



# Avoiding unemployment is not enough

An analysis of other forms of labour underutilization<sup>1</sup>

The unemployment rate is undoubtedly the most widely cited labour market indicator by media and decision-makers around the world. But how useful is it really? Is it a good measure of the state of the labour market?

The unemployment rate conveys the percentage of persons in the labour force who do not have a job but are available and looking for one, where the labour force is the sum of employed persons and unemployed persons. The unemployment rate provides a good depiction of the extent to which people who are ready to work are actually able to find and start a job. In other words, it expresses the labour market's ability to satisfy people's *explicit* demand for jobs, which is certainly useful and valuable information, but as this brief will show, it is not enough to paint a full picture of the extent of labour underutilization and the overall state of the labour market.

In fact, the unemployment rate focuses on a very specific population (the unemployed) and says nothing about the situation of persons in employment or about persons outside the labour force. Persons employed managed to escape unemployment, but are their jobs decent? Do their jobs provide for satisfactory working and living conditions? Having a job does not necessarily imply having a decent job, and persons in employment are not necessarily better off than the unemployed. With regard to persons outside the labour force, do they still have some attachment to the labour force? Would they like to have a job eventually even if they are not actively looking or are not immediately available for one? Have they looked for jobs in the past but quit the job search out of discouragement? These questions point to the limitations of examining the unemployment rate in isolation. While it is a useful and important measure, a comprehensive understanding of the labour market requires analysing additional indicators alongside the unemployment rate.

Labour underutilization refers to mismatches between labour supply and demand, leading to an unmet need for employment among the population. Unemployment is naturally at the core of labour underutilization (the unemployed are, after all, those with the clearest, most explicit unmet need for employment), and so, despite its limitations, the unemployment rate is often used as the sole measure of labour underutilization. Nonetheless, this practice offers only a partial view of labour underutilization, as it is certainly possible (and in many contexts commonplace) to have unused labour supply among those in employment (wishing to work more hours than they do) or those outside the labour force (having quit the job search or not being immediately available but wanting a job eventually). It is also possible to have labour underutilization in qualitative terms, that is, a skills mismatch whereby workers are overqualified for the jobs they hold.

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This brief seeks to provide a comprehensive picture of labour underutilization, complementing the unemployment rate with other relevant labour underutilization measures. It describes the global and regional unemployment trends and explores labour underutilization among employed persons and among persons outside the labour force (the potential labour force). Four different labour underutilization indicators are analysed, followed by a quick study of the composition of labour underutilization. Finally, the brief examines employed persons holding jobs for which they are overqualified.

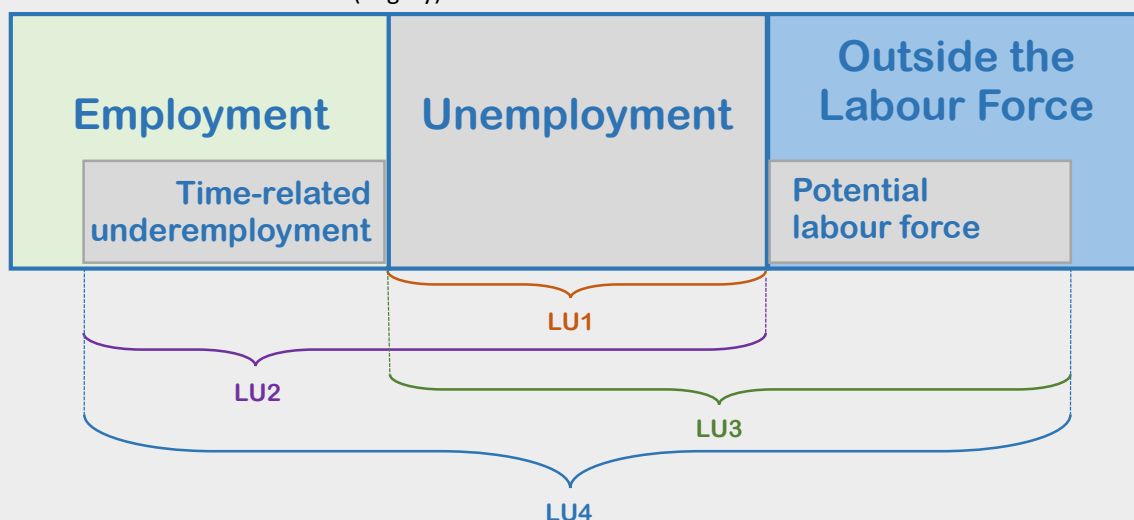
### New measures of labour underutilization to complement the unemployment rate

Recognizing the limitations of the unemployment rate as a measure of labour underutilization, the Nineteenth International Conference of Labour Statisticians (ICLS) adopted the *Resolution concerning statistics of work, employment and labour underutilization* in 2013, introducing the statistical definition of labour underutilization and four labour underutilization indicators. In this resolution, labour underutilization is defined as all mismatches between labour supply and demand which translate into an unmet need for employment among the population.

Measures of labour underutilization include, but may not be restricted to:

- **time-related underemployment** (persons in employment whose working time is insufficient in relation to alternative employment situations in which they are willing and available to engage),
- **unemployment** (persons not in employment, available and actively searching for a job), and
- **potential labour force** (persons not in employment who express an interest in it but for whom existing conditions limit their active job search and/or their availability).

The figure below shows the composition of the working-age population in terms of labour force status, and where labour underutilization falls within this framework (in grey):



The four headline labour underutilization indicators introduced in the resolution are calculated as follows:

