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Mismatch, long-term unemployment and post-COVID labour market programmes in the Nordic countries

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Mismatch, long-term unemployment and post-COVID labour market programmes in the Nordic countries

by

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Abstract

This paper explores post-pandemic developments and analyses post-COVID matching dynamics in the Nordic labour markets. It also discusses the role of institutions and the policies implemented to address labour market mismatch in the region. The COVID-19 pandemic brought about a recession, with a rapid and sizeable downturn in the Nordic labour markets. They rebounded rapidly, however, and most aggregate measures of labour market performance returned to pre-pandemic levels in 2021. Employment rates continued to rise and exceeded pre-pandemic levels in the first quarter of 2023. Meanwhile, high vacancy and unemployment rates continued to coexist after the pandemic. However, Sweden is the only Nordic country to show signs, albeit ambiguous ones, of increased labour market mismatch after the pandemic.

Keywords: employment, unemployment, labour market matching, active labour market policies

[1] This Working Paper is a slightly revised version of chapter 6 in L. Calmfors and N Sanchez Gassen (Eds.), Economic Policy beyond the Pandemic in the Nordic Countries, Nordregio Report 2024:12. Anders Forslund is a research fellow at IFAU and professor emeritus in economics at Uppsala University. The author thanks Lars Calmfors, Adam Gill, Tuulia Hakola-Uusitalo, Linus Liljeberg, Martin Lundin, Nora Sánchez Gassen, an anonymous referee and participants at the Nordregio seminar in Stockholm, 16 June 2023 and participants at an IFAU seminar, for their valuable help and comments. Any remaining mistakes are solely my own.

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1. Introduction

The COVID-19 pandemic had far-reaching consequences for the labour markets in the Nordic countries, as well as in most other rich countries. Some sectors were directly affected by the pandemic, but labour markets were also influenced by policies aimed at curbing the spread of infection. Although policies were implemented to reduce the impact on businesses, the pandemic rapidly increased the speed of intersectoral change in both production and employment – and some activities, typically involving occupations requiring in-person contact, were hit harder than others. To some extent, the pattern of sectoral change was different than in, for example, the 1990s crisis in Sweden, in the sense that many of the most severely affected sectors could be expected to expand again after the pandemic. Nevertheless, the employment rate contracted substantially in some sectors in the short term while it rose in others (OECD 2021). As such, there was a reasonable expectation that some – but not all – pandemic-driven changes would be reversed. Nonetheless, there are indications that the rebound has turned out to be sluggish. Many countries faced possible mismatch problems in their labour markets, with unsatisfied demand for labour accompanied by high unemployment rates.[2]

This paper discusses post-pandemic developments and analyses post-COVID matching in the Nordic labour markets. It also discusses institutions and the policies pursued to counteract labour market mismatch.

Section 2 covers the supply side of the labour market, primarily represented by unemployed jobseekers.[3] Both the number of unemployed jobseekers and their employability will have an impact on the process of matching jobseekers to vacant jobs. For this reason, I look both at the unemployment rate as a measure of the number of jobseekers and at long-term unemployment as a sign of the jobseekers' employability. Section 3 discusses the demand side in terms of employment and vacancy rates. Over time, data about the post-pandemic labour market will

[2] See, for example, Kiss et al. (2022).
[3] Employed workers are also part of the labour supply, and many jobseekers are employed. However, net changes in employment require unemployed jobseekers, which is why the focus is on them in this study.

emerge, including the ease of filling vacancies, which will provide insight into the matching process. However, irrespective of employment levels and the number of vacancies filled, the number of vacancies will also be important for analyses of the efficiency of the matching process.

When many workers are unemployed, employers typically find it easier to fill vacancies. However, when both the number of vacancies and the number of unemployed individuals are simultaneously high, it signals a mismatch between the skills available in the labour market and those in demand. Alternatively, it may suggest that jobseekers are not pursuing employment "actively enough". Hence, the coexistence of high unemployment and vacancy rates is a possible indicator of labor market mismatch. The extent and development of the mismatch after the pandemic is explored in Section 4, with the help of Beveridge curves to plot unemployment and vacancy rates, as well as an analysis based on matching functions.

A wide range of institutions and policies can influence labour market matching. Section 5 explores key institutions and policies that can have impacts on labor market outcomes, particularly those typically associated with labor market policymaking. While little is known about the link between labour market policy institutions and matching, outlining the institutional background can serve to highlight potential strengths and weaknesses in the design of policies. In contrast to the lack of evidence regarding the impact of labour market institutions on outcomes, there is a large body of evidence on the effects of the array of tools for labour market policy. Some of them are surveyed in Section 5. This review informs conclusions about policy priorities in the Nordic countries, offering some preliminary insights into the region's varying outcomes. Section 6 presents the study's conclusions.

The COVID-19 pandemic triggered a recession, causing a sharp downturn in the Nordic labour markets in the second quarter (Q2) of 2020. However, the recovery was swift; most aggregate measures of labour market performance returned to pre-pandemic levels in 2021. By the first quarter (Q1) of 2023, employment rates had not only recovered but surpassed their pre-pandemic levels. At the same time, high vacancy and unemployment rates have coexisted after the pandemic, which could be a sign of labour market mismatch. Given that the pandemic was

associated with rapid changes in total employment as well as large differences across sectors, such a development in labour market matching would be no great surprise.

However, according to my analysis, the only Nordic country that shows signs, albeit weak ones, of increased post-pandemic labour market mismatch is Sweden, where the Beveridge curve seems to have shifted outwards. The other countries exhibit no clear signs of a recent increase in labour market mismatch. It is important to note, however, that the data and analyses used in the study do not permit definitive conclusions, highlighting the need for further research.

The discussion of labour market policy institutions and measures points to substantial differences between the Nordic countries in terms of both institutions and policies. In Norway, labour market policies are largely centralised, the municipalities are key actors in Denmark, and Finland and Sweden fall between these two. Sweden does not only use private providers of labour market services, but privatisation is also far more extensive than in the other countries. In addition, the policy emphasis varies across the countries. Sweden is an outlier in its policy portfolio with a heavy reliance on subsidised jobs and very little emphasis on vocational training programmes. Denmark, Finland and Norway all invest heavily in vocational training. At the same time, the use of subsidised jobs in Denmark and Norway is limited. The analysis does not indicate any clear changes in labour market policy mix after the pandemic.

2. Labour supply: unemployment and long-term unemployment

There are both quantitative and qualitative aspects to labour supply. In this section, the unemployment rate is used as an index of available labour supply in the non-working population. This is clearly, at best, a quantitative measure of labour supply that ignores (types of) skills and location, and possibly other qualitative aspects. Moreover, the unemployment rate does not in itself say anything about job-search intensity.[4] All of these aspects are relevant to the matching process. There is no direct data on job search intensity, but long-term unemployment can arguably

[4] In addition, it does not take on-the-job searching into account.

serve as a proxy for it to some extent. Other things equal, low job-search intensity is likely to result in higher levels of long-term unemployment.[5] Institutions that have an impact on job search incentives can also be expected to have an impact on long-term unemployment. Long-term unemployment arguably also provides a measure (albeit an imperfect one) of some of the qualitative dimensions of labour supply: high long-term unemployment can be taken to reflect inadequate skills[6] or low-quality professional networks.[7] Given this line of argument, higher long-term unemployment is, *ceteris paribus*, expected to be associated with a slower matching process.

Rising unemployment in a cyclical downturn typically reflects an increased inflow into unemployment, as well as a reduced outflow from unemployment to jobs. All Nordic countries, and Iceland in particular, experienced rapidly increasing unemployment in the early days of the pandemic (until Q3 2020; see Figure 1). However, by late 2021 or early 2022, the unemployment rates had typically returned to around pre-crisis levels (Figure 1, Figure 2).[8] Similar developments were seen across the EU as a whole.

[5] The job-finding rate will typically depend on job search intensity. Most of the evidence for this derives from studies of reforms in unemployment insurance, especially changes in the maximum duration of unemployment benefit eligibility. LaLive (2007) provides a striking example of how prolonged unemployment benefit eligibility duration in Austria increased the length of unemployment spells..

[6] See Theobald (2017) for an illustration of this (and other insights regarding flows into and out of unemployment) based on Swedish data.

[7] See, for example, Hensvik and Skans (2016).

[8] I use information from the Eurostat Labour Force Surveys (LFS) to describe and compare the Nordic countries' labour market outcomes. The data quality is described and discussed in Häkkinen Skans (2019) and Sánchez Gassen and Ström Hildestrand (2022). They point out that response rates have fallen in recent years, affecting the reliability of the statistics.

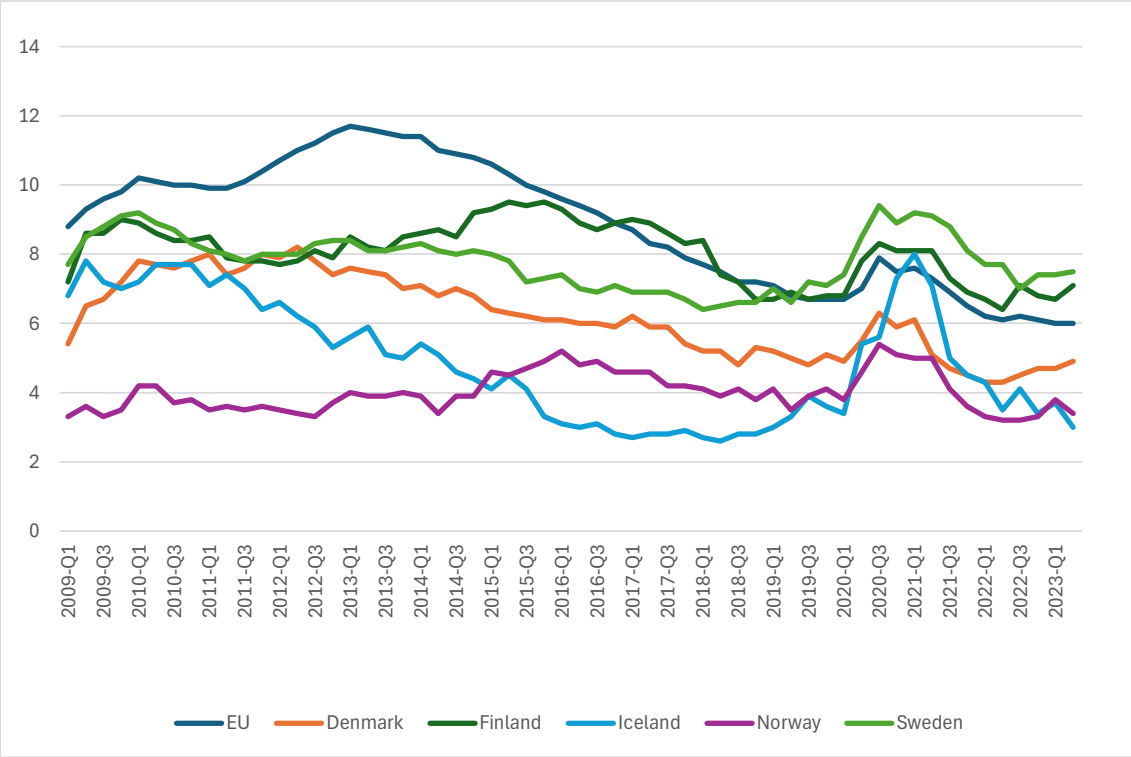


Figure 1. Unemployment in the Nordic countries and the EU, 2009–23 Q2, percentage of labour force

Note: Age range 15–74 years.

Source: Eurostat, Labour Force Surveys.

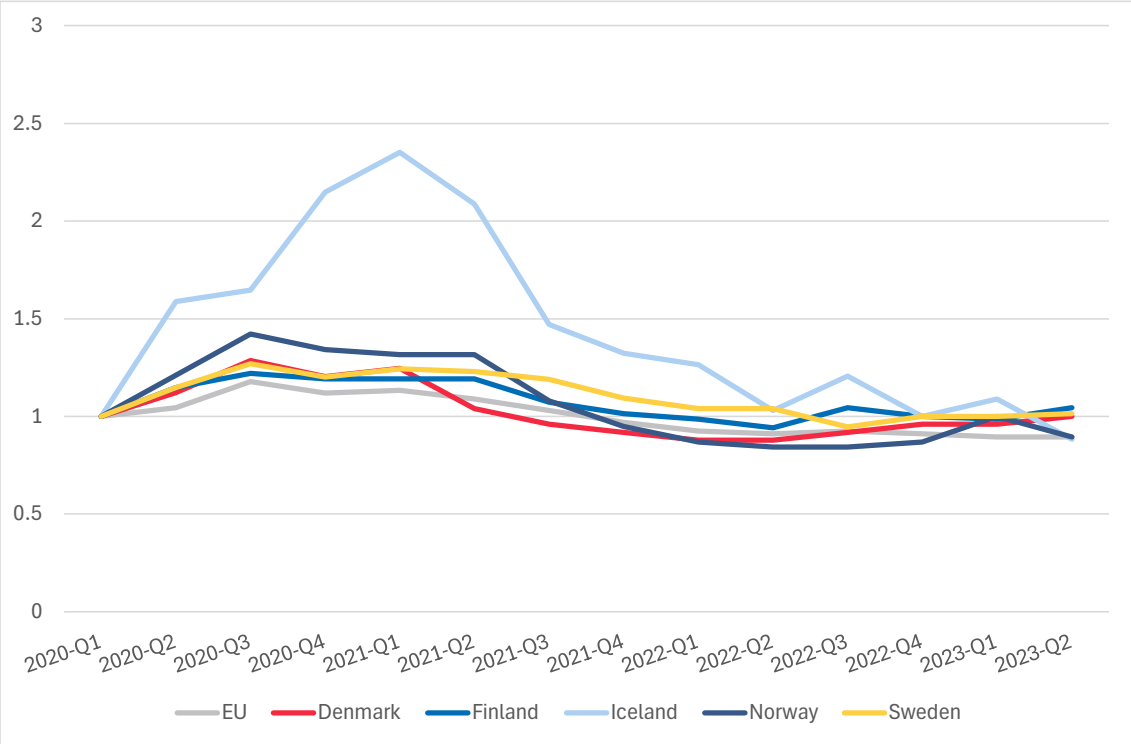


Figure 2. Unemployment rates during and after the COVID-19 pandemic in the Nordic countries and the EU, 2020–23 Q2, index 2020 Q1=1

Note: Age range 15–74 years.

