

Caroleo, Floro Ernesto; Pastore, Francesco

## Article

# The Italian lowgrowth conundrum: An assessment and some policy lessons

CESifo Forum

## Provided in Cooperation with:

Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

*Suggested Citation:* Caroleo, Floro Ernesto; Pastore, Francesco (2019) : The Italian lowgrowth conundrum: An assessment and some policy lessons, CESifo Forum, ISSN 2190-717X, ifo Institut – Leibniz-Institut für Wirtschaftsforschung an der Universität München, München, Vol. 20, Iss. 1, pp. 33-39

This Version is available at:

<https://hdl.handle.net/10419/199026>

### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

### Terms of use:

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

Floro Ernesto Caroleo and  
Francesco Pastore

## The Italian low-growth conundrum: An assessment and some policy lessons

When commenting on labor market developments, politicians and the media often mention unemployment rates. Indeed, simple comparisons of average values relative to European regions are already harsh, yet they do not give an exact measure of the structural gap that exists among various countries and between the two macro-regions of Italy (the center-north and the lagging south). The main reason why the unemployment rate cannot be considered the only indicator of the structural gap is that, as it is defined and constructed, it is rather a cyclical index of the gap between labor supply and demand.

We would do better to refer to the employment rate. In 2017, approximately 62 in 100 people aged 15–64 were employed in Italy, compared with a European average of 72 (EU28). Figure 1 shows the employment rates of the various countries with female employment rates in descending order. The figure shows that Italy is at the bottom of the ranking and, as far as the female employment rate is concerned, the country comes in fourth from last, preceded by Greece, Macedonia, and Turkey. As regards the gap between men and women, at 20.1 percentage points, our country is just ahead of Malta, Macedonia, and Turkey. If the trend were pointing to a closing of these gaps, the problem would not be so dramatic. However, while the employment rate in Europe (EU28) increased by 5.1 percentage points between 2005 and 2017, it remained almost stable in Italy (+ 0.6%).

As is well known, the Italian economy is characterized primarily by differences between the south and the center-north. Employment

figures give a clear idea of the size of these gaps. Out of 100 people between 20 and 64 years old, 66 or 67 are employed in northern Italy, while only 44 are employed in the south. If we look at the other regions of Europe, this latter figure is quite impressive. In fact, only six European regions have an employment rate below 50%, and four of those are Italian. Moreover, the gap between the region with the lowest employment rate (Calabria) and the region with the highest employment rate (Trentino, South Tyrol) is about 30 percentage points. Out of 100 women, 62 or 63 are employed in the north and 34 in the south. The gap between men and women is about 17 percentage points in the north and 26 percentage points in the south. In Sweden, the employment rate for women aged 20–64 is 78% (Figure 2).

We can therefore draw an initial conclusion: in the south (but also in Italy as compared with the rest of Europe), too few people have jobs. All official economic planning documents also highlight this issue and it is a well-known fact that solving the employment problem will require promoting economic growth and investment. For example, the Italian Ministry of Economy and Finance's Economic and Financial Document 2017 (EFD) clearly states: "the government's priority objective—and that of the budget policy outlined