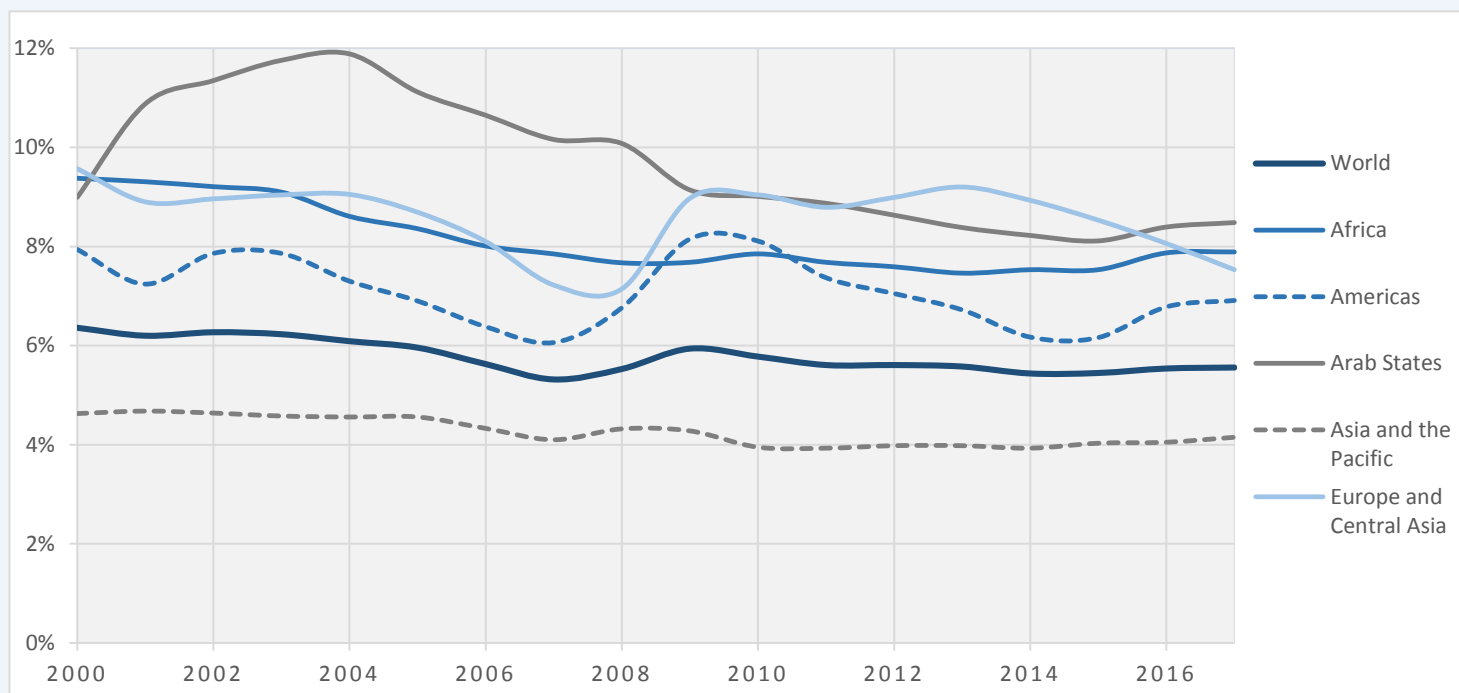
- **LU1 - Unemployment rate** =  $\frac{\text{Unemployment}}{\text{Labour force}} \times 100$
- **LU2 - Combined rate of time-related underemployment and unemployment** =  $\frac{\text{Time-related underemployment} + \text{Unemployment}}{\text{Labour force}} \times 100$
- **LU3 - Combined rate of unemployment and potential labour force** =  $\frac{\text{Unemployment} + \text{Potential Labour force}}{\text{Labour force} + \text{Potential Labour force}} \times 100$
- **LU4 - Composite measure of labour underutilization** =  $\frac{\text{Time-related underemployment} + \text{Unemployment} + \text{Potential Labour force}}{\text{Labour force} + \text{Potential Labour force}} \times 100$

## Global and regional trends in the unemployment rate

According to the latest ILO estimates, the global unemployment rate (the share of unemployed in the total labour force) stood at 5.6 per cent in 2017 and has been in a long-term downward trend since 2009, when it hit 5.9 per cent (following a sudden increase from 5.5 in 2008 as a result of the global

jobs crisis). This means that fewer than six out of every 100 persons in the labour force around the world are unemployed. Looking at the unemployment rate and its trends across regions, large regional disparities are seen: Asia and the Pacific has the lowest regional unemployment rate (4.2 per cent in 2017) while the Arab States have the highest (8.5 per cent). Europe and Central Asia is the only region where the unemployment rate has decreased in the past few years, declining continuously since 2013 (see figure below).

### Global and regional unemployment rates (2000-2017)<sup>2</sup>



Source: ILOSTAT, ILO modelled estimates, November 2017.

However, even though the world's unemployment rate is rather low and is in a long-term downward trend, this does not necessarily reflect a decline in overall labour underutilization. In fact, low or declining unemployment rates may be coinciding with increases in other forms of labour underutilization.

## Labour underutilization among the employed: time-related underemployment rates

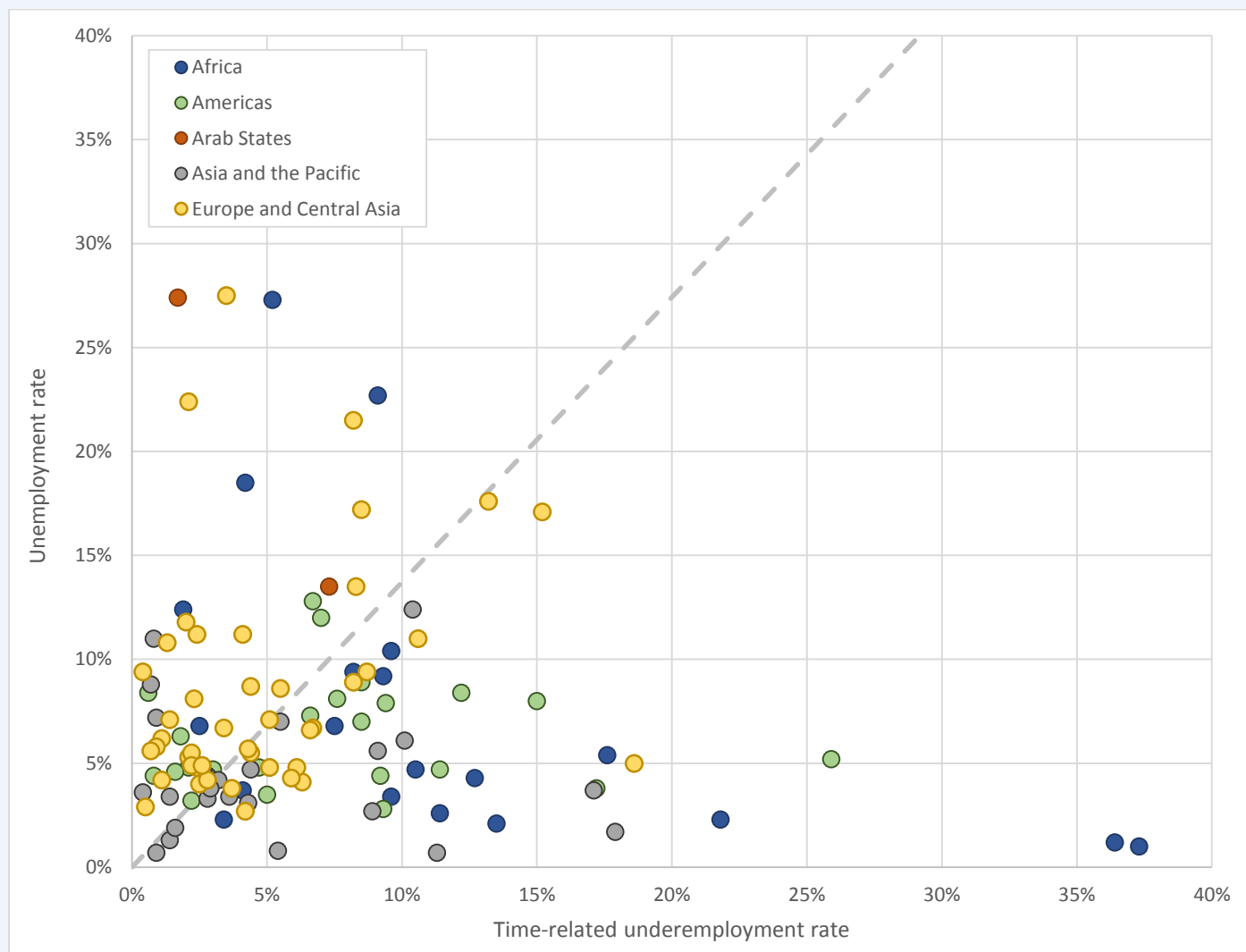
Persons in time-related underemployment are defined as all persons in employment who, during a short reference period, wanted to work additional hours, whose working time in all jobs was less than a specified hours threshold, and who were available to work additional hours given an opportunity for more work. The time-related underemployment rate expresses their share as a percentage of total employment, thus conveying the proportion of employed persons who, despite having a job, are still in a situation of labour underutilization.