Source: Eurostat, Labour Force Surveys.

The situation is more complex regarding the development of long-term unemployment over the business cycle. At the beginning of a cyclical downturn, the share of long-term unemployed among the total unemployed can be expected to decrease due to a large inflow into unemployment. At the same time, the number of long-term unemployed persons, as well as the share of the labour force in long-term unemployment, is expected to increase due to a lower job-finding rate. Later in the cycle, the share of long-term unemployed among the unemployed is typically expected to increase because the job-finding rate of the short-term unemployed is higher than the job-finding rate of the long-term unemployed. Eventually, however, during the later phases of a cyclical upturn, the share of long-term unemployed in the labour force will decrease.

To some extent, this pattern can be seen in (some of) the Nordic countries both during and after the pandemic. At the beginning of the crisis, the long-term unemployment rate (the ratio between those unemployed for at least twelve months and the labour force) rose.[9] Then, during 2021, the rate started to decrease, especially in Denmark, Norway and Iceland – and, to some extent, in Finland. However, Swedish long-term unemployment basically remained constant throughout 2022 and only fell slowly in the first two quarters of 2023 (Figure 3). As the pandemic hit during Q2 of 2020, the proportion of long-term unemployed went down in all of all the countries. It then began to rise in all of them except Norway and Sweden and subsequently levelled out or fell in Denmark, Iceland and Norway: there was a more or less continuous fall from the middle of 2021 onwards (Figure 4). Similar patterns are seen across the EU, although long-term unemployment is a more significant feature of unemployment in the EU than in the Nordic Region.

[9] Where the line should be drawn between short-term and long-term unemployment is somewhat arbitrary. I have chosen to define and measure unemployment spells of least 12 months as long-term unemployment, which is in line with the definitions used by Eurostat and several Nordic statistical bodies.

Except for Finland, the rate of long-term unemployment is higher among immigrants than natives. In a purely mechanical sense, the high Swedish incidence of long-term unemployment is driven by a larger proportion of immigrants rather than by higher rates among either immigrants or natives than in the other Nordic countries.[10] The results for Denmark are consistent with less stringent employment protection legislation (EPL) than in the other Nordic countries.[11] In other words, the Danish "flexicurity" system could give rise to shorter periods of both employment and unemployment.[12]

If long-term unemployment serves as a valid indicator of the "quality" of labor supply, we would expect post-pandemic matching problems to be most pronounced in Sweden and Finland, least pronounced in Denmark, and moderate in Norway. This issue is further analysed in Section 4.

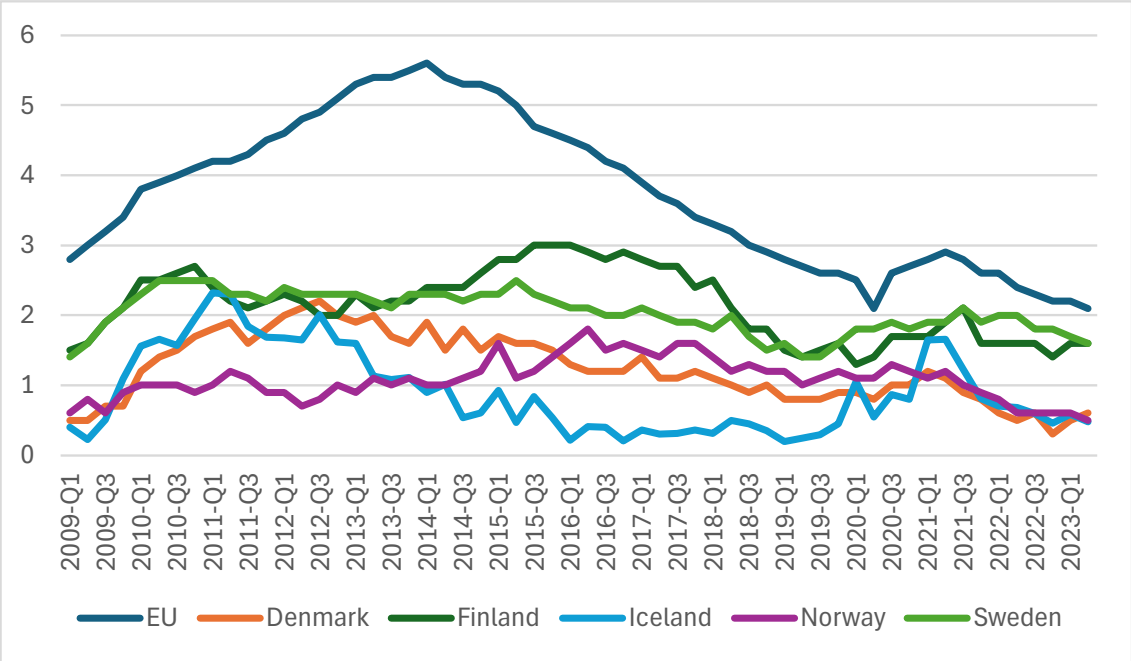


Figure 3. Long-term unemployment in the Nordic countries and the EU, 2009–23 Q2, percentage of labour force

Note: Long-term unemployment is defined as spells of at least 12 months. All data except those for Iceland are seasonally adjusted. Age range: 15–74 years.

[10] For discussion of long-term unemployment among immigrants, see Sánchez Gassen and Ström Hildestrand (2022).
[11] See, for example, OECD (2020) on EPL strictness. There is empirical evidence of a positive association between EPL strictness and duration of unemployment (see, e.g. Skedinger 2010).
[12] The analysis in Nyland Brodersen (2015), Chapter 4, suggests such differences between Sweden and Denmark.

Sources: Eurostat, Labour Force Surveys; Iceland: Statistics Iceland.

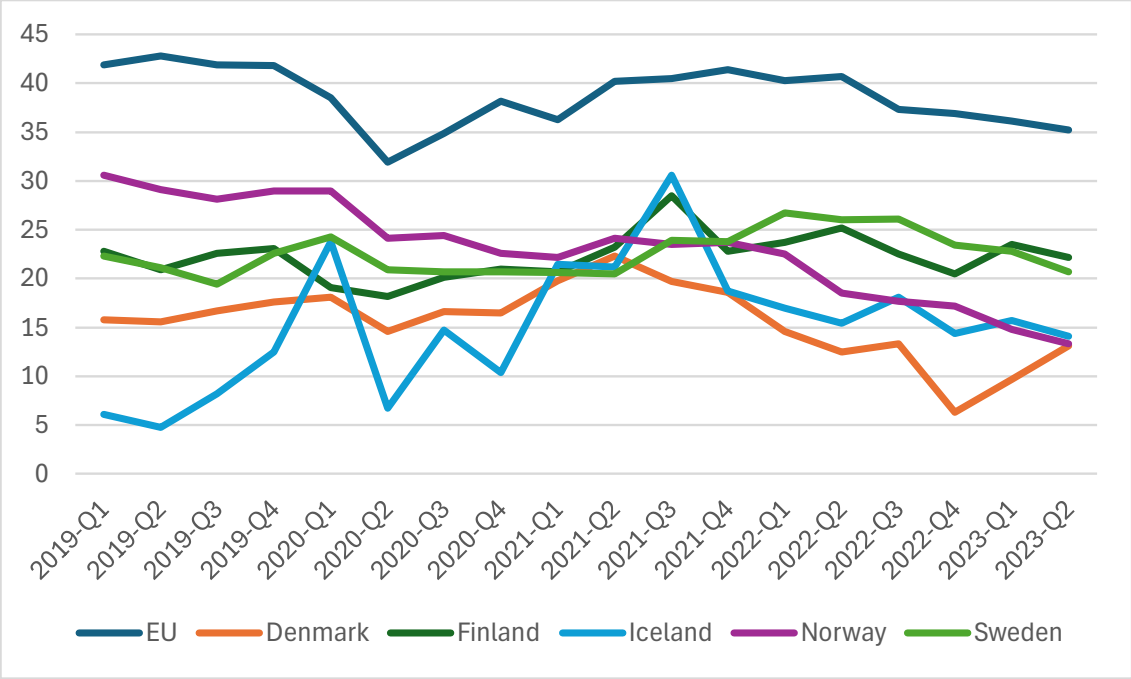


Figure 4. Long-term unemployment in the Nordic countries and the EU, 2019–23 Q2, percentage of unemployment

Note: Long-term unemployment is defined as spells of at least 12 months. All figures except those for Iceland are seasonally adjusted. Age range: 15–74 years.

Sources: Eurostat, Labour Force Surveys; Iceland: Statistics Iceland.

3. Labour demand: employment and vacancies

During the early phases of the pandemic, unemployment rose and employment fell despite extensive job retention schemes (see Balleer 2023 and OECD 2023b). The subsequent recovery employment was at least as rapid as the decrease in unemployment. The improvement in employment (at least in Denmark, Finland and Sweden among the "big four" Nordic countries) continued, meaning that by late 2022, employment rates exceeded their pre-crisis levels (Figure 5). The fact that employment rates increased above pre-pandemic levels while unemployment rates returned to pre-pandemic levels reflects the fact that the labour force participation rate increased during the business cycle upturn after the pandemic.

After the initial rapid fall in employment at the beginning of the pandemic, the labour supply was sufficient for a non-trivial increase in employment. This suggests that job retention schemes did not generate strong locking-in effects.[13]

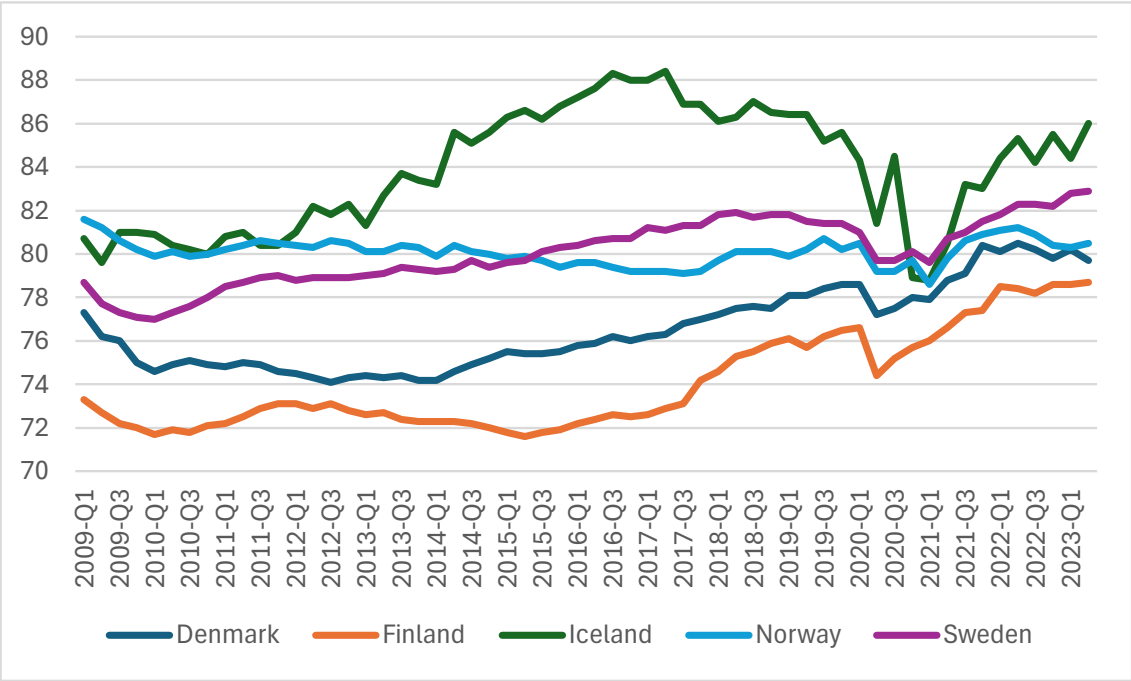


Figure 5. Employment in the Nordic countries, 2009–23 Q2, percentage of working-age population

Note: Age range 20–64 years.

Source: Eurostat.

Turning instead to vacancy rates (the ratio between the number of vacancies and the number of employed) and using them as a measure of unsatisfied labour demand, we see that not only was there a sharp rise in employment, but unsatisfied labour demand also increased rapidly after the initial large decrease at the beginning of the pandemic (Figure 6). The vacancy rate also seems to remain high across the latest available data points.[14]

[13] Job retention schemes potentially create locking-in of both capital and labour to the extent that they provide support to inefficient production that eventually will not survive. The risk for this is probably increasing in the duration of the schemes.

[14] The quarter-by-quarter trend is hard to assess, as there is evidence of strong seasonality in vacancy rates. However, I do not have access to seasonally adjusted vacancy data for all of the countries over the relevant period.

Labour supply has, therefore, been sufficient to allow a rapid increase in employment, but despite the large number of vacancies, unemployment only returned to pre-pandemic levels in the last quarter of 2022. Despite the strong growth in employment, the combination of persistently high vacancy and unemployment rates suggest possible mismatch problems. In the next section, we take a closer look at the combined data on jobseekers and vacant jobs, and the implications for labour market matching.