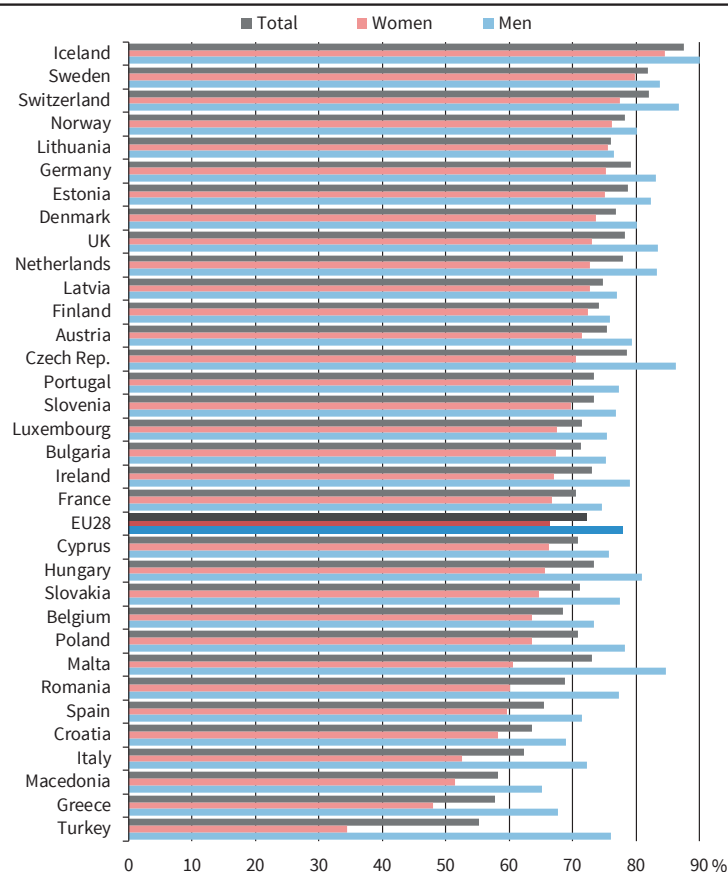


Floro Ernesto Caroleo  
Parthenope Naples  
University



Francesco Pastore  
University of Campania  
Luigi Vanvitelli

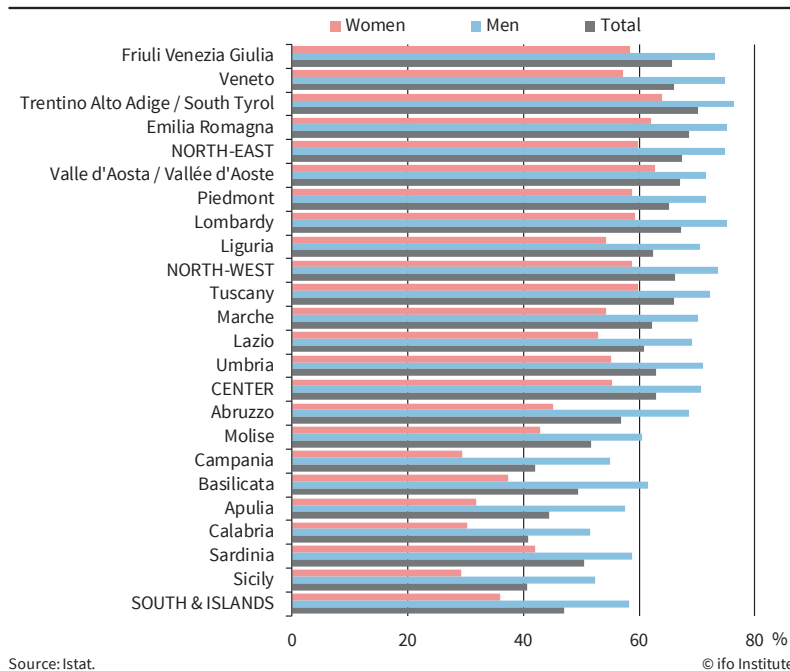
Figure 1  
Employment rate in the EU28 (2017)



Note: Group by decreasing trend in the female employment rate.  
Source: Eurostat.

© ifo Institute

Figure 2

**Employment rate by gender and region in Italy, in the age 15–64 (2017)**

Source: Istat.

© ifo Institute

in the EFD)—continues to be a steady increase in growth and employment, in respect of fiscal sustainability. ... The government intends to continue in the wake of the economic policies adopted since 2014, with the aims of freeing the country's resources from the excessive weight of taxation and simultaneously relaunching investment and employment, while also respecting the needs for fiscal consolidation. ... The government has also prioritized the continuation of actions to relaunch public investment".<sup>1</sup>

**THE RECIPE: WATER WITHOUT THIRST**

However, when we then move on to the solutions for achieving this goal, the words 'investment and employment' disappear. Let us look at what policy makers mean by employment policies. At the international level, there is broad and, since the 1980s, growing consensus regarding a fairly simple solution that is valid for all seasons, both in times of employment growth and in times of crisis such as the present. It is based on the idea that employment problems can be solved by favoring institutional and wage flexibility as much as possible. The reasoning is that today's unemployment (note: not low employment, but too much unemployment) is due to the rigidity of the labor market. Rules on minimum wages, dismissals, and higher unemployment benefits (basically an overly rigid system of laws governing labor relations) result in wage rigidities and therefore do nothing more than

increase the cost of labor for firms (in short, there are too many Article 18s<sup>2</sup> around). What is the solution? Flexibility policies must be adopted to safeguard businesses. Making work cheaper makes it easier to hire workers and, in the end, it cannot help but benefit 'employability' (another very fashionable keyword in Europe, but be careful! It does not necessarily mean more employment).