Comparing unemployment rates and time-related underemployment rates provides some insight into labour underutilization patterns. In 40 of the 114 countries with post-2009 data available, the time-related underemployment rate is higher than the unemployment rate, which means that in over a third of countries with data, labour underutilization is not as much a problem of joblessness as it is one of inadequate work of those in employment (see figure below). This varies considerably from one region to the next: among countries with available data, the time-related underemployment rate is larger than

<sup>2</sup> The working-age population refers to ages 15 and over in all figures included in this brief.

the unemployment rate in 65 per cent of African countries, 44 per cent of countries in Asia and the Pacific and 43 per cent of American countries, compared to only 14 per cent of countries in Europe and Central Asia. Underlying these regional differences, the level of economic development is clearly an important factor: in 82 per cent of low-income countries with available data, the time-related underemployment rate is larger than the unemployment rate. This implies that in the developing world, underemployment tends to be more widespread than outright unemployment. In fact, in the absence of sufficient unemployment benefits, employment office services, savings and/or family support, many individuals cannot afford to remain jobless and are compelled to take up any type of job, even if the working time on offer is less than desired.

### Unemployment rates and time-related underemployment rates (latest year available after 2009)



Source: ILOSTAT (country-level data).

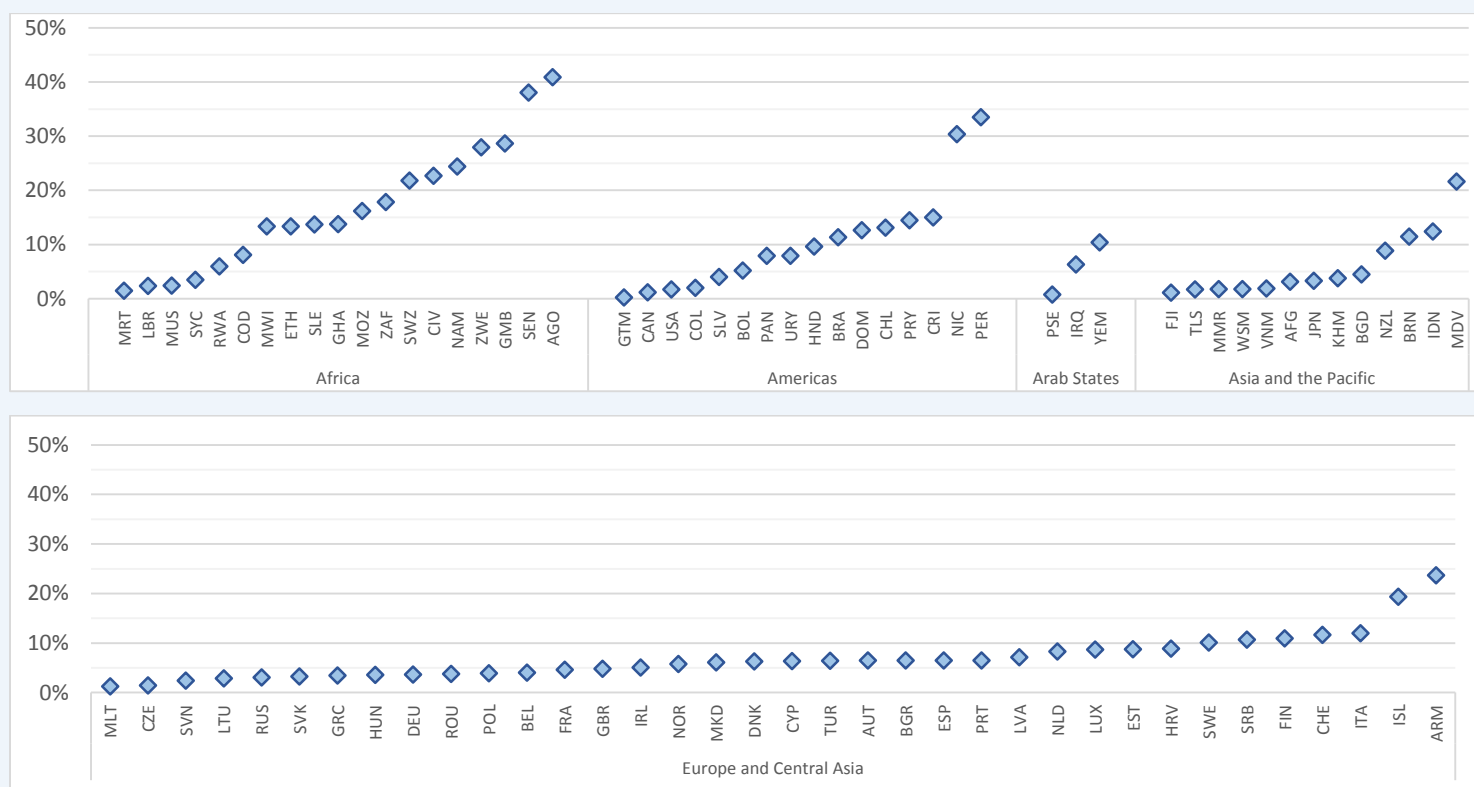
## Labour underutilization outside the labour force: the potential labour force

