

Kyyrä, Tomi; Pesola, Hanna

**Article**

## The labor market in Finland, 2000-2016

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# The labor market in Finland, 2000–2016

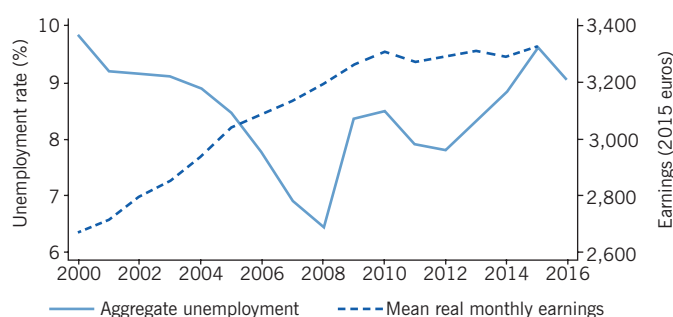
## An almost decade-long economic stagnation left an unemployment problem for an aging society

Keywords: real earnings, unemployment, Finland

### ELEVATOR PITCH

Finland's population is aging rapidly by international comparison. The shrinking working-age population means that the burden of increasing pension and health care expenditures is placed on a smaller group of employed workers, while the scope for economic growth through increased labor input diminishes. Fiscal sustainability of the welfare state calls for a high employment rate among people of working age. Recent increases in employment among older groups contribute favorably to public finances, but high overall unemployment and a large share of the long-term unemployed are serious concerns.

### Aggregate unemployment rate and real average earnings



Source: Statistics Finland. Unemployment rate online at [http://tilastokeskus.fi/til/tyti/tau\\_en.html](http://tilastokeskus.fi/til/tyti/tau_en.html). Real average earnings based on authors' own calculations using data from Structure of Earnings Statistics.

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### KEY FINDINGS

#### Pros

- ⊕ Labor force participation and employment rates of older groups have increased considerably.
- ⊕ Although unemployment is at a relatively high level in the aftermath of the financial crisis and subsequent recession, it could be much higher, particularly considering the larger effect of the recession in the 1990s.
- ⊕ The gender wage gap has declined, although this is partly due to job losses among men in the recession years.
- ⊕ Wage inequality has remained stable and is still low compared to most other advanced countries.

#### Cons

- ⊖ The employment rate among the working-age population is low compared to other Nordic countries.
- ⊖ Long-term unemployment, underemployment, and disguised unemployment have increased over the past few years.
- ⊖ GDP is still below its 2008 level and real earnings have not increased since 2010.
- ⊖ Some indicators point to a growing gap between the skills needed in new jobs and the skills possessed by unemployed job-seekers.

### AUTHORS' MAIN MESSAGE

In 2016, the Finnish economy finally returned to a strong growth path after an almost decade-long stagnation. However, the employment rate remains well below the government's target of 72% for 2019. The recent economic downturn has left a difficult legacy: unemployment is 9% and a large share of job-seekers has been without a job for over a year. Moreover, a significant part of unemployment may be structural. Several labor market reforms to increase employment have already been implemented, but new ones, such as promoting longer working careers and flexible work arrangements, increasing flexibility in wage setting, or encouraging immigration, may be needed.

## MOTIVATION

The share of the population aged 65 and over is increasing in all EU countries. In Finland, this share rose by 4.5 percentage points over the past ten years, which is the second highest increase in the EU after Malta, and more than twice the EU28 average. To cope with the financial pressures associated with an aging population, several labor market reforms have been implemented since 2000. The aim of the reforms has been to increase employment by lowering unemployment, encouraging labor market entry, and postponing retirement. These reforms have influenced how the labor market responded to a severe and lengthy recession that hit the economy in 2008 and lasted nearly a decade.

