptable, problem-solving abilities required in the labour market. The latter focuses too narrowly on specific skills, which raise employability in the short term, but rapidly become obsolete.<sup>21</sup>

In respect of education, Italy has a problem of its own. Indicators of formal education (years of schooling, levels of educational attainment at specific ages) have long been significantly lower in Italy than in other countries at a comparable level of development. For a long time this did not seem to matter much. In the 1970s and 1980s, Italy's 'industrial districts' (clusters of small, specialised manufacturing firms) prospered largely on the strength of a peculiar, highly localised form of human capital, acquired in vocational schools, through on-the-job training, and through general social interaction (sometimes called the 'local industrial climate'). In that context, the returns to formal education appeared to be low. Since then, however, the increasing global importance of technology-related skills has radically changed the picture; the 'industrial climate', important as it is, is no longer enough. In fact, inadequate human capital development is, I suspect, one of the reasons behind the unsatisfactory productivity growth of the country in the past couple of decades. Favoured by (piecemeal) reforms, some progress is being made along both dimensions of education: average schooling is up, and international comparisons of skills for young cohorts are now less unfavourable than they used to be. However, a gap remains, and in my opinion it receives less systematic public-policy attention than it deserves.<sup>22</sup>

*Increasing flexibility, providing safety nets* – Growing empirical evidence shows that greater labour market flexibility, coupled with policies that reduce labour market duality, results in better outcomes. For example, countries that entered the Great Recession with more flexible labour markets have generally shown greater resilience.

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<sup>20</sup> Flisi, S., Goglio, V., Meroni, E., Rodrigues, M. and Vera-Toscano, E. (2017), *Measuring Occupational Mismatch: Overeducation and Overskill in Europe—Evidence from PIAAC*, in *Social indicators research*, 131(3).

<sup>21</sup> Krueger, D. and Kumar, K.B. (2004), 'Skill-specific rather than general education: A reason for US–Europe growth differences?', *Journal of economic growth*, 9(2); Hanushek, E.A., Schwerdt, G., Woessmann, L. and Zhang, L. (2017), 'General education, vocational education, and labor-market outcomes over the lifecycle', *Journal of Human Resources*, 52(1).

<sup>22</sup> Brandolini, A. and Cipollone, P. (2001), 'Multifactor productivity and labour quality in Italy, 1981-2000', Bank of Italy Working Papers, 422. Bugamelli M., Lotti, F. (2018) *Productivity growth in Italy: a tale of a slow-motion change*, Bank of Italy, Occasional papers, 422 Colonna, F. (2017), 'Chicken or the egg? Human capital demand and supply', *Politica economica*, 33(1).

The issue is how to balance fast system-wide reallocation with sufficiently comprehensive individual security: while not easy, this balance can in principle be pursued through flexible labour regulation accompanied by an appropriate form of protection for those who lose their jobs, by retraining, and by active labour policies. Four papers will be presented at this conference that deal with these issues: specifically, the effectiveness of short-time work subsidies in saving jobs,<sup>23</sup> the relationship between workers' flows in multi-plant firms and firing restrictions,<sup>24</sup> the relevance of advance layoff notices for workers' reallocation,<sup>25</sup> and the effectiveness of active labour market programs.<sup>26</sup>

In the past few years, many European countries have taken steps to improve the functioning of the labour market.<sup>27</sup> The LABREF dataset of the European Commission, which records all reforms in employment protection legislation, lists almost twice as many measures in 2008-2013 as in the previous seven years. In Italy, the number of reforms grew by a factor of seven during those years, while the reform process continued in 2014 and 2015. Reforms extended the coverage of the unemployment benefit system, enhanced active policies, and increased the flexibility of labour market rules, notably by making firing procedures simpler and less uncertain. The French reform of 2017 goes much in the same direction.

Available research has shown that the Italian reforms have contributed to creating new stable jobs after a period of prolonged stagnation, and to accelerating the conversion of temporary into permanent jobs.<sup>28</sup> One paper along these lines will be presented tomorrow.<sup>29</sup>

### ***The path ahead***

Europe has made considerable, if uneven, progress in improving labour-related regulation in the past few years. Even though the profound scars of the Great Recession are still visible in many countries, employment levels are now higher than they were before the crisis started in 2008; the share of individuals actually participating in the labour market is also at its highest level ever, reflecting both increased dynamism in our societies and the effect of policies that have reduced disincentives to work. Still, much remains to be done.

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<sup>23</sup> Cahuc, P., Kramarz, F. and Nevoux, S. (2018), 'Short-Time Work and Employment in the Great Recession in France'.

<sup>24</sup> Cestone, G., Fumagalli, C., Kramarz, F. and Pica, G. (2018), 'Insurance Between Firms: The Role of Internal Labor Markets'.

<sup>25</sup> Fredriksson, P., Cederlöf, J., Nekoei, A. and Seim, D. (2018), 'Consequences of advance layoff notice for workers and firms'.

<sup>26</sup> van der Klaauw, B. and Ziegler, L. 'A Randomized Experiment on Matching Unemployed Workers to Employers'.

<sup>27</sup> Turrini et al., (2015), 'A decade of labour market reforms in the EU: insights from the LABREF database', *IZA Journal of Labor Policy*, 12(4).

<sup>28</sup> Sestito, P. and Viviano, E. (2018), 'Firing costs and firm hiring: Evidence from an Italian reform', *Economic Policy*, 93(33).

<sup>29</sup> Boeri, T. and Garibaldi, P. (2018), 'Graded Security and Labor Market Mobility: Clean Evidence from the Italian Jobs Act'.



Labour markets are excessively segmented between insiders and outsiders. Due to persistent rigidities and to less favourable economic prospects than in the past, younger generations entering the labour market today face worse job prospects, in terms of stability, career profiles, and wages, than those enjoyed by previous generations.

Technological trends might reinforce the dualism between high- and low-skilled workers. Trade protection or a retreat from the technology frontier would be myopic. Increasing and improving general education and supporting (re-)training are, instead, a priority to make growth more inclusive. A difficult balance needs to be struck between cushioning individual workers from the most disruptive effects of change and fostering the active adaptation of the individuals themselves and of society at large.

There is ample scope for further research. I have already mentioned some of the papers in this conference that focus on certain key subjects. Let me mention, by way of conclusion, three additional open issues:

- Do we know enough about the actual cost effectiveness of active labour market policies in different institutional frameworks? I have not yet seen much research contrasting the outcomes of such policies with alternative uses of public money, such as a reduction in the tax wedge on labour.
- Do we know enough about what drives the efficiency of the matching process between job-seekers and vacancies? Do we understand the reasons for persistent geographical and skill misalignments? What is the key to designing policies to target structural, long-term unemployment?
- Finally, many are puzzled by how little wage cyclicality is normally observed, especially at the aggregate level. Can this be due to composition effects, i.e., to the fact that negative demand shocks usually hit low-skilled or low-tenured workers hardest? What is the impact of nominal wage rigidities, and of job-seekers' behaviour?

Barbara Petrongolo, who is to deliver the first speech in this conference, will focus precisely on this last point. I do not want to encroach any further on her presentation. It is therefore high time for me to close these remarks – and to wish you all a stimulating and lively discussion.