Persons outside the labour force are all those persons of working age who are not in employment and who are also not in unemployment. In many contexts, some persons outside the labour force do still have some attachment to the labour market and would eventually want to enter (or re-enter) the labour force. In order to better reflect this, the Nineteenth ICLS resolution introduced the concept of the *potential labour force*. The potential labour force is made up of two groups of persons of working age not in employment or unemployment: (1) those who carried out activities to seek employment but were

not currently available and would become available within a short subsequent period. This group is also known as the *unavailable jobseekers*; and (2) those who did not seek but wanted employment and were available, also known as the *available potential jobseekers*. *Discouraged jobseekers* represent a specific subset of the available potential jobseekers: those who did not seek employment for labour market-related reasons. All these individuals who are not in employment or unemployment, despite being outside the labour force, do still have some attachment to it, either through their job search or their availability, which means that they are linked to the labour market. Even though they do not explicitly constitute the labour supply, they could potentially supply labour, thus representing another form of labour underutilization. Their labour underutilization is marked not only by their joblessness, but also by the circumstances keeping them from searching for a job or being available to take up a job.

The unemployment rate disregards persons outside the labour force, failing to convey any type of information on their labour market situation, making it crucial to complement the analysis with other measures of labour underutilization. This is all the more important as in many countries the potential labour force represents a significant share of persons outside the labour force (see figure below).

**Share of the potential labour force in the total number of working-age persons outside the labour force (latest year available after 2009)**



Source: ILOSTAT (country-level data).

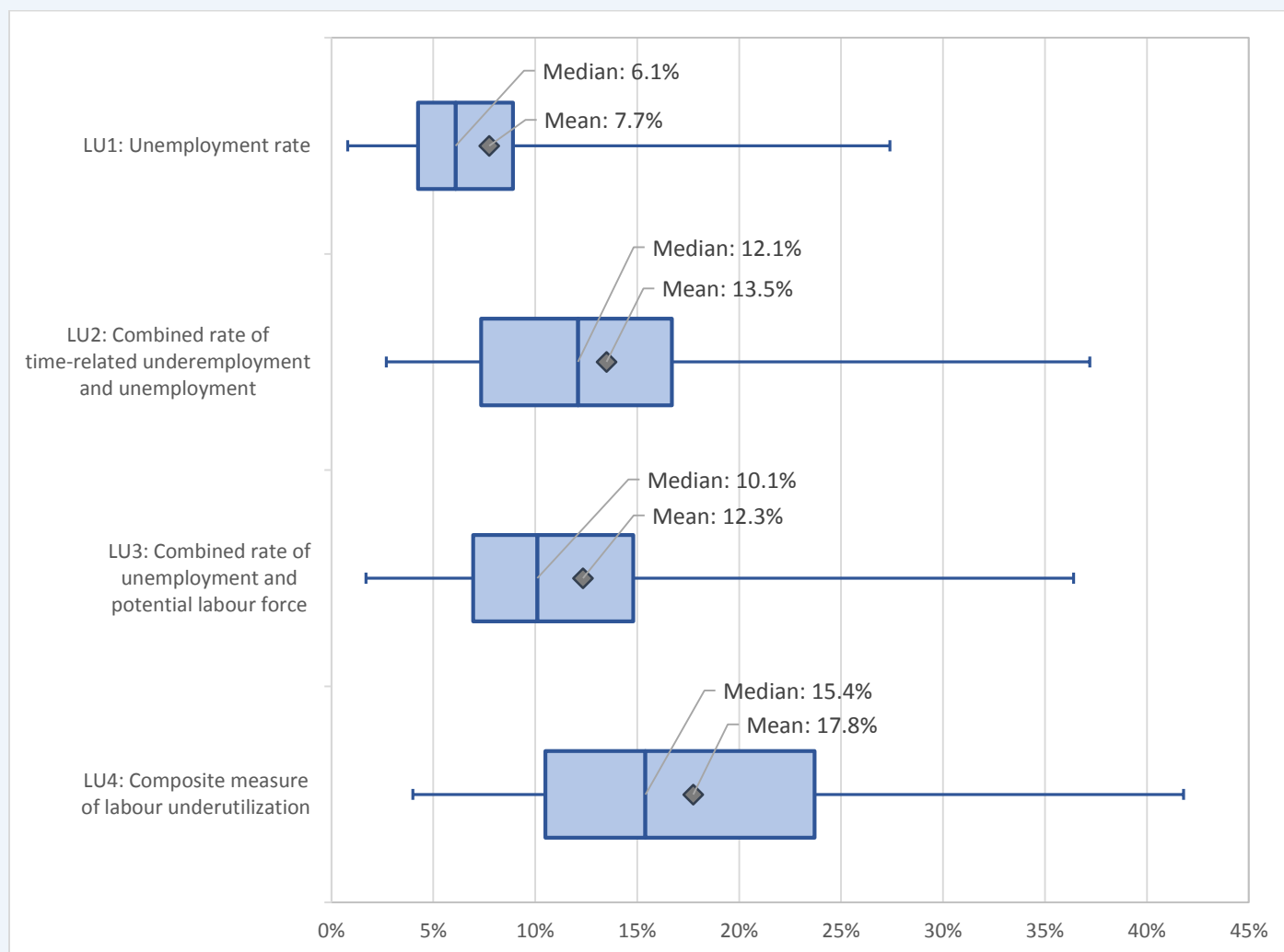
Note: Three-digit ISO country codes are used to identify countries.

## Measures of labour underutilization complementary to the unemployment rate

In order to have a wider picture of the extent of labour underutilization, it is useful to refer to the four headline labour underutilization indicators introduced in the 19<sup>th</sup> ICLS resolution: the unemployment rate (LU1), the combined rate of time-related underemployment and unemployment (LU2), the combined rate of unemployment and potential labour force (LU3) and the composite measure of labour underutilization (LU4). Based on post-2009 data for 79 countries, the following figure shows key statistics (mean, median and dispersion) for the four LU indicators.

By mathematical construction, LU4 has a larger range (the difference between the maximum and the minimum values in the series) and a higher mean and median than LU1, LU2 and LU3, reflecting the fact that this composite indicator encompasses more forms of labour underutilization than the other three. For the 79 countries with post-2009 data the median unemployment rate (LU1) is 6.1 per cent and the mean unemployment rate is 7.7 per cent, compared to a median LU4 of 15.4 per cent and a mean of 17.8 per cent. This highlights the importance of not relying solely on the unemployment rate as a measure of labour underutilization as it is restrictive and fails to cover other forms of labour underutilization which, when put altogether, may amount to significant labour market pressures.

