Comments on MaksimYemelyanau's theses chapters

Dear Professor Jurajda,

Here are (finally) my comments on MaksimYemelyanau's work. I will first give some general remarks on my overall impression and then proceed to giving some more detailed comments on the separate papers.

The work consists of what I see as quantitative studies broadly in the fields of labor/public economics. More precisely two of them are concerned with aspects of inequality and its development in Belarus and one with the long run effects of the Chernobyl accident on schooling, labor market and health outcomes. These are all important areas of study and even though the papers naturally build on similar previous studies they constitute novel contributions to the literature.

The papers are mainly descriptive/empirical and I think some more theory would not hurt. By this I do not necessarily mean formal models but simply to have more structure on what results are consistent with what theoretical predictions. This could also serve as a way of motivating why a particular study is important (even if it is only descriptive). To take the paper on "Inequality in Belarus from 1995 to 2007" as an example: This starts with an attempt to outline three "theories" about why inequality has not increased in Belarus. Each of these point to certain areas where we could look for support (or rejection) of each particular theory (e.g. say that skills and education differences would have grown but not wage differences this points to labor market regulations being important, say that pre-tax income differences have grown but not disposable incomes this points to the tax transfer system being important, etc.) Later in footnote 7 in the literature review comes a statement about Belarus being different than other transition countries in that the Belarus pattern seems to break a pattern that can be seen in other transition countries. This sentence to me is not a footnote but a key motivation for the study placed in the broader context of the development of inequality in transition countries. Just to spell out that Belarus does not seem to fit a theory that seems to work for most other transition countries is both a motivation and a guide to what to look for in the case of Belarus. I'm not saying this is not present in this paper or the others, I just think it is sometimes too hidden between the lines and that all papers would benefit from being more explicit about exactly how and why they contribute to the lager literature.

Overall I think that the papers are passable as a thesis. Taken together they show that Maksim is capable of dealing with large data materials to answer research questions and get non-trivial insights. As research articles I think they should be rewritten before submitting them but to what extent this should be done before presenting the thesis depends on what is customary.

Below I have some comments on the individual articles. Hopefully these comments explain how I have arrived at the above conclusions, and maybe they are also of some use for Maksim in the process of revising the articles.

Comments on "Inequality in Belarus from 1995-2007"

This paper studies the development of income inequality in Belarus and goes on to compare this to the Ukraine experience. The Belarus experience is very interesting in the context of the development in transition countries as it breaks what arguably is a pattern among other transition countries. (This is a point currently made in footnote 7. I think this should be part of the motivation for the paper much earlier.)

I think it should be made more explicit what kind of income inequality is studied and also how this relates to the various theories that have been suggested as explanations for the patterns seen. Inequality in market (pre tax and transfer) income is very different from disposable income, just as income differences driven by wage inequality or by other incomes are different. Each dimension points to inequality being driven by different things, which in turn is in support (or in opposition with) different theories. Along these lines, making clear if the study is about individual or household income inequality is also something that should be made clear early on. What is currently on p. 3 in terms of competing theories and the questions studied in the paper is not very clear

I think the data problems should be discussed in more detail. This may be especially important when submitting the paper for an international readership that may have very limited insight in how reliable (or unreliable) official statistics are and problems of misreporting are treated. Here some description by someone with good local knowledge of the data is very useful. There are several points in the paper where data problems are pointed out (directly or in directly) but I do not understand how what is done solves the underlying data problem. For example, in the beginning of Section 4 it is said that standard measures are used so as to make cross-country comparisons possible in the presence of an increasing informal sector. How does this solve the underlying data problem? Toward the end of Section 4 there is a passage on nominal v real incomes and this is said to be an unsolved "methodological problem". To me it feels more like a problem with the reliance of the underlying data. The whole discussion in Section 5.3.also points to data problems. Expenditure inequality could well be higher than income inequality if, for example, the dispersion of unreported incomes is higher than that of reported income, while expenditures are correctly reported.

Minor comments:

Given the poor data quality in the early 1990s I think you should make this visible in e.g. Figure 1. (Indicate breaks or use different lines or something to make it clear that these

are not comparable series). This goes for all illustrations where you combine non-comparable (or not perfectly comparable) series.

Make clear why the comparison to Ukraine is obviously the "best" possible (intro of Section 6). I think it is interesting but it should serve as an example, while the Belarus example in contrast to other transition countries is of greater general interest.

Comments on "Second Agriculture in Belarus and Ukraine: Subsistance or leisure?"

