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Master Thesis

Preliminary Master Thesis Report

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Immigration and labor market outcomes: An empirical study of Yugoslavian immigrants in Norway

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Master of Science in Business,
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Content

1. Introduction to the research topic

The global migration movements have been a growing widespread concern. Many claim that immigration has major implication for the world economy and studies show that immigration can be a challenge or an opportunity. In the last years there has been a major refugee crisis in Europe and the impact on the world labor market in both emigrated and immigrated countries has certainty not played out it´s outcome yet. The creation of EU has for a long time been a trademark for peace, prosperity and trade. However, the recent Brexit and the lack of confidence of EU could potentially have implications for future movements of capital and labor in Europe. The area of study in will like to analyze in this thesis to look at previous immigration flows, and analyze which impact these immigrants have on the labor market. I will consider Norway as country of interest as there is particular focus on ideological foundations of the countries integration policy in the welfare state. My motivation for studying this field is to get an understanding of how the Norwegian labor market responded to previously immigration shocks, such as refugee crisis. This it can give us valuable information about the future movements of labor and hopefully create ideas for what the authorities in countries should do to make immigration beneficial for both native and foreign workers.

It is claimed that skill-level, culture and native differences can cause diverse outcomes in the labor market in terms of settlement and occupations. Moreover, there is widespread concern that immigrants exert downward pressure on wages and reduce job opportunities for native workers. In Norway, it has been several immigration shocks to the economy the last five decades. One can roughly divide the immigrants into two groups: the *voluntary* movers and the *forced* movers, where the latter mainly will be refugees. Some decades ago, immigrant workers from nearby countries were most common. After the finding of oil around 1970, a lot of labor immigrants from the southeastern Europe, Yugoslavia, Turkey and Pakistan came to Norway due to better job opportunities. In this period, immigration of unskilled character where highly represented and the composition of immigrants changes where more distant countries also were represented. The significant growth of non-EU immigrants in the 1990s was driven by inflow of immigrants from "refugee countries" after experiencing conflicts and war in their

home country. Between 1992 and 1995 there was an increase of Yugoslavian immigrants due to war and dissolution in former Yugoslavia. As a result, the Yugoslavian immigration flow can be characterized as a supply driven flow of immigrants. The housing of the Yugoslavian refugees in Norway were organized through so-called dispersal, which means that refugees are settled evenly between the municipalities (Valenta & Bunar, 2010). Thus, the place of residence for the Yugoslavian immigrants where determined by controlled settlement where they were subject to severe restrictions in terms of settlement options. As consequents, the refugee's place of residence was independent of local market conditions at that time.

There is a range of previously studies on immigration. A large share of the economic studies has examined the effect of immigration on native wage and employment opportunities. Regardless of many studies on the field, the effects from immigration on the Norwegian labor market are somewhat scarce. In addition, most of the existing studies explore labor market effects from all immigration groups and not specifically on a specific group of immigrants. My contribution to this field of study will be to use a smaller and more concrete use of literature concerning the welfare state Norway. By characterizing Yugoslavian immigrants as refugees, one could isolate this particular group impact in Norway. The goal will be to analyze the differences across municipalities and inside municipalities to discuss how this influence labor market variables, for example labor mobility or labor flexibility. A common hypothesis is that immigrants are more geographically mobile than natives since they are a group with lower mobility costs and higher preference for income gains (Røed & Schøne 2012). However, this hypothesis is clearly less valid for refugees who are forced to emigrate and they are restricted in their choice of residence.

Research question

The question I would like to analyze in this thesis is how the Yugoslavian immigrants affect the Norwegian labor market. To answer this question, I will review existing literature and studies on relevant academic research within the field. An empirical study will be designed to give greater insight in areas overlooked by previous research.