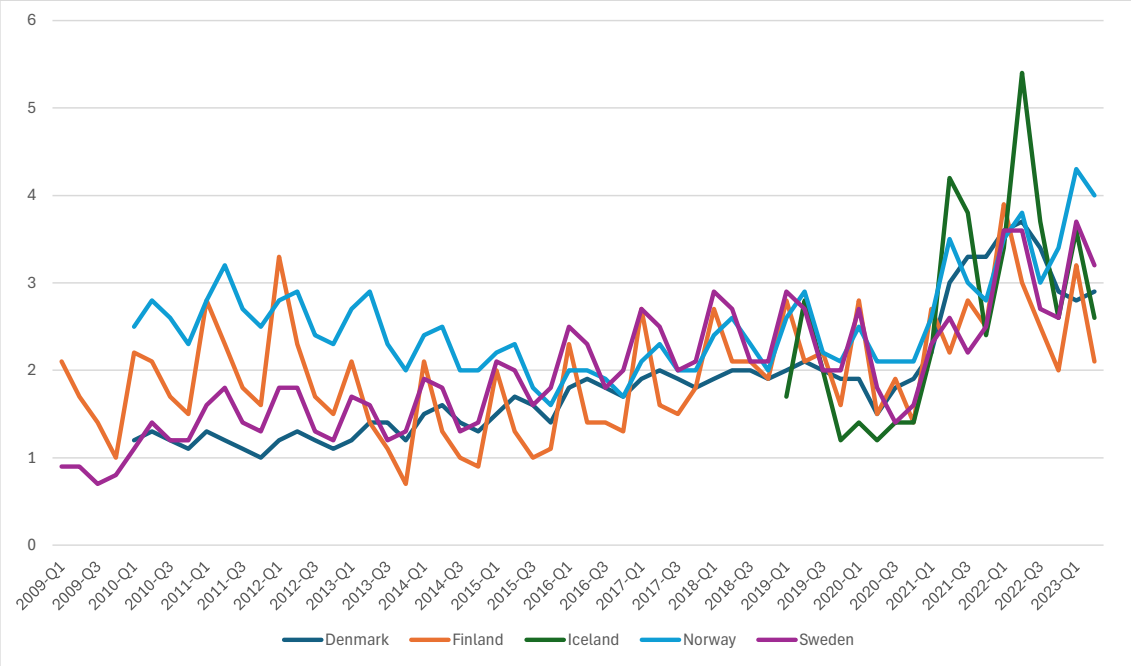


Figure 6. Quarterly vacancy rates in the Nordic countries, 2009–23 Q2, percentage

Note: Data are seasonally unadjusted.

Sources: Eurostat and Statistics Denmark.

4. Mismatch

Using information on the business cycle position (unemployment, employment, and vacancies) to date the cyclical upturn in the Nordics, I decided to define 2020:Q4, and not the end of the pandemic itself, as the first post-pandemic quarter. Hence, in this section, I study mismatch in labour markets after the third quarter of 2020.

First, I look for indications of mismatch by plotting Beveridge curves for the "big four" Nordic countries.[15] The Beveridge curve shows the relationship between unemployment and vacancy rates. Different parts of the curve typically represent different cyclical situations: slumps are characterised by high unemployment and low vacancy rates, while the opposite situation occurs in booms – the Beveridge curve thus is negatively sloping. The curve may also shift inwards or outwards. An outward shift implies higher unemployment at a given vacancy rate, one possible explanation for which could be less efficient matching – or, in other words, increased mismatch. Figure 7 illustrates the Beveridge curve's implications for matching. However, the information presented in the Beveridge curve is not completely straight forward to interpret in terms of changes in matching efficiency – the curve may shift for a number of reasons, only one of them being matching efficiency. Moreover, at a given point in time it is hard to distinguish between cyclical movements and shifts.[16] Hence, I prefer to study matching using a matching-function framework.

[15] I could not find vacancy data for Iceland going further back than 2019 at either Eurostat or Statistics Iceland. Data for Iceland are often missing. Iceland is therefore not included in many analyses in the paper.

[16] A theoretical foundation for the Beveridge curve within a search-matching framework can be found in, for example, Pissarides (2000) and Cahuc et al. (2014), both of which demonstrate how various factors may shift the Beveridge curve. One such factor is the inflow rate into unemployment. In addition, an anti-clockwise movement of combinations of unemployment and vacancies is typical of business-cycle adjustments, as vacancies adjust more rapidly than unemployment in periods of recovery (Blanchard and Diamond 1989). Measurement issues might also contribute to shifts in the curve, as vacancies are hard to measure, and problems in doing so may vary over time. For example, it may have been more difficult to collect valid data during the pandemic. However, the metadata discussion on Eurostat's vacancy web page (https://ec.europa.eu/eurostat/cache/metadata/en/jvs_esms.htm) does not indicate that such problems arose in the Nordic countries.

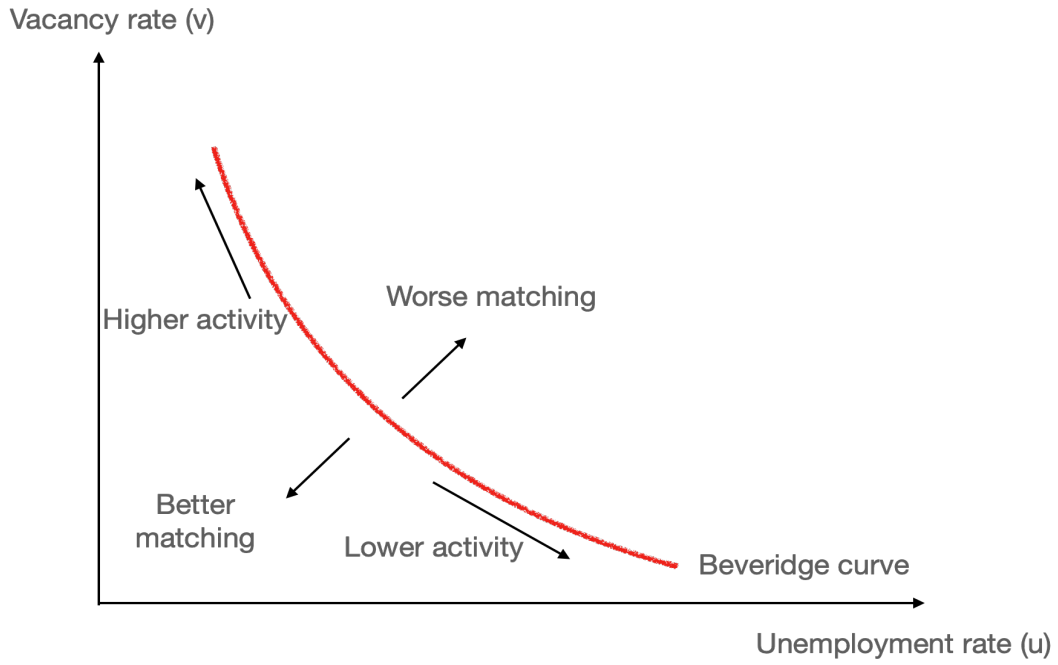


Figure 7. The Beveridge curve

According to standard matching functions, the number of matches (new hires), *M*, is an increasing function of the number of vacancies, *V,* and the number of unemployed jobseekers, *U*. Under reasonable conditions, the *matching rate* (the number of matches relative to the number of unemployed) will increase if *labour market tightness* (the number of vacancies relative to the number of unemployed, V/U) goes up.[17] In this framework, changes in the matching rate at a given level of labour market tightness are indicative of changes in matching efficiency.

The following sections present plots of the residuals from regressions in which the matching rate is estimated as a function of labour market tightness, while dummy variables account for seasonality. The residuals can be interpreted as deviations from the average relation between the

[17] Petrongolo and Pissarides (2001), for example, present empirical evidence and theory regarding the matching function. If the matching function, $M = m(V, U)$, is homogeneous of degree one in its arguments (so that a doubling of both the number of vacancies and the number of unemployed leads to a doubling of the number of matches), the matching rate is an increasing function of labour market tightness (the ratio of vacancies to unemployment), $M/U = m(V/U, 1) = f(V/U)$. Homogeneity of degree one is not rejected in most (early) empirical studies (see Petrongolo and Pissarides 2001). In fact, the matching rate depends on the numbers of unemployed and vacancies. However, the ratio between the number of vacancies and the number of unemployed approximately equals the ratio between the vacancy rate (the number of vacancies relative to the number of employed) and the unemployment rate (the number of unemployed relative to the labour force).

matching rate and labour market tightness.[18] As such, the points below the regression line are signs of slower-than-average matching at a given labour market tightness and, therefore, of mismatch.[19] An alternative way to detect mismatch using a matching-function approach could be to estimate the matching function on a sub-sample of the data ending before the post-pandemic period and then comparing predicted and actual matching rates. Given the short time series in the data set (and the small number of post-pandemic observations), this approach is not likely to produce any other results than the approach used.[20]

I use Eurostat data on unemployment rates, vacancy rates and transition rates from unemployment to employment as a measure of the hiring rate.[21]

4.1 Denmark

The Danish Beveridge curve (Figure 8) shows no clear sign of an outward shift after the pandemic, although the observations for 2021 and 2022 could potentially indicate this. The fact that we only have observations for two post-pandemic years makes it hard to distinguish between cyclical movements and a shift. In addition, if there is a shift it is a small one.

[18] The period covered by the data spans Q3 2010 to Q2 2023, with a missing observation for Q1 of 2021. I have chosen to show the relationships in the levels of the variables. The use of logs leads to similar conclusions. The inclusion of dummies for the two "exceptional" deep COVID-19 recession quarters in 2020 does not alter the main conclusions.
[19] See Håkanson (2014) for discussion of the use of matching models to track labour market mismatch and estimates for the Swedish labour market after the global financial crisis in 2008–09.
[20] Böhlmark and Waisman (2024) use this approach to study matching in Sweden with a much longer sample period. In their setting, in contrast to mine, they can also capture more long-term trends in matching efficiency using their approach.
[21] The matching rate, here measured as the transition rate from unemployment, equals the number of persons going from unemployment to employment relative to the number of unemployed. I have chosen annual data for the Beveridge curves and quarterly data for the matching plots, mainly because high-frequency changes have more natural interpretations in the matching plots. The vacancy data for Denmark have been collected from Statistics Denmark, as the Danish data are not available in the Eurostat database.

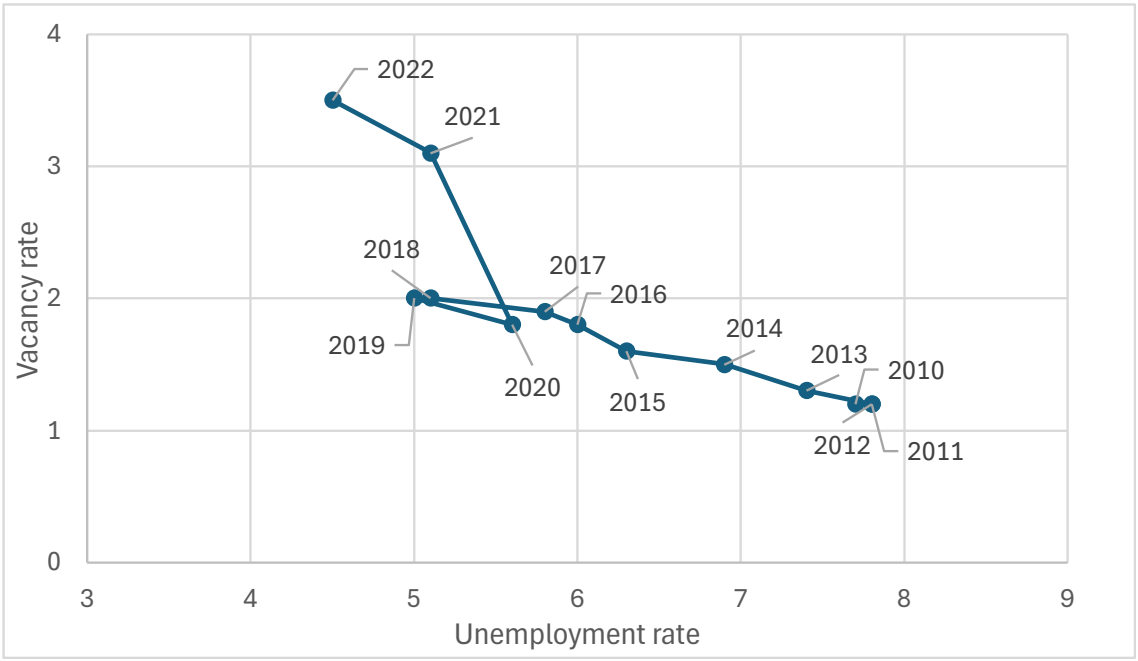


Figure 8. The Danish Beveridge curve, 2010–22

Note: Both the vacancy rate and the unemployment rate are measured in percentages.

Sources: Eurostat and Statistics Denmark (vacancies).

Figure 9 shows the residuals from an estimated model based on a matching function. The average residual in the post-pandemic period (starting in Q4 of 2020) is positive and small (0.99%) compared to the average matching rate (35.9%). Hence, the estimated regression model does not indicate increased mismatch after the pandemic.

Overall, the evidence does not suggest an increase in mismatch in the Danish labour market after the pandemic. Given the long-term unemployment figures, it is not surprising that the signs of increasing mismatch are less clear in Denmark than in the other big Nordic countries (see below).