## DISCUSSION OF PROS AND CONS

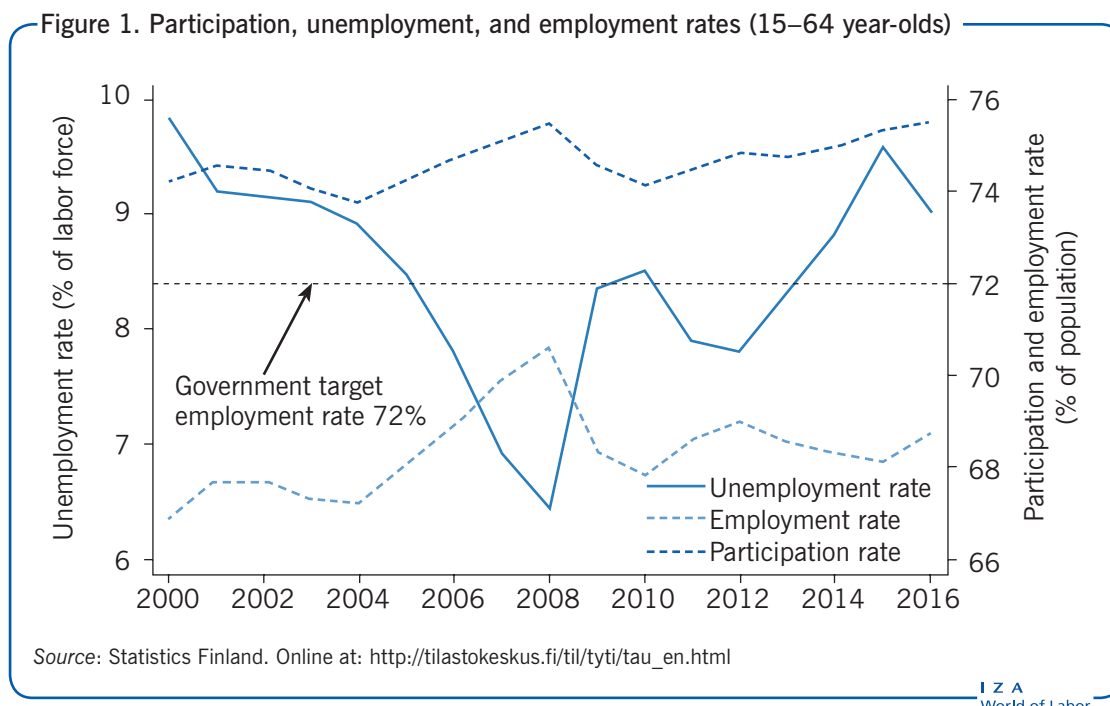
### Aggregate issues

In Finland, the number of working-age people (aged 15–64) is already shrinking, and the overall population aged 15 to 74 will start to decline in 2020. Moreover, no increase in the size of the working-age population is forecast before the 2030s. The population share of working-age people is expected to decline from the present level of 63% to 59% by 2030 and further to 57% by 2060 [1]. This demographic change leads to increasing pension payments and health care expenditures. There is a consensus among policymakers, labor unions, and employer organizations that labor supply and employment among the working-age population must increase in order to cope with these growing financial pressures. This calls for a well-functioning labor market, producing high employment and, in turn, sufficient tax revenues and social security contributions to support the country's aging population. Toward this end, several reforms have already been implemented, such as those in pension and unemployment benefit schemes, but additional reforms are still needed. Despite the common goal of a higher employment rate, the effectiveness of potential policy measures to boost employment and labor supply remains open to debate.

The key goal of the current government is to increase the employment rate among the working-age population to 72% by 2019. Given that the employment rate has not been that high in Finland since 1990, the target is very ambitious. On the other hand, the target level is lower than current employment rates in other Nordic countries, suggesting that it is not entirely unrealistic—at least in the longer term.

As seen in Figure 1, the employment rate increased from 66.9% in 2000 to 70.6% in 2008. Over the same period, the unemployment rate declined from 9.8% to 6.4%. However, the development reversed in 2008 when the global financial crisis hit the Finnish economy, and remained poor until recent years. By 2016, the employment rate dropped to 68.7% and the unemployment rate rose to 9.0%. The labor force participation rate has been relatively stable, varying between 73.8% and 75.5% over the years 2000–2016, and since 2010 it has been increasing steadily. Despite current strong GDP growth, it is unlikely that the employment rate will reach 72% by 2019.

It is worth emphasizing that the Finnish economy was hit exceptionally hard by recent events, not only by the Great Recession, but also by the meltdown of the Nokia-dominated tech cluster, structural change in the forest industry, and more recently by sanctions between EU and Russia. As a result, GDP is still below its 2008 level, with an average annual GDP growth rate of –0.7% from 2008 to 2016. Given almost ten years of economic stagnation, an increase of 2.6 percentage points in the unemployment rate between 2008