Several Italian ministers have used a number of expressions to reproach young Italians in recent years: "don't be *bamboccioni*, living with your parents into your mid-30s" (grown-up kids who still live with their parents: Tommaso Padoa-Schioppa); "don't be choosy with the job offers you receive" (Elsa Fornero);

"it is better to marry a rich man than look for a job" (Silvio Berlusconi); "go and play football to grow your informal networks" (Giuliano Poletti); "whoever goes to work abroad would do better to remain there" (Giuliano Poletti); and last but not least: "don't be cunning! If you do not accept a job offer within 100 km from your place, I will not give you the citizenship income". These are nothing more than an expression of the natural way of thinking of those who believe in this kind of reasoning. It is workers and young people who are not adapting to the need to be flexible and earn less. If they did, companies would be very willing to hire them. To cite a well-known metaphor: it is as if merely giving a horse water to drink is sufficient to make it work. Economists and experts in law and organizational behavior are competing to suggest which water is best: that from a well (temporary contracts), running water (contracts with greater protection), mineral water (abolition of Article 18), etc.

The Italian media bombards us daily with news on employment and unemployment trends, highlighting the growth in employment one day, and the next day underscoring how the latest statistics show a decrease in unemployment, but also an increase in youth unemployment, or an increase in employment, but mainly precarious employment. Faced with such news, the government always finds a reason to exalt the salvation effects of its own laws, while the opposition always finds a reason to criticize the disastrous effects of those laws.

<sup>1</sup> See also [http://www.dt.tesoro.it/modules/documenti\\_en/analisi\\_programmazione/documenti\\_programmatici/def\\_2017/Sez.1\\_-\\_Programma\\_di\\_Stabilita\\_2017\\_EN.pdf](http://www.dt.tesoro.it/modules/documenti_en/analisi_programmazione/documenti_programmatici/def_2017/Sez.1_-_Programma_di_Stabilita_2017_EN.pdf).

<sup>2</sup> Art. 18 is the article of the 1970 Italian labor law (*Statuto dei lavoratori*) that provided the right to be reinstated in one's job in the event of an unfair dismissal.

In short, if one were to read all these news reports in succession, one would certainly have a sense of being on a roller coaster. The truth is that all of this water is bad for you: flexibility does not create new jobs, it merely changes the type of employment in favor of more temporary and precarious forms. In fact, no labor reform has ever created a single job in Italy; it has only redistributed work among different categories of workers, changing the convenience of the type of contract to be used for recruitment. The issue, in other words, is that those who deal with labor issues generally take a partial economic balance approach and believe in the market's re-balancing capabilities. Consequently, the unemployment problem can be overcome by intervening in the labor market, removing obstacles (bad information, mismatches, bad institutions, etc.) that prevent the achievement of balance and therefore full employment.

And what if the horse is not thirsty? In other words, could it simply be that there is no demand for jobs and companies are reluctant to invest? If the various labor ministers were less influenced by what is happening in the labor market and had a more balanced approach, looking at the overall economic situation, they could acknowledge that unemployment can also affect the product market (lack of aggregate demand) and that what is happening in the labor market is related to what is happening in the product market.

### MAKING THE HORSE THIRSTY: THE ROLE OF HUMAN CAPITAL

We should ask ourselves whether it is possible to take a different approach to the structural problem of employment in Italy. Tackling this problem would probably mean shedding light on the causes of the current crisis in Italy. The aspects to be investigated include the following questions: what investments