2. Literature

There is a wide set on different literature on this field in terms of theory, methodology and quantitative research. A large share of economic studies has analyzed the effect of immigration on native wage and employment opportunities using quantitative data. The existing studies provide a mixed set of results where measured impact of immigration on the wage of native workers fluctuates widely between studies. However, it is clear that the effect on the labor market varies across countries and there are additional factors that can explain some of the distinctions.

The consensus in the economic research on this field claim that there may be a negative effect on wages on the countries that immigrants go to, and particularly the native low-skilled workers. As a result there are some degrees of downward pressure on wages in the countries migrants go to. The reasoning behind the economic mechanisms is based on the fact that increased supply of labor will typically result in a reduction in prices and thus wages. In the later years, economists have also found evidence that the downward pressure on wages is estimated to be very low, and even estimated to be around zero in some cases. The reasoning behind this is that immigrants tend to be good complements rather than substitutes to the native workforce (Manacorda et al., 2011). However, some researchers believe that there is weak spatial correlation as evidence to suggest that immigration has no labor market effect (Borjas, 2003). Skill differences could potentially create more possibilities and more specialization resulting in higher efficiency. The most recent studies have actually proved that immigration may have positive effect in native labor market outcomes as a whole. (Legrain 2014)

In recent years, a new economics of migration has appeared to challenge many of the assumptions and conclusions of from the neoclassical theory (Stark & Bloom, 1985). The new approach is that immigration decisions are rather made by larger components of a network of people. Households/families and their collective immigration-act are not only to maximize expected income, but also to minimize risks. This risk or constraints is associated with a variety of market failures outside the labor market.

International studies

For existing studies outside Norway, Foged & Peri (2016) published a recent paper in the American Economic Journal where they look at immigrant's effect on native workers in Denmark. Here they argued that an increase in the supply of refugee-country immigrants pushed less educated native workers, especially the young and low-tenured ones, to pursue less manual-intensive occupations. As a result, immigration had positive effects on native unskilled wages, employment, and occupational mobility. This study uses both a classical two-stage least square panel estimation and a different-in-different approach. By using both individual- and municipality-based data, the study the study captures the effect of immigrants on individuals and how they may "spill over" to other regions through labor mobility within Denmark. They argued that spillovers might have an important role in understanding impact of immigration.

Diversity in the labor force is also an increasing reality in many countries: Not only as a consequence of the globalized world, but also as a social pressure in certain countries. Parrotta, Pozzoli, and Pytlikova (2014) wrote a noteworthy paper where they look at the effect of an ethnically diversified workforce on firm productivity. They found evidence that workforce diversity in ethnicity is negatively associated with firm productivity. Demographic diversity on the other hand seems not to matter. They argued in their paper that the negative effects, such as integration cost related to diversified firms, could be larger than the positive effects, such as knowledge spillover and creativity.

Further, Borjas (2003) argued that immigration was not evenly balanced across groups of workers who have the same education, but differ in their work experience and the nature of the supply imbalance changes over time. The study defined skill as a combination of both educational attainment and work experience. In contrast to other existing literature, the evidence found in this paper consequently indicate that immigrants reduce the wage and labor supply of competing native workers. The analysis builds on the assumption that similarly educated workers who have different levels of experience are not perfect substitutes. They argued that the labor demand curve would be downward sloping when reexamining the impact of immigration of the labor market. This study

contradicted with a lot of other studies that claimed that impact if immigration of wages of competing native workers were close to zero.

Additionally, Glitz (2012) used a quasi-experiment of immigrant´s in Germany after the Berlin fall. The inflow of immigrants was exogenously allocated to different regions to ensure an even distribution across the country. As a result, the main source of variation was the differences in the skill composition of the resident labor force across regions. The empirical results show that shifts in the relative supply of different skill groups in a region systematically affect the employment/labor force rate of the resident population. Hence, he found a displacement effect of 3,1 unemployed workers for every 10 immigrants that find a job. Yet, there were no significant effects on relative wages.

