This report introduces basics on structural unemployment in some member countries of the International Labour Market Forecasting Network. The Network is a cooperation of forecasters and policy advisors related to Public Employment Services. The following contributions were presented on the annual meeting 2014.

Structural – or non-cyclical – unemployment is a consequence of mismatch between worker and job profiles, institutional conditions or persistent economic shocks. There is no convention how to measure structural unemployment. The following country reports sketch the specific situation based on national statistics. Nonetheless, it becomes clear that low qualification, skill depreciation during long unemployment spells, and regional disparity or structural imbalances are important aspects to consider when combating structural unemployment. Typically, the individual barriers to re-integration into the labour market are manifold which necessitates specifically tailored policy measures. However, the most efficient policy would be prevention.
1 Introduction

1.1 On the International Labour Market Forecasting Network

The International Labour Market Forecasting Network is an informal association of forecasting teams related to Public Employment Services. The teams are mostly organisationally attached to Federal Employment Agencies or Federal Ministries of Labour and/or Economics. At the moment, the member states are Norway, Sweden, Finland, Latvia, Estonia, Denmark, the Netherlands, and Germany.

In regular annual meetings, the members discuss recent developments in the macro-economy and the labour markets, forecasting techniques, and a prevailing special topic. In 2014, when permanent effects of the financial crisis 2008/09 and the European recession 2011-2013 became more and more obvious, the discussion involved structural unemployment as special topic. This Current Report summarizes the countries’ contributions on the basis of their national statistics. In that sense, the following chapters cannot necessarily provide an international comparison but shed light on different concepts and situations regarding structural unemployment in the member countries.

1.2 What is structural unemployment?

When we analyse the national unemployment level it is useful to divide it into two types of unemployment, structural unemployment and cyclical unemployment. The cyclical unemployment is caused by a temporary shock in the demand for goods or services, and will decrease when the demand rises again. If the shock is long lasting however, the unemployment which started as cyclical may turn into a more structural type. This is because unemployed workers are exposed to skill depreciation over time and hence become less attractive for employers. This may become a major issue in Europe, as the high level of long-term unemployment lingers.

Structural unemployment, on the other hand, is caused by a mismatch between the qualifications of the unemployed and the qualifications in demand, persistent economic shocks or institutional arrangements like unemployment insurance or the wage bargaining system. Thus, the level of the structural unemployment in a country can change over time because of labour market reforms, permanent economic shocks, etc. One way of estimating the level of the structural unemployment, is by measuring the level of unemployment that gives a constant inflation rate/wage growth (NAIRU). Other concepts involve permanent components of unemployment series, a fraction of vulnerable labour force facing low chances of re-integration into the labour market.

1.3 What to do about structural unemployment?

This subsection provides a short summary of policy recommendation or experience given at the annual meeting. As structural unemployment refers to complex sources, labour market policy is not the only appropriate strategy, very often, it is not even
the most important. Employment-friendly labour market institutions, integration policy, education policy have to be considered when targeting at a reduction of structural unemployment. The following suggestions, however, are constrained to fields that can be directly influences by the PES.

**Attract potential employers**

According to Moertel/Rebien (2013), one third of companies in a representative German survey would offer a job also to long-term unemployed people while 16 percent would immediately reject applications of long-term unemployed. Half of the firms that consider long-term unemployed for work (highly) appreciate their motivation and reliability. By contrast, self-esteem and ability to work under pressure are reported to be unincisive. Interestingly, firms that have experience employing long-term unemployed evaluate their capabilities and motivation significantly better than firms without own experience. Thus, it might be a gateway for Public Employment Services to deepen their contact via employer services, combat prejudice and support trust that potential mismatch can be mitigated.

Moreover, keeping in touch with potential employers raises knowledge about and influence on their recruiting routines and preferences. As an example, initiating video applications of older workers, accompanying them with the shooting and placing the video on youtube for potential employers exclusively, raised the job finding probability of these older workers up to the average.

Finally, setting-in grants or tax abatement when hiring a hard-to-place-worker might also reduce barriers.

**Tailored active labour market policy**

Any measure that targets re-integration into the labour market must be close to employers’ effective demand. As a consequence, an analysis of needs and maybe shortages is a precondition of reasonable labour market policy.

Beyond this, it should be clear that training for hard-to-place people often goes beyond a short-term vocational training. It includes training for the working day as such and, therefore, has a long-term perspective, with respect to input as well as with respect to output. Depending on the individual re-integration barriers, these training could be hold in suitable groups where the persons concerned can exchange experience.

**Intensive care**

The necessity of tailored measures already highlights that care intensity must be higher for hard-to-place people. This implies a more intensive consideration of the specific, individual environment (child care, care of the elderly, illness, addiction, mental health). Thomsen (2009) shows that problems like these weaken the job finding probability of the long-term unemployed in comparison to the short-term unemployed. However, they are addressed to a lower extent by the PES, compared to qualification deficits, for example.
It might be reasonable to involve people from the close social environment of the person concerned. They may support motivation, may have to re-organise family rules, may have to accept to move and so on.

Intensive care also implies sustainable, certified qualification close to market needs. With a certificate, workers have higher chances to find a job with longer duration and maybe promotion prospects. In such a manner employment chains could be implemented that again open chances new workers stepping into the labour market. The transition from unemployment into employment, however, should be followed up in order to improve the match and prevent workers and firms from a quick separation.

Finally, a lower relation between unemployed and placement officers may increase care intensity and reduce unemployment duration (Hofmann et al. 2012).

**Multiprofessional teams**

The individual reasons for low job finding probabilities are typically complex (see Thomsen 2009 again). As a consequence, it might be helpful if the teams to care for the concerned unemployed reflect this complexity, too. A combination of several social authorities into a one-stop-shop might be more effective because it takes more information about the unemployed into account. This includes job agencies or municipalities, school (for potential drop-offs) or vocational education institutions, psychological and health institutions, rehabilitation, social workers. Certainly, organisational standards should be adjusted in order to support this kind of cooperation. As an example, protection of data privacy has to be solved.

**References**


2 Norway

2.1 Overview

With an unemployment rate between 3.2 and 3.6 percent over the last five years, structural employment has raised little concern in Norway. One aspect of structural unemployment is however discussed frequently, the mismatch between the demand and supply of low skilled workers. According to the labour force survey (LFS), the unemployment rate in 2013 amongst those with primary school as their highest level of education was 7.9 percent. In comparison the unemployment rate for those with secondary school was 2.8 percent and tertiary school 1.9 percent. This is even more worrying when we look at the dropout-rates from secondary school. About 30 percent haven’t finished secondary school within 5 years, and the dropout rate is higher for boys. These young people often struggle to get a job, because they lack the required skills.

Albæk et al. (2014) examined those who hadn’t finished secondary school by the time they turned 21. They found that 70 percent were either employed or students nine years later. The corresponding share for those who had completed secondary school at 21 was 90 percent. The difference is expected to increase in the years to come.

In 2013, Statistics Norway projected demand and supply of labour by different educational levels and fields of education towards 2030 (Cappelen et al., 2013). The projection is based on several assumptions, one of them being that educational propensities are kept constant, meaning that on average people will continue to make the same educational choices as was made in the years 2007-2011. On the demand side, they prolong the previous trends of the composition of the labour marked. The projection then shows a lower demand for people with less than secondary education, whereas the demand will increase for workers with upper secondary vocational education and tertiary education.

Figure 1 shows the projected demand for, and supply of, labour by educational level. The supply of labour without completed secondary school is projected to increase from about 600 000 in 2010 to almost 800 000 in 2030. This leads to a surplus of workers without completed secondary education of about 270 000 people. Today there is about 90 000 unemployed people in total in Norway. This projection suggests that we will experience a higher structural unemployment in the future if we don't succeed in getting more people to complete secondary education.

2.2 Has the labour migration from Eastern Europe lowered structural unemployment in Norway?

In 2004 Poland and Lithuania, amongst other eastern European countries, joined the EU. This led to a permanent economic shock to the Norwegian economy, since many citizens from the EU came to Norway to seek employment. The net migration to Norway increased rapidly from about 13 000 in 2004 to 43 000 in 2008. Especially in
the construction and manufacturing sectors, immigrants from Poland and Lithuania have increased the labour supply.

Figure 1:
Projected labour demand and supply by level of education

Source: Statistics Norway

Increased labour supply due to increased immigration should lead to lower wage growth at a given level of demand. This again means a lower level of structural unemployment (NAIRU). Bratsberg et.al (2014) finds that immigration has caused lower wage growth in Norway in the years 1992–2006. After this period the immigration level has been even higher.