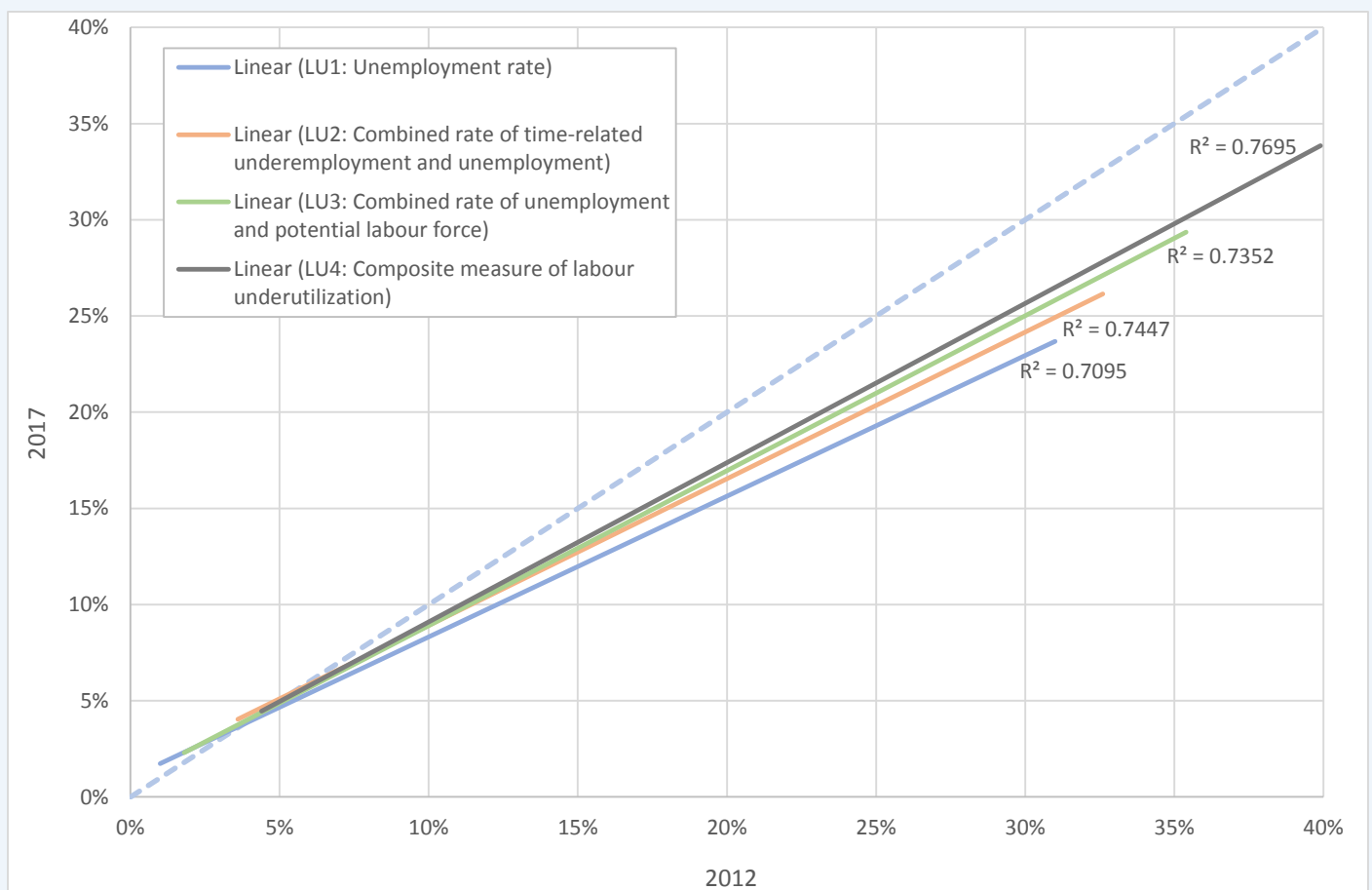
### Dispersion of four labour underutilization indicators (latest year available)



Source: ILOSTAT (country-level data).

In two thirds of the 58 countries with data for 2012 and 2017 (or closest available) for the four labour underutilization indicators, the unemployment rate declined between 2012 and 2017. However, this general downward trend is less pronounced for LU2, LU3 and LU4, suggesting that other forms of labour underutilization have a less encouraging trend than unemployment (see figure in the following page).

## Evolution of four labour underutilization indicators (2012 and 2017 or closest available)



Source: ILOSTAT (country-level data).



## Composition of labour underutilization

In order to understand where the biggest challenges lie, it is necessary to look at the composition of the labour underutilization. This can be done by calculating the shares of unemployment, time-related underemployment and the potential labour force in overall labour underutilization.

In this regard, the regional patterns show that unemployment is typically a form of labour underutilization for developed countries, whereas it is less common in developing countries. Developing countries are characterised by a lack of sufficient unemployment benefits, segmented labour markets, and informality, which leads to a concentration of labour underutilization among the employed and those outside the labour force, rather than in unemployment.

In 63 per cent of countries with available data, unemployment represents the largest share of labour underutilization, suggesting that labour underutilization is chiefly a problem of a lack of jobs for those actively searching for work. This 63 per cent is made up mostly by developed countries, including all European and Central Asian countries except Italy, Luxembourg, Switzerland and the United Kingdom.