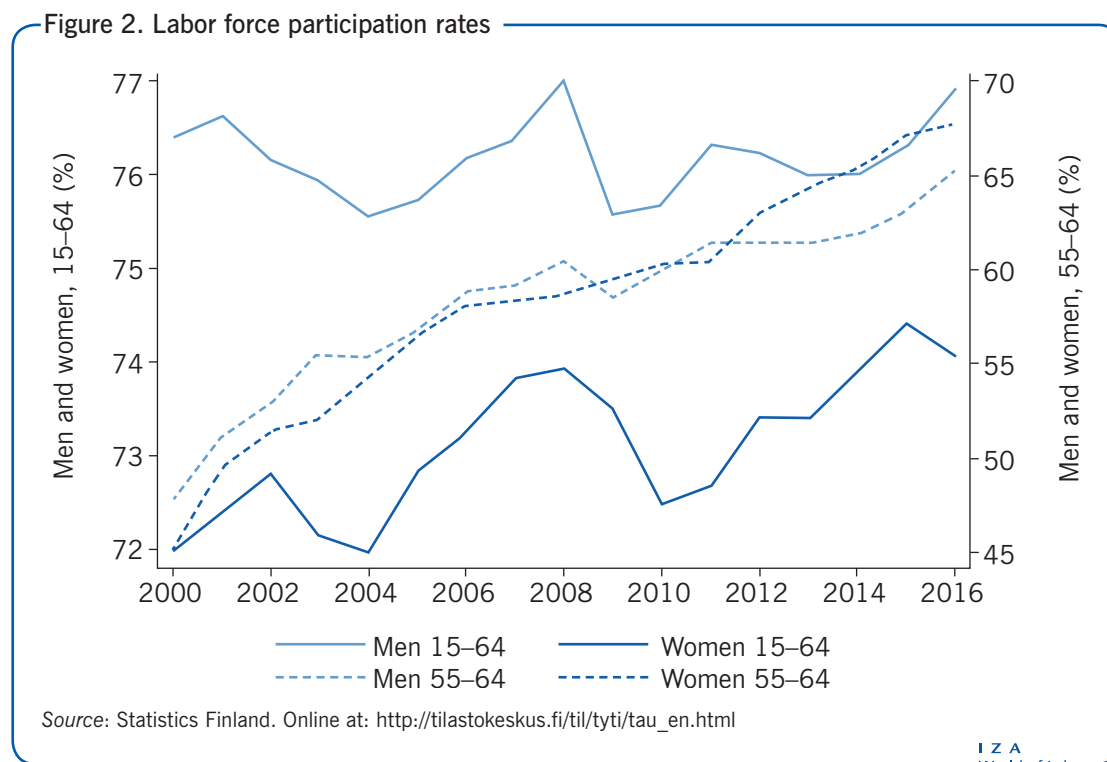


and 2016 is not that bad. The increase is actually moderate, especially when compared to the evolution of unemployment during and after the previous deep recession between 1990 and 1994, when GDP declined by 6% and unemployment skyrocketed from 3.2% to 16.7%. Furthermore, the unemployment rate remained above 10% until 1999, when GDP exceeded its 1990 level by 17%.

### Labor force participation, unemployment, and employment by gender and age

One of the positive developments in the Finnish labor market in recent years has been the increased labor force participation rate among older age groups. Figure 2 presents labor force participation rates between 2000 and 2016. Apart from the cyclical variation, the participation rate among working-age men has remained quite stable, while the participation rate among working-age women has increased by about two percentage points during this period. Having dipped during the recession, in 2016 the participation rates of working-age men and women were back at their 2008 levels. The participation rate of women is rather high, and the difference between men and women in the Finnish labor market is quite small compared to most other countries. The large involvement of women in the labor market can at least partly be attributed to a well-established parental leave system and the provision of public daycare. On the other hand, the Finnish homecare allowance system induces mothers to care for their children at home for longer periods than in other Nordic countries. The participation rate of women with children between the ages of one and three is clearly less than in, for example, Sweden, but in Finland women with children of all ages work mostly full-time, whereas part-time work is much more prevalent in other Nordic countries.

The aggregate numbers hide important differences between the participation rates among different age groups. The participation rates of people aged 55 and over have increased markedly since 2000, increasing by 18 and 22 percentage points for men and



women respectively. This development has been influenced by factors such as reforms in the Finnish pension system. Of these reforms, the most effective have been the abolition of a disability pension scheme with relaxed medical eligibility conditions and increases in the age threshold for an early retirement scheme that offers unemployment-related benefits until old-age pensions are provided. The fact that the positive development among older age groups has not had more of an impact on the overall labor force participation rate is related to the decreasing share of prime-age workers, who typically have high participation rates as well as decreases in their participation rates.