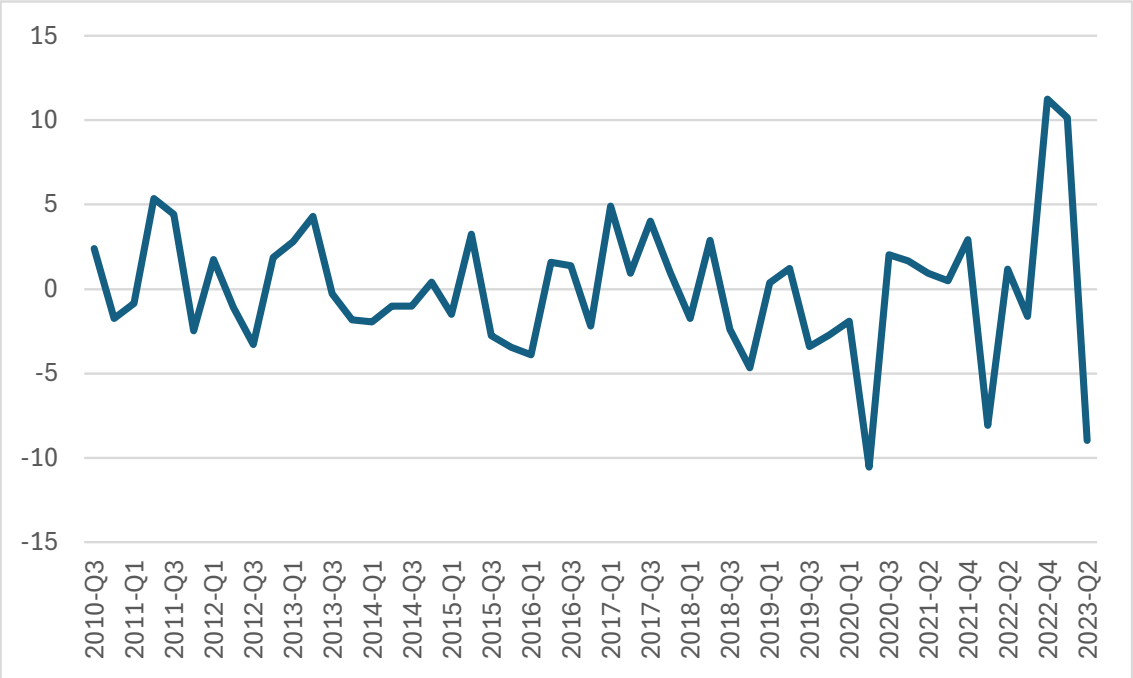


Figure 9. Residuals from model in which the matching rate is regressed on labour market tightness and quarterly time dummies, Denmark, 2010 Q3–2023 Q2

Note: Residuals are measured as percentage points.

Source: Own calculations.

4.2 Finland

The Finnish Beveridge curve (Figure 10) is similar to its Danish counterpart (Figure 8) with regard to post-pandemic development, appears to be more stable than the Norwegian and Swedish curves (Figure 12, Figure 14), and for the same reasons that apply to its Danish counterpart (cyle or shift?; size) does not strongly suggest increased post-pandemic labour market mismatch.

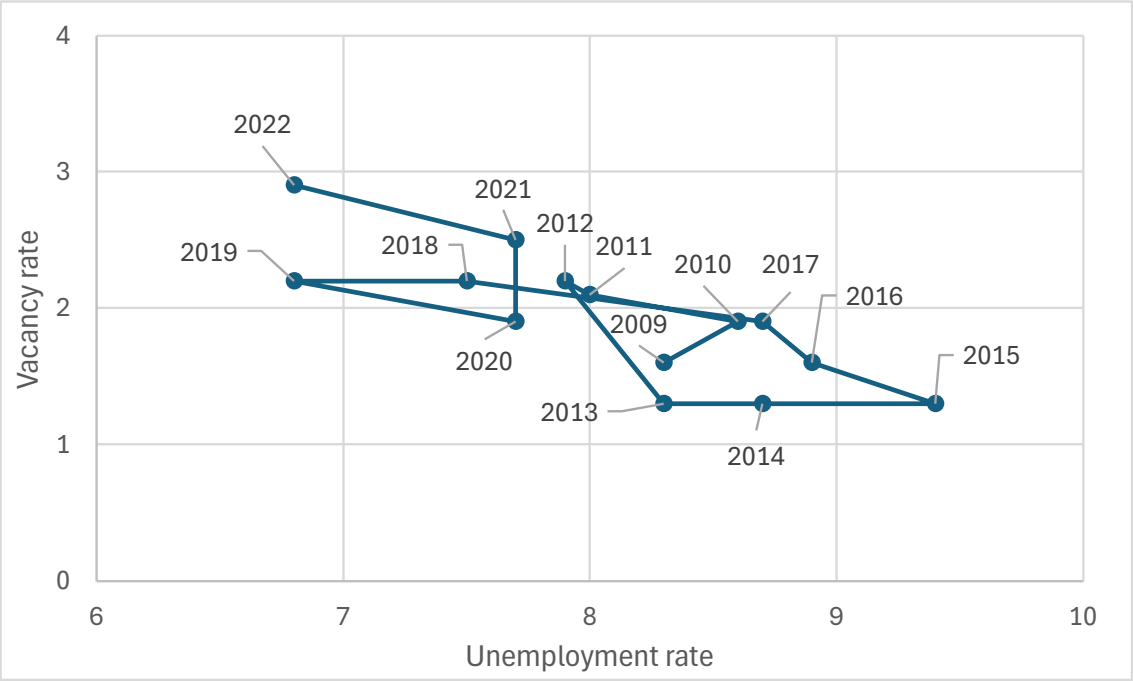


Figure 10. The Finnish Beveridge curve, 2009–22

Note: Both the vacancy rate and the unemployment rate are measured in percentages.

Source: Eurostat.

The analysis based on the residuals from the estimated matching relation (Figure 11) does not suggest increased post-pandemic mismatch either. Indeed, the average of the post-pandemic residuals is small and positive (0.49). Based on the information on long-term unemployment, we would perhaps expect more clear signs of mismatch, especially as the level of long-term unemployment has been similar to that of Sweden (Figure 3, Figure 4). However, the main upshot is that there are no clear signs of an increased post-pandemic labour market mismatch in Finland.

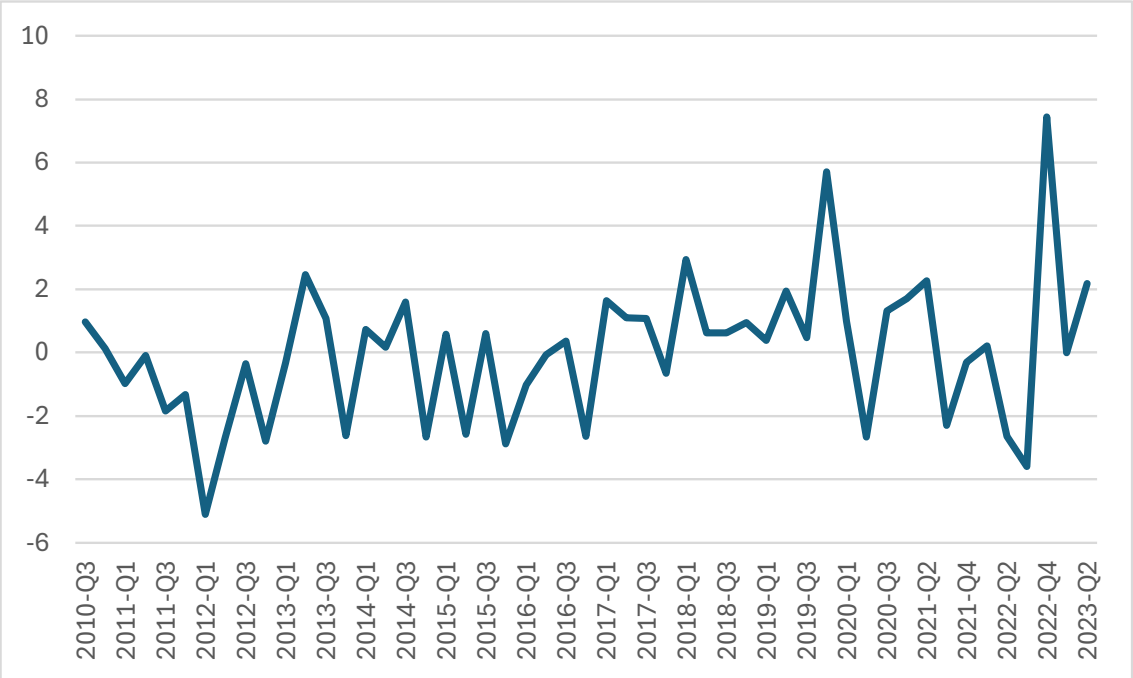


Figure 11. Residuals from model in which the matching rate is regressed on labour market tightness and quarterly time dummies, Finland 2010 Q3–2023 Q2

Note: Residuals are measured as percentage points.

Source: Own calculations.

4.3 Norway

Turning to Norway, the Beveridge curve suggests increased mismatch since COVID-19, but the outward shift is less pronounced than in Sweden (see Figure 12 and Figure 14). The outward shift could reflect rapidly increasing inflows into unemployment. However, although the data suggest large inflows into unemployment in 2021 and 2022, larger inflows occurred during the pandemic.[22] Another possibility is that the movement is, at least partly, a business cycle phenomenon. This would be the case if vacancies responded faster than unemployment in the post-pandemic business cycle upturn. Also, the post-pandemic period only contains two data points. Hence, although the most compelling interpretation of the Norwegian Beveridge curve suggests increased mismatch, it is hard reject an interpretation that instead interprets the movements as a cyclical one..

[22] The Eurostat labour force statistics include data on in- and outflows, both into and out of unemployment.

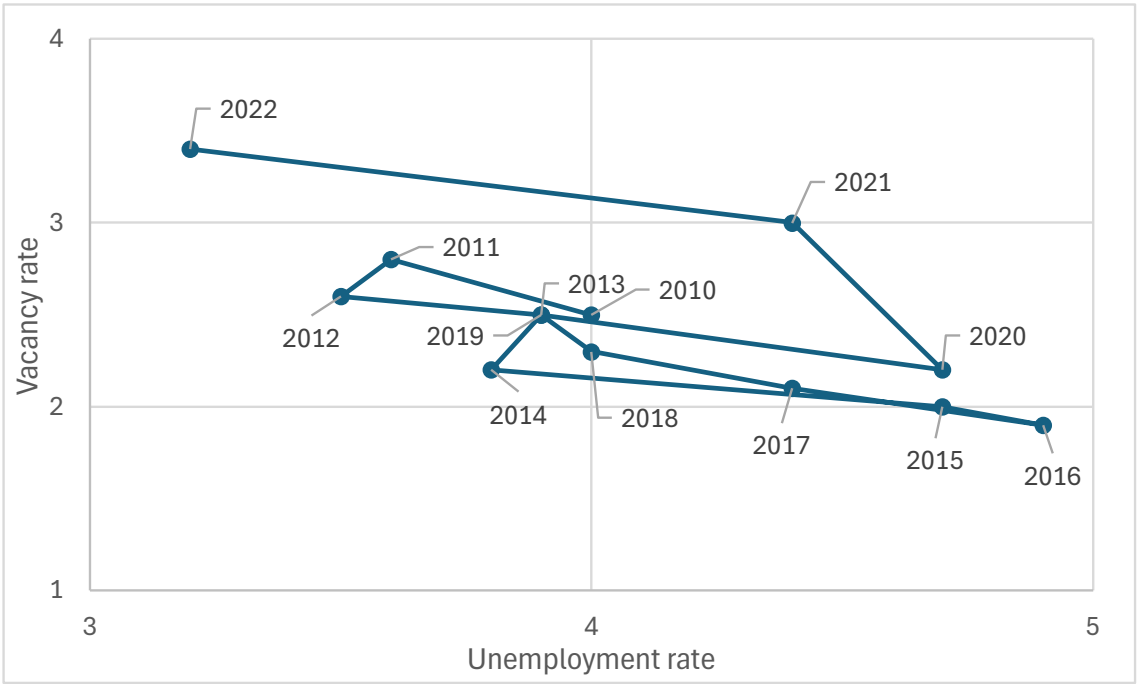


Figure 12. The Norwegian Beveridge curve, 2010–22

Note: Both the vacancy rate and the unemployment rate are measured in percentages.
Source: Eurostat.

The main message conveyed by the analysis based on the matching function (Figure 13) is that there is no increase in mismatch. The estimated residuals suggest improved matching (the post-pandemic residual average is 2.42). However, the size of the improvement in Norway is small compared to the average matching rate. To the extent that there is a correlation between long-term unemployment (see Figure 3, Figure 4) and matching problems, the generally less clear signs of mismatch in Norway compared to Sweden (see below) are not surprising.

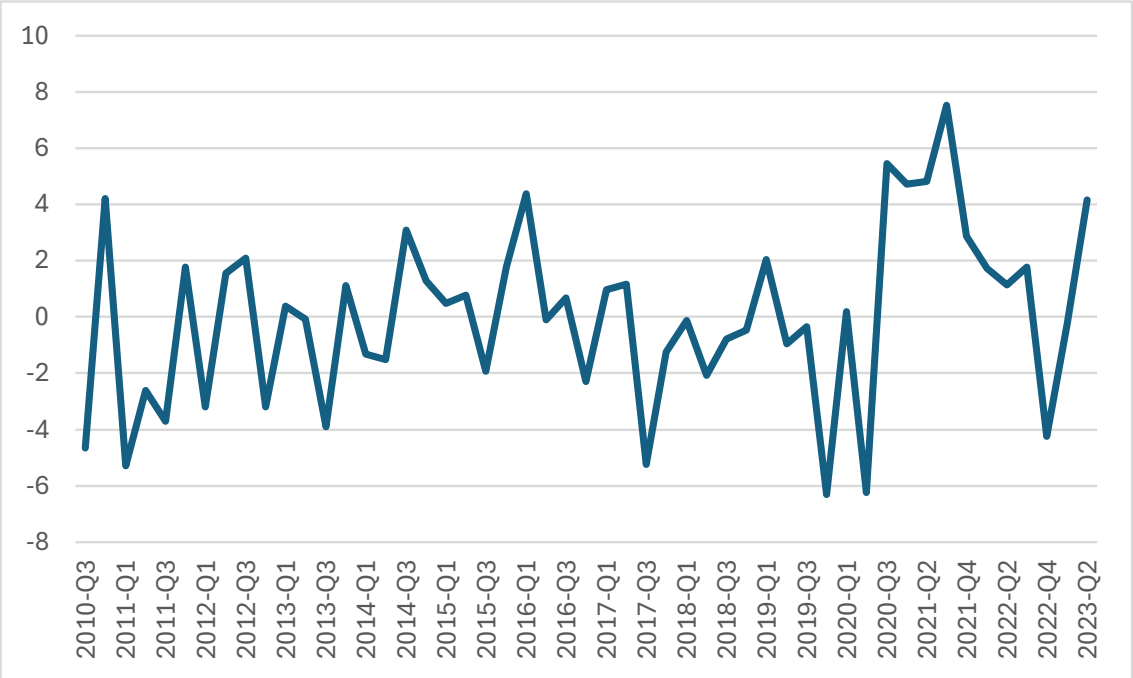


Figure 13. Residuals from model in which the matching rate is regressed on labour market tightness and quarterly time dummies, Norway, 2010 Q3–2023 Q2

Note: Residuals are measured as percentage points.