In the years 2004–2007 we also had a powerful economic upturn in Norway, with a GDP-growth well above the average growth over the last 40 years. The unemployment (LFS) fell from 4.5 percent in 2004 to 2.5 percent in 2007, and reached its lowest level since 1987. It seems plausible that the increased labour supply did lead to a lower structural unemployment during these years. Despite the high GDP-growth and low unemployment, the wage growth and inflation rate stayed relatively low.

References
3 Sweden

3.1 The development of economy and labour market in general

Private consumption continues to be the motor in the Swedish economy

In Sweden, there was a small decline in GDP between the fourth quarter of 2013 and the first quarter of 2014. This slowdown was expected, because growth in the economy was very strong during the fourth quarter, driven by a number of temporary factors, such as a substantial inventory build-up and major defence purchases. However, the forward-looking indicators have become weaker and, in May 2014, the National Institute of Economic Research Economic Tendency Indicator dropped below the historical average. The Employment Service’s interview survey also indicates a more cautious general mood for the coming year. One explanation might be that the crisis in Ukraine has affected views of the immediate future.

There is much to indicate that growth will increase in late 2014, and this trend is expected to be even stronger during 2015. Private consumption will continue to be the driving force behind this growth. Swedish household incomes are developing well, while at the same time household wealth is increasing. This development is supported by an expansionary fiscal policy. Furthermore, the weak investment climate has improved to a surprising extent. Investment is expected to increase even more noticeably in 2015, linked, in part, with a gain in momentum for industrial investments in machinery and premises. The improvements in the global economy will result in export growth in 2014, and this trend will become stronger in 2015. However, the contribution of exports to GDP will be offset by a considerable increase in imports. GDP is expected to increase by 2.5 percent in 2014 and by 3.1 percent in 2015.

Table 1:
Selected indicators

<table>
<thead>
<tr>
<th>Percentage change</th>
<th>Forecast</th>
</tr>
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<tbody>
<tr>
<td>GDP, at market price</td>
<td>3.3</td>
</tr>
<tr>
<td>GDP, calendar-adjusted</td>
<td>3.4</td>
</tr>
<tr>
<td>Hours worked, calendar-adjusted</td>
<td>3.4</td>
</tr>
<tr>
<td>Productivity growth</td>
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<tr>
<td>CPIF, inflation, annual average</td>
<td>1.5</td>
</tr>
<tr>
<td>Hourly pay1</td>
<td>3.3</td>
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<tr>
<td>Household real disposable income2</td>
<td>5.5</td>
</tr>
<tr>
<td>Private consumption</td>
<td>3.7</td>
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<tr>
<td>Savings ratio, incl. coll. occ. pensions3</td>
<td>7.2</td>
</tr>
</tbody>
</table>

1 According to short-term wage statistics.
2 Refers to households and their non-profit organisations.
3 Per cent of disposable income.
Source: Statistics Sweden and the Employment Service
Employment increasing by 95 000 in 2014–2015

The Employment Service's survey of 10 000 work places shows that employers are planning to employ more people, both in one year's and in two years' time. However, confidence in the future at company level has weakened somewhat, which indicates that recovery will be somewhat slower that we predicted in the previous forecast.

The strong growth in employment during the first half of 2013 dropped considerably during the second half of 2013, and this trend continued in early 2014. Although some improvement was noted during March and April, the weak trend in employment so far in 2014 leads to a reduced estimate for employment in 2014 – as compared with the previous forecast.

Productivity growth has been slow, but all indicators suggest an improvement in the near future. Productivity improvements will be a constraint on increased employment during 2014 and 2015. Between 2013 and 2014, employment is estimated to increase by 41 000 in the age range 16-64. The increase in 2015 is estimated to be 54 000 individuals. Despite the growth in jobs, unemployment in 2014 will remain largely unchanged at 8.0 per cent. During 2015, unemployment will then decline to 7.6 per cent. The continued strong growth in the supply of labour will limit a more marked reduction of unemployment during 2014 and 2015.

Substantial increase in the labour supply

The supply of labour has increased considerably in recent years and has exceeded all expectations. The large increase in the labour force is a result of a deliberate policy that aims to increase the overall supply of labour. The supply of labour needs to continue to increase at a rapid rate in order to be able to maintain a satisfactory and sustainable increase in employment, both in the short and the long term. A major generational shift is currently taking place in the labour market, while the overall supply of labour is shrinking in several smaller regions.

Between 2012 and 2013, the number of persons aged 16-64 in the labour force increased by 53 000 individuals – that is, more than the employment total – and the relative labour force rate increased by 0.7 percentage points. This increase applied to all age groups, but was greatest for young people. Developments in Sweden differ from those in many other countries. In most OECD countries, demographic circumstances have resulted either in reduction or stagnation in the supply of labour. In point of fact, the population in the active age groups (16-64) is declining in a number of countries. In addition, the financial crisis has also affected the labour supply in many cases.

During 2014, it is estimated that the supply of labour will increase by 38 000 individuals, and the increase in 2015 is estimated to be 34 000. The entire increase is due to persons born in other countries. One reason is that net immigration has been at a high level, and this is expected to continue in the next few years. Two important reforms that have increased the labour supply are the new arrival Introduction Assignment Programme and the transfer of persons from the health insurance system
to the Employment Service. The former reform has hastened the entry of newly-arrived immigrants in the labour market. The earned income-tax credit and other economic reforms have also had a positive effect on the labour supply.

The labour shortage will increase in 2014–2015

The labour shortage in the private sector has not increased in the past year, despite an increasing demand for labour. The number of companies experiencing a shortage has remained at the historically low level of just over 15 per cent since the end of 2012, measured as a proportion of the total number of companies1. The proportion of employers experiencing a shortage has also clearly shown weaker links with the number of newly-registered vacancies. In other words, the labour shortage has dropped for a given level of vacancies.

There are several reasons for this. One factor that has had an impact is satisfactory growth in employment in areas of the service sector that do not make far-reaching demands regarding education or vocational experience. Furthermore, the growth of the service sector is mainly taking place in the major urban regions, where the labour supply is considerably larger than in other regions due to the substantial outflow from the schools and the movement of people from other regions and other countries into these areas. Additional factors that should be taken into account in this context are the increased presence of foreign contractors and the labour migration that is taking place in some occupations that have traditionally experienced a labour shortage.

The low level of labour shortages and weakened links with the level of demand indicate that there is a considerable time margin before increased demand for labour leads to marked recruitment problems. This all suggests that most recruitment will be managed smoothly during the remainder of 2014 and in 2015. The major recruitment problems are found in the public service sector, and this situation is expected to deteriorate during 2014 and 2015. This is most clearly seen in the health/medical care and education sectors, and also increasingly in care of the elderly. In these areas, there is an increased risk that labour shortages may result in failure to achieve planned objectives for increased employment during the next few years.

Difficulties in recruitment will mostly be apparent in regions with large numbers of retirements and a declining labour supply. However, this will still only have a limited impact on the national figures for labour shortages.

Labour shortages are expected to be most marked in the following vocational areas:

- Occupations in health and medical care, particularly those requiring higher education
- Occupations in technology and computing
- Occupations in building and construction

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1 The economic tendency survey of the National Institute of Economic Research.
Skilled occupations in manufacturing industry
- Certain teaching categories
- Some specific service occupations

Table 2:
Key figures

<table>
<thead>
<tr>
<th></th>
<th>Outcome</th>
<th>Forecast</th>
<th>Change, thousands/percentage points</th>
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<td>Labour force (ages 16-64)</td>
<td>4812</td>
<td>4873</td>
<td>4895</td>
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<td>Employed (ages 16-64)</td>
<td>4395</td>
<td>4491</td>
<td>4502</td>
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<tr>
<td>Unemployed (ages 16-64)</td>
<td>417</td>
<td>383</td>
<td>394</td>
</tr>
<tr>
<td>Percentage of labour force (ages 16-64)</td>
<td>8.4</td>
<td>7.9</td>
<td>8.0</td>
</tr>
<tr>
<td>Relative activity rate (ages 16-64)</td>
<td>80.3</td>
<td>81.1</td>
<td>81.5</td>
</tr>
<tr>
<td>Employment rate (ages 16-64)</td>
<td>73.4</td>
<td>74.8</td>
<td>74.9</td>
</tr>
<tr>
<td>In labour market cyclical programmes (ages 16-64)</td>
<td>185</td>
<td>178</td>
<td>187</td>
</tr>
<tr>
<td>Percentage of labour force (ages 16-64)</td>
<td>3.9</td>
<td>3.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Employed (ages 15-74)</td>
<td>4524</td>
<td>4626</td>
<td>4657</td>
</tr>
<tr>
<td>Unemployed (ages 15-74)</td>
<td>425</td>
<td>390</td>
<td>403</td>
</tr>
<tr>
<td>Percentage of labour force (ages 15-74)</td>
<td>8.6</td>
<td>7.8</td>
<td>8.0</td>
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</tbody>
</table>

1 The sums do not always tally due to rounding-off.
Source: Statistics Sweden and Swedish Employment Services

3.2 Chances for the unemployed

Matching in focus – the need for increased mobility in 2014 and 2015

The demand for labour is increasing, and hence the task of filling vacancies is becoming an increasingly important aspect of efforts to facilitate the increase in employment. The Employment Service will be working in a situation in the labour market in which the number of unemployed persons with good education and expertise will decline as the economy improves. The labour supply is gradually shrinking, particularly in regions with a small population and a large number of retirements. The Employment Service’s matching assignment will face major challenges in this situation.