Figure 3 shows the increase in the participation rates of those aged 55 and over is due primarily to increases in their employment rate. The pension and unemployment insurance reforms implemented during this period seem to have had a significant effect on employment in this age group [2]. However, employment rates for the whole working-age population are well below the government's target rate of 72%. Furthermore, while the employment rate for women is close to that in other Nordic countries and above the EU average, the employment rate for men is lower than in other Nordic countries [3].

The employment rate of working-age women increased between 2000 and 2016. By contrast, men's employment suffered much more from the recession and the employment rate of working-age men was back to its 2000 level in 2016, after having risen substantially over the years 2004–2008. Several policies to increase the employment rate (e.g. changes in the unemployment compensation system and a reduction in employers' indirect labor costs) have been implemented in recent years, but it is unlikely that the overall employment rate will reach the target level of 72% without further measures. Moreover, some have argued that the current target rate is insufficient to finance the welfare state given the rapidly aging population.

Unemployment in all age groups was still high in 2000 following the recession in the 1990s (Figure 4). The unemployment rate for people younger than 25 shot back up to

Figure 3. Employment rates by age group and gender

Source: Statistics Finland. Online at: [http://tilastokeskus.fi/til/tyti/tau\\_en.html](http://tilastokeskus.fi/til/tyti/tau_en.html)IZA  
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those levels when the recession began in 2008. As usual, for workers older than 25 the developments following the recession were slightly more moderate than for younger workers. However, with economic growth absent for almost a decade, the unemployment rate for this age group has still crept higher, and for men it is now back to its rather high 2000 level. Women have suffered slightly less from the recession due to differences in the male and female employment shares within the most affected industries.

Considering the long-lasting economic stagnation, the increases in unemployment rates for different age groups are not remarkable. One explanation could be that the number of hours worked has decreased, thus absorbing part of the blow of the recession. However,

Figure 4. Unemployment rates by age group and gender

Source: Statistics Finland. Online at: [http://tilastokeskus.fi/til/tyti/tau\\_en.html](http://tilastokeskus.fi/til/tyti/tau_en.html)IZA  
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while working hours have indeed decreased, this development began 20 years ago and the connection to the unemployment rate is far from obvious [3]. Moreover, the demand shock due to global turmoil fell mainly on the capital-intensive export sector, while the labor-intensive service sector was less affected. Unlike in the early 1990s, firms had very strong balance sheets at the beginning of the 2008 crisis and interest rates remained extremely low over the recession years, which reduced the need for mass layoffs.

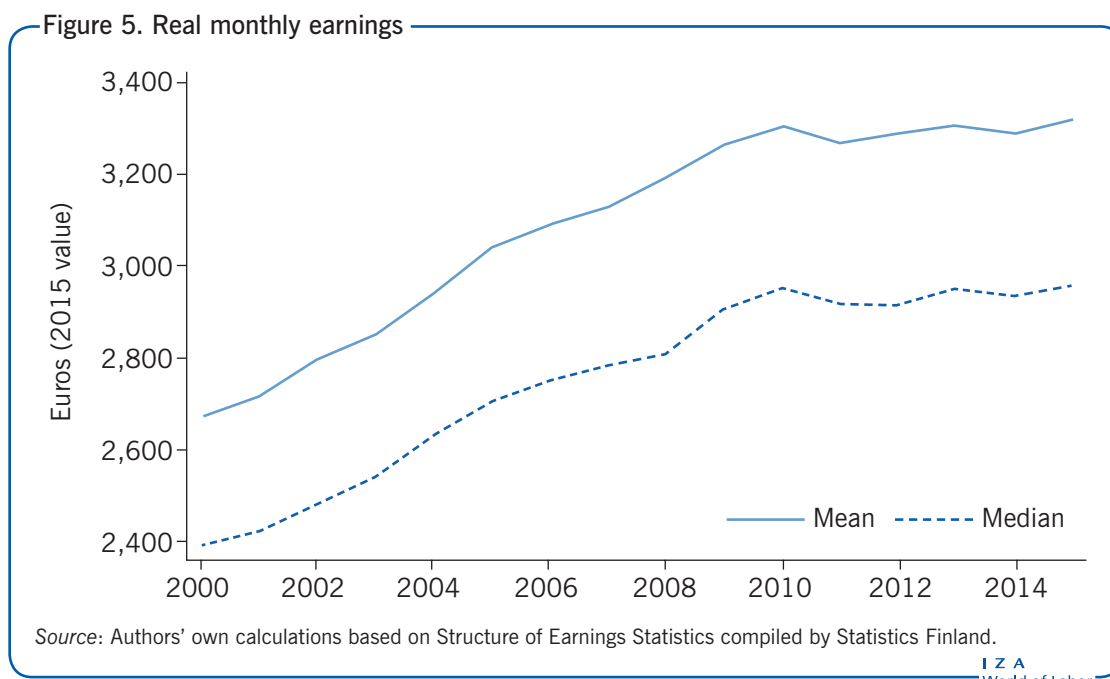
As in other countries, the high unemployment rate among younger workers is worrisome. However, the unemployment rate is not an ideal indicator of the situation of young workers, due to low labor force participation and the high share of students among the officially unemployed in this age group. The NEET (not in education, employment, or training) rate gives a clearer picture of how young adults are faring. In Finland, the NEET rate for 20 to 24-year-olds increased by four percentage points between 2008 and 2016, reaching 14.1%. As the NEET status has been shown to be quite persistent [4], this can imply further problems in the future, even if the recent economic growth continues.