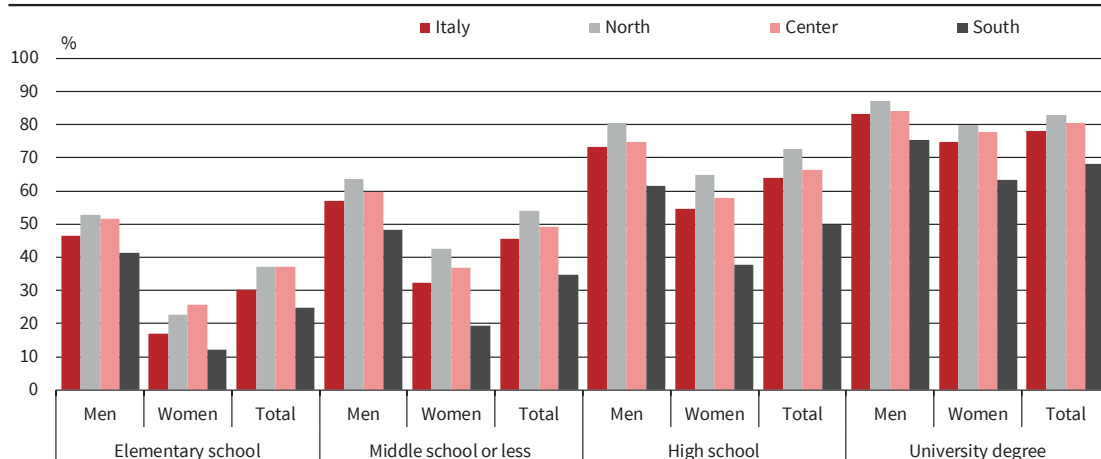
have the greatest effects on growth in the long term?<sup>3</sup> What are the causes of low productivity? The unequal distribution of income, which is eroding rights (to education, health, and work) and thus destroying social capital and producing inequality, also between regions (Franzini and Pianta 2016), should also be addressed.

To stay in the field of labor market issues, more in-depth research should be carried out into what kinds of investments—preferably with high yields and that pay for themselves—can be suggested to improve the quality of the labor supply. Below, we concentrate on one very important example, referring to the works quoted above for other indications regarding which fields to invest in. To give a simple answer to this question, we can take a look at another figure: out of 100 people aged between 20 and 64 in Italy, the probability of a graduate being employed is almost two and a half times greater than that of a person with nothing higher than a secondary school diploma (78.2 vs 30.1). In the south, the probability of a female graduate being employed is even better—almost six times higher than a woman who has only a secondary school diploma (see Figure 3).

The second conclusion, therefore, is that education pays in terms of greater probability of employment. There is thus a very feasible way forward in tackling the issue of investment and employment incentives: investing in human capital. On this point, the governor of the Bank of Italy, Ignazio Visco (2011), stated: “human capital, the investment in knowledge, represents one of the key variables of our economic policy measures. The economic returns, both for individuals and society, cannot be disputed. They are important because of their direct effect on productivity. They are also important for their indirect effects deriving from the interaction between individuals, through a growth in civic sense, respect for rules

<sup>3</sup> See the works of the ‘Crescita, Investimenti e Territorio’ discussion group, Cappellin *et al.* (2014); Cappellin *et al.* (2015).

Figure 3  
Employment rate by gender, educational qualification and macro-regions, in the age 15-64 (2017)



Source: Istat.

© ifo Institute

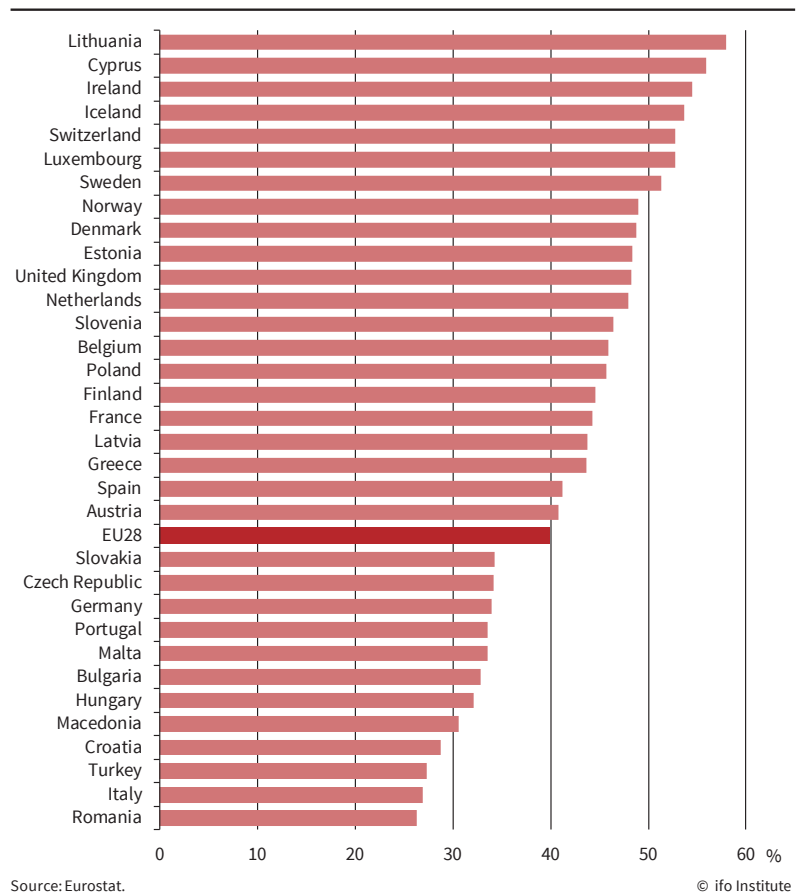
and the affirmation of law, the fight against corruption and crime—all factors which constitute a brake to sustained and continuous economic growth”.<sup>4</sup>