An important prerequisite for success in this context is improved transition into the labour market and greater mobility within the labour market. The Employment Service needs the help of the regular education system in augmenting educational initiatives and increasing the output of a fully trained and educated labour force, in order to achieve favourable circumstances for employment growth. The range of edu-
vocational programmes offered must also correspond with the actual demand for labour. Mobility in the labour market must increase, not only in the form of training for new occupations, but also in terms of geographical mobility. There will be clear geographical differences in demand and in the volume of recruitment needs in various occupations. It will be even more important for unemployed persons to move or commute to new jobs at other locations. In this respect, many regions with a declining working population will succeed if they can become attractive regions to move to – particularly for persons born in another country.

An important factor in improving results in the matching process is to strengthen the labour market position of unemployed persons who lack certain skills. This task is of key importance in attaining sustainable improvements in employment. An increasing proportion of jobs must be filled by unemployed persons who would not normally find work as quickly as unemployed people with a stronger position in the labour market. A basic prerequisite for success in the matching process is that the Employment Service's officers have good contacts with employers in different sectors. The Employment Service needs close contacts with employers so that they can jointly find solutions to fill the vacancies available, and at the same time, that they can find solutions for persons who do not have all the skills required for the jobs that are available.

**Unemployed persons with a weak position are competing in a shrinking market**

In recent years, the increasing labour supply has not only led to an increasing supply of jobseekers who find work quickly, but also to substantially more persons who are registered as unemployed from groups with a weak position in the labour market. Unemployment has a different structure than it had during previous periods with comparable economic conditions, which makes the matching process considerably more difficult than in the past. The supply of unemployed persons with good training/education will continue to decline gradually in several regions. At the same time, there will be a substantial supply of unemployed persons with a short education, or with vocational skills for which there is only a limited demand. The new jobs are in occupations that require an upper-secondary or post-secondary education, while the number of registered unemployed with at most a pre-secondary education is at a record level. This change towards a more complex matching assignment closely reflects the increasing challenge that the Employment Service faces within the framework of its operations.

The overall labour-market policy assignment makes considerable demands on efficiency and effectiveness, and this calls for both broad and in-depth expertise within the Employment Service. It also requires, incisive policy instruments that can help unemployed people to get a job and achieve a strong anchoring in working life. However, for some of the unemployed, there are not sufficiently effective tools to achieve a sustainable, long-term solution for their situation in the labour market. This is the case, for example, for unemployed persons who have absolutely no basic education or training.
In April 2014, there were 114,000 persons registered as unemployed whose highest level of education was compulsory school, and this group comprised 30 per cent of the total number of unemployed. Persons who have considerable deficiencies in their educational background constitute a high proportion of the unemployed. It is important to emphasise that the Employment Service does not have its own tools for raising educational levels to the extent needed for persons who do not have an upper-secondary education. A targeted education initiative is needed within the education system for a considerable proportion of the unemployed who lack such an education, so that they can reach a position in the unemployment queues where they can compete for work on equal terms with other jobseekers. However, education is not an alternative for everyone, at least not in the short term. As a result, it is also important to create more jobs with lower educational demands, and these jobs must have some form of subsidy.

**More persons with a weak position have left unemployment behind them**

The number of unemployed persons with a weak position in the labour market has been declining in the last few months. This group includes persons born outside Europe, people with a functional impairment, persons aged 55-64 and people with at most a pre-secondary education. The decline in unemployment for this group is surprising, considering the structure of demand for labour. This reduction in unemployment also occurred considerably earlier than predicted in the previous forecast. There are several reasons for this change in the rate of unemployment.

Firstly, there are factors that have affected the inflow and outflow into unemployment of persons in groups with a weak position. The inflow has been reduced because some persons have quite simply been assigned a labour market status other than unemployed. The requirement to submit activity reports, which started in October 2013, and different routines for the registration of newly-arrived immigrants linked with their residency, are two examples of changes that may have contributed to fewer persons registered as unemployed in the past few months. The requirement for the unemployed to submit activity reports may also have resulted in an increased outflow from unemployment as a result of a clearer documentation of the labour market status of such persons. The conclusion is that the reduced inflow to unemployment for groups with a weak position is largely due to changes in regulations, and not to an appreciable extent due to a reduced inflow as the result of increased labour-market demand.

Another important reason for more persons having left unemployment is that The Public Employment Service has given priority to unemployed persons with a weak position. The Public Employment Service has been able to move more unemployed persons than before into employment with the help of support or a "new-start" job. Groups with a weak position in the labour market often need different types of assistance from The Public Employment Service to make progress and enter working life.

At the end of April 2014, there were 243,000 persons registered as unemployed who belonged to groups with a weak position in the labour market. The number of per-
Persons who are registered as unemployed and who have a weak position is expected to continue to decrease, except for seasonal increases during certain months. This development is expected to follow roughly the same course next year. The number of registered unemployed persons with a weak position may thus decline to about 230 000 persons by December 2015. This forecast assumes that demand for labour is strong enough to ensure that more groups in the labour market than before enter regular work, and that more people start work with support or a new-start job.

The proportion of persons registered as unemployed who have a weak position in the labour market in relation to the total number of registered unemployed will, however, increase gradually until the end of 2015. This is because unemployment is reduced considerably faster for groups with a strong position in the labour market. The proportion of registered unemployed with a weak position exceeded 60 per cent for the first time during the spring of 2013. In April 2014, this proportion amounted to nearly 65 per cent and may total 70 per cent by the end of the forecast period.

Unemployment will decline to 7.6 per cent in 2015

According to surveys of the labour force, unemployment has tended to increase, while the number of persons registered as unemployed at the Employment Service had already begun to decrease as early as autumn 2013. This divergence between these data sources began at the time when the requirement to submit activity reports was introduced. According to the Labour Force Surveys (LFS), unemployment during the next few years is expected to drop only slightly, due to continued substantial additions to the labour force. As regards people registered as unemployed with the Employment Service, the decrease that has already begun is expected to continue throughout our forecast period and will affect all counties.

According to the LFS, the relatively weak start to 2014 will only result in a slight reduction in the annual unemployment average in 2014, as compared with 2013. As a result, unemployment in 2014 will amount to 400 000 persons, or 8.0 per cent. Next year, a decline in unemployment is expected to result in 380 000 persons unemployed, which corresponds to 7.6 per cent of the labour force. Unemployment has declined most noticeably for young people aged 16-24, which indicates that their labour market is improving steadily. This is natural when the labour market is improving, because young people are often an attractive group when employers increase their recruitment. Unemployment is also expected to diminish in other age groups during the next few years.

The highest unemployment rates – in terms of registered unemployed – are expected to occur, as before, in the counties of Gävleborg, Blekinge and Södermanland. It is estimated all these regions will have unemployment rates in excess of 10 per cent of the register-based labour force during the fourth quarter of 2014. At the same time,

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2 This analysis is based on seasonally-adjusted data from the Labour Force Surveys (LFS), shown as trend values.
the counties of Uppsala, Stockholm and Halland continue to show the lowest relative unemployment rates. Among the major urban regions, it is considered that the county of Skåne will continue to register the highest unemployment rate.

**Selected statistics on structural unemployment**

Figure 1 shows that the level of the annual unemployment rate with non-accelerating inflation is smaller than the level of the 21 OECD and European Union countries for the last twenty years. The biggest difference can be seen in the 1980s, notably in 1995, when the Swedish NAIRU was increasing more slowly compared to the other countries' level. The Swedish level peaked in 1997 with an amount of 8.14% and since then it shows a slow decline of about 1 percentage point with a constant rate of 7% over the last three years. The highest NAIRU of the OECD countries was in 1994 (9.3%) while it was declining until the crisis in 2008. Since then an increase up to 8.7% (2013) can be observed.