Source: Own calculations.

4.4 Sweden

The most likely conclusion to be drawn from the Beveridge curve (Figure 14) for Sweden is that it shifted outwards after the pandemic – the unemployment-vacancy combinations for 2021 and 2022 are significantly[23] further away from the origin than for any other year. This suggests increased labour market mismatch. Given the magnitude of the shift, it is challenging to interpret it as primarily related to the business cycle. However, a longer observation period would be needed to draw a more definitive conclusion

[23] Significant both in the sense that the outward shift is easily visible and large and in the sense that a time dummy taking the value one for 2021 and 2022, zero otherwise, is highly statistically significant when the log vacancy rate is regressed on the log unemployment rate and the dummy.

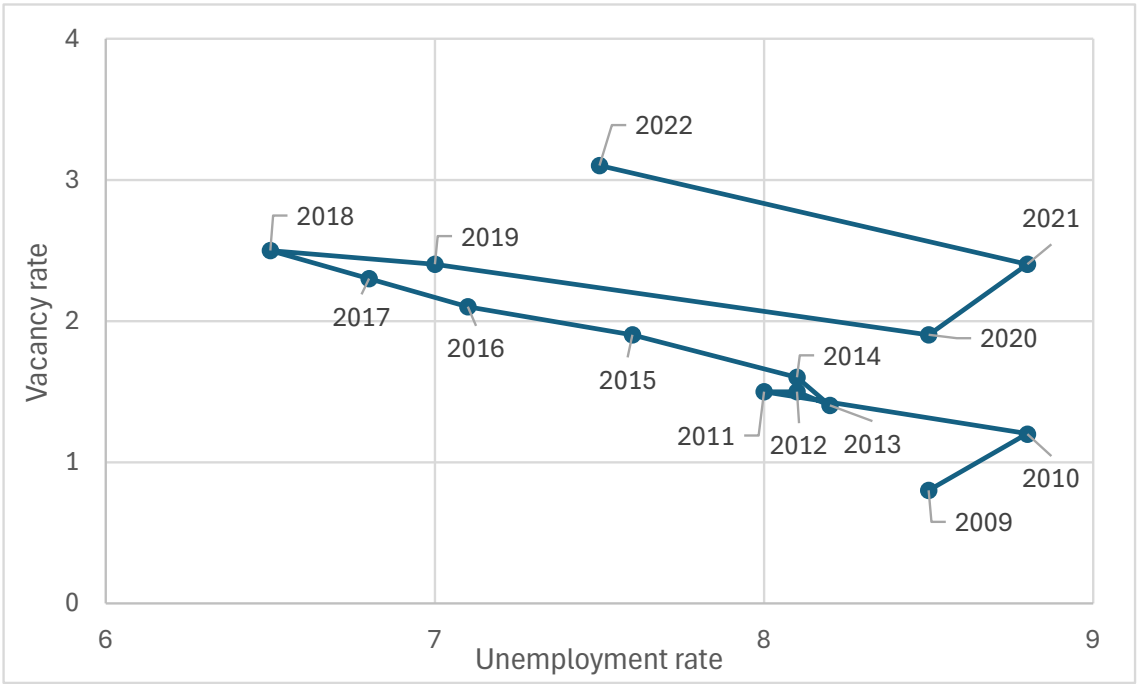


Figure 14. The Swedish Beveridge curve, 2009–22

Note: Both the vacancy rate and the unemployment rate are measured in percentages.
Source: Eurostat.

When the residuals of an estimated matching function for Sweden are used as an indication of mismatch, the results in favour of an increased mismatch are less clear than is suggested by the Beveridge curve analysis. The average value of the residuals is 0.11 in the post-pandemic period. This value indicates that, on average, the matching rate has been somewhat higher after the pandemic than before for given values of labour market tightness. However, the size of this measure is very small, given that the matching rate in the period is just above 26.[24]

[24] Böhlmark & Waisman (2024) document a downward trend in Swedish matching efficiency from the international financial crisis and until 2016, but an upward trend from 2017 and on with a dip during the early phases of the pandemic.

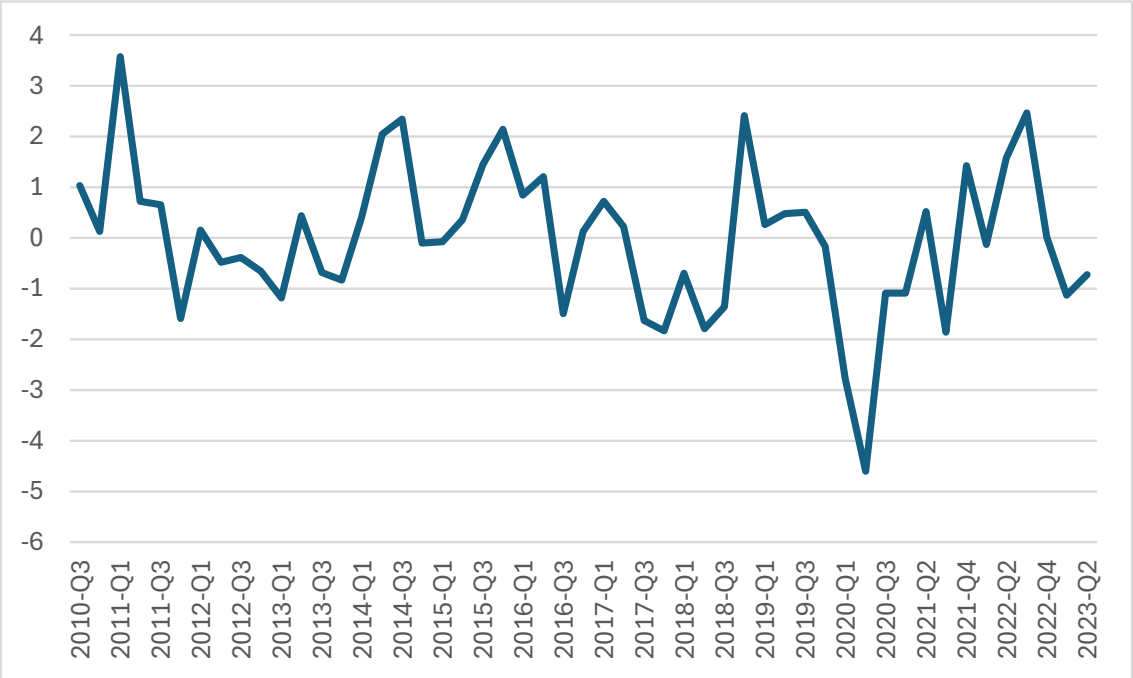


Figure 15. Residuals from model in which the matching rate is regressed on labour market tightness and quarterly time dummies, Sweden, 2010 Q3–2023 Q2

Note: Residuals are measured as percentage points.

Source: Own calculations.

In summary, the aggregate message of the Beveridge curve and the matching function analysis may be an increased mismatch in the Swedish labour market in the post-pandemic period. However, this conclusion is far from clear. The relatively high incidence of long-term unemployment in Sweden is a likely candidate as a cause of possible matching problems (see the discussion in Section 2).

4.5 Summary: increased post-pandemic labour market mismatch?

The pandemic hit different parts of the economy very differently, and it may be anticipated that a smooth post-pandemic "return to normal" would require a great deal of labour market flexibility. Hence, labour market mismatch problems would come as no surprise. However, we have seen that the recovery in employment was so rapid that Nordic employment rates in the first quarter of 2023 exceeded (Denmark, Finland, Sweden) or roughly equalled (Iceland, Norway) the pre-pandemic levels (Figure 5), despite the supply shock with rising prices of for example energy and raw materials in the wake of the war in Ukraine.

Indeed, using information on unemployment, vacancies and hiring rates, the general picture is not one of widespread labour market mismatch. Sweden is the only Nordic country for which the evidence suggests an increased mismatch and even this seems far from certain as this follows only from the Beveridge curve analysis which is admittedly hard to interpret. Of course, the analysis is simplistic, and a more thorough analysis using richer data may prompt a revised conclusion. However, taking the coexistence of unemployment and vacancies as *prima facie* evidence of mismatch is even more simplistic. On the other hand, the finding that we see no clear signs of increased mismatch does not imply that matching cannot be improved or that properly designed labour market policies cannot improve labour market matching.

5. Labour market institutions and policies

Active labour market policies can be used to reduce mismatch. For example, job-search assistance (in a broad sense) can be directly aimed at matching unemployed workers to vacant jobs. Two influential articles by Card et al. (2010, 2018) survey the international empirical evidence on the impact of labour market programmes. Below, I discuss some relevant findings from these surveys, which include two comprehensive surveys of Swedish evidence (Calmfors et al. 2002, Forslund and Vikström 2011). Based on an overview of later Swedish evidence, I have also identified other relevant studies. While I am less familiar with the evidence for Denmark, Finland and Norway, a Danish database (*jobeffekter.dk*) summarises the findings of many studies into the effects of active labour market policy programmes. I have used this database as a primary source of policy evaluations for Denmark and, to some extent, for Finland and Norway. For Finland, there is also a recent OECD impact study of active labour market policies (ALMPs) there (OECD 2023a). A background report for the Norwegian *Sysselsettingsutvalget* (von Simson 2019) surveys the Norwegian programme evaluations.

Evaluations of job-search assistance suggest that it has both positive "treatment" effects for recipients (Card et al. 2010, 2018) and displacement effects for other jobseekers, implying that the positive impacts on those "treated" to some extent come at the expense of lower job-finding

rates for those "not treated" (Crépon et al. 2013, Gautier et al. 2018, Cheung et al. 2023). At the same time, the (primarily) Swedish evidence indicates significant impacts on unemployed people with a weak attachment to the labour market (Liljeberg and Lundin 2010, Åslund and Johansson 2011, Andersson Joona and Nekby 2012, Battisti et al. 2019, Helgesson et al. 2022). This suggests that even in the presence of displacement effects, targeted job-search assistance may be a way to reduce long-term unemployment and improve matching. The Swedish evidence also suggests that a high number of caseworkers per unemployed person may be an important condition for success. Rosholm and Svarer (2009) and Nyland Brodersen (2015) evaluated a Danish experiment involving more frequent meetings between caseworkers and social assistance recipients. In this instance, the increased contact frequency did not give rise to any positive effects. I have not found any evidence from the other Nordic countries on intensified job search assistance targeted at individuals with weak labour market attachment.

Vocational training programmes can be used to adapt the skills of unemployed workers to the tasks that are in demand for vacant job positions. Swedish evaluations suggest that vocational training programmes have been efficient for unemployed people with weak labour market attachment (De Luna et al. 2008, Regnér 2014, Liljeberg 2016).[25] Danish studies (Jensen et al. 2003, Lauzadyte 2008, Lauzadyte and Rosholm 2008, Høeberg et al. 2011, Det Økonomiske Råd 2012, Sørensen et al. 2014, Bolvig et al. 2017) show mixed positive and negative effects of vocational training programmes. A number of Norwegian studies (Raaum et al. 2002, Kvinge and Djuve 2006, Hardoy et al. 2006, Røed and Raaum 2006, Hardoy and Zhang 2010, von Simson 2012, Hardoy and Zhang 2013, von Simson 2016, Zhang 2016) find that vocational training has mainly positive effects on employment. One Norwegian study (Hardoy 2005) found negative impacts. It may be noted that this study was specifically focused on young people.[26] For Finland,

[25] The Swedish evidence regarding the impacts on broader target groups is more mixed. The estimated impacts vary substantially regarding participation in different periods (Calmfors et al. 2002, Forslund and Vikström 2011). See also Liljeberg (2016) and Vikström and van den Berg (2017).
[26] Similar results have also been found in other studies of effects of vocational training for young people in, for example, Sweden (Calmfors et al. 2002, de Luna et al. 2008).

OECD (2023a) finds positive employment impacts of vocational training. The positive effects are particularly large for older (50+) workers. The main results from these studies are consistent with the findings of a few papers (in Finnish) surveyed by the OECD (2023a). In summary, the available evidence speaks in favour of vocational training as a means to fight long-term unemployment and mismatch in the Nordic Region, with the possible exception of Denmark, where the evidence is mixed.

In Sweden, mobility grants have been used to increase geographical mobility. The available evidence suggests that such policy measures have not had the desired impact (Westerlund 1998).

Finally, subsidised jobs can incentivise employers to hire targeted groups of unemployed workers. Most evaluations suggest that subsidised jobs with regular tasks performed in regular workplaces consistently speed up the transition from unemployment to unsubsidised jobs [27] (Card et al. 2010, 2018). In their surveys of research on subsidised employment programmes in Sweden, Calmfors et al. (2002) and Forslund and Vikström (2011) find positive effects for participants but also significant displacement effects. More recently, positive effects have also been identified for the participants in Swedish New Start Jobs[28] (Sjögren and Vikström 2015). A number of Danish studies (Lauzadyte 2008, Lauzadyte and Rosholm 2008, Munch and Skipper 2008, Rosholm and Svarer 2008, Kjærsgaard 2009, Rotger and Arendt 2010, Det Økonomiske Råd 2012, Heinesen et al. 2013, Sørensen et al. 2014, Ahmad et al. 2019) suggest that subsidised employment (primarily referring to subsidies paid to employers in the private sector) has mainly positive effects.[29] According to von Simson (2019), all of the studies of Norwegian subsidised jobs estimate positive effects for different target groups with weak labour market attachment (Kvinge and Djuve 2006, Hardoy and Zhang 2010, von Simson 2012, Hardoy and Zhang 2013, von Simson 2016). In sum, existing evidence speaks strongly in favour of subsidised jobs targeted at the long-term unemployed as an effective method of increasing the job-finding rate.