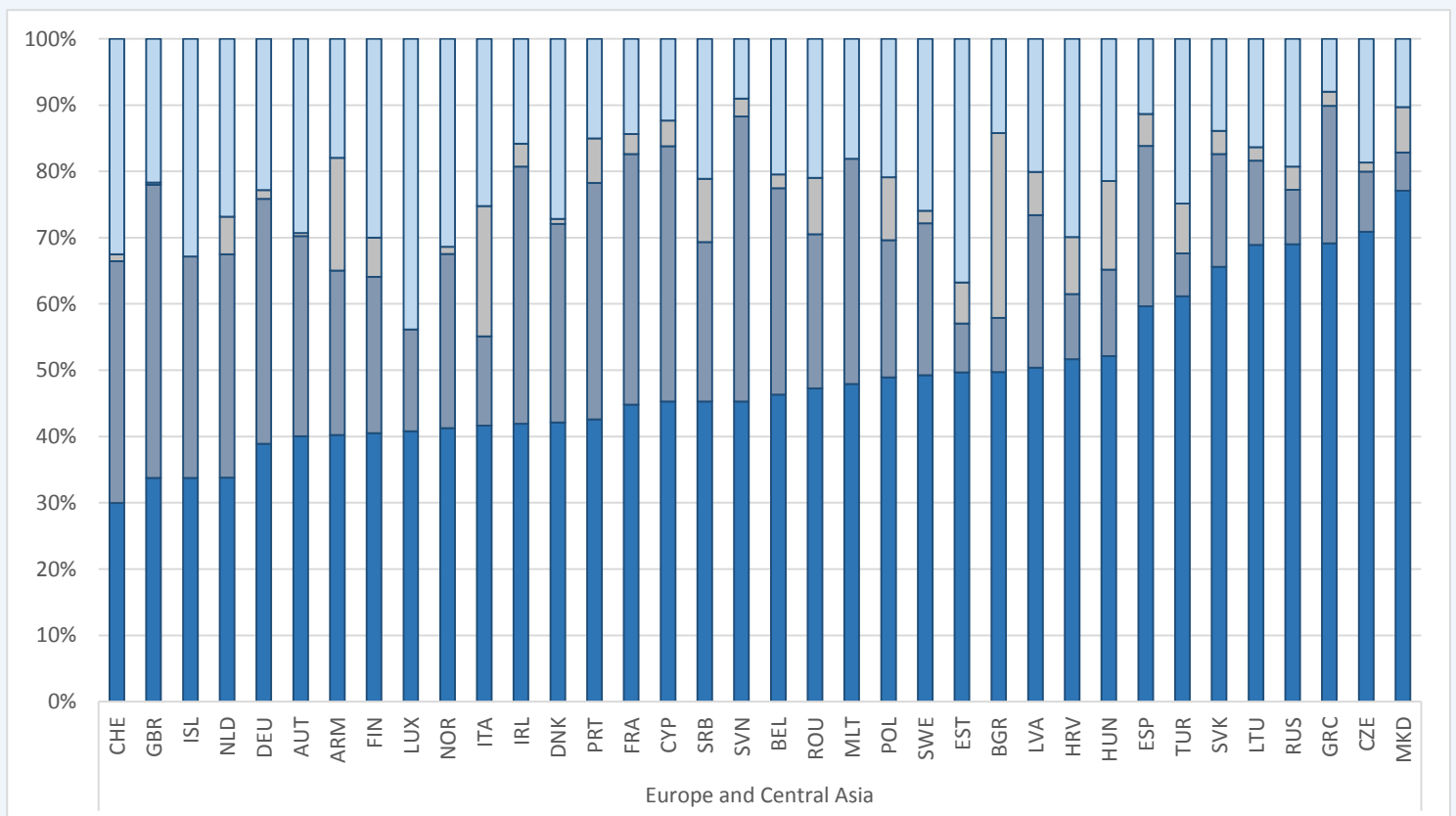
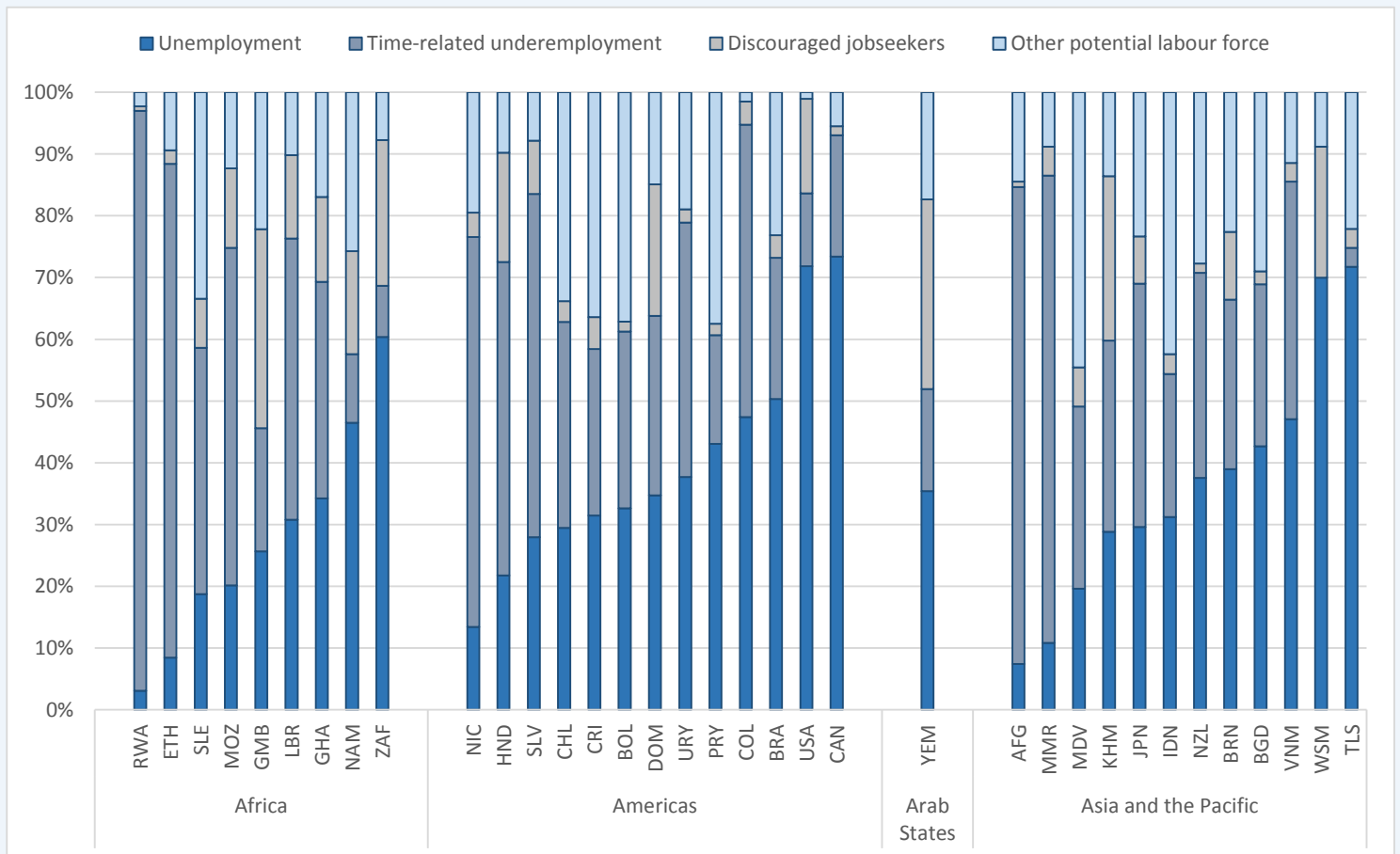
Conversely, in 20 per cent of countries with data, time-related underemployment is the biggest share of labour underutilization, implying that labour underutilization is most prominent among the employed, with jobs having a shorter working time than what incumbents desire. This is particularly striking in Africa, where in 56 per cent of countries with data, time-related underemployment is the predominant form of labour underutilization.