*Figure 1:*
Comparison of annual unemployment rate with non-accelerating inflation rate of Sweden and 21 OECD and EU countries, 1980 until 2013

Source: Macrobond.
4 Finland

4.1 Two years of negative growth – low labour market dynamics

Finland has suffered from negative economic growth for the last two years. GDP fell by 1.5 per cent in 2012 and by 1.2 per cent in 2013. The employment growth achieved in 2010-2011 has been lost, and the level of employment in 2013 was well below the level before the financial crisis in 2008. Accordingly, the number of unemployed has increased, although not dramatically. Instead, the number of those outside the labour market has increased more than the number of unemployed. The unemployment rate has also increased moderately, from 7.7% in 2012 to 8.2% in 2013. The moderate increase in the number of unemployed and the unemployment rate, however, could result in overly optimistic conclusions concerning the Finnish labour market. The expected growth still remains to be seen in 2014, but the GDP is estimated to grow slightly in 2015 (Ministry of Finance 2014). The economic growth under 1 percentage point is not enough to turn the labour market developments towards the better.

One of the most serious features during the negative economic growth has been low labour market dynamics. By low labour market dynamics, we particularly refer to the lower number of both ended and started periods of unemployment, and additionally, the lower number of job vacancies and recruitments. Figure 1 shows the monthly number of started and completed spells of unemployment. Clearly, the dynamics of unemployment have decreased.

Figure 1:
Number of started and completed unemployment spells in a month, 2007-2014

<table>
<thead>
<tr>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
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<tr>
<td>0</td>
<td>10,000</td>
<td>20,000</td>
<td>30,000</td>
<td>40,000</td>
<td>50,000</td>
<td>60,000</td>
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</table>

Source: MEE, Employment service statistics

Finland has suffered not only from an economic downturn because of global demand but also from structural changes. As a result, Finland has not yet been able to return to a growth path. A prolonged period of uncertain economic prospects and recovery
has also made employers cautious in recruiting new employees¹. This, together with the fact that the ratio of unemployed to open vacancies has increased, has made it more difficult for job seekers to find a job. As a result, an increasing number of job seekers have given up (probably temporarily) in actively looking for a job, and have instead remained outside the labour force. Another outcome has been that the duration of unemployment spells, as measured by two different indicators, has increased (Figure 2).

_Figures 2a and 2b:_

Average unemployment duration by age, 2007-2014 (A, left)
Duration of terminated unemployment periods, 2010-2014 (B, right)

[Graphs showing average unemployment duration by age and duration of terminated unemployment periods from 2007 to 2014, with data points for different age groups and years.]

Source: MEE, Employment service statistics

Average unemployment duration describes the properties of the unemployment stock. The longest average spells are observed among the +50 age group, where the increase is also steepest. For young people under the age of 25, the average unemployment duration has also increased, but only slightly. There is a more remarkable increase in duration among other age groups. The duration of terminated unemployment spells describes the unemployment dynamics more clearly than average duration. The durations have gone up during the last few years. Especially remarkable is the difference in the first half of 2014 compared to 2013. Already in 2012 and 2013, the durations exceeded those observed in 2010 and 2011. This is the main component behind the unemployment increase.

Longer unemployment spells, in turn, have meant that the unemployment spells of those not yet long-term unemployed have been prolonged and the number of long-term unemployed has increased. As Schauman and Vanhala (2011) remark, prolonged unemployment is the most efficient mechanism to change cyclical unemployment to structural unemployment. This mechanism can be seen by looking at the statistics and indicators in Finland during the last two years.

¹ Contrary to the economic developments, vacancy periods have been prolonged.
4.2 Long-term unemployment and structural unemployment – statistical tools

Long-term unemployment is still quite low in Finland compared to EU levels. The long-term unemployment rate and the share of long-term unemployment out of total unemployment are well below the EU average, and they have not been increasing strongly. For example, the share of long-term unemployment out of total unemployment is still quite low (21% for Finland compared to the EU average of 48% in 2013). Both these indicators are based on Labour Force Survey data, which, however, does not recognize all the elements of long-term and structural unemployment in Finland. The main reason is that a significant portion of discouraged job seekers have been outside the labour force rather than unemployed. As will be discussed below, statistics from the Ministry of Employment and the Economy show very clearly how strongly the number of registered long-term unemployed has been increasing. In Finland, the majority of long-term unemployed are elderly, and long-term unemployment among the young is extremely low. Low labour market dynamics has indeed resulted in increasing long-term unemployment. Figure 3 shows how long-term unemployment in 2008 was decreasing – and how it has been almost continuously increasing every year since the end of 2009. Most significantly, however, it has been increasing since 2013. As a result, the level of registered long-term unemployed job seekers has more than doubled from 2008 to 2014. Long-term unemployment is forecast to rise slightly more – to 90,000 – in 2015, despite the expected recovery and the current, increased level of activation (Alatalo/Hämäläinen/Räisänen 2014).

Figure 3:
Long-term (at least 12 months) registered unemployed job seekers in 2008–2014

Source: MEE, Employment service statistics

A special feature related to the economic downturn in 2012 was that long-term unemployment started to increase without a delay between the increase in overall unemployment and long-term unemployment. Long-term unemployment can increase through two different mechanisms during an economic downturn: first, all unemployed (and not only those who are long-term unemployed) might face difficulties in finding a job, and this tends to prolong the duration of unemployment. Second,
those who are already long-term unemployed are not able to exit from long-term unemployment, at least not to employment. Both mechanisms have played a role in the increasing long-term unemployment in Finland. As a general rule, unemployment has a strong negative duration dependence, i.e. the longer the spells are the harder it is to get out of unemployment.

Figure 4 shows how completed spells of long-term unemployment have been decreasing almost continuously since the end of 2011 – only recently have they been slightly increasing. Based on the developments in started long-term unemployment spells, one would have expected this outflow from long-term unemployment to have increased already earlier, but that was not what actually happened. We believe that this loss in outflow dynamics was due to the lower growth of the economy and labour demand compared to the situation in 2010. In the second half of 2011 and the first half of 2012, long-term unemployment was increasing because those who already were long-term unemployed were less able to exit from long-term unemployment – either by getting a job or for other reasons. Since 2012, the number of started spells of long-term unemployment has also been increasing, resulting in a strong increase in the number of long-term unemployed. As was seen from Figure 1, overall unemployment dynamics were decreasing in 2012, and a turning point from “positive dynamics” of decreasing unemployment ended before mid-2012. At the same time, long-term unemployment started to increase, although slowly at that time.

Figure 4:
Started and terminated spells of long-term unemployment in 2007

As a "decomposition" of the unemployment spells into and out of long-term unemployment, we present a stock-flow figure comparing the developments between 2013 and 2012. This figure clearly demonstrates how long-term and structural unemployment is formed piecemeal by changes in the initial spells, short-term spells and medium-term spells, and finally leading to cumulation of long-term unemployment. Basically, we have two alternatives to affect long-term and structural unemployment: it is possible either to accelerate the outflows from short-term unem-
employment and in this way decrease the flows into longer-term unemployment or try to directly affect the stock of long-term unemployment. These correspond directly to the mechanism of formation of long-term unemployment, as discussed earlier.

*Figure 5:*
Stock-flow figure, comparison between 2013 and 2012

Flows into unemployment of varying duration and out of unemployment over time period 01/2013 - 12/2013

Percentages indicate size of flows in relation to initial flow

Source: Ministry of Employment and the Economy, Employment service statistics

The developments in 2014 are consistent with the interpretation of the situation above. During the first half of 2014, the unemployment prolongation for the over 3 month duration category has reached almost 41 per cent compared to the initial inflow. Also, the prolongation over the 12 month threshold has risen to over 10 per cent. Unemployment stocks in all duration categories have strengthened, especially in long-term unemployment. The only positive indication in the first half of 2014 is a decrease in the total unemployment inflow and an increase in outflow, but the flows are not yet fully balanced. However, the mechanism behind unemployment growth is clearly the prolongation of spells, not the growth in incidence of them. However, long-term unemployment and structural unemployment are not similar concepts.
That is not the case either in terms of statistical definition of structural unemployment or in terms of the theoretical concept of structural unemployment (in the next paragraph). Figure 6 describes an operative indicator that measures structural unemployment based on aggregation of certain groups of job-seekers.

*Figure 6:*
Components of structural unemployment, operative approach by the MEE

![Graph showing components of structural unemployment](image)

Source: MEE, Employment service statistics

The MEE (Finnish Ministry of Employment and the Economy) defines structural unemployment as an aggregate of four mutually exclusive statistical categories in the PES statistics. The categories are:

- **long-term unemployed**
  - at least 12 months of uninterrupted unemployment

- **recurrent unemployment**
  - at least 12 months of unemployment during the last 16 months

- **unemployed after participation in active labour market policy measures (ALMP)**
  - those persons who have participated in ALMP measures during the last 12 months and the measure has terminated three months before the monitoring day and who are unemployed on the monitoring day

- **recurrent participation in active labour market policy measures (ALMP)**
  - those persons who participate in ALMP measures on the monitoring day and who have been in the ALMP measure in the last 16 months and the measure has terminated three months before the ALMP measure in force on the monitoring day. As an additional criterion, these persons must have been 12 months either in unemployment or ALMP during the last 16 months.
This kind of measure is an operative tool for understanding the composition of severe employability problems of certain groups of job-seekers. The difference between NAIRU and this measure is that the operative measure consists of real people with known labour market history, skills and education. It is also a practical tool to target ALMP measures. In comparison to NAIRU, changes in this measure are immediately observable and there is no discussion whether this development is real or not.