As Pastore (2015 and 2017) also remarks, Europe 2020, the program inspired by the European Union’s Lisbon Strategy, is also very much geared toward human capital, calling for a reduction in the dropout rate from compulsory schooling, still around 14% on average in Italy (4 percentage points above the EU 2020 target), and an increase in the share of school and university graduates, which are at 24%, or 16 percentage points below the EU2020 target. All the research undertaken in this field underscores how the yields from investments in education (both secondary and tertiary) are higher than the yields from investments in infrastructure (Ciccone *et al.* 2004). Some research works have also shown how these investments can play a key

role in regional development (de la Fuente *et al.* 2009; de la Croix and Vandenberghe 2010; CNRS and ZEW 2005) and in that of the southern regions in particular (Carillo and Zazzaro 2001; Ciccone *et al.* 2004). What is more, it has been shown that financial incentives for investment in education and related public expenditure have, in the long run, the capacity to pay for themselves (Ciccone 2009). Time also matters. In fact, if the education system is not reformed quickly in order to adapt human capital to new production needs and new technologies, there is already a concrete risk of rapidly deteriorating the existing one.

Obviously, this is not just a question of quantitative targets such as increasing the share of education spending in GDP. Even if, in truth, pulling Italy out of the penultimate position (before Romania) in the ranking of European countries with the lowest rate of graduates among people aged 30–34 (see Figure 4) or even doing something to bridge the gap (17 points) with the European average percentage of people between 24 and 64 years of age who have at least a secondary school diploma, would already be a macroeconomic target that would make any government nervous that is worthily pushing for reform (see Figure 5). The prob-

Figure 4  
Share of university graduates in the age cohort 30-34 (2017)



lem is also focusing on the qualitative aspects of investment.

Nevertheless, as things currently stand, Italian universities are strongly underfunded, as is pointed out in, among other things, the contributions of a monographic issue of *Scuola Democratica*, with difficulties increasing particularly for universities in southern Italy (Carillo and Pastore 2017). The 2009 Gelmini reform introduced numerous innovations in the Italian university system. On the one hand, the legislator’s endeavors are clearly aimed at improving both research and teaching, but the actual implementation of the new system has also signaled that there is little awareness of the perverse effects that mechanically applied incentive mechanisms can generate within the system. One major problem is the polarization of resources in a few better equipped locations, with a high risk of weakening what can, perhaps, be considered the best side of the existing system, namely the territorial and intersectoral homogeneity of research and teaching. This was an important outcome of the public and national organization desired by the constitutional fathers back in 1946. The feeling is that the reform is still in its infancy and that its measures need fine tuning based on an unprejudiced assessment of both the positive and the negative results achieved thus far.

<sup>4</sup> See also Cipollone *et al.* (2012); Cipollone and Sestito (2010).

For Banfi and Viesti (2017), the inefficiencies are consequences of the underfunding of university research and teaching. This is a problem that must be overcome throughout the country. Carillo and Pastore (2017) make policy recommendations for rectifying the perverse effects of polarization of resources, including:

- a) Universities should not be evaluated based on their past, pre-reform performance, but on what has been done in the post-reform period, taking the different starting points into account. In other words, it is wrong to compare the performance of university graduates without considering the higher education level of high school graduates. One should compare the value added of universities, not their outcomes (see also Ferrante 2017);
- b) Assessment criteria should not be continuously redefined over time so as to enable effective and improved planning of research activities;
- c) Universities should be assessed on the basis of factors that depend on the universities themselves and not on the context in which they operate. For example, it is wrong to assess universities based on the placement rate of their students without taking the potential of the local labor market into account;

- d) It is important to define safeguard clauses in order to prevent excessive fluctuations in the distribution of research funds across universities; and
- e) Taking the quality of teaching into account is also important when evaluating university performance, since teaching has an important impact on skills training, which is one of the main aims of universities.