### Wage developments

The data used in this article to analyze wage developments come from the Structure of Earnings Statistics compiled by Statistics Finland. The data are formed by combining data collected by employer organizations from their members with those from Statistics Finland's wage and salary inquiries. They cover 55% of private sector employees and 100% of public sector employees. Firms with fewer than five employees, firms in agriculture and forestry, and the top management of firms are not included. Sampling weights are used to make the data representative for the population of private sector firms covered by the inquiries. The weighted data represent 80% of employees in Finland. The main reason for using these data, as opposed to register data for the whole population, is that the population-wide register data only include annual earnings and do not include information on whether employment has been full-time or part-time.

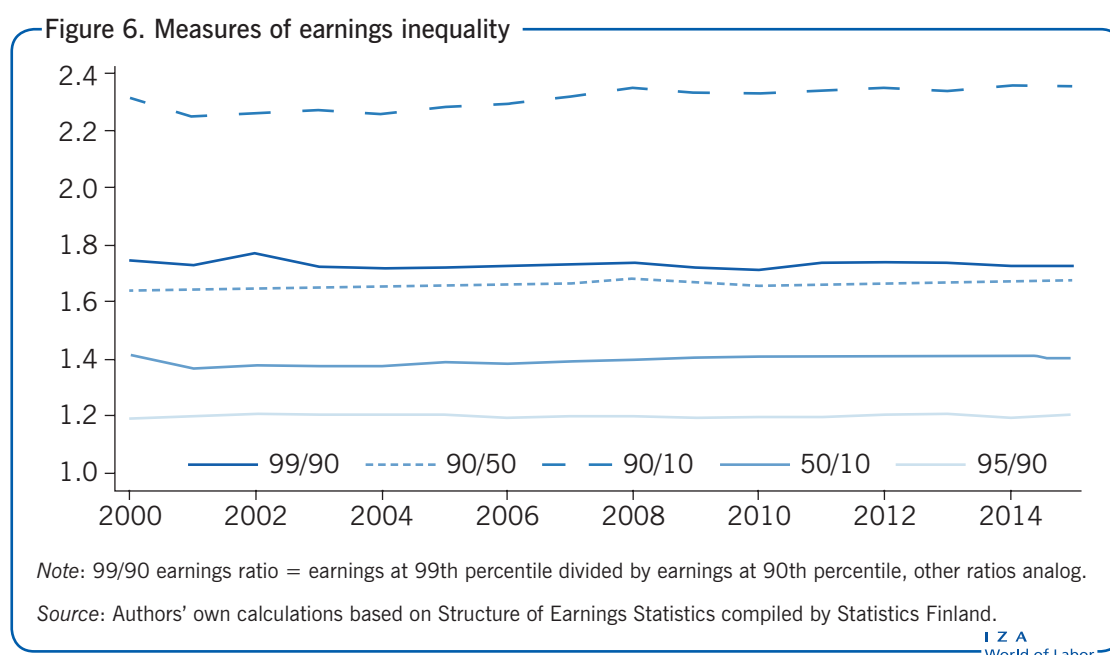
Examining monthly earnings of full-time employees provides a clearer picture of the evolution of wage inequality and, due to the low prevalence of part-time work in Finland (only 10% of men and 20% of women work part-time compared to about 15% of men and 35% of women in Sweden and Denmark [3]), does not significantly restrict the sample. Figure 5 displays mean and median monthly earnings between 2000 and 2015. The development of real earnings has two distinct periods, with continuous growth until 2010 and hardly any change since then. In 2008 and 2009, wages continued to increase at a rapid rate despite large drops in output and productivity, which contributed to a decline in the cost-competitiveness of Finnish firms. This has been seen as a failure of the highly centralized wage setting system.