In the remaining 17 per cent of countries with data, the potential labour force comprises the largest share of labour underutilization, highlighting the problem of job search discouragement. This phenomenon is especially widespread in American countries: in 31 per cent, the potential labour force represents the largest share of labour underutilization, signalling that discouragement and/or other commitments such as caring for other household members or studying are keeping people out of the labour market (see figure in the following page).

This type of data analysis is invaluable for policy-makers, as it allows to pinpoint where labour underutilization truly resides, and then formulate policies to effectively address these gaps.



## Composition of labour underutilization by region (latest year available after 2009)

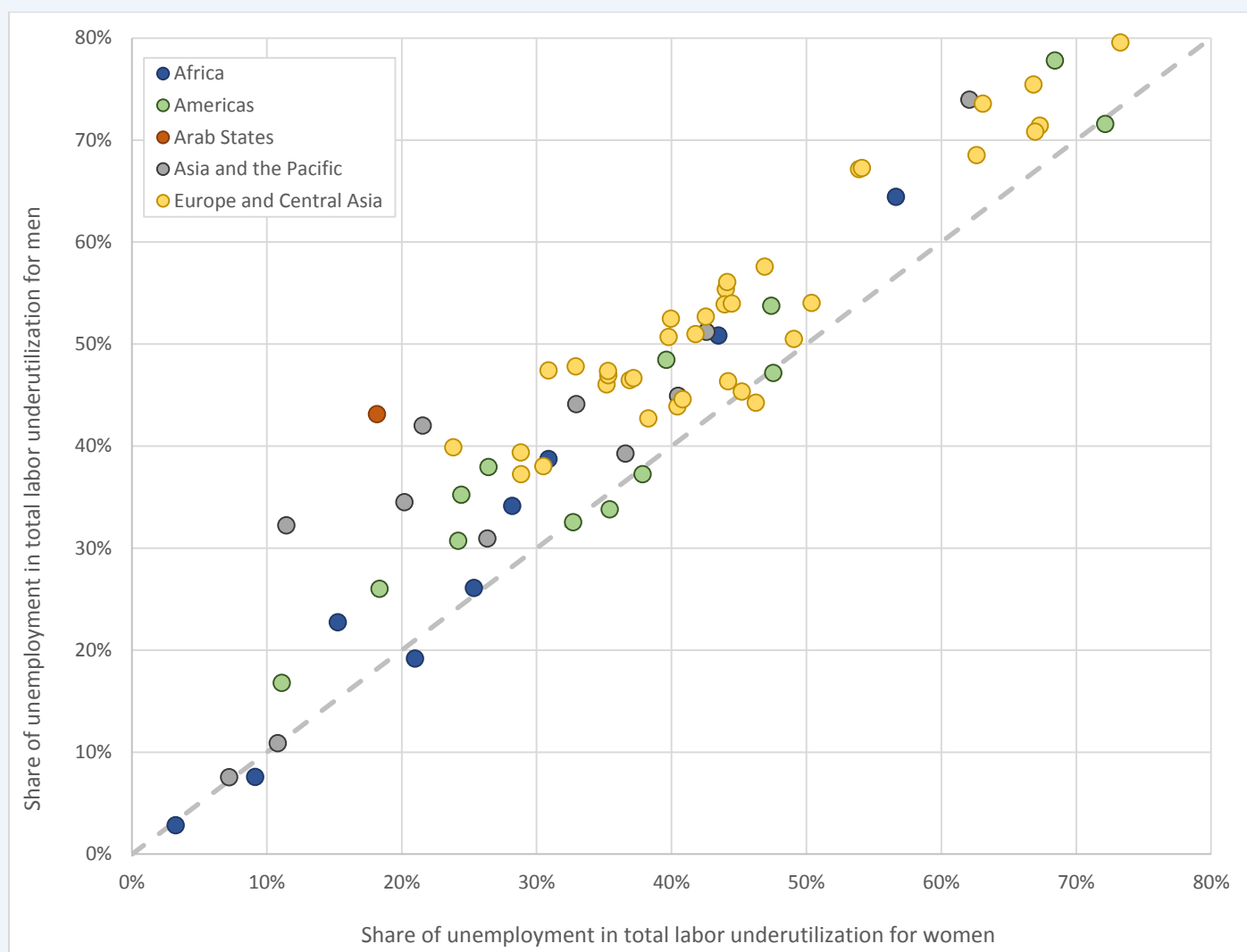


Source: ILOSTAT (country-level data).

Note: Three-digit ISO country codes are used to identify countries.

The share of unemployment in total labour underutilization reflects the extent to which unemployment is indeed the main form of labour underutilization. In 87 per cent of the 70 countries with available data, the share of unemployment in labour underutilization is higher for men than for women, implying that women are more likely to be in other forms of labour underutilization than men. There could be various explanations for this: perhaps women tend to work fewer hours than they desire, their disproportionate care work could make them less likely to being available to take up a job, they may be prevented more often than men from job searching due to other responsibilities and commitments, or they may be discouraged to a greater extent in their job search, for instance due to gender-based labour market segregation whereby they have a smaller set of potential job opportunities vis-à-vis their male counterparts (see figure below).

### Share of unemployment in labour underutilization for men and women (latest year available after 2009)



Source: ILOSTAT (country-level data).

## Qualitative labour underutilization: over-education

Time-related underemployment, unemployment and the potential labour force all comprise persons in a situation of labour underutilization, whereby they could be supplying labour (or additional labour) but are not. This refers to quantitative labour underutilization, that is, labour underutilization from the perspective of the amount of labour that could potentially be used and is not. Nevertheless, labour underutilization could also take a qualitative form, in terms of jobs not utilizing to the fullest the incumbents' skills and abilities. Skill-related inadequate employment is also a form of labour underutilization, which can have important implications for the economy and the labour market.

