1. Introduction

The discussion paper describes a data warehouse (DWH) monitoring system for the Austrian labour market. It is meant for monitoring the state of the labour market as well as an administrative tool for monitoring the performance of (especially) the active labour market programmes aimed at unemployed individuals. It consists of three platforms; the follow-up monitoring system, the career monitoring system, and the enterprise monitoring system.

The data used in the monitoring systems consist of data on individual workers and firms, as well as descriptions of active measures etc., and it is updated regularly. These data can then be combined in various ways to produce event histories, and may be used for different purposes. In all cases, data can be used to construct a variety of indicators for the state of the labour market, specific active labour market policies, etc. Specifically, tables and graphics can be constructed that allow for a much more detailed monitoring of the labour market than what is usually feasible. For example, it is possible to analyse the flows behind the stocks, which is a highly useful and relevant feature, given the dynamic nature of the labour market.

Before going on with the detailed statements and comments, let me just state that this is a brilliant idea, which — during my reading of the papers — inspired many thoughts on how such a system might be taken even further. I will come back to this in Section 5 below.

2. Policy context in Denmark

In this section I will briefly introduce the Danish context relevant for this measure.

Denmark is one of the leading countries in the world when it comes to spending on active labour market policies in terms of percentages of GDP. Yet, as in most other EU countries, we know remarkably little concerning the effects of such policies. We may know a little about their effect on the duration of an ongoing unemployment spells, but as regards their effects on subsequent employment quality and duration, we are in the dark. Still, these issues also concern the present Danish government, and many initiatives are undertaken to increase our knowledge and understanding of them.

First of all, the Danish National Labour Market Authority (AMS) has generated its own data base, DREAM, which merges several administrative register to produce a set of event histories for all individuals relying on public transfer incomes. This event history basically charts the time spent on income transfer schemes and any participation in active labour market programmes. Moreover, there is some information on the communications between individuals and caseworkers, and there is a detailed labour market history going back to around 1994. In addition, a few background
characteristics of the individuals are available. This data set is highly useful for monitoring purposes as well as for research into the causal impacts of programmes. It is updated on a monthly basis.

This data set is (among other things) used for *profiling*, that is, based on a statistical model (a duration model) the individuals’ risk of becoming long-term unemployed is computed¹, and based on the outcome and the case workers’ individual assessments, it is determined whether some action should be taken to assist the individual in finding employment. The profiling system has been running on an experimental basis for some time, but on May 1st this year it was implemented in full scale at all employment offices and all municipalities in the country. The intention is that the system should be extended in the future to allow targeting of programmes to individuals most likely to gain the most from them. The data set is already used for research on the causal impacts of labour market programmes, see e.g. Rosholm & Svarer (2004).

Secondly, the government is about to launch a large welfare research programme, which is intended – among other things – to provide financing for evaluation studies of the effectiveness of various labour market policy measures.

Denmark is also one of the countries, which has the longest tradition for using administratively based register data sets for research. As a result, at Statistics Denmark, there exists longitudinal data sets going back some 20 years on individuals’ labour market careers, and there is also (several versions of) a linked employer-employee data set.

Another relevant point is that the government is considering a reform of the entire labour market policy system; until today, those unemployed who were insured against unemployment were under the authority of the AMS, while the non-insured were the responsibility of the municipalities, but in the future the intention is to create a unified labour market system. This will also greatly facilitate monitoring, as it will imply a harmonisation of reporting practices, which currently vary between municipalities.

3. Transferability

As the discussion in the section above indicates, a data warehouse monitoring system should be transferable to the Danish case without any major complications. Such an implementation would result in improved access to information and indicators on labour market performance, as well as indicators of the success of various labour market policy measures undertaken. The data is already available and used, so the data warehouse would – in the Danish case – for the most part ‘just’ be an extension of the information base (increasing the number of registers used in constructing the data cubes) and the creation of software to describe the data and produce informative statistics. Actually, initiatives of a similar nature are already being prepared in Denmark, where it is denoted the ‘monitoring system’ (this is a rough translation of the Danish title ‘målesystem’). This will be described in the next section.

¹ Specifically, the model computes the probability that an individual is still unemployed six months into the future, conditional on the elapsed duration of unemployment at the time of the computation. The statistical model was developed and estimated by Michael Svarer (University of Aarhus) and myself.
4. Relevant Issues

In Denmark, a new initiative is under way from the AMS, denoted the monitoring system. It is similar in nature to the Austrian Monitoring System, but whether it is a data warehouse system I am not able to tell, as I am not quite clear on the exact definition of a data warehouse system.

Still, the purpose of the monitoring system is to create a user friendly monitoring system which can support the unification of the labour market system (described in section 2) and which can be used for faster and better measurements of the effects of the labour market policy conducted.

It will be implemented as a web-based site available to all policy makers (and other actors within the field of labour market policy) and citizens. The website will contain information on the situation in local labour markets, statistical descriptions of the target groups for various policy measures, the range of relevant policy measures, and the effects of such measures on specific person types.

The main areas that will be covered by the measurement system are:
1) Sickness benefit payments (phase 1 of the system)
2) Insured unemployed workers (phase 2)
3) The labour market in general (phase 3)
4) Non-insured workers (those who are the responsibility of the municipalities)

Within each of these areas, the monitoring system will be built upon the following components:

- A benchmarking component, where municipalities and regional employment offices are compared on certain indicators.
- A data bank with detailed information on individuals, policies and their effects
- Pre-defined tables and charts for purposes of analysis/monitoring

Hence, the purpose and scope of this system is quite similar to the Austrian monitoring system.

5. Other comments

A couple of ideas came to my mind when reading the background paper and host country expert’s discussion paper. These were:

There would be great potential in exploiting the information generated by the data warehouse even further, to enhance evidence based policy implementation. For example, one might consider to

1. Generate a set of trigger mechanisms similar in spirit to those by stock markets to detect insider trading etc. These could be defined in the data warehouse as abnormal deviations from the norm in terms of labour market flows at some regional level or disaggregated by gender, age etc. A triggering event would then warrant further investigation into the cause of the deviation, and considerations should be made whether the event requires policy interventions. I am not talking about excessive interference, merely about a mechanism designed to minimize frictions in a market characterized by many frictions and other information imperfections.

2. Use DWH information to target individuals for participation in programmes and for defining find optimal timing and targeting of such programmes

3. Evaluate case worker and employment office efficiency
4. Analyse use of repeated active labour market policy – do the same individuals return, and do they gain from repeated programme assignment?

In summary, I believe the idea of a DWH monitoring system is an excellent idea to reduce/minimize frictions on the labour market, and the potentials of such a system in terms of monitoring and research potential would certainly make the relatively moderate costs worthwhile.

References