Norwegian studies

As already commented, the Norwegian study on this field is somewhat scares. As far as my knowledge there are few or non-existing empirical studies on Yugoslavians affect on the Norwegian labor market. In 2012, Røed & Schøne published a Norwegian study where they tested whether immigration makes the labor supply in the receiving country more responsive to regional differences in economic opportunities. The analysis applies to immigrants who arrived to Norway between 1995 and 2004. They argued that even if refugees only have a minor influence on the choice of residence when they first settle down, they are more or less free to move after they have settled down. Mobility between regions was estimated by looking at immigrants and natives, and their choice of moving or staying the current region after the first settlement. Their main finding was that geographical mobility of immigrants is sensitive to regional economic opportunities. Thus, they supported the evidence that immigrants tend to increase the Norwegian labor market flexibility. When wages do not adjust perfectly to shifts in demand and supply, geographical mobility contributes to restore the balance in the regional labor markets. Accordingly, if the geographical mobility of the labor force becomes more responsive to regional disparities in economic opportunities, the total productivity will increase. The most robust result shows that unemployment differences between regions are the main driving force for increased market flexibility for the immigrated group.

Another Norwegian study by Hauff and Vaglum (1993) looked at the impact of war trauma and the integration of Vietnamese Refugees into the Norwegian Labor market. They found evidence that could support that war trauma could have an impact on career choice and integration into the Norwegian labor market. The reasoning behind this finding was based on the belief that survivors of war may have a profound feeling of insecurity, avoidance of risk taking and lack of belief for the future.

In addition, Brekke & Mastekaasa (2008) examined earning- and employment differences between native Norwegians and immigrants over the period 1993-2003. This article however considered the labor market for people with higher university degree and used human capital as explanatory variable. Human capital theory also suggest that the difference in labor market outcomes between natives and immigrants should tend to decline with the time of residency: Over time immigrants accumulate the country specific human capital such as language and cultural skills. The study controls for the grades obtained by individuals and thereby the quality of the individuals' education level. Results show that there is a considerable immigration-native gap in both employment and earnings. However, the gap is larges between newly settled immigrants and native Norwegians, and declines over the years. However, after 8 years of residency it will not have any significant effect on the gap. Moreover, the immigrant disadvantage tends to grow over their career in Norway.

A study by Valenta & Bunar in 2010 provided an analysis of refugee's integration policy in Sweden and Norway. This analysis made it possible to discuss whether the refugees' integration policy in Scandinavian welfare states has been successful or not. The study concluded that although the principle of a strong welfare state, the integration policy in both Sweden and Norway have failed to equalize the initial disparities between the refugees and the rest of the population.

3. Research method

Data

The research method used for this thesis will mainly be quantitative. The data for his empirical analysis is from Norwegian Centre for Research Data (NSD Norway). NSDs regional database is a complete system for publishing regional data at all regional levels in Norway over time. The Regional data include a wide range of macro statistics such as data on demography, employment, economic development and characteristics of the political system. The quantifiable data is being used to estimate Yugoslavian immigration-shocks over time and how it affects labor variables. My supervisor has also given me permission to use and extend data-set containing data on municipality-level[1]. To transform the numerical data into practical analysis, I will mainly use STATA as statistical software.

Independent variable

To measure the variation in the Norwegian labor market between municipalities over time, I use number of Yugoslavian immigrants as explanatory variable[2].
I have data collected from NSD Norway and show the Yugoslavian immigrants moving to Norway from the period 1985 – 2000. Below is a graphical overview of the mean number of Yugoslvain immigrants across all municipalities each year.

[1] Fiva, J. H., A. Halse and G. J. Natvik (2015): 'Local Government Dataset', 2015.
[2] The variable is measure for foreign people who move to a Norwegian municipality to settle, or to stay in the country for at least 6 months (NSD Norway).