### REFORMING THE 3 + 2 REFORM

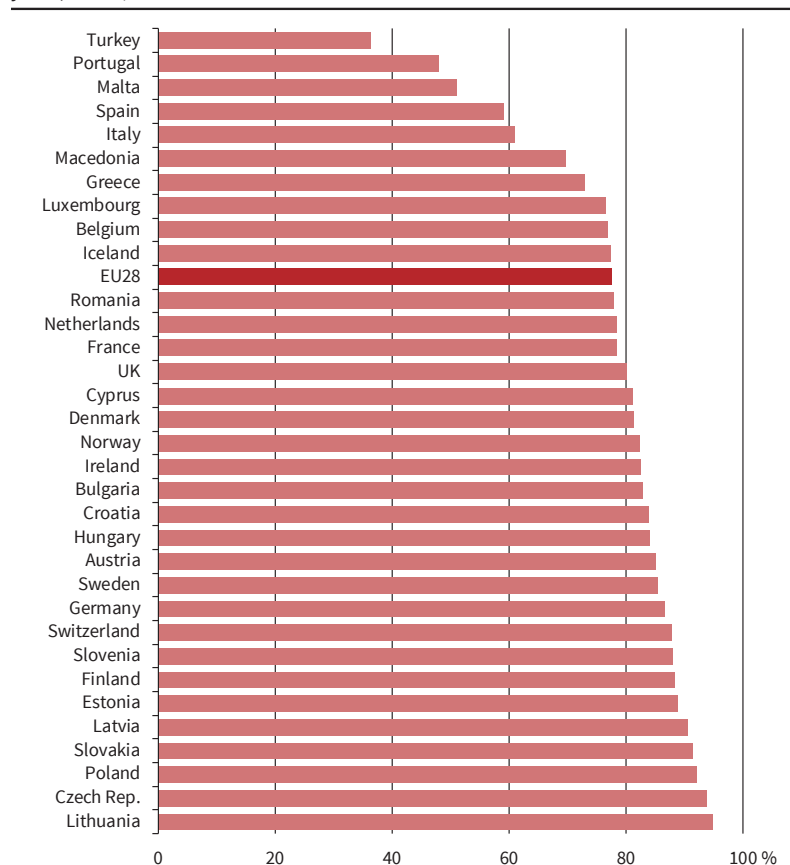
In discussing investments in university education in Italy, two issues should be given particular consideration. First, the organization of today's university is the result of the Bologna Process, which has led to, among other things, the organization of the university cycle according to the 3 + 2 scheme. The aim was not only to shorten the time it takes to obtain a degree and to reduce the dropout rate, but also to combine methodological and cultural preparation with highly professional training in order to give students opportunities to immediately enter the working world.

Almost two decades have now passed since the reform was implemented, but this goal does not seem to have been achieved yet. Here, too, numerous figures show how incomplete and unrealizable the reform is. For example, according to the Anvur

Report 2016 on the state of universities, Italy is still the only OECD country without a professional degree, or to use the German definition, without a university of applied science (the so-called *Fachhochschule*). What is more, the student dropout rate is around 42%—that is, 12 percentage points more than the EU average. The percentage of school graduates who enroll in university is 42% in Italy, about 21 percentage points less than the EU average. At the same time, enrollment has plummeted, especially in certain faculties, such as law, and this trend has shown only slight signs of reversal in recent academic years.

A series of factors have transformed a major and well-planned reform into a boomerang due to incoherent application, such as a lack of fully professional three-year courses, meandering and repetitive three-year and two-year program, lack of three-year course recognition for

Figure 5  
Share of the population with at least a high secondary school diploma (age 24-64 years, 2017 )



Source: OECD.

© ifo Institute

job-access purposes, resulting in too-high a percentage of students having to continue with the two-year course—in 2012/13, 51.1% of all three-year graduates, and 57.9% if the degree in nursing is excluded. The latter figure was 68.9% in 2003/04, when the three-year degree was even less recognized than it is today.