[27] Evaluations typically estimate transitions to unsubsidized jobs, so "positive effects" normally mean a more rapid transition to unsubsidised jobs.
[28] Since their introduction in 2007, New Start Jobs are the major form of subsidized jobs in Sweden.
[29] Card et al. (2010, 2018) find positive effects of subsidised private-sector, but not public-sector, employment.

My overall conclusion is that a policy emphasis on job-search assistance, training programmes and subsidised employment is likely to improve labour market matching. To the extent that skills mismatch related to large inflows of refugees is an important feature, it is reasonable to predict that training programmes should have been especially effective in recent years.

5.1 Spending on active labour market policy measures

Figure 16 presents spending on active labour market policy measures[30] as a share of GDP in the OECD. Denmark, Sweden and Finland were comparatively big spenders in both 2004 and 2020, whereas Norway spent less than the OECD average in 2020 but not in 2004.

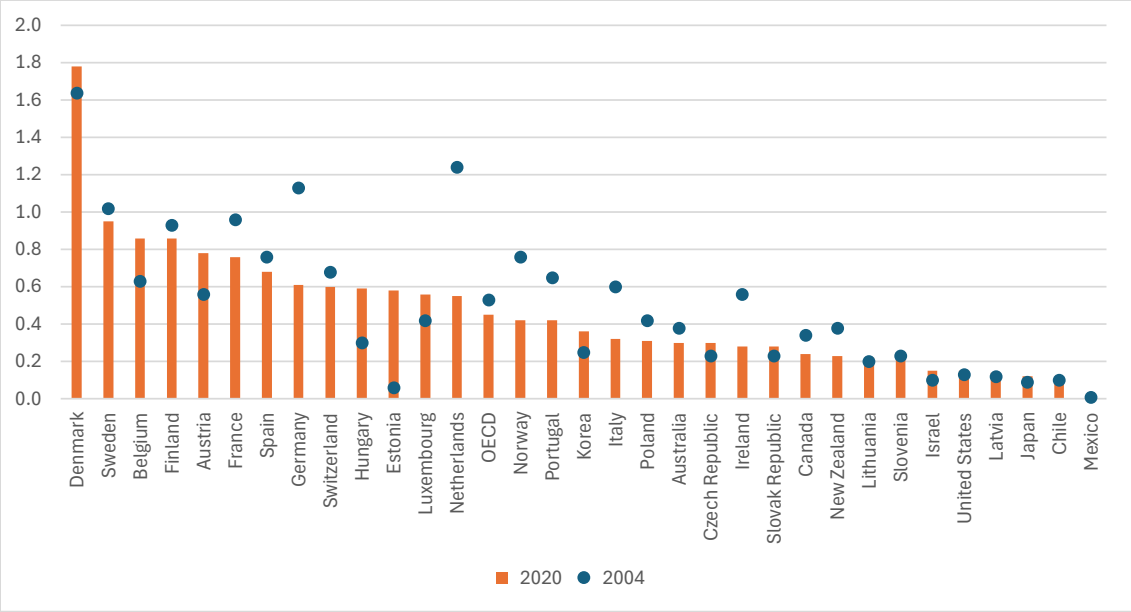


Figure 16. Spending on active labour market policy measures as a percentage of GDP

Note: OECD is an unweighted average of the 32 countries shown. The data for 2020 refer to 2019 for Israel, Korea, New Zealand and OECD. The data for 2004 refer to 2005 for Poland and to 2008 for Chile and Korea. Employment incentives are net of category 42 (Employment maintenance incentives) in order to exclude measures specific to the COVID-19 crisis.
Source: Figure 2.8 in OECD (2023a).

The following sections discuss the institutional frameworks for labour market policies in the Nordic countries and provide a short account of the policy measures used since 2020. First, I

[30] Benefit payments are defined as passive policies; active policies cover everything else. However, this distinction is not razor-sharp. For example, eligibility for unemployment benefit is typically conditional on being actively engaged in job-seeking.

present the institutions and then discuss spending on ALMPs used in the four countries during the pandemic. Finally, I address policy developments after 2020.

5.2 The institutional framework for labour market policies[31]

This section briefly presents the institutional framework for labour market policies in the Nordic countries. We have already seen that the countries differ substantially in terms of labour market spending (Figure 16). Here, we will see that there is also substantial cross-country variation regarding institutional set-up.

5.2.1 Denmark

In Denmark, the Danish Agency for Labour Market and Recruitment (*Styrelsen for Arbejdsmarked og Rekruttering*, STAR) implements and follows up on the Danish Ministry of Employment's policies. STAR also contributes expertise to the policy-making process. Furthermore, the agency supports the 98 municipalities, which implement the policies in 94 Job Centres. The Job Centres are responsible for supporting unemployed people both with and without unemployment insurance.[32] The centres can decide on the finer details of the design and priorities of the policy measures and are funded by the municipalities. However, the Ministry can influence the centres in various ways, especially via a reimbursement scheme (*refusion* in Danish): the Job Centres are responsible for the activities, but the central government co-funds them along with the municipalities. The reimbursement scheme has been amended several times to change the incentives for the municipalities.[33] The Danish service providers primarily consist of public-sector bodies.

The main thrust of the Danish solution to the problem of coordinating central and local government labour market policy comprises decentralising policy implementation to the

[31] Some basic characteristics of the Nordic institutions can be found in Lauringson and Lüske (2021) and OECD (2023b).
[32] In Denmark, like in Finland and Sweden, access to income-related unemployment benefits is conditional on membership in an unemployment insurance fund.
[33] For the institutional descriptions, see https://www.star.dk/en/about-the-danish-agency-for-labour-market-and-recruitment/.

municipalities and using financial incentives and support from STAR to exert central government influence on the policies pursued by the municipalities.

5.2.2 Finland[34]

In Finland, three ministries are involved in the management of labour market policies. The Ministry of Economic Affairs and Employment (TEM) handles legislation for employment policies, while the Public Employment Services (PES) offices (called Employment and Economic Development Offices, TEs) and Centres for Economic Development, Transport and the Environment (ELY Centres) are responsible for the regional implementation and development work of the central government. The Ministry of Education and Culture (OKM) handles training programmes and self-motivated training, while the Ministry of Social Affairs and Health (STM) handles funding for some activation measures and is responsible for unemployment allowance and unemployment benefits.

Within the realm of labour market policies, the ELY Centres plan and organise service provision with TE Offices and organise procurement and tendering for TE services. The TE Offices provide job search assistance and training programmes. Finally, the Development and Administration centre for the ELY Centres and TE Offices (KEHA Centre) provides the ELY Centres and TE Offices with administrative and development support.

One feature of the Finnish system is that the share of jobseekers using PES has been low. In May 2022, a reform was introduced to increase job search assistance and impose stricter requirements on jobseekers. TE services are provided not only in-house but also via a number of other types of agents, such as recruitment agencies, educational institutions, municipalities and NGOs. As in Sweden (see below), the Finnish municipalities also provide their own policy measures, probably because they are responsible for social assistance benefits (Kullander and Lönnroos 2016).

[34] Most of the material on Finland is based on OECD (2023a) or https://tem.fi/en/public-employment-and-business-services.

The survey by Kullander and Lönnroos (2016) suggests that Finland is an intermediate example when it comes to the coordination of central and local government policy measures. Finnish policies are less coordinated than those of Norway and Denmark but more coordinated than those of Sweden. A possible issue in the Finnish case is that central policy-making directly involves three ministries, which introduces a need for cooperation.

After a reform which will take effect in 2025 Finland will be moving in the direction of a ”Danish solution” – the municipalities will take over the responsibility for labour market policy measures with some central government economic compensation; the expenditures on social assistance will be shared by the central government and the municipalities. Available information is not conclusive regarding the exact construction of government compensation to the municipalities. It is also unclear whether Finland will have a counterpart to the Danish STAR agency.

5.2.3 Norway

The Ministry of Labour and Inclusion has the overall responsibility for labour market policy. The Norwegian Labour and Welfare Organisation (*Arbeids- og velferdsetaten*, NAV) is responsible for implementing the policy. NAV comprises a central agency and elements of the municipal social service systems. Users encounter an integrated office based on cooperation between NAV caseworkers and the municipality’s social services. In addition to labour market policy-related tasks, the NAV offices also offer social services and qualification programmes.[35]

The Norwegian institutional set-up addresses an issue that has been prominent in the Nordic countries: how to coordinate central and local government policy measures to avoid a situation in which the unemployed risk “falling between the cracks”. The solution is an interesting combination of a centralised system for policy provision, combined with compulsory cooperation between central and local government via the NAV one-stop shops. Private providers are used, but not to the same extent as in Sweden (see below).

[35] See https://www.regjeringen.no/no/tema/arbeidsliv/arbeidsmarked-og-sysselsetting/innsikt/den-norske-arbeidsmarknaden/institusjoner-og-organisering/id570167/.

5.2.4 Sweden[36]

The Swedish PES is an agency under the Ministry of Employment. The ministry exercises governance through various instructions and targeted budget grants. Although the PES is centralised, delivery of ALMPs is not. Private providers have a key role, especially after a reform in the spring 2020 (roughly concurrent with the onset of the pandemic). In this reformed system, job-search assistance is to a large extent carried out by private actors. The PES still fulfils important functions, including registering unemployed persons and allocating them to different processing streams based on a profiling instrument. The streams are associated with different reimbursement schemes for the service providers. The key principle is that the weaker the individual's labour market attachment (according to the profiling instrument), the higher the compensation for service providers. The unemployed are free to choose a provider from a list of certified ones. The providers are rewarded both in advance and based on performance. The PES is still responsible for groups of unemployed persons with particularly weak labour market attachment. In addition, the PES makes referrals to ALMPs such as training and subsidised employment.

The provision of policy is also decentralised in the sense that both the 290 municipalities and the social partners provide and fund their own labour market policy measures. Municipalities organise such initiatives because approximately 50% of individuals receiving social assistance (funded by the municipalities) are unemployed and have no or only limited access to unemployment benefits. A common complaint among Swedish municipalities is that they are obligated to pursue their own labour market policies because the PES leaves certain groups of unemployed jobseekers without support.[37]

The social partners provide labour market policy measures via collective agreements that cover the vast majority of the labour market.[38] These measures are targeted at workers who are notified

[36] SOU 2019:3 presents many of the institutional details prior to the recent reforms of the labour market policy administration. See also Bergström and Calmfors (2018a). In addition, Bennmarker et al. (2021) covers some aspects of the reforms in recent years; see also Arbetsförmedlingen (2019).
[37] See for example SKR (2022).
[38] A reform implemented in 2023 has extended the system to employed persons not covered by collective agreements.

of upcoming redundancies. The agreements focus on labour market insiders—employees with strong labour market attachment—thereby likely influencing the composition of clients entering the PES. Furthermore, these agreements imply a need for closer coordination between the transition organisations and the PES. While the "transition organisations" (*omställningsorganisationer*) that have been established in these agreements have a good reputation, they have not yet been properly evaluated.

5.2.5 Discussion

The institutions responsible for labour market policy in the "big four" Nordic countries are characterised by a great deal of diversity. A central issue to be addressed in all of them is how to strike a reasonable compromise between equal treatment across the country and allowing adaptation to local conditions. A closely related issue is how to ensure that unemployed individuals do not "fall between the cracks" of central and local government policies.

The Nordic countries have chosen strikingly different approaches to coordination between central and local policy. In Norway, the central government and municipalities are obliged to coordinate via NAV's one-stop shops, which, in a sense, forces them to coordinate. In Denmark, the municipalities have sole responsibility for policy implementation but are guided by the central government agency STAR. Both Finland and Sweden appear to have systems characterised by a to some extent unclear division of labour between central and local policy-making. In the Swedish context, there are also issues related to coordination between the transition organisations and the PES.

I am not aware of any solid evidence regarding the impacts of the different institutional choices in the Nordic countries. It would be particularly interesting to see systematic evidence on "equal treatment" and the extent to which central government can implement policies in the decentralised Danish system. It would also be interesting to see evidence of how cooperation between central and local government within the NAV offices works in practice in the Norwegian system, for example, regarding the risks of jobless persons "falling between the cracks". The Swedish and

Finnish systems could probably learn something from such evidence. It may or may not be a coincidence that the two Nordic countries facing the highest long-term unemployment are those with the least developed coordination between central and local government measures. The municipalities typically target groups with weak labour market attachment – and for these groups, the lack of coordination may be especially detrimental.

Another dimension in which there is substantial variation is the extent to which policy measures are provided in-house by public-sector providers or outsourced to private actors. In this respect, Sweden is an outlier. In an ongoing reform process, the objective is that most of the policies for those who register at the PES as unemployed jobseekers should be provided by the private sector. This reform was hastily introduced at the same time as the pandemic hit the economy (Bennmarker et al., 2021).