Figur 1 - Yugoslavian immigrants in Norway
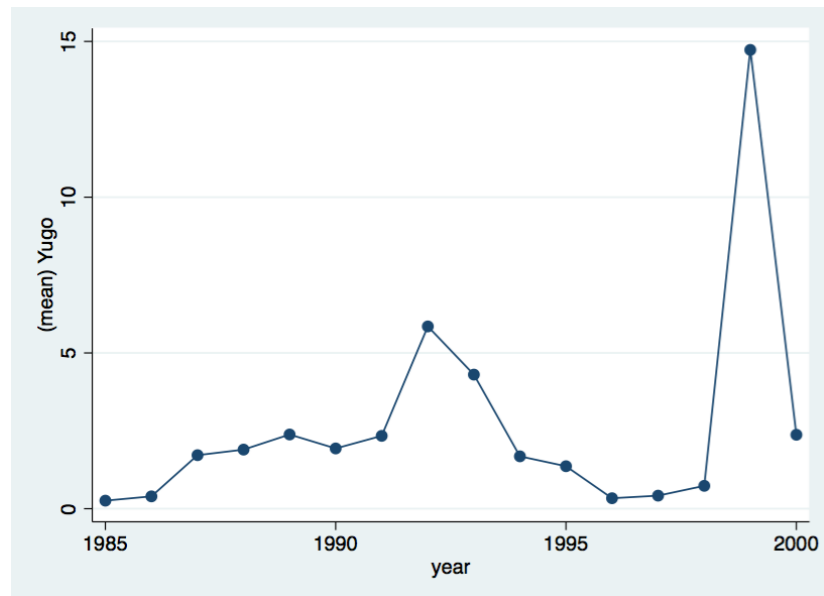
We can observe an increase in Yugoslavian immigrants around the period 1991 – 1994. This is most likely due to the war in former Yugoslavia at the same time, which created a large flow of Yugoslavians immigrants to Norway (SSB Norway). There is also a large and more compressed increase in 1999. The strong increase this year was more likely due to strong influx of Albanian immigrants from the war-torn Kosovo. However, approximately 2,000 of the 6,400 Kosovo Albanians who were registered as refugees to Norway in 1999, actually came in 1998(SSB Norway). This can be one explanation for the large increase this particular year.

We can also look at the relationship between immigrants as a function of the total population in Norway. The graph below shows the relationship between Yugoslavian immigrants and total Norwegian population over the sample period (1985-2000).

Figur 2 - Yugoslavian immigrants and the total population in Norway
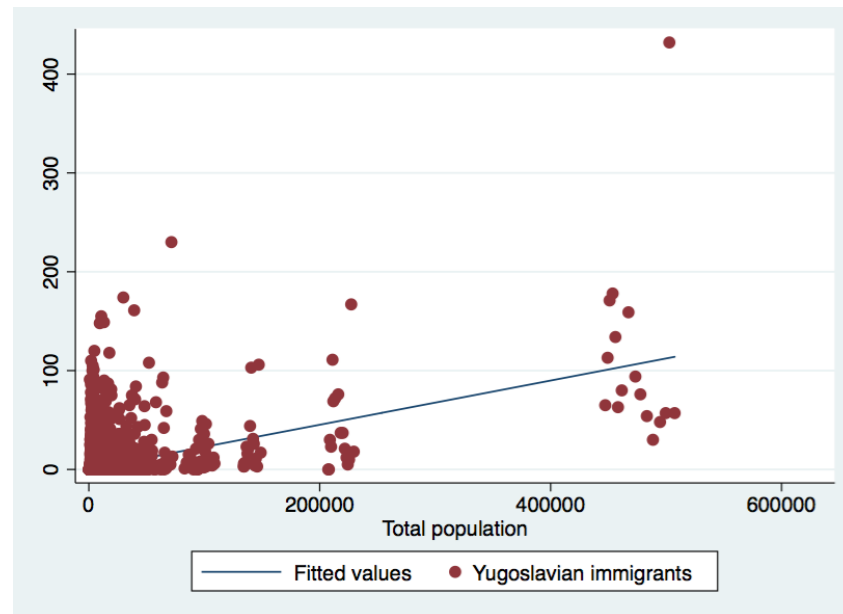
Results suggest that the highest number of immigrants settle down in the municipalities with high populations. However, by taking out "Oslo" as observations, the relationship is not that proponent as all the observations to the right in the graph are dropped out. This indicates that the Yugoslavians were not only settled in big cities and would indicate that the dispersal policy among municipalities is working.

