The Beveridge Curve and the Matching Function: Indicators of Normalization in the Latvian Labour Market[1]

Morten Hansen[2] and Romans Pancs[3]

Executive summary

This paper has some very direct policy implications. In fact, the paper may be seen as an attempt to evaluate

The transition of Latvia from a planned economy; politically and economically deeply integrated into the Soviet Union, to an independent country and a market economy has now lasted for more than ten years.

Anyone who has worked with transition economies will have realized the problems of finding stable macroeconomic relationships and often of obtaining data to estimate such relationships. Both of these issues are at the core of this paper where the focus is the Latvian labour market, a market of major policy interest. The Latvian labour market is characterized by stubbornly high rates of unemployment (7 – 8% is the official rate which is likely to underestimate the true rate. The biannual labour force surveys indicate unemployment rates of 14-16%). In addition, the country sees major differences in unemployment across regions and occupations. In Latgale, for instance, Latvia's easternmost and poorest region unemployment reaches 25 – 30% in some cities and districts.

The question which the authors address and find of serious importance is to which extent the Latvian economy has "normalized", i.e. to which extent certain macroeconomic relationships have become stable. No general definition, neither of normalization nor of how to test for it is offered. But the paper leads to several specific pieces of evidence of normalization as well as one test; the result of which may be taken as an indicator of normalization and which is an encouraging result ofr economists and policy makers alike.

The paper is organized into three "layers of depth".

Firstly, at the most aggregate level the impact of the Russian financial crisis of 1998 on the Latvian economy is investigated. The investigation here is purely descriptive but the evidence is nevertheless interesting. It is found that 1) That the Latvian economy was enjoying very strong economic growth prior to the Russian crisis and 2) That the Russian crisis, although from an

[1] This research was supported by a grant from the CERGE-EI Foundation under a programme of the Global Development Network. All opinions expressed are those of the authors and have not been endorsed by CERGE-EI or the GDN.

[2] Visiting lecturer, EuroFaculty, University of Latvia. Research Fellow, Centre for European and Transition Studies, University of Latvia.

[3] BA in economics, University of Latvia. Research Assistant.

exchange rate and exports point of view seemingly very strong, was relatively easily overcome, 3) That unemployment responded as should be expected to the Russian crisis, i.e. increased, 4) That the increase (from app. 7% to app. 10% within less than one year) was severe, reflecting, most likely, very well the severe drop in exports but it was not very long-lasting, 5) That seen together with the GDP development the Latvian economy is obviously enjoying strong productivity gains. Even at increasing unemployment (e.g. in early 1999, less than a year after the crisis) the economy was growing quite fast again. In other words, at the most aggregate level the Latvian economy responded in a predictable, textbook way.

Secondly, at a deeper level other key relationships may be investigated. The paper presents, for the first time, the so-called Beveridge curve, the relationship between unemployment and vacant jobs. Due to skills differences excess demand for one type of labour may coexist with excess supply of another type of labour. The huge lack of geographical mobility in Latvia produces another important source of mismatch between demand for and supply of labour. In addition, lack of information or an inefficient spread of information concerning available jobs may make job vacancies coexist alongside unemployment. The finding here is that at the aggregate level the Beveridge curve responded as should be expected: As unemployment rose, vacancies decreased which confirms that the shock to the Latvian economy from the Russian crisis was indeed an aggregate activity shock. At the regional and occupational level results are also easily interpretable. All regions saw an increase in unemployment due to the crisis, again confirming that the shock was an aggregate activity shock. Some regions and occupations were hit harder than others, however, indicating also a reallocation shock, i.e. that reallocation of labour from some types of jobs (typically related to trade with Russia) to other jobs must be expected since it seems unlikely that the shock will ever fully revert (exports to Russia have dropped from almost 20% of total exports to less than 5%, a severe drop which indicates permanent reorientation of trade).

Thirdly, a matching function, i.e. an econometric model of the link between new jobs (matches), unemployment and vacancies was estimated, thus moving the focus from a more qualitative description to a more quantitative one. Several specifications were estimated and the general result is that unemployment is more important for creating new matches than vacancies (which turned out to be insignificant). Although parameter estimates had the signs predicted by economic theory (positive) their size does not fully reflect existing literature and more analysis should be undertaken. The most important finding is, however, that adding a time trend to the specification produces a coefficient which is strongly significant and positive. Existing literature for Western Europe and North America has consistently found this coefficient to be negative, indicating a secular increase in mismatch in the labour market (i.e. that the same number of new matches is created with combinations of more unemployment and vacancies. Our result is thus of importance if it is to be believed – for which there is a strong case: The positive coefficient indicates a secular increase in matching efficiency, i.e. that the labour market with given unemployment and vacancies creates more matches than before. It is argued that this is due to the transition process itself. Whereas Soviet times saw one type of matching in the labour market (typically via assigning jobs), the market economy matching process is related to a searching process. The early days of transition saw a labour market in disarray. Firms searching for employees but most likely not always knowing which skills to look for, workers looking for a job but not always knowing where to search, i.e. a market characterized by a severe lack of information on both sides. Such a market creates serious mismatch. As transition has progressed the market should be expected to have improved in matching efficiency – and this is exactly what the positively significant time trend indicates. We interpret this result as an indicator of normalization.

For researchers and policy makers this should be encouraging news. It indicates that some normalization has taken place and that at least some macroeconomic relationships seem to be stable and predictable. Research and policy making should thus be easier to undertake and produce results of a more trustworthy nature.

In order to obtain the results of the paper, especially of the third layer, some data was needed which was not publicly available and some which actually needed to be put together from raw data on our request. This, together with our results, highlights the need for still more data collection and not least data availability.

data

normalization