Our operative measure for structural unemployment is, however, not pretending to cover all theoretical aspects of structural unemployment. Frictional unemployment is one component that is missing in the operative tool but is included in the theoretical concept of NAIRU. Frictional unemployment, despite its character as “good” unemployment, is structural, as it depends much on matching technology and labour market information. As one characterization, this operative measure is reliable and easily understandable, but not fully coverable in relation to other measures.

4.3 Long-term unemployment and NAIRU

The rising share of long-term unemployment significantly increases the risk of structural unemployment. The different theoretical estimates for the structural unemployment have been calculated by the OECD and the European Commission. As the approaches differ, the estimates also differ somewhat, but in 2012-2013 the difference in estimates between these two approaches has been minimal.

Table 1:

<table>
<thead>
<tr>
<th>Year</th>
<th>OECD (NAIRU)</th>
<th>EU Commission</th>
<th>MEE (structural UR)</th>
<th>UR (Stat Fin)</th>
<th>UR (MEE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>8.3</td>
<td>7.1</td>
<td>6.0</td>
<td>7.7</td>
<td>9.7</td>
</tr>
<tr>
<td>2007</td>
<td>7.9¹</td>
<td>6.9</td>
<td>5.2</td>
<td>6.9</td>
<td>8.5</td>
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<tr>
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<td>7.6</td>
<td>6.8</td>
<td>4.5</td>
<td>6.4</td>
<td>7.9</td>
</tr>
<tr>
<td>2009</td>
<td>7.7</td>
<td>7.0</td>
<td>4.7</td>
<td>8.2</td>
<td>10.2</td>
</tr>
<tr>
<td>2010</td>
<td>7.7</td>
<td>7.0</td>
<td>5.5</td>
<td>8.4</td>
<td>10.1</td>
</tr>
<tr>
<td>2011</td>
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<td>6.9</td>
<td>5.5</td>
<td>7.8</td>
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<tr>
<td>2012</td>
<td>7.2</td>
<td>7.0</td>
<td>5.5</td>
<td>7.7</td>
<td>9.8</td>
</tr>
<tr>
<td>2013</td>
<td>7.2</td>
<td>7.1</td>
<td>6.1</td>
<td>8.2</td>
<td>11.3</td>
</tr>
</tbody>
</table>

¹ Nickell’s NAIRU estimate for 2007 was lower (7.4%), based on reductions in labour taxation.

The NAIRU and NAWRU estimates for Finland have varied between 6.8 and 8.3 per cent of the labour force since 2006. Sometimes the estimates have been very close to the overall unemployment rate – which in turn has provoked some criticism towards the (overly) theoretical concept of NAIRU. Between 2006 and 2008, the OECD NAIRU estimate actually exceeded the observed total unemployment rate, as did the EU NAWRU estimate for 2008. Intuitively, estimates for structural unemployment exceeding the total unemployment rate do not make sense; even that kind of situation could be possible in some exceptional conditions. The main factors affecting structural unemployment are unemployment benefits, tax wedge, employment protection.

² That kind of situation could exist in an overheated economy, where observed unemployment was lower than NAIRU estimates. And based on NAIRU theory, inflation would then be expected to accelerate without changes in the structural factors. This has not been the case in Finland since the late 1980s and during a short period in 2007 before the financial crisis.
regulation, degree of unionization and labour market policy, and additionally in Finland the share of owner-occupied housing. Altogether, NAIRU estimates will change over time, and they can be reduced by certain policy measures.

Despite the different levels of NAIRU estimates, it can be concluded that a significant part of the Finnish unemployment is structural, both in theoretical terms and based on statistical definitions. However, even the estimates themselves would be controversial. The empirical fact is that structural unemployment cannot be reduced (at least without other economic costs) by general financial policy measures, but it needs specifically targeted structural policies. Moreover, the frictions in the labour market shape the responses of the economy to government spending. Obstbaum (2011) finds that wage rigidity increases the effectiveness of fiscal policy in the short term but leads to worse longer term results, including unemployment exceeding steady state levels (the magnitude depending on which of the distortionary taxes were increased). Instead of fiscal policy instruments, for example, Nickell (2006) recommends a combination of PES services, job searching courses, rehabilitation and economic incentives, even they are costly in the short run. Altogether, there are no easy and inexpensive solutions to reduce structural unemployment – the most efficient policy would be a prevention policy.

4.4 How increased structural unemployment is expected to affect the Finnish labour market in the future?

Schauman and Vanhala (2011) argue that the Finnish labour market performed fairly well during the crisis in 2009, especially if we take into account how dramatic the reduction of GDP in Finland was. The Beveridge curve was not significantly shifted outwards, and there were no serious matching problems in that time. However, that has not necessarily been the case during the latest economic downturn. We can at least observe that the incidence of recruitment problems has increased from the 2009–2010 levels (Räisänen 2014) and the vacancy periods have been prolonged (MEE open vacancy statistics).

The share of long-term unemployed of all unemployed can be interpreted to reflect structural problems in the labour market (Schauman/Vanhala 2011; Kinnunen/Mäki-Fränti 2013). Based on this indicator, the structural problems in the Finnish labour market have been increasing, which could result in an outward shift of the Beveridge curve, which means deteriorated functioning of the labour market (see Figure 7).

Typically, the share of long-term unemployed of all unemployed decreases when overall unemployment starts to increase. The explanation is simply that the large

3 If unemployment benefits become more generous, the tax wedge widens, employment protection becomes more rigid and unionization rate increases. These factors may cause structural unemployment to rise. Better labour market policies may turn structural unemployment to lower levels. The role of these components could also be discussed: the idea of a high unionization rate as a factor behind structural unemployment is based on market power in the wage-setting mechanism. In some cases, high unionization may be a factor in adapting economic shocks into the wage-setting mechanism. It may be that the type of coordination in wage setting is the affecting factor, not the unionization rate as such. In all, the interconnections of these factors are decisive.
number of the recently laid-off became unemployed – and unemployment spells for them are also short. This can be seen very clearly from the figure above. However, in 2012 and 2013 that was not the case, probably because there was a large stock of those not yet long-term unemployed when economic growth was again negative. The Finnish long-term unemployment share of total unemployment was among the lowest in the OECD countries in 2013 and in the EU. The figures were better only in Sweden (OECD 2014, 31). However, these figures calculated from the labour force survey statistics give an overly optimistic picture of the Finnish situation and does not particularly point out the rapid deterioration of the situation.

Figure 7:
Unemployment rate and the share of long-term unemployed of all unemployed

Source: MEE, Employment service statistics

The outward shift of the Beveridge curve is typical, especially as a result of structural changes in the economy. Since Finland has faced not only an economic downturn but also structural changes during the last year, we might expect an outward shift in the Beveridge curve simultaneously as the share of open vacancies starts to increase.

Figure 8:
Unemployment rate (U) and vacancies rate (V), quarterly trend, 1974 - 2014

Source: MEE, Employment service statistics
Once again, in the case of the outward shift in the Beveridge curve, the expansive financial policy (or increasing global demand) is not likely to reduce structural unemployment.

High long-term unemployment or structural unemployment is not likely to decrease significantly even during periods of good economic performance. Kinnunen and Mäki-Fränti (2013) show how the share of long-term unemployment stabilized to a certain level before the financial crisis, and it did not decrease even as the share of open vacancies was increasing. Altogether, this period signals that there were matching problems in the labour market; those can also be expected to occur in the near future. Still, in 2013 the share of establishments facing recruitment problems was relatively high (28% of recruiting establishments state that they have faced problems) in relation to the general state of the labour market. Most often reported reason for problems is the lack of skills. This situation is not expected to ease when employers start recruiting more eagerly. At least part of the problem is due to the loss of skills caused by structural unemployment. The problems have, however, eased somewhat in 2014. The OECD (2014, 35) points out that the Finnish job-finding rate between the Q4 2007 and Q4 2013 has deteriorated mostly because of a loss of matching efficiency.

However, Kinnunen and Mäki-Fränti (2013) remind that the participation rates among the youngest and the elderly cohorts could be affected by policy measures more than the prime-age cohorts. Even the high level of the present structural unemployment could be to some degree reduced during the economic recovery sooner or later, it is likely that long-term unemployment will stay at a high level compared to the level before the financial crisis.