In Finland, collective agreements are signed between labor unions and employer associations at the industry level. These agreements are then automatically extended to also cover most non-union workers and their employers. As a result, over 90% of workers are covered by collective bargaining [3]. Quite often, industry-specific agreements have been made according to a comprehensive settlement between the confederations of labor unions and central employer organizations (possibly with government intervention regarding labor taxes or employment regulations), in which case roughly equal wage increases have been paid to all employees.



The highly centralized wage bargaining system has been criticized in recent years. It has been argued to be too inflexible for the current economic environment, resulting in nominal wage rigidity and preventing wages from adjusting to asymmetric demand shocks and productivity differences. Employers, in particular, strive toward a more decentralized system. In 2016, the Confederation of Finnish Industries (i.e. the umbrella organization of 26 employer associations) changed its internal rules in such a way that it cannot anymore sign central-level wage agreements on behalf of its members.

In order to examine the development of earnings inequality, the earnings ratios for individuals at different percentiles of the earnings distribution are reported. Figure 6 shows the 99/90, 95/90, 90/50, 90/10, and 50/10 earnings ratios. It should be noted





that the top management of private firms are not included in the data, which may impact the 99th percentile of the earnings distribution. What stands out is the flatness of all the measures considered, with none of the rise in earnings inequality found in, for example, the US and Germany. Accordingly, overall earnings inequality is rather low in Finland compared to most other countries and has not been increasing.

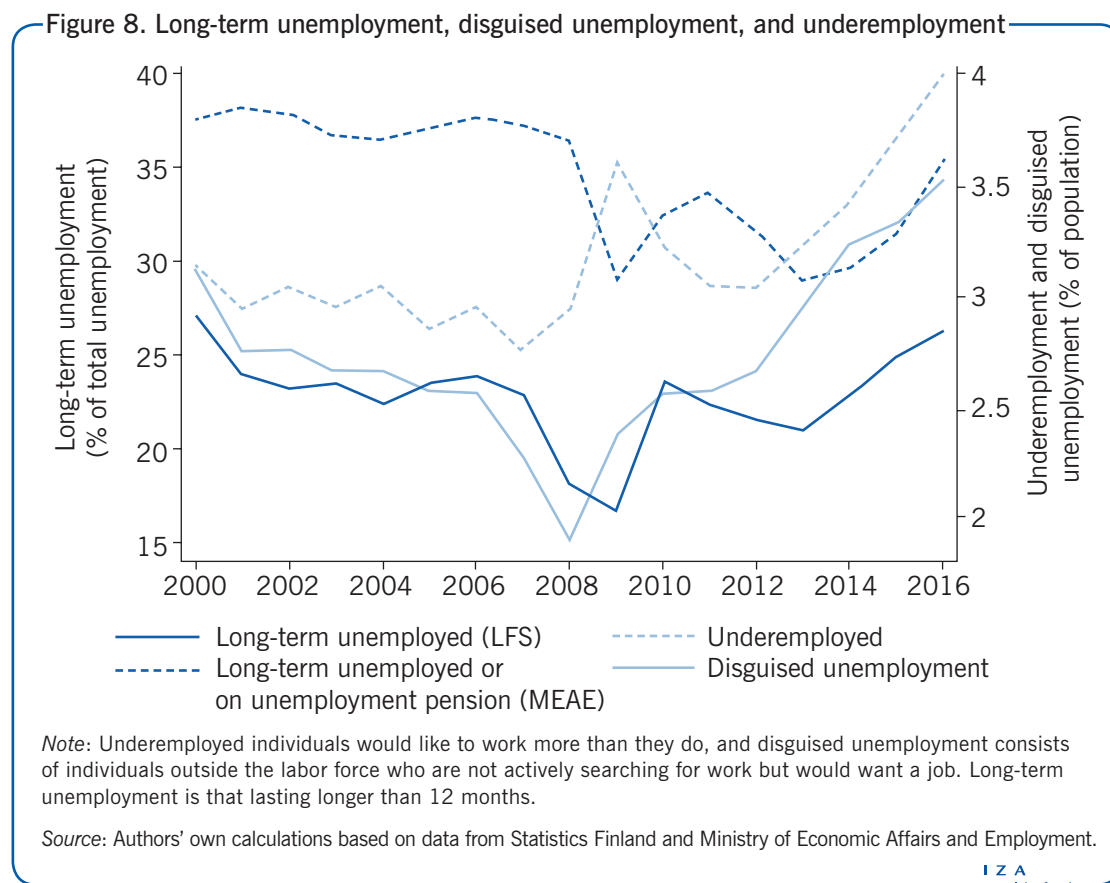
The female/male earnings ratio increased among full-time workers over 2000–2016, with most of the increase occurring during the recession. Women with tertiary education have gained more than less-educated employees but are still relatively worse off compared to their male peers (Figure 7). Gender differences in earnings are slightly smaller in the private sector than in the public sector, and in the private sector the female/male earnings ratio has continued to rise, while in the public sector it has decreased somewhat after 2011.