Dependent variable

In general, the goal is to look at the effect on the Norwegian labor market. However, there are several ways to analyze the effect of immigration on the labor market and theory suggests that there will be adverse impact dependent on which variable one you analyze. Previous studies have generally uses variables such as labor mobility, education, wages, productivity, human capital and unemployment. As of now, I have not determined which variables to mainly focus on. However, one interesting take would be to examine how the welfare state Norway is handling the immigration shock by looking at the degree of social spending over the period estimated.

Methodological approach

To ensure that the analysis in my thesis has real validity, the econometric methods need to have a good research study design. I will emphasize the main questions

behind my analysis using questions addressed in *Mostly Harmless Econometrics* (Angrist and Pischke 2009). Firstly, we need to find the *causal relationship of interest*. To have a sensible analysis of the Yugoslavian immigration effect on Norwegian labor market, we need to look at data before and after the immigration shock. Thus, we can estimate the how immigration (the cause) has an effect on the dependent variable of interest: Norwegian labor market. Causal effects are defined in terms of the difference between (conditional) expected outcomes when treatment is administered and when it is not. The causal effect from immigration on labor market is useful in terms of determining benefits of diversified labor force, or how geographical mobility could restore the balance in the regional labor markets. To get the correct causal effect between the variables of interest, it is important to adjust for possible endogenity problems. The causes of endogeneity in this analysis can be an underlying sources causing shifts in both immigration and the labor market or a loop of causality where immigration flows increase due to a better labor market in Norway. The causal mechanism linking cause to effect involves the immigration choices of residence, occupation and degree of integration. The important issue is this estimation is the immigrants' potentially endogenous choice of place of residence. Studies show that immigrants tend to move to those areas that offer the best current labor market opportunities or where their social networks already are represented. This typically leads to an underestimation of the true effect on the labor market outcomes of the resident population. The second question in Angrist and Pischke (2009) is *which experiment that could ideally be used to capture the causal effect of interest*. As there is difficult to make an actual experiment, a hypothetical experiment can give us valuable knowledge. We seek to understand the Norwegian labor market response to increased Yugoslavians immigrants. An ideal experiment will be to have two small and closed industries in different municipalities, then supply one industry with Yugoslavian labor and compare the different effect in the labor markets across municipalities. Hypothetically, this could be possible to test, but in reality there are far too difficult implement such an experiment. If one could observe a number of closed labor markets where immigrants entered randomly, one could then relate the change in labor variables, such as wages, in different multiplicities. The third question is to determine the *identification strategy*. In this study there can be implemented different identification strategies. However, the most appropriate will be to use observational data to approximate a real

experiment. To control for Yugoslavian effect on Norwegian labor, one need to determine how the immigrant's causes variation in Norwegian labor market. For this study one need to use time-lagged relationships in which current values of labor market depend upon past values on the labor market as well as previous immigration shocks. The form expresses current endogenous variables as functions of exogenous variables and past endogenous variables. The final question defined in Angrist and Pischke 2009) is to *determine the mode of statistical inference*. Statistical inference in the analysis will deduce properties of an underlying distribution of data. In this study, the statically inference is more complex, especially since the data that are clustered in regions. The Yugoslavian immigrants are assumed to be a sample from a larger population of immigrants. Thus, drawing conclusions based on this data might not be sufficient for this kind of research.