To conclude, the high level of structural unemployment and long-term unemployment will probably threaten labour market matching when an economic recovery will sooner or later emerge. Altogether, it is likely that even as the economic recovery is forecast⁴, the increase in employment will be sluggish. That is partly explained by the high structural unemployment, which could result in matching problems between unemployed job seekers and vacant jobs, both in occupational and regional terms. It is also likely that companies will first seek higher productivity and profitability before new recruitments. High structural unemployment also means that the national EU2020 employment rate goal for Finland will be a challenge.

⁴ This forecast by Ministry of Finance was published 15.9.2014.
References


Ministry of Employment and the Economy, Employment Service Statistics


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Statistics Finland, Labour Force Survey statistics
5 Estonia

5.1 Challenges on the Estonian labour market

Due to the global economic crisis that started in 2008, the situation in Estonian economy and labour market changed remarkably. As a result of the crisis unemployment in Estonia started to increase rapidly in the second half of 2008 and achieved its peak in the first quarter of 2010. The number of unemployed people was then approximately 113,900 and the unemployment rate was about 20%. The unemployment rate had been only 4% in the second quarter of 2008. Since spring 2010 unemployment started to decrease and it is still decreasing relatively quickly today.

One of the main labour market challenges for Estonia is the high level of long-term unemployment (at least 12 months without employment). The share of long-term unemployed among unemployed people has been mostly around 50%. During the crisis the share of long-term unemployed fell because the share of people who had just lost their job grew very fast. At the end of the crises the share of long-term unemployed increased to its highest level at 57%. Since then the share of long-term unemployed has decreased quite quickly but is still relatively high at 44%.

Figure 1:
Number of unemployed and the share of long-term unemployed in Estonia in 1997–2013

With regard to the structure of Estonian labour market, about 66% of employed persons were working in the tertiary sector in 2013, 30% in the secondary sector and only 4% in the primary sector. Over time, the role of the primary and secondary sectors has decreased, and the role of the tertiary sector increased. The largest field of economic activity is manufacturing. In total 19% of all employed persons were occupied in manufacturing in 2013 (Figure 2). A relatively large share of people were working in wholesale and retail trade (13%), in construction (9%) and in education (9%). Manufacturing and construction were the fields that suffered the most during
the economic crisis. Although the recovery in these two sectors has been relatively fast, the volume and the share of employment in construction and manufacturing are not on the same level today as they were during the boom period.

Figure 2:
Employed by economic activity in Estonia during the boom (2007) and today (2013)

Source: Statistics Estonia.

5.2 Development of structural unemployment

The job vacancy rate and the number of vacancies by economic activity in 2013 are depicted in Figure 3. Aside from the field of other service activities where the number of vacancies is very low, the highest job vacancy rate is in the field of information and communication where 2.3% of jobs are not filled (Figure 3). The rate of vacancies is also higher in administrative and support service activities and in public administration and defence, compulsory social security. Figure 4 presents the Beveridge curve for the Estonian labour market in 2005 to 2013. The shifts of the curve have been quite classical. During the economic boom in 2005 to 2007 the Beveridge curve shifted upward and left as the unemployment rate decreased and the rate of job vacancies increased. In the end of 2007 the rate of vacancies started to fall rapidly and from the second half of 2008 the unemployment rate started to increase, which moved the curve downwards and to the right. Since 2010 the economy started to recover and the curve moved back upwards and left. In 2012 and 2013 there has been a slight movement down and left that could indicate lower structural unemployment. After the crisis the Beveridge curve shifted upwards indicating that there was a change in the structure of economy.
Today the unemployment rate is approximately on the same level as it was in 2005, yet the vacancy rate is lower. Does it mean that the structural unemployment in Estonia today is lower than it was ten years ago? There are some aspects to bear in mind. Firstly, the rate of vacancies until 2008 is somewhat overrated, because before the economic crisis there were vacancies in the public administration which actually were not meant to be filled. In the process of cutting down the budget of public administration these vacancies were abolished. Secondly, the fast decrease in the unemployment rate during the recovery period is partly due to the fact that the number of Estonians working abroad increased remarkably (from 2% of employed persons in 2008 to 4% in 2012). Therefore, it can be concluded that the structural unemployment in Estonia today is about on the same level as it was ten years ago.

When comparing the Beveridge curves of three economic sectors (see Figure 5), it can be seen that the shift of the Beveridge curve has been the largest in the secondary sector where the unemployment rate was the highest during the economic depression. In the primary and tertiary sectors the impact of the crisis was smaller. In the primary sector the unemployment rate and the vacancy rate were both relatively low in 2013. In the tertiary sector the rate of job vacancies was higher and the unemployment rate lower than in the other two sectors in 2013 indicating that there can be some pressure for the wage growth.
Figure 4:
Beveridge curve in Estonia in 2005Q1 to 2013Q4

Source: Statistics Estonia.

Figure 5:
Beveridge curve in the primary, secondary and tertiary sectors in Estonia in 2005-2013

Source: Statistics Estonia.
6 Latvia

6.1 Overall situation in the labour market

From 2008 to 2010, the global financial crisis has severely hit the economy of Latvia. During this period, the economy shrank by almost 1/5, which caused an equivalent decrease of employment (see Figure 1a) and sharp rise in unemployment (see Figure 1b). In 2010, the unemployment rate in Latvia reached 19.5%, when compared to pre-crisis period, actually it tripled. At the same time, along with the increase of the total unemployment rate, the number of long-term unemployed also increased. From 2008 to 2011, the share of long-term unemployed to the total number of unemployed persons increased from 24% to 55%. Although since mid 2010 the Latvian economy has returned to growth and unemployment is gradually decreasing, the share of long-term unemployed is still very high – in 2013, more than 48% of the total number of unemployed were long-term unemployed. It must be taken into account that high long-term unemployment can cause an increase of structural unemployment, namely, the longer period these people stay without job, the higher the risk that they lose their professional skills and competences.

![Figure 1: GDP and employment dynamics](image)

**Source:** Central Statistical Bureau of Latvia

Some evidence on structural unemployment is possible to obtain by using the Beveridge curve, which graphically highlights mutual dynamics of unemployment and vacancies (see Figure 2a). According to statistical data of 2006-2013, during pre-crisis years the Beveridge curve in Latvia moved to the left – both unemployment...
rate and share of vacancies decreased. At the beginning of the recession, vacancies sharply decreased, while unemployment increased rather moderately. However, when the crisis continued, in 2009 and at the beginning of 2010, unemployment increased and vacancies continued decreasing.

*Figure 2:*

a) Beveridge curve in Latvia*
(vertical axis: vacancies, thsd., horizontal axis: unemployment rate, %)

b) Job vacancy rate
(vacant posts, compared with the total number of occupied and unoccupied posts, %)

*Data on period from the 1st quarter of 2006 to 2nd quarter of 2014
Source: Central Statistical Bureau of Latvia.

Unemployment reached its peak in the 1st quarter of 2010. Since the 2nd quarter of 2010, an upwards movement on the Beveridge curve has been observed which indicates on the shift of economic cycle phase and improvement of the situation in the labour market. Employment has increased along with the decrease of the number of job seekers and inactive persons. Consequently, opening of new working places has resumed. The movement along the curve is the same as reduction of vacancies during the crisis, which indicates that the current unemployment rate in Latvia is rather cyclical than structural.

Neither do the dynamics of vacancies and occupied working places indicate on structural unemployment – when compared to the pre-crisis period, the job vacancy rate is still low (see Figure 2b.), which means that at the moment, employers don’t have problems finding necessary employees.

According to the results of Business survey (Central Statistical Bureau of Latvia) - at the beginning of 2014, slightly more than 10% of entrepreneurs in manufacturing indicated on the lack of labour force as a limiting factor of further business development (see Figure 3).
More significant impact on production is made by the low demand both in domestic and external markets. Also in other sectors entrepreneurs have indicated that they don’t face lack of labour force as a limiting factor – in construction 13%, in retail trade – 7% and services sector – 5% of all enterprises. Thus all the activities, which are related to the promotion of the economic activities and entrepreneurship stimulates the increase of labour demand and increases employment.

At the same time there is a risk that part of the current unemployed won’t be able to find a job for a longer time and in the future the unemployment in Latvia may become a structural phenomenon, because those sectors which recover faster from the crisis are not the same where vacancies were observed before the crisis and where people lost their jobs during the crisis. Besides, structural imbalances may cause uneven regional distribution of work places and labour resources, which, along with the increase of economic activities, may hinder a normal development of the labour market in Latvia.

6.2 Structural unemployment risks

Skills demand and supply imbalances

During the crisis, the structure of Latvia’s economy has changed – the share of tradable sectors has increased in the total output, at the same time the share of sectors focusing on domestic demand has decreased (see Figure 4a).