Note that most of the overall increase in the female/male earnings ratios appears to be a composition effect. When restricting the sample to employees who are present in the data in both 2000 and 2015, the path of the female/male earnings ratios, both overall and in the sub-groups, is almost flat. The recession had a particularly severe effect on employment in some male-dominated industries, such as in forestry and the metal and electronics industries, which influences the measures of gender differences in earnings.

### Some evidence of mismatches between job-seekers' skills and job requirements

GDP grew around 2% in 2016, and growth is expected to continue over the next few years. As a result, unemployment is declining and employment increasing. However, there are some reasons to worry that unemployment will decline only at a slow pace, or that the decline may be rapid at first but will then stagnate at a relatively high level.

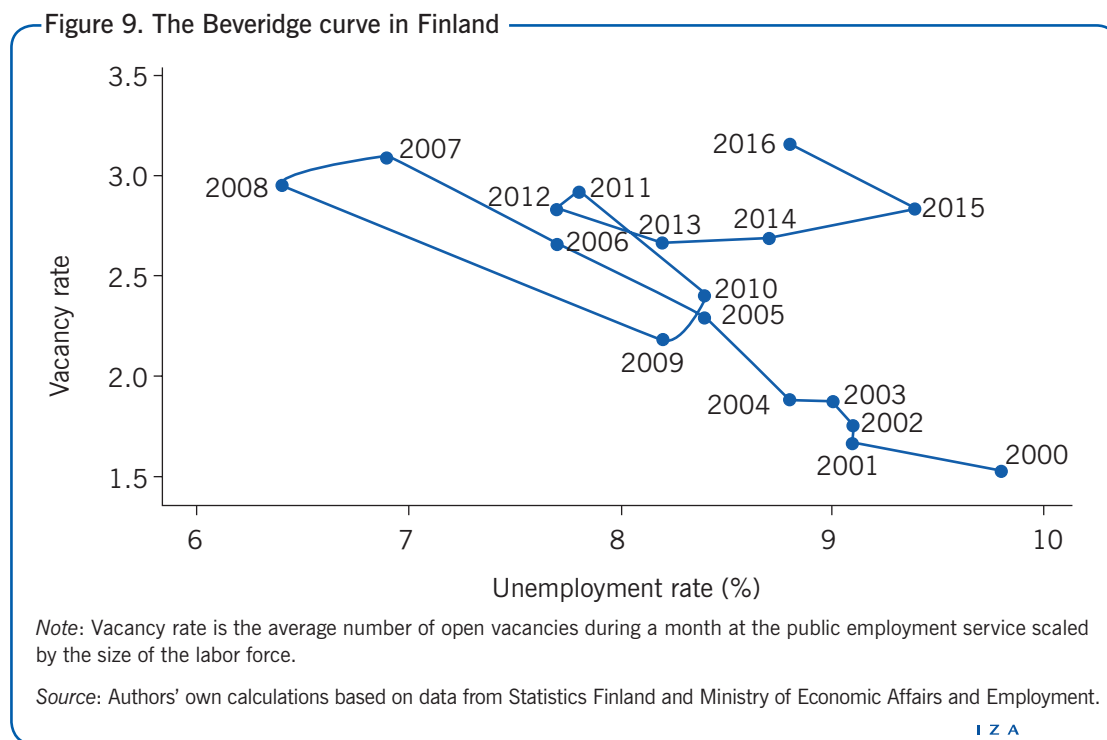
First, the share of long-term unemployed is high. It is well known that people who have been unemployed a long time have relatively poor employment prospects due to the depreciation of human capital and because employers tend to discriminate against the long-term unemployed. Figure 8 shows that the share of unemployed people reporting themselves as long-term unemployed (i.e. as having been looking for a job for over 12



months) in the Labour Force Survey has increased from under 20% before the recession to over 25% in 2016. The share of long-term unemployed in the registers of the Ministry of Economic Affairs and Employment (MEAE) is even higher, reaching 35% in 2016. This figure includes individuals who are not actively searching for work and are thus potentially at risk of permanent unemployment.