Model specification

Based on Angrist and Pischke (2009) arguments of creating good research study design, in this thesis it could be possible estimate Yugoslavian effect on Norwegian labor over time by using time-series regressions. Also one could look at the affect across regions by holding municipalities fixed. My plan is to use the difference-in-difference approach to identify the effect of "treated municipalities by immigration" and the "control municipalities". Pre-treatment period will be prior to the Yugoslavian immigration, while we use 1991-1995 (and 1999) as treatment period since we observe a discontinuous increase in Yugoslavian immigrants in this period. Thus, one could discretize the exposure of immigrants across municipalities. A possibility is to construct a top and bottom quartile of municipalities in their exposure to refugee-country immigrants. The goal is to compare the labor market outcomes before and after the immigration flow by testing for the degree of Yugoslavian immigration impact. In a regression setting, the difference-in-difference estimation will contain a dependent variable (labor market outcome) in multiplicity M in year t, where the explanatory variable of interest will be the treatment dummy variable Y (upper quartile of Yugoslavian immigrants).

Endogeneity

Major issue will still be the estimation of the Norwegian labor marked when there are other factors influencing the labor market performance outside the model. Firstly, immigrants may not be randomly distributed across municipalities in Norway and thus across different labor markets. If the immigrants endogenously cluster in places due to job opportunities, family etc, there would probably be spurious positive correlation between immigration and labor market variables. (Borjas 2003). Also, native workers may react to increased immigration by moving to other cities for different reasons. As a consequence, comparing economic opportunities for native workers and Norwegian workers would show little difference due to the fact that immigration to municipalities will actually affect other unaffected municipalities as well (Borjas 2003). Also, one cannot completely rule out that firm endogenously choose their employees. Discrimination in the labor market towards particular subgroups is also a concern and might put a downward pressure on the effect of foreigners in the labor market. In addition will experience varies across individuals and it would be impossible to hold experience constant across the labor force.

Instrument variable

To address potential endogeneity issues, one needs a good instrumental variable. The instrument variable should be correlated with the explanatory variable but uncorrelated with the outcome variable, can eliminate many of the biases that arise from endogeneity, selection bias and omitted variables. In this case, such a variable would be the dispersal policy in Norway. (Correlated with migration but exogenous to the outcome variable, labor market). We assume that the dispersal policy will consequentially distribute immigrants *evenly* and random across municipalities.

4. Thesis progression

As for further work, the plan is to read more research on the area of study. Since this field is relatively wide, I want to look after specific recommendations of further explorations or if there are gap in some studies where there are still questions that need to be answered. A major job will be to collect the relevant data and construct a panel dataset I can use in my further analysis. The plan for my thesis progression will be the following:

2017	Tasks	Goals
January	Find relevant studies (both international and national). Find more relevant variables in NSD to include in dataset. Use time on learning STATA as statistical software Look more into theoretical models relevant for the thesis	- Finish preliminary thesis report - More familiar with STATA - Determine relevant theory
February	Continue with the collection of data and construction of dataset. Get a deeper understanding of the previous studies and their identification strategies. Focus on methodology in thesis.	- Start building statistical model in STATA - Created a good research study design
March	Collect the first estimation results. Try to examine features of the different results, and compare with previous studies and theory. Correction on research design if needed.	- Estimation results - Comparison and identification of results
April	Write thesis. Construct a fitting structure of thesis. Determine where to put weight from the estimation results.	- Write thesis - Hone on theory, methodology and estimation results
May	Be critical to the work done. Both in terms of theory used and model specification. Determine the representativeness of study. Discussion of results and how findings in the study tell us something valuable. Finishing thesis	- Criticism - Discussion - Finish thesis
June	Improve language and sentences. Complete reference list	- Improving thesis - Complete reference list
July	Improve language and sentences.	- Improving thesis
August	Improve language and sentences.	- Improving thesis
September	Deliver master thesis	

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