In other words, both the teaching staff and the university system as a whole do not seem to have fully understood how the various cycles (3, 2, master, doctorate, etc.) should be structured and designed in order to achieve, in each, a better link with the labor market. In essence, it is as if university education were still single cycle. The most striking example is the return to the single cycle of the degree course in law. Thus, if we were to invest in the university system, it would be a good idea to plan professional study courses starting from level one. This means courses aimed at providing professional skills that can be immediately used in the labor market. This way, as the reader will easily appreciate, the objective of the Bologna Process to shorten graduation time would be achieved with a very definite benefit in terms of economic and social costs.

In the long run, all this affects the number of student dropouts. If one seriously puts oneself in the position of students, families, and enterprises, it is easier to appreciate that the decision to invest in education does not depend on *ex post* yields, i.e. those expected by graduates, who in any case are an *elite* group, but on those *ex ante* by enrolled students, as obtained by multiplying the *ex post* by the probability of obtaining a degree. For some students, the gap is significant and the yield tends to reduce itself to zero for the weaker ones (Altonji 1993; Pastore 2018b).

### TIES WITH THE WORKING WORLD

The second issue that should be addressed is the definition of human capital. This is the set of acquired skills, accumulated knowledge, and attitudes that make the individual more productive, rather than simply education *per se*. The close relationship between education and human capital is also quite well known. However, considering only these two variables would mean neglecting other factors that strongly influence the processes of formation and exploitation of an individual's potential, such as the accumulation of work experience—the other side of human capital. The problem with young people dropping out of the school and university system is that they face a typical skill gap problem in the transition process from school to work. In other words, the level of education being equal, they suffer from a lack of generic work experience (work discipline, respect for working hours, team work, etc.) and, above all, from the specific experience relating to a given job (knowledge of the production process and the technologies used), which schools and universities do not provide. This component of human capital is not

acquired in university classrooms, but inside companies, and therefore requires an increasingly stronger link between school and university on the one hand and enterprises on the other (Pastore 2015; Caroleo and Pastore 2018).

But here, too, we must make a distinction. It is the Italian university system that is not equipped to provide professional experience to young people during their educational career. There are countries in Europe, such as Germany, that instead adopt dual training systems at all levels of education, i.e. training based on the alternation of classroom teaching and work experience. This makes the transition between school and work easier, as young people can already gain work experience during their school years that is immediately usable on the labor market. It is no coincidence that the employment rate of young people in Germany is among the highest in Europe, and the unemployment rate is among the lowest, close to that of adults (Zimmermann *et al.* 2013; Eichhorst *et al.* 2015; Pastore 2015 and 2018a). If resources were to be 'spent' on investments in human capital, it would be desirable to strengthen the function of universities in job orientation and planning through curricular training apprenticeships, internships, etc. As has already been said, the benefits would be to improve the transition between universities and the working world, but also the incentive to create a network of relationships and exchange of know-how with the business system.

In Italy, in 2015, the 'good school' law introduced the principle of alternating school and work into secondary education (a practically zero-cost reform) in the form of work-related learning and a trial period for a four-year diploma course. The hope is that the current populist government will not cancel these projects, but rather will fund them adequately and further develop them (Giubileo 2016; Maisto and Pastore 2017; Giubileo and Scarano 2018). What are the consequences for universities? Unless the university system prepares itself for the introduction of these principles—developing shorter degree courses, work-related learning, and other forms of interaction with the world of work—it runs the risk, in a few years' time, of having to once again put students who, during their secondary schooling, obtained work experience and interacted with the working world and who have benefitted from innovative forms of teaching, behind a desk for five more years.<sup>5</sup>

### REFERENCES

- Altonji, J.G. (1993), "The Demand for and Return to Education When Education Outcomes Are Uncertain", *Journal of Labor Economics* 11, 48–83.  
 Anvur (2016), *Rapporto biennale sullo stato dell'università e della ricerca*, Rome.

<sup>5</sup> The debate on university reform recently received fresh impetus (see Capuano *et al.* 2017) without, however, having yet been translated into precise policy directives.