The Swedish reform process raises several issues. First, there is no clear causal evidence indicating that the private provision of labour market policy will improve efficiency. A fairly recent review of international evidence from a number of randomised trials did not show any consistent pattern of private providers outperforming the public sector (Crépon 2018). Second, the rapid pace of the reform process is likely to have hampered the possibilities for revising the implementation of the reform in the light of new evidence.[39] Third, as the reform coincided with the outbreak of the pandemic, there was probably a detrimental impact on the labour market policy response to it. Finally, the results of the evaluation in Egebark et al. (2024) do not suggest that the reformed system as yet has contributed to an improved matching. All in all, there is a distinct possibility that the PES reform has had a negative impact on the policy response to labour market mismatch in Sweden. This is consistent with the evidence that suggests a more severe mismatch in Sweden than in the other Nordic countries.[40]

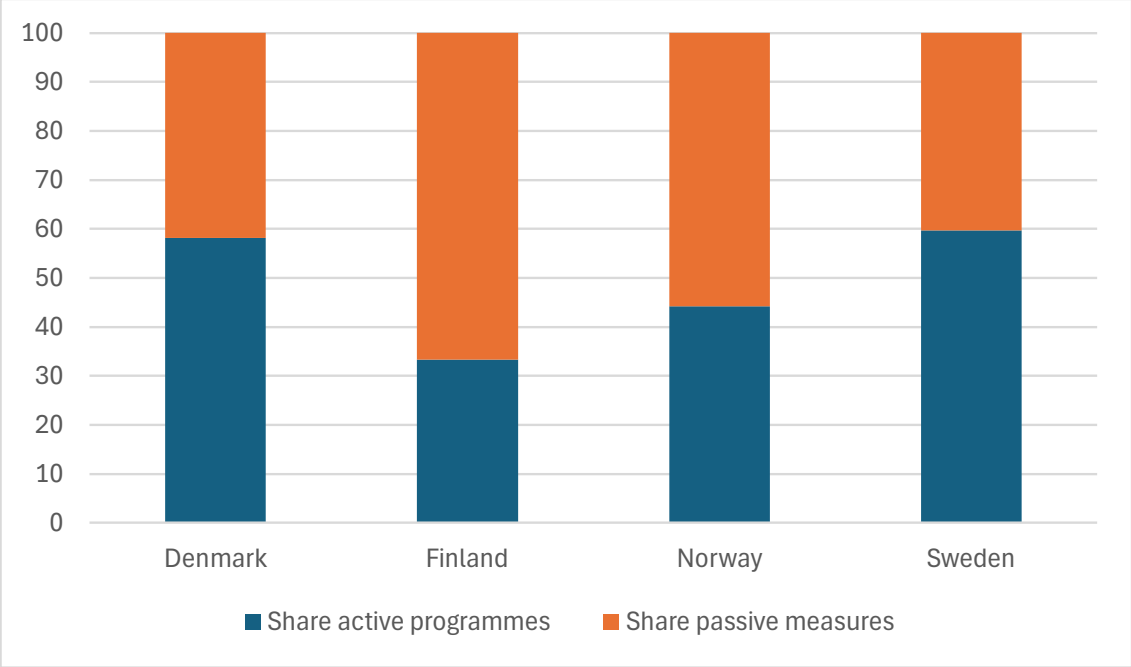
[39] Bergström and Calmfors (2018b) issued an *ex-ante* warning for this in 2018.
[40] The matching outcome is a function of the economic shock, the structure of the economy and the policy response. As such, it cannot be claimed that the policy response "explains" the matching outcome.

5.3 Active labour market policy measures

We now turn to the labour market policies pursued by the Nordic countries. First, based on OECD data on ALMP spending, I present a rough characterisation of the Nordic countries' ALMPs in 2020. I show spending rather than the number of participants because the latter is not applicable to PES and administration. I then use national statistical sources to look at changes post-2020. The idea is that the policy mix in 2020 may have influenced subsequent policy choices, which could potentially have been important for recent labour market outcomes.

5.3.1 Spending on active labour market policies in 2020

We have already seen (Figure 16) that Denmark, Sweden and Finland spend well above the OECD average on active labour market policy measures, whereas Norway's expenditure is relatively modest. Figure 17 displays the shares of spending on active and passive policy measures in 2020, the latest available year in the OECD database. We see that Sweden and Denmark allocate a large proportion of total expenditure to active measures, whereas Norway and, especially, Finland spend well below 50% on them.[41]



[41] Spending on passive measures consists of payments of different kinds of benefits, whereas spending on active measures covers participation in different kinds of programmes, such as training or coaching.

Figure 17. Percentages of spending on active and passive labour market measures, respectively, 2020

Note: The spending figures do not include special pandemic crisis measures (e.g. employment maintenance incentives and partial unemployment benefits).
Source: OECD Employment Database.

Next, we examine the composition of spending in different categories of active measures in 2020 across the four countries. I rely on the OECD's classification, which assigns active measures to a relatively small number of major categories. Most entries are self-explanatory, but it should be noted that employment incentives mainly refer to subsidised employment and that the categories sheltered and supported employment are targeted at disabled people. I will refer to the latter as disability measures.

I also present data for monthly participation in labour market programmes in the four big Nordic countries since January 2020. The data used have been collected from national databases, which makes it difficult to compare them. First, finding out how the figures, for example, for training in the different countries are calculated is not straightforward. Is adult vocational training included in regular education? Is all training vocational or not? Are the programmes long or short? And so on. Second, the four countries report figures at different levels of aggregation. The reader is advised to keep these caveats in mind when interpreting the data in this section.

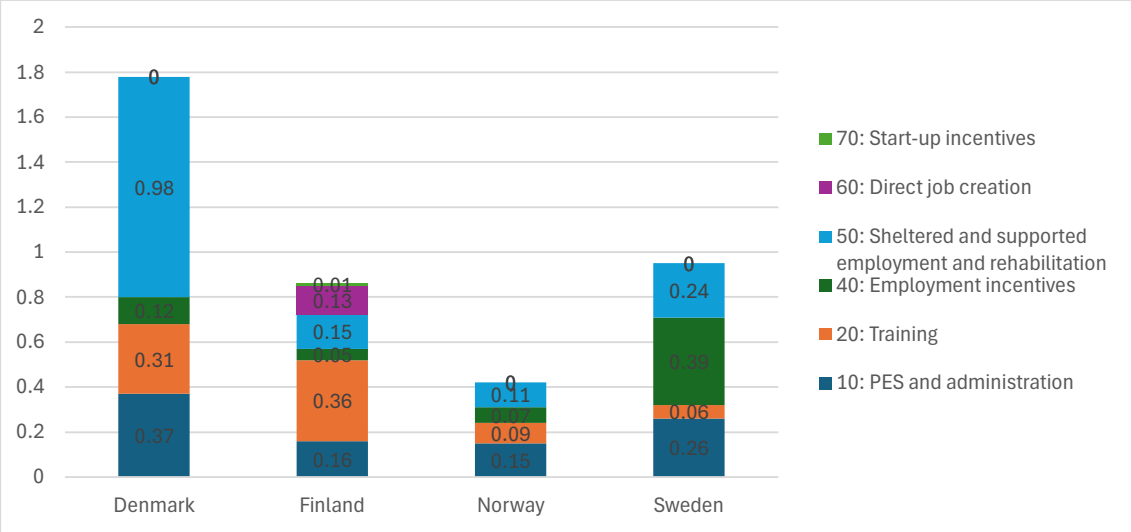


Figure 18. Spending on different active labour market policy measures in the four big Nordic countries, 2020, percentage of GDP

Source: OECD Employment Database.

5.3.2 Denmark

Denmark stands out by allocating more than half of its spending on active measures to disability measures and rehabilitation. A significant proportion is also spent on the PES and administration, as well as training, whereas spending on employment incentives is limited (as is the case in all of the countries, with the exception of Sweden).

Figure 19 shows participation in different Danish labour market programmes from January 2020 to July 2023. The largest programmes in terms of participants are in education, guidance and upgrading of skills. This broad category includes labour market training and participation in regular education. However, a large proportion of the participants take part in guidance or coaching programmes designed to prepare them for jobseeking or regular vocational training for young people. Subsidised jobs and public-sector activation programmes have very few participants, whereas participation in work experience programmes is sizeable. Somewhat surprisingly, the total number of programme participants exceeds the number of unemployed. Unless participants are counted more than once, or programme participants are excluded from the number of jobseekers, this indicates that the labour market programmes included in the statistics target a broader group than unemployed people. Given the types of programmes described by the Danish Agency for Labour Market and Recruitment,[42] my assumption is that the programmes target not only unemployed people but also those who are not job ready.

The overall pattern in Denmark is a focus on training, education, guidance, coaching and work experience, whereas wage subsidies play only a minor role. Most variations are seasonal, although it is notable that subsidised jobs seem to have fallen from a low level to an even lower one. In this sense, there is no indication of post-pandemic policy change.

[42] See, for example https://www.star.dk/en/active-labour-market-policy-measures/.

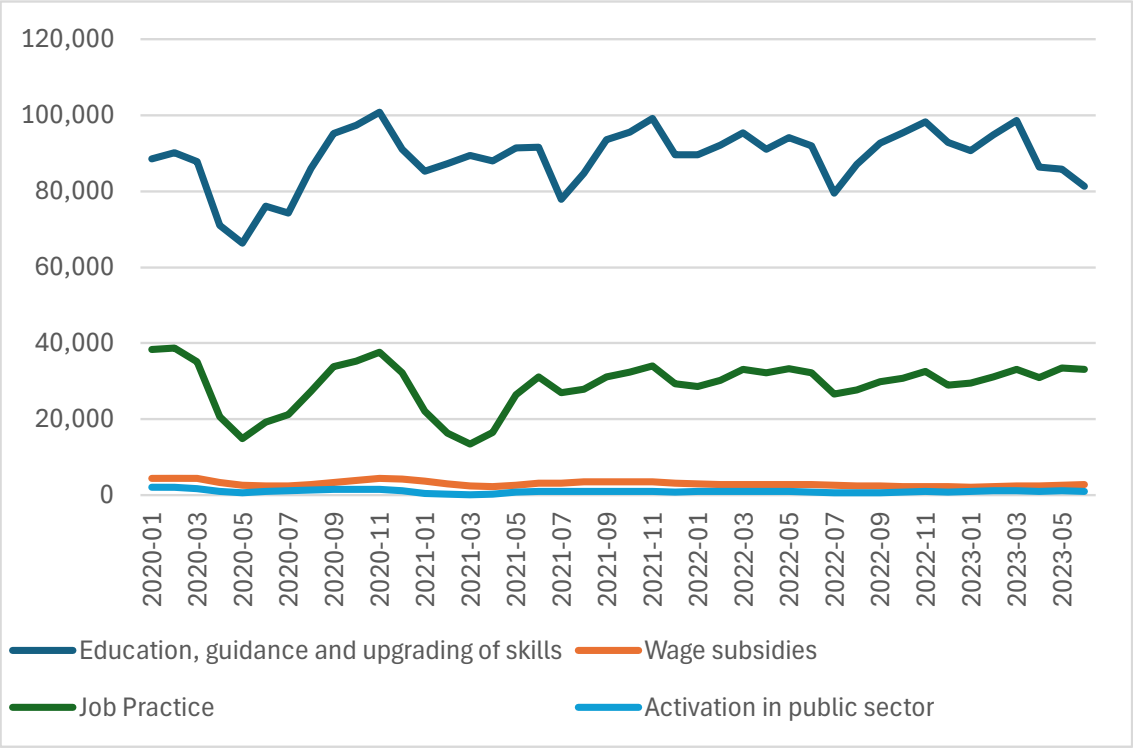


Figure 19. Monthly participation in labour market programmes in Denmark, 2020:1–2023:7

Source: The Danish Agency for Labour Market and Recruitment, https://www.jobindsats.dk/databank/indsatser/tilbud-og-samtaler/tilbud/antal-aktiverede-og-fuldtidsaktiverede/.

5.3.3 Finland

Finland spends a great deal on training programmes, the PES, direct job creation (public-sector employment schemes) and disability measures and rehabilitation, with only a very modest allocation to subsidised employment (employment incentives). It is the only Nordic country to engage in direct job creation, that is, via public-sector employment schemes. The most comprehensive surveys of studies of labour market policy impacts have essentially never found that this approach has a positive impact on the probability of future regular employment (Card et al. 2010, 2018).

Figure 20 presents the numbers of monthly participants in different programmes (which the Ministry of Economic Affairs and Employment calls services). The major categories are labour market training, subsidised jobs and other services. The latter category mainly consists of

unemployed persons in regular education and on unemployment benefits.[43] There is a downward trend in other services, an upward trend in subsidised jobs and mainly seasonal variation in labour market training. The small number of participants in the training category are either engaged in job search training or receiving career coaching.

In July 2023, the total number of programme participants was 100,000, and the total number of unemployed jobseekers was 279,000. Measured in this way, around 36% of the unemployed were offered and accepted programme placement. Well above 50% of the programme participants took part in some kind of training or education, but the share of subsidised jobs rose significantly over the period. This change may indicate a small shift in policy priorities after the pandemic.

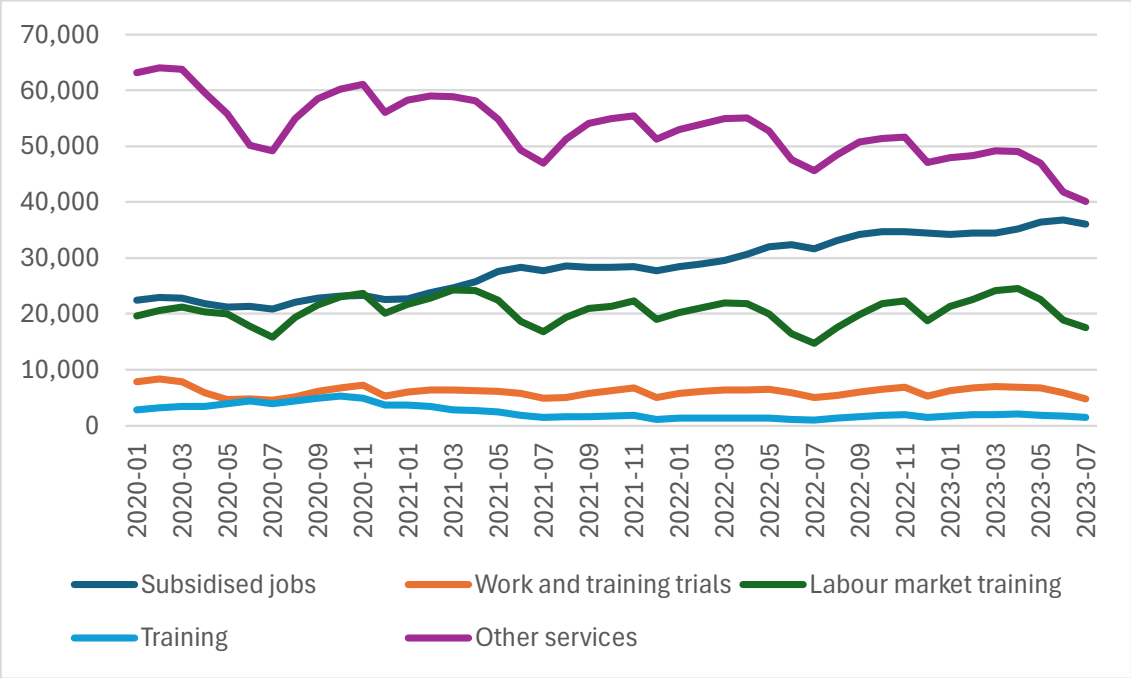


Figure 20. Monthly participation in labour market programmes in Finland, 2020:1–2023:7

Source: Statistics Finland, https://statfin.stat.fi/PxWeb/pxweb/en/StatFin/StatFin__tyonv/statfin_tyonv_pxt_12r5.px/.