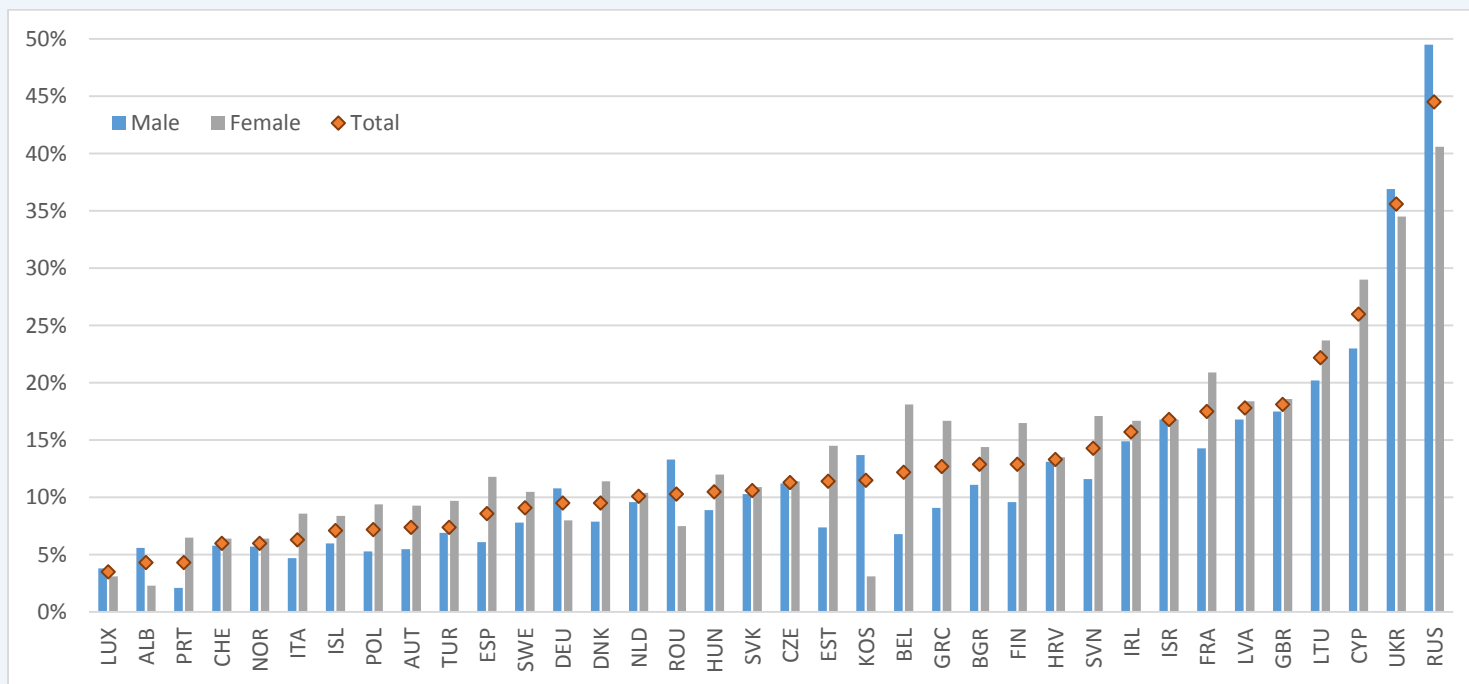
Many possible types of skills mismatch may happen in the labour market, resulting from imbalances between skills offered by workers and those needed for jobs. The types of skills mismatch that constitute a form of labour underutilization are overeducation and overqualification, that is, the situation where the worker has a higher level of education or qualifications than the level required for the job.

One way of measuring overeducation among the employed population is to assign an “appropriate” level of education to each occupation, and then compare this to the level of education of the incumbent. This is done using the International Standard Classification of Occupations (ISCO) major occupational groups. Persons with the same level of education as that assigned to their job given their occupation are considered to be well matched, while persons with a lower educational level than that assigned to their occupation are undereducated and those with a higher educational level than that assigned to their occupation are overeducated (ILO – Sparreboom and Tarvid 2017).

Looking at data available for 36 countries in Europe and Central Asia, we see that even though skills mismatch is not a matter of great concern in some countries, in many others the extent of overeducation is far from negligible. In fact, in 61 per cent of countries with data, more than 10 per cent of persons employed are holding jobs below their educational level. Most strikingly, 36 per cent of Ukrainian workers and 45 per cent of Russian workers have jobs typically requiring a lesser level of education than theirs.

In 78 per cent of countries with data, overeducation affects women more. The largest gender differentials are found in Belgium, where women’s incidence of overeducation is 11 percentage points higher than that of men, and Kosovo, where men’s incidence of overeducation is 11 percentage points higher than that of women (see figure below).

**Incidence of overeducation among the employed, based on appropriate levels of education assigned to ISCO major groups (latest year available, in most cases 2014)**



Source: ILO - SPARREBOOM and TARVID. *Skills mismatch of natives and immigrants in Europe*. 2017. Data are authors’ calculations based on Norwegian Social Science Data Services.

## Concluding remarks

Although the unemployment rate constitutes a valuable headline labour market indicator, it is an insufficient one. That is, in order to have a full picture of the state of the labour market, and particularly of the extent of labour underutilization, it is crucial to complement its analysis with other labour market indicators, most notably indicators on quality of employment (measuring working time, remuneration, etc.) and on other types of labour underutilization (LU2, LU3 and LU4).

This is all the more important for developing countries, where, due to lack of sufficient unemployment benefit schemes, inexistent or ineffective employment services, labour market segmentation and prevalence of informality, labour underutilization less often takes the explicit form of unemployment, concentrating more among the employed (time-related underemployment) and persons outside the labour force (the potential labour force).

Thus, the encouraging global downward trend of the unemployment rate must be viewed alongside trends in the time-related underemployment rate, LU2, LU3 and LU4, in order to understand whether the jobless are indeed finding decent employment, or rather quitting the job search or taking up jobs with insufficient working time.

In fact, data on the composition of labour underutilization shows that while in most developed countries unemployment still represents the typical form of labour underutilization, this not the case in most developing countries, where time-related underemployment and the potential labour force are the main forms. This is especially true for women, whose incidence of unemployment in labour underutilization is higher than that of men in most countries with data, whether developed or developing.

Labour markets are also affected by qualitative labour underutilization, that is, individuals holding jobs for which they are overeducated or overqualified. This too represents an underutilization of workers' skills and abilities. Although these are complex indicators to measure, available data on overeducation for a set of European countries suggests that a non-negligible share of the employed population have a higher level of education than their job requires.

In order to effectively address labour underutilization, it is crucial to have comprehensive information on all the possible forms it takes, including unemployment, time-related underemployment, the potential labour force, overeducation and overqualification.