- Banfi, A. and G. Viesti (2017), "Il finanziamento delle università italiane (2008-2015): una politica assai discutibile", *Scuola Democratica* 8, 299–318.
- Cappellin, R., E. Marelli, E. Rullani, and A. Sterlacchini (2014), *Crescita, investimenti e territorio: il ruolo delle politiche industriali e regionali*, www.rivistasar.it, eBook 2014.1.
- Cappellin, R., M. Baravelli, M. Bellandi, R. Camagni, E. Ciciotti and E. Marelli (2015), *Investimenti, innovazione e città Una nuova politica industriale per la crescita*, Milan: Egea.
- Carillo, M.R. and F. Pastore (2017), "Innovazione e politiche universitarie in Italia. Un'introduzione", *Scuola Democratica* 8, 243–251.
- Carillo, M.R. and A. Zazzaro (2001), *Istituzioni, capitale umano e sviluppo del Mezzogiorno*, Rome: ESI.
- Caroleo, F.E. and F. Pastore (2018), "Overeducation at a Glance: Determinants and Wage Effects of the Educational Mismatch, Looking at the AlmaLaurea Data", *Social Indicators Research* 137, 999–1032.
- Capuano, G., M. Regini, and M. Turri (2010), *Salvare l'Università italiana*, Bologna: Il Mulino.
- Ciccone, A. (2009), *Human Capital as a Factor of Growth and Employment at the Regional Level: The Case of Italy*, Report for the European Commission, DG for Employment and Social Affairs, Brussels.
- Ciccone, A., F. Cingano, and P. Cipollone (2004), "The Private and Social Return to Schooling in Italy", *Giornale degli Economisti* 63, 413–444.
- Cipollone, P., P. Montanaro, and P. Sestito (2012), *Il capitale umano per la crescita economica: possibili percorsi di miglioramento del sistema d'istruzione in Italia*, Banca d'Italia Questioni di Economia e Finanza 122.
- Cipollone, P. and P. Sestito (2010), *Il capitale umano*, Bologna: Il Mulino.
- CNRS and ZEW (2005), *Human Capital as a Factor of Growth and Promotion of Employment at the Regional Level: The Case of France and Germany*, CoR Studies 2, Brussels.
- de la Croix, D. and V. Vandenberghe (2010), *Human Capital as a Factor of Growth and Employment at the Regional Level: The Case of Belgium*, Report for the European Commission, DG for Employment and Social Affairs, Brussels.
- de la Fuente, A., R. Doménech R., and J.F. Jimeno (2009), *Human Capital as a Factor of Growth and Employment at the Regional Level: The Case of Spain*, Report for the European Commission, DG for Employment and Social Affairs, Brussels.
- Ferrante, F. (2017), "Assessing Quality in Higher Education: Some Caveats", *Social Indicators Research* 131, 727–743.
- Franzini, M. and M. Pianta (2016), *Disuguaglianze. Quante sono, come combatterle*, Rome: La Terza.
- Giubileo, F. (2016), *Alternanza scuola-lavoro: dalla innovazione della 107 alla sperimentazione del sistema duale*, Rome: Fondazione EYU.
- Giubileo, F. and G. Scarano (2018), "Uno, nessuno o centomila modelli di alternanza", *Scuola Democratica* 9, 563–583.
- Maisto, C. and F. Pastore (2017), "Alternanza scuola-lavoro: Un bilancio ad un anno dall'attuazione", *Economia & Lavoro* 11, 133–145.
- Ministero dell'Economia (2017), *Documento di Economia e Finanza*, Rome: Governo Italiano.
- Pastore, F. (2015), *The Youth Experience Gap. Explaining National Differences in the School-to-Work Transition*, Heidelberg: Physica Verlag.
- Pastore, F. (2017), "Getting It Right. Youth Employment Policy within the EU", *CESifo Forum* 18(2), 19–25.
- Pastore, F. (2018a), "Why Is the Youth Unemployment Rate above the Average and so Different across Countries?", *IZA World of Labor* 420, doi: 10.15185/izawol.420.
- Pastore, F. (2018b), "Why So Slow? The School-to-Work Transition in Italy", *Studies in Higher Education*, <https://doi.org/10.1080/03075079.2018.1437722>.
- Visco, I. (2011), *Investire in Conoscenza: giovani e cittadini, formazione e lavoro*, Intervento al XXX Congresso nazionale dell'AIMMF, November, Catania.
- Zimmermann, K., C. Biavaschi, W. Eichhorst, C. Giulietti, M.J. Kendzia, A. Muravyev, J. Pieters, N. Rodriguez-Planas, and R. Schmidl (2013), "Youth Unemployment and Vocational Training", *Foundations and Trends in Microeconomics* 9, 1–157.