In some ways this is the paper I like the most because it asks a relevant and relatively precise question namely "Is the use of small land plots for growing agricultural products in Ukraine and Belarus respectively something that people do because they have to or because they want to?" (I know this is not quite how the question is put in Maksim's paper but I think it would benefit from moving in this direction and I'll try to explain why). I think there are several things that could be done quite easily to improve the paper, which I think could be a very good contribution with some additional work.

The paper makes use of repeated cross sections of household surveys in Belarus and Ukraine over the years 1995-2008 and 1999-2007 respectively and uses the rich information given there to analyze patterns of who uses small land plots (SLPs) for growing food for private use. According to the abstract the study finds that in both countries urban households at all income levels use SLPs but the aggregate use has gone down over time, but also that there is a difference between the Ukrainian urban poor who use SLPs as a substitute for (lack of) social transfers, while in Belarus the poor have better coverage and therefore use it as a complement.

This is not quite what I think is the main result when looking at Tables 1 and 2. I do see where it comes from (the relevant coefficients are highlighted) but I think there is a general pattern that is more interesting (and clearer) and this is the fact that *all incomes* (regardless of source) at *all income levels* are inversely related when comparing between Belarus and Ukraine. Throughout the income spectrum in Belarus increases in wages, pensions, and other incomes increases the likelihood of using SLPs. In Ukraine the pattern is the opposite, at all income levels higher incomes (from any source) is associated with less use of SLPs. This together with the strong age effects suggests to me that there are important attitude differences (or social norms) between Belarus and Ukraine w r t the use of SLPs. Putting it somewhat crudely, in Belarus it is something that people want to do while in Ukraine it is something you do if you have to. I do not know, but my guess would be that this is a difference that has arisen after 1990. I think it is well worth studying in some more detail.

When it comes to the importance of SLPs as a source of income for the poor, I think much more could be done by exploiting time variation. Just to look at time series of fluctuations of income levels (by source, where I gather that at least in Belarus there is

info on the share of income from land plots) over time at different income levels and relating this to the use of SLPs would be useful. Also there are quite a few mentions of the 1998 crises but I do not really see any systematic results for what happens here beside the comments in the running text. This could be more systematic.

Another point I miss is more on the *levels* of food consumption coming from SLPs (on p 11 there are some points about the level differences across quintiles in Ukraine and Belarus which are somewhat difficult to reconcile with the other results) How should one think about the absolute levels of SLP use in relation to how this use changes in the face of crises?

Some minor comments:

Figure 2 is not the best figure to illustrate how dramatic the crises in 1998 was.

It would be helpful to have a table of descriptive statistics.

For expositional purposes I would suggest having only the parts of tables 1-4 that you comment on in smaller tables in the text, with the full tables (as know) in an appendix)

In equation 4.2 income from food *both in natural produce and monetary form* are included. How is this possible when everyone answers that they only use SLPs only *to grow food not for sale (for family)* on p 9?

The results on age, gender and education of the respondents that you start by reporting on p 10 are not very important since this is a household decision. These can be kept in as controls (because you can afford it in terms of data power) but otherwise I would not know what to make of these even if they were significant.

Comments on "Evidence from the Chernobyl accident"

The topic for this paper is extremely important and it is striking that nothing has been done on Belarus data before. As such the paper has a lot of potential. The fact that Almond et al (2009) publish work on the effects of this in a country so relatively remote from the accident as Sweden indicates that there should be scope for finding interesting effects in Belarus. I think this general issue is really worth working more on.

The main problem with current paper as I see it is that the identification is not very clear. It is based on radioactive contamination being different across regions in Belarus and on the fact that young children seem to be more affected by radiation than older ones (something which exploited by comparing two rather broad age groups of "younger" and "older" children). While these differences are indeed random and in that sense create the basis for a natural experiment, there seems to be very little scope for

controlling for a number of factors in terms of mortality, migration, support programs, and other developments across regions that take place before the 2001-2008 period from which data is drawn. These factors make the study much less of a natural experiment. (These problems are now mainly discussed toward the end of the paper. I think they should be put forward immediately together with discussions for what you can do to control for this or, in the event that you can not do much about it, why the reader should not worry to much about this).

Given the clear results in Almond et al (2009) would it not be possible use a similar strategy in Belarus and look at children born in a very limited time span around the event. Surely exact date and place of birth must be available and possible to link to outcome later on(?). This kind of addition I think would improve the paper enormously and potentially make it a very important contribution.