From 2010 to 2012, the manufacturing growth rate was faster than total economic growth and this sector became the main driving-force of economic growth.
mainly determined by the reduction of labour costs, which allowed Latvian producers to raise competitiveness both in domestic and foreign markets. Also in other tradable sectors, for example, agriculture, forestry, transportation and storage growth resumed faster after crisis than in other sectors.

As a result, in 2013, when compared to 2008, the share of tradable sectors (agriculture, forestry, industry and transportation services) in the economy increased by almost 9 percentage points and was 35% of total output.

Changes in the economic structure have brought some corrections also in labour demand (see Figure 4b). When compared to the pre-crisis period, the demand of specialists with higher and medium qualification has increased, at the same time the demand for low-qualification labour is decreasing gradually. It is expected that also in the next years the economy of Latvia will continue to restructure towards a sustainable development model and the shift of growth paradigm will be related to structural changes in labour demand. At the same time, changes in the labour demand may foster both imbalances of skills demand and supply and development of structural unemployment.

Figure 4:
a) Changes of economic structure %

\[ \begin{align*}
\text{Share of the sectors in output, in 2008, \%} & \quad \text{Share of the sectors in output, 2013, \%} \\
\text{Agriculture} & +3.3pp \quad +0.4pp \\
\text{Manufacturing} & +3.2pp \quad -3.1pp \\
\text{Trade} & +1.2pp \quad -0.4pp \\
\text{Construction} & -1.1pp \quad -1.1pp \\
\text{Transport} & +3.3pp \quad -3.7pp \\
\text{Public services} & +3.3pp \quad -0.9pp \\
\text{Other industry} & +0.2pp \quad -3.1pp \\
\text{Commercial services} & -0.3pp \quad -0.3pp \\
\end{align*} \]

b) Structural changes of labour force demand %

\[ \begin{align*}
\text{Share of employed by occupational group in the total number of employed in 2013, \%} & \quad \text{Share of employed by occupational group in the total number of employed in 2008, \%} \\
\text{Managers} & 1.5 \quad 4.0 \\
\text{Professionals} & 9.5 \quad 5.0 \\
\text{Clerical support workers} & 4.5 \quad 3.0 \\
\text{Service and sales workers} & 12.5 \quad 10.0 \\
\text{Skilled agricultural, forestry and fishery workers} & 2.5 \quad 3.0 \\
\text{Craft and related trades workers} & 2.5 \quad 3.0 \\
\text{Plant and machine operators, and assemblers} & 12.5 \quad 10.0 \\
\text{Elementary occupations} & 5.5 \quad 5.0 \\
\text{Lands and associate professionals} & 0.5 \quad 0.0 \\
\end{align*} \]

Source: Central Statistical Bureau of Latvia.

Already nowadays, some structural imbalances among skills demand and supply are observable in Latvia. Even if the wages are relatively high, in some occupations it is hard to satisfy an increasing demand for certain qualification specialists (for example – in IT sector, programmers). At the same time, in some sectors it is possible to observe a significant labour force surplus (different services sectors, administration, personal professionals, trade agents, etc.), thus people with according education and experience are forced to work in lower qualification jobs.
Disproportions are increased by the imbalance between skills demand and supply. When we compare the number of employed by education level and the number of jobs by skill level (see Figure 5), we can see that the number of highly qualified employees is lower than the number of jobs requiring appropriate qualification. A similar situation can be observed in the distribution of low-skill jobs and labour force with low qualification. At the same time, the number of employed with secondary education is much higher than the number of middle-skill jobs.

Figure 5:
Number of employed by education level and occupation skill level (2013, thsd.)

![Occupation skill level vs Employee education level](chart)

*Occupation groups are aggregated according to ISCO08 classification, where: a) High-skill occupations include major groups 1, 2 and 3; b) Middle-skill occupations include major groups 4, 5 6, 7 and 8; c) Low-skill occupations include major group 9.

Source: Central Statistical Bureau of Latvia and calculations of the Ministry of Economics.

People with higher education are less subjected to unemployment. In 2013, the unemployment rate for people with higher education was only 5.9%, which was 2 times smaller than on average in the country (Figure 6). At the same time a lack of labour force with higher qualifications is to a great extent compensated by the medium-qualified employees – in 2013, about 30 percent of workers with secondary education were employed in high-skill occupations.

The highest unemployment rate is among people with primary education or lower education. Unemployment in this group decreases 2 times slower than among people with higher or secondary education. This is because in the labour market the number of workplaces that require specific knowledge and skills is increasing. There is also a severe competition among employees per one vacancy and possibility to get the job is higher for the people with higher education level. For example, in 2013, people with the secondary education worked in more than 70% lower qualification jobs, but only 22% of employees had primary education or lower education level.
Structural imbalances have been observed also among people that have education in different fields. If we pay attention to the higher education group, in 2013, the lowest unemployment was observed among people who have education in administratively regulated fields – education, health care (see Figure 7). At the same time, the highest unemployment rate was among people with education in agriculture. Comparatively high unemployment was also among people with education in engineering sciences and construction. Almost 2/3 of them is aged over 40 and has obtained their education before 1990, when the economic structure was dominated by the manufacturing sectors. However, in the transition period, many of them have lost their skills, iow: these skills do not meet the current labour market needs.

Similarly as in higher education group, also among people with secondary education the lowest unemployment rate was in the fields of health care and social welfare and
education (see Figure 8). The highest unemployment rate was in the thematic group of humanities and art. In absolute numbers, most of the unemployed are with general secondary education, which is almost half of all job seekers with secondary education.

Figure 8:
Unemployment rate for the people with secondary education by education thematic groups (2013, % against economically active population)

Regional disparities
In Latvia, a significant problem is labour market regional asymmetry or uneven regional distribution of work-places and labour resources (see Figure 9), which similarly to disproportions of skills demand and supply, are one of the key factors which creates structural unemployment. Statistical data on the number of work places (occupied work-places and vacancies) in Latvia in 2013 reveals that most of the work-places (2/3) are located in Riga region, where in last 3 years has been observed also the fastest new job increase – when compared to 2010, the number of total work-places has increased by 14%, while in others regions it was on average 2 times slower.

Figure 9:
a) Work-places by regions in 2013, %       b) Economically active people by regions in 2013, %
At the same time, when we compare work-place distribution with labour distribution by regions, the share of economically active population in Riga region is by 17 percentage points smaller than the share of work-places. In other regions of Latvia the situation is different. There is a considerably higher number of economically active population per one work-place. Thus people who live in Riga region have much more job opportunities than people who live in other regions of Latvia.

Job and labour geographical discrepancies causes large unemployment differences between regions. The situation is much better in Riga and Zemgale regions, while in Latgale region it improves slowly. For example, at the end of 2013, registered unemployment in Riga region was rapidly approaching the natural unemployment rate and was just 6%, while in Latgale region registered unemployment was 3 times higher - 18,8%.

Labour market regional disparities in Latvia may remain as a long-term problem, taking into account low labour force mobility and necessary resources to facilitate a comprehensive regional cohesion. At the same time it shouldn't leave significant impact on the total unemployment, because the number of job seekers in the less economically active regions (Latgale region, Vidzemes region, Kurzemes region) forms just 2/5 of the total number of all job seekers in Latvia.

6.3 Summary

The current unemployment rate in Latvia is mainly related to cyclical unemployment – following a considerable reduction of production volumes and services during the crisis. At the same time there is a risk, that part of the current unemployed won’t be able to find a job for a longer time and in the future the unemployment in Latvia may become a structural phenomenon, because those sectors which recover faster...
from the crisis are not the same where vacancies were before the crisis and where people lost their jobs during the crisis. Besides, structural imbalances may cause an uneven regional distribution of work places and labour resources, which, along with the increase of economic activities, may hinder normal development of the labour market in Latvia.

Economic structure is changing and imbalances may arise between labour supply and demand – job seekers’ skills do not meet the needs of the labour market.

Taking into account the comparatively slow ability of the supply side (int. al., formal education and vocational training system) to adapt to the changing conditions, it is forecasted that disproportions between skills demand and supply may increase in Latvia in the coming 2-3 years. Appreciable labour market balancing could be expected just after 4-5 years.