Second, the share of underemployed and those in disguised unemployment has increased. Underemployed individuals would like to work more than they do, and disguised unemployment are people outside the labor force who are not actively searching for work but would want a job. The size of these groups points to hidden labor supply potential, which might be good for the economy as a whole and for the government's employment rate target, but also means that unemployed job-seekers will face tougher competition for vacant jobs.

Third, there is some indication that unemployed workers' skills have not matched very well to the requirements of new jobs over the past few years. One piece of evidence for this comes from Finland's Beveridge curve—a graphical representation that describes the degree of mismatches between available jobs and unemployed job-seekers in a labor market. The curve is obtained by plotting the vacancy rate against the unemployment rate over time. Business cycle variation produces a downward-sloping relationship for this curve, as the vacancies increase and unemployment declines during upturns, whereas the vacancies and unemployment move in the opposite directions during downturns. But if the curve moves outwards (i.e. when a given vacancy rate is associated with a higher level of unemployment), this implies that vacant jobs are filled by unemployed job-seekers at a lower rate. Such a shift in the location of the curve can be regarded as evidence of



an increase in structural unemployment, which may happen because the skills of the unemployed and the skills required in jobs do not match, or because vacant jobs and unemployed job-seekers are located in different parts of the country.

Figure 9 shows the Beveridge curve in Finland over the years 2000–2016. The number of vacancies refers to the average number of vacancies reported by the public employment service during a month, which is scaled by the size of the labor force, obtained from the Labour Force Survey. Because not all open vacancies are reported to the public employment service, the vacancy rate underestimates the total number of open vacancies in the economy, possibly to a large extent. Nonetheless, its changes over time are likely to describe labor demand changes sufficiently well. The points in the graph move approximately along a downward-sloping line from 2000 to 2013, though the 2008 and 2009 points are somewhat off the line and closer to the origin. The movements until 2013 can be explained in large part by variation in business cycle conditions. However, the curve clearly shifted outwards in 2014 and 2015, as the unemployment rate increased by over two percentage points even though the vacancy rate remained stable or increased marginally, pointing to increasing labor market mismatches.

Additionally, the increase in the share of people in disguised unemployment may imply a worsening mismatch problem—people may stop looking for a new job if they think that they lack the skills required or if they live in regions where no jobs are available and are unable to migrate. On the other hand, differences in unemployment rates across Finnish counties have not increased during the past few years. In fact, regional differences were larger during the first years of the 2000s than they are now.

It is noteworthy that in Finland people with poor skills have particularly low employment rates but relatively high wages, while in several other countries skill differences translate into wage differences [3]. Although the share of people with poor skills is relatively low in

Finland (at 7% compared with 12% in Denmark and 16% in the US), this group's relatively high wages indicate that education or increased flexibility in wage setting could play an important role in enhancing their employment.

## LIMITATIONS AND GAPS

One limitation in describing labor market conditions over time is the lack of comprehensive data on labor demand conditions. This analysis used data on open vacancies at the public employment service, published by the MEAE. An advantage of this approach is that the underlying microdata are readily available. However, the data only cover a portion of open vacancies in the labor market, and the vacancies included are somewhat selective, with high-skill jobs probably underrepresented. An alternative source of data would be the Job Vacancy Survey, conducted by Statistics Finland, which is based on EU-wide guidelines. The problem with this survey is that it only goes back to 2002; also, its design changed in 2013, so that the most recent data are not comparable to pre-2013 data.

## SUMMARY AND POLICY ADVICE

The most obvious problem in the Finnish labor market today is high unemployment, which would be less worrisome without signs of its structural nature. Given demographic change, the major challenge is to reach a sufficiently high employment rate. There is no single solution; various measures to increase labor supply and employment among labor market participants are needed.

Policies to increase labor supply could include the promotion of longer working careers, such as providing economic incentives to postpone retirement, along with flexible work arrangements for those who are not able to work full time due to health issues. Given the relatively poor labor market situation of young workers, ensuring a smooth transition between different stages of the education system and facilitating entry into the labor market can have a substantial impact in the long term. An additional way to increase labor supply is to encourage immigration, along with programs that help immigrants (and refugees) to integrate in the Finnish labor market and society. As to policies that would increase employment among labor market participants, training programs for the unemployed with outdated skills, flexible work arrangements for parents of young children, and flexible benefit schemes for underemployed individuals should be promoted and developed for more efficient use.

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## Competing interests

The IZA World of Labor project is committed to the *IZA Guiding Principles of Research Integrity*. The authors declare to have observed these principles.

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