[43] The category cannot be disaggregated in the database, but descriptions of the category clearly show that a large share of the participants are in regular education. See, for example, the Ministry of Economic Affairs and Employment of Finland (2023).

5.3.4 Norway

Norway spends a large share on PES and relatively large shares on disability measures and rehabilitation and on training, and relatively little on subsidised employment.

Figure 21 shows the number of participants in Norwegian labour market programmes since January 2020. The largest programme is "close follow-up", which is targeted at individuals in need of support to keep or find a job. The content includes help from mentors in workplaces or schools, as well as from caseworkers. The second-biggest programme is training, while work experience and subsidised jobs have fewer participants. Like Denmark, Norway provides few subsidised jobs for unemployed jobseekers. There are virtually no job creation or self-employment schemes or skill surveys (i.e. studies aimed at investigating employability). It should also be noted that programmes targeted at individuals with disabilities reach much higher volumes than programmes targeted at unemployed jobseekers (in July 2023 the former type of programme had 51,800 participants and the latter 7,800.

Overall, there is a slight downward trend in programme participation among jobseekers from 13.0% in January 2020 to 9.8% in July 2023. The downward participation trends are visible for all major programmes from early 2021 onwards. As such, there is some indication of reduced reliance on labour market programmes for the unemployed after the pandemic but no clear sign of any other change in policy priorities.

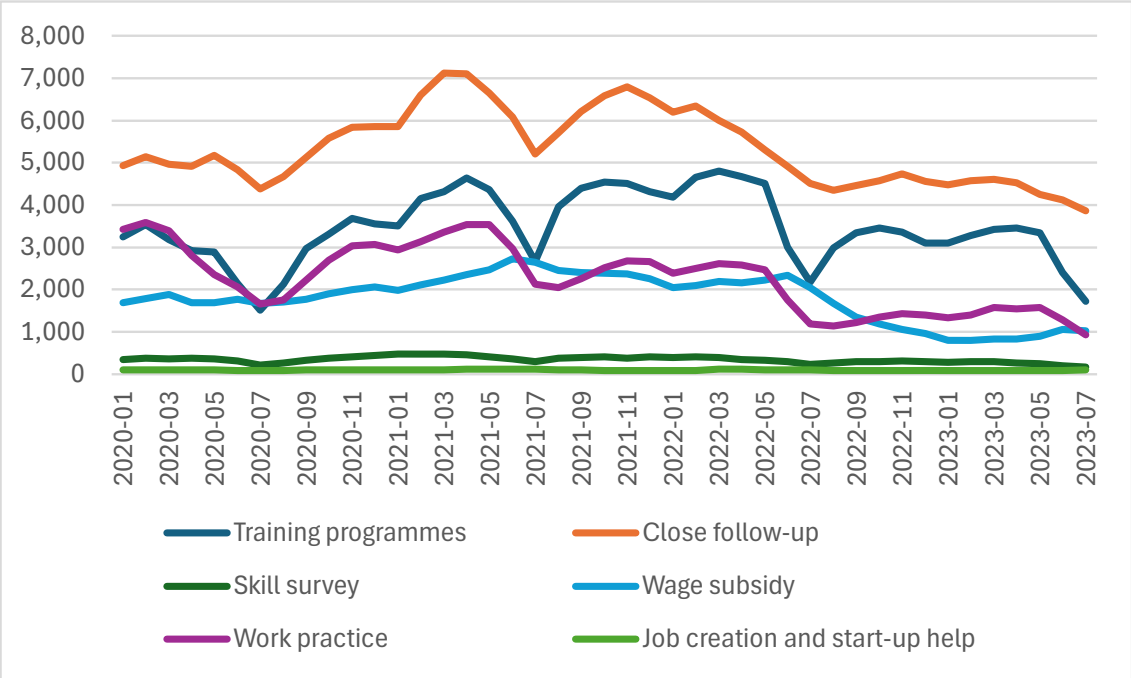


Figure 21. Monthly participation in labour market programmes in Norway, 2020:1–2023:7

Source: Norwegian Labour and Welfare Organisation (NAV), https://www.nav.no/no/nav-og-samfunn/statistikk/arbeidssokere-og-stillinger-statistikk/tiltaksdeltakere.

5.3.5 Sweden

The Swedish ALMP spending portfolio is heavily biased towards subsidised employment, whereas the level of training expenditure is small compared to the other Nordic countries. Swedish spending on PES and disability measures and rehabilitation is closer to the average.

Figure 22 shows the number of participants in different major Swedish active labour market programmes. In terms of participation, two programmes dominate: subsidised jobs and preparatory training. The latter is an umbrella programme covering many types of training. Some courses are designed to prepare for vocational training; language training for immigrants has a particularly large number of participants. Job search assistance refers to private services provided under the ongoing PES reform. This programme actually started earlier, but participants are registered in "preparatory training" in the statistics until April 2023. Participation in other programmes, including vocational training and work experience, is remarkably low.[44] Also in

[44] Due to peculiar "book-keeping" practices at the PES, participants in training programmes are not counted in the official statistics if they are registered in one of the "guarantee programmes". Including these training participants still

terms of the number of participants, the Swedish programme mix leans heavily towards subsidised jobs. There is no strong trend in the number of participants or shares in different programmes (with the exception of preparatory training). However, as a share of unemployed jobseekers, programme participation increased from around 20% in early 2020 to around 30% in 2023.

In addition to what is shown in Figure 22, two "guarantee programmes" (for young people and long-term unemployed people, respectively) have substantial numbers of participants, as do programmes targeted at disabled individuals.[45] Overall, the most visible change is the increased proportion of programme participants in the post-pandemic period.

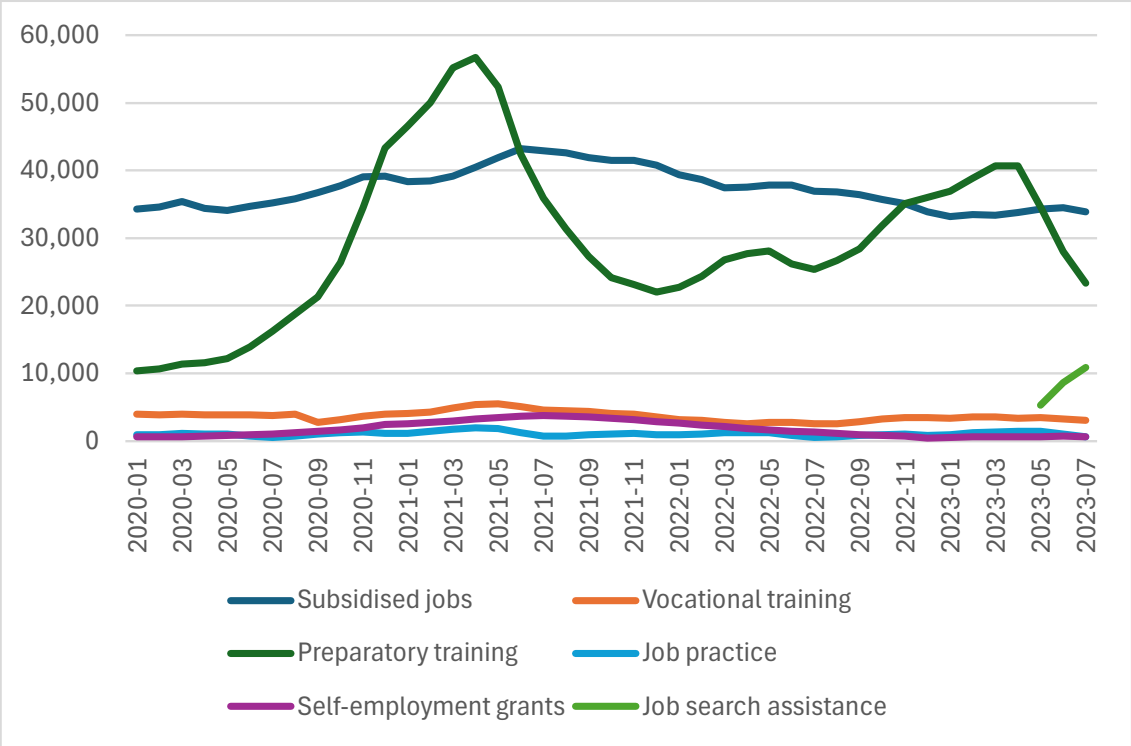


Figure 22. Monthly participation in labour market programmes in Sweden, 2020:1–2023:7

Source: Swedish Public Employment Service.

would not change the general picture of remarkably low participation in training programmes. Furthermore, note that "ordinary" adult vocational training has expanded over the last 15 years (at the same time, participation in vocational training programmes used by the PES has decreased). The target group for "ordinary" vocational training programmes is not restricted to unemployed adults, and it is not totally clear to what extent the two types of vocational training programmes are close substitutes.

[45] The "guarantee programmes" have around 100,000 participants. However, based on the survey evidence, it is not clear that participation in these should be considered "programme participation" (Martinson and Sibbmark 2010, Liljeberg et al. 2013). Participation in programmes targeted at disabled persons was also significant, with around 60–70,000 participants in the relevant period.

5.3.6 Discussion

The Nordic countries differ not only in terms of institutions but also in terms of overall spending on active measures and the composition of this spending. Denmark and Sweden are the biggest and second-biggest spenders, respectively. Denmark spends large amounts on training, the PES and programmes for disabled people, whereas Sweden spends very little on training but much more on subsidised jobs. Norway and Finland, too, both spend less on subsidised jobs and more (in the case of Finland much more) on training programmes.

If we relate spending patterns to what is known about the estimated impacts of different programmes, it is somewhat surprising that all of the countries except Sweden spend so little on subsidised jobs and that Sweden spends so little on vocational training programmes. The low Swedish level of spending on training programmes is also surprising given the low skill levels of many long-term unemployed people, for example in several groups of non-European refugees.

Most of the spending patterns in 2020, as recorded by the OECD, are reflected in the patterns of programme participation in the Nordic countries. There are no clear common trends in terms of responses to the pandemic – rather, the main impression is that spending patterns did not change significantly. This is evident, for example, in the constantly low number of participants in training in Sweden and the low numbers of subsidised jobs in the other three countries. However, it is also clear that bookkeeping practices differ between the countries, which makes meaningful comparisons difficult. Taken at face value, two features of the spending and participation patterns may be considered to conflict somewhat with the evidence regarding the relative efficiency of programmes, that is, how they translate to the probability of subsequent employment – specifically, the extremely low focus on vocational training in Sweden, and the low spending and numbers of subsidised jobs in Norway and Denmark.

6. Concluding discussion

I have described aggregate labour market developments during and after the COVID-19 pandemic and analysed possible post-pandemic labour market mismatch in the Nordic countries. I have also discussed labour market institutions and policies.

The developments in the labour markets in the five countries are fairly similar, with a rapid recession when the pandemic hit in early 2020 but an almost equally rapid recovery beginning in the autumn of that year. The recovery returned unemployment rates to pre-crisis levels and resulted in employment rates higher than those before the pandemic. Nevertheless, the coexistence of high levels of both vacancies and unemployment may indicate labour market mismatch problems.

To analyse the extent of the mismatch, I have used aggregate information on unemployment, vacancies and hiring rates. The working hypothesis is that to the extent that there are significant matching problems, they will show up in aggregate data, irrespective of the possible causes of the problems. I have used the information to plot Beveridge curves and estimate regressions based on a simple matching function. The analysis indicates that the only country to show signs of increased post-pandemic labour market mismatch is Sweden, where the Beveridge curve seems to have shifted outwards. The other countries exhibit no clear signs of recent increased labour market mismatch. However, given the relatively simplistic nature of the empirical analysis, the conclusions should be viewed as provisional rather than definitive.

Although evidence of increased mismatch following the pandemic is mixed, Sweden and Finland still struggle with high long-term unemployment and high rates of mismatch. Active labour market policies are one means of combatting these problems. Traditionally, all the Nordic countries have placed considerable emphasis on such measures.

The Nordic countries are often considered very similar in terms of institutions and policies. However, this is not the case when it comes to labour market policy. In Denmark, the design and execution of labour market policies are decentralised to the municipalities. In Norway, policies are designed by the central government and implemented by NAV centres run by the central

government, albeit with the compulsory involvement of the municipalities. In Finland and Sweden, policies are mainly a task for central government, but the municipalities also implement their own policies, although the division of responsibility between the two levels of government is somewhat unclear. In Sweden, the picture is further complicated by the presence of policies that are funded and implemented by the social partners. On top of this, most services are privately provided in Sweden, partly as a result of the ongoing reform of the Public Employment Service.

Denmark, Finland, and Sweden are big spenders on labour market policies, whereas Norway is closer to the OECD average. In terms of measures, the policy priorities differ among the countries, with all except Sweden allocating significant resources to vocational training. However, Sweden (and, to some extent, Finland) places much more emphasis on subsidised jobs for unemployed people. Evaluations of labour market programmes suggest that both vocational training programmes and subsidised jobs are efficient ways of speeding up the transition to work for long-term unemployed people. Taken at face value, this would indicate that more vocational training programmes in Sweden and more subsidised jobs in Denmark and Norway could contribute to better labour market matching in those countries.

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