At the same time structural imbalances foster regional disparities. In some regions the unemployment rate difference reaches 13 percentage points. Taking into account the time and resources needed to facilitate overall regional cohesion, labour market regional disparities may remain as long-term problem.
7 Germany

Although there are several concepts of defining structural unemployment, the easiest way is to think of non-cyclical unemployment. Certainly, job creation is affected by aggregate productivity, thus, in an economic upswing the chance of getting a job is higher than in recessions. Beyond such a cyclical pattern, however, unemployment appears as an equilibrium or structural measure because on the labour market job seekers search for jobs and firms search for candidates, and both kinds of search take time (Pissarides 2000). Searching for an optimal while is efficient as it allocates workers to their most productive job. The optimal search duration is hard to quantify empirically. It is clear, however, that if search takes too long, unemployment becomes persistent – the actual problem of "structural" unemployment. The job finding probability of an unemployed becomes worse and worse the longer the unemployment spell lasts. For example, on average, 8.6 percent of the short-term unemployed in a certain month in 2013 found a job in the next month – but only 1.5 percent of the long-term unemployed in a certain month found a job until the next counting day (BA 2014). This phenomenon is called negative duration dependence. It has the following main reasons: a loss or at least signalled loss of human capital and therefore potentially lower productivity (Blanchard/Diamond 1994), lower search intensity of the unemployed because of bad experience and lacking self-esteem (Layard et al. 2005, Falk et al. 2006), multiple re-integration barriers including health restrictions, addiction, care responsibilities, language barriers (Thomsen 2009).

Long-lasting unemployment is problematic from several perspectives. Individually and socially relevant, persons concerned bear more health restrictions and suffer from lower social integration (Atkinson 1998, Romeu Gordo 2006, Beste et al. 2014). Economically, unemployment induces opportunity costs of under-utilization of input factors as well as significant fiscal costs regarding benefit payment and foregone taxes etc. (Hausner et al. 2014).

7.1 Measures on structural unemployment in Germany

There is no convention on how to quantify structural unemployment. However, in all concepts shown below, we observe the same pattern: an increase in structural unemployment over many years (even before reunification), a trend reversal between 2005 and 2008, and a lateral movement since then. In principle, the figures indicate that the functionality of the German labour market had improved and the labour market is in sustainably good shape even despite the insistent European Recession or growth weakness and crises and military conflicts in the Ukraine and the Middle East.

A first assessment of problematic unemployment is given by the share and number of long-term unemployed (Figure 1). After its peak in early 2006, long-term unemployment was reduced sharply. When the Great Recession hit the German economy, long-term unemployment was hardly concerned. By now, the number is the lowest in the sample. However, total unemployment decreased even stronger such that the ratio of
long-term to total unemployment increased again slightly. Though the Great Recession did not harm long-term unemployment, it marks the fading out of the improvement process.

Figure 1:
Long-term unemployment and its share in total unemployment, 1998 to 2014

Which groups are especially vulnerable to becoming long-term unemployed? The structural disaggregation gives the following hints (see BA 2014): In 2013, almost 36 percent of all registered unemployed were long-term unemployed. A few groups show a higher share than the average: These are women, migrants, people at age 55 and older, people who had worked just as helpers, and people without vocational education. Besides language or cultural barriers or family restrictions, qualification is still one of the most prominent reasons of higher risks on the labour market. The unemployment rates by qualification emphasize this risk (Figure 2): Without vocational training, the unemployment rate was 19 percent in 2012, almost 8 times higher than the rate for people with tertiary education.

Following the theoretical concept of the NAIRU, the German council of economic advisors publishes a so called NAWRU (nonaccelerating wages rate of unemployment, see Figure 3 and Jahresgutachten 2013/14, p. 283). The non-cyclical unemployment rate had increased continuously since the beginning of the 1970s until the middle of the past decade. Unemployment could not be reduced even in periods with strong employment growth. It was not until the year 2005 when a new trend was established. The council and other researchers motivate this improvement by, for example, wage moderation and labour market reforms.
Indeed, the most severe labour market reforms in Germany’s post war history had been enacted exactly before the long-term unemployment as well as structural unemployment started to decline. The reforms targeted at increasing search intensity by the unemployed, increasing labour demand by higher flexibility, and improving the interaction of demand and supply on the labour market. They were positively evaluated; for an overview over the reforms, literature and an econometric analysis see Klinger/Rothe (2012).

As another consequence of lower structural unemployment, the Beveridge curve (BC) shifted inwards for the first time in decades (Figure 4).
Figure 4:
German Beveridge curve, 1992 to 2014


An unobserved components analysis adds structural content to the descriptions of shifts and movements along the curve and their interaction (Klinger/Weber 2014). It allows to simultaneously disentangle permanent and transitory effects on the BC, appropriately implement cointegration between the labour market variables and analyse their time-varying properties. The inspection revealed the following main results: First, although the separation rate used to be the more pronounced factor in explaining BC dynamics over the whole time span, it was matching efficiency that experienced an extraordinary increase after the reforms. Because of that increase, matching efficiency accounts for about half of the BC’s inward shift. Second, the functioning of the labour market improved permanently as it is the change in the trend component of matching efficiency that contributes to the inward shift (Figure 5). The decisive role of a structural reason points to an economic success of the Hartz reforms that aimed at raising incentives for more intense job search, efficiency of placement services as well as labour demand. The trend increase came to an end at the onset of the Great Recession. Third, shifts as well as movements along the curve occur for permanent and transitory reasons, usually at the same time. The positive correlation between shocks on trend matching efficiency and on trend tightness implied that a sharp increase in tightness retarded the inward shift of the BC despite labour market functioning started to improve earlier.
In principle, Klinger/Weber (2014) show that interpreting the Beveridge curve in the traditional way may mask the true situation on the labour market. During the past few years, the labour market positioned on the very upper left edge of the BC. Following common wisdom, this implies a small cyclical decrease in unemployment and a cyclical increase in vacancies. However, this interpretation is not plausible given the outstandingly high position coming along with poor economic performance in recent years. At least, we would suggest that the increase in unemployment during the Great Recession was just cyclical and quickly removed.

**7.2 What can be done in order to reduce structural or long-term unemployment significantly?**

As Walwei (2014) points out, “this might be the one million dollar question of the labour market. But it does not mean that we do not know anything. Research in general indicates that it is important to ensure a minimum level of education and qualification. No other determinant is influencing risks as well as opportunities of individuals to a greater extent. A lack of skills goes along with a significantly higher level of unemployment, a lower level of employment, a higher appearance of non-standard jobs for individuals, a much lower level of life-term income, lower pensions and a higher risk of poverty. The problem in the German case is that the share of low-skilled workers is still too high and unfortunately is currently not decreasing as it should. Therefore, one answer is to avoid low standards of education and low skills as far as possible.

However, prevention is only one solution and will unfortunately not immediately generate impacts. This means: the existing hard core needs intensive care today. In this respect employment agencies have the difficult task of making problematic groups of the labour market ready for work. A range of measures needs to be taken into account for this. These measures do not only cover traditional instruments such...
as publicly sponsored jobs in order to bring unemployed persons closer to the regular labour market. Also, one way would be to make the dual system of apprenticeships more flexible. This means that certain modules should make it easier for less educated workers (particularly those aged between 25 and 35 years) to receive a certificate which in the German case would help to sustain labour market success. In addition, we also have to look for new approaches. One may be an increased use of specific sponsorships. Because the capacities of employment agencies are limited one additional option would be to get more impulses from the civil society. Especially with respect to less educated pupils such sponsorships have already been successful. The idea is that well educated people may give orientation to disadvantaged youngsters and might offer them access to relevant information and even to jobs which are appropriate for them. The same might be an option for the long-term unemployed.”

References:


Zusammenfassung:
Strukturelle Arbeitslosigkeit in ausgewählten europäischen Ländern


7.3 Entwicklung der strukturellen Arbeitslosigkeit

7.4 Günstige Wirkungen auf die strukturelle Arbeitslosigkeit:


7.5 Ungünstige Wirkungen auf die strukturelle Arbeitslosigkeit


Mehrere Länder weisen auf das Problem von ungleich verteilten Stellenangeboten und regionalem Mismatch hin. Bedeutend ist diese Asymmetrie besonders in Lettland, wo sich etwa zwei Drittel der Arbeitsstellen um die Hauptstadt konzentrieren. In weniger attraktiven Regionen, oftmals ländlichen Räumen, geht die Erwerbstätigkeit zurück.


7.6 Handlungsempfehlungen

Mangelnde schulische und berufliche Bildung und Erfahrung gehen einher mit höherer Arbeitslosigkeit, niedrigerem Beschäftigungsstand, höherem Armutsrisko, geringeren Rentenzahlungen und einem Anstieg der prekären Beschäftigungen. Grund- sätzlich ist Prävention die effizienteste Strategie, um strukturelle Arbeitslosigkeit gar nicht erst entstehen zu lassen. Dazu sind beschäftigungsfreundliche Institutionen (Lohn- und Rentenpolitik, Arbeitslosenversicherung, Kinderbetreuung) erforderlich,
ebenso wie ein gutes und durchlässiges Bildungs- und Weiterbildungssystem. Folglich müssten hier verschiedene politische Ressorts zusammenarbeiten.
