Chizheng Miao

Essays on Self-employment, Happiness and International Trade
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ESSAYS ON SELF-EMPLOYMENT, HAPPINESS AND INTERNATIONAL TRADE

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Abstract


The thesis consists of three empirical essays on the topics of self-employment, happiness and international trade.

Essay 1 studies how immigrant self-employment entry is affected by the local business cycle in Sweden. Using the unemployment rate at the local labour market level as a proxy for the local business cycle, our study shows that the self-employment entry behaviour for native men and immigrant men is negatively affected by the unemployment rate, except for immigrants from Middle East. However, such a negative effect is quantitatively weaker among the non-European immigrants. Further, the result shows that immigrants from the Middle East are positively affected by the unemployment rate, meaning they are more likely to be pushed into self-employment in recessions. For women, we also find the unemployment rate has a negative impact on the self-employment decision of native women and immigrant women, except for the Middle East group. However, compared with men, the quantitative size of the unemployment rate effect on self-employment is smaller among women, implying the less important role of business cycle in determining females' entry into self-employment.

Essay 2 investigates the non-pecuniary return of self-employment in China. The results show that the life satisfaction of self-employed men is significantly higher than that of wage-employed men; the life satisfaction of self-employed women is not statistically significantly different from that of wage-employed women. Moreover, we show that the life satisfaction of self-employed men in the informal sector is significantly higher than that of wage-employed men in the formal sector. The life satisfaction of wage-employed men in the informal sector is not significantly different from that of wage-employed men in the formal sector. For women, we find that there is no significant life satisfaction disparity between workers in the formal and informal sector. Finally, our job satisfaction data also concludes that self-employment in China is not inferior to wage employment.

Essay 3 evaluates how Swedish manufacturing employment is affected by the increasing import competition from China. The results show that the growth of manufacturing employment is not statistically significantly affected by the increasing import competition from China. Moreover, in general, the increasing import exposure from China does not significantly affect the employment growth of non-manufacturing sector either. Regarding the earnings, the analysis shows that the low wage earners in the manufacturing sector is not significantly affected by the increasing import penetration from China while median and high wage earners are positively affected.

Keywords: business cycle; employment; immigrant; import competition; informality; life satisfaction; local labour market; self-employment; unemployment rate.
Abstract


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Essay 1 studies how immigrant self-employment entry is affected by the local business cycle in Sweden. Using the unemployment rate at the local labour market level as a proxy for the local business cycle, our study shows that the self-employment entry behaviour for native men and immigrant men is negatively affected by the unemployment rate, except for immigrants from Middle East. However, such a negative effect is quantitatively weaker among the non-European immigrants. Further, the result shows that immigrants from the Middle East are positively affected by the unemployment rate, meaning they are more likely to be pushed into self-employment in recessions. For women, we also find the unemployment rate has a negative impact on the self-employment decision of native women and immigrant women, except for the Middle East group. However, compared with men, the quantitative size of the unemployment rate effect on self-employment is smaller among women, implying the less important role of business cycle in determining females’ entry into self-employment.

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First and foremost, I would like to express my appreciation to my main supervisor Prof. Mats Hammarstedt and my assistant supervisor Lina Aldén for their excellent supervision and the provision of all kinds of research support during my thesis written. Both Mats and Lina has provided very constructive comments for my thesis work. Moreover, Mats and Lina are always supportive during my PhD study in many other aspects, such as conference travel and foreign visiting study.

I would like to thank the opponent of my thesis at the final seminar, Anders Åkerman, and the opponent of my licentiate seminar Pernilla Andersson Joona. Both of them have provided valuable comments for the improvement of the thesis.

I am grateful to Prof. Dominique Anxo who always offered me good suggestions not only about my research but also my academic career. In addition, I will never forget the one-day tour with him in Paris, where I was impressed by his knowledge about the city's culture and history.

I would also like to thank previous and present PhD students in the Department of Economics and Statistics at Linnaeus University, especially Abdulaziz, Aziz and Deliang, who shared an office with me. Aziz always brought interesting topics for the fika time. Abdulziz that made the study and office life fun, especially during the first year of PhD study. Deliang supported me not only in the office but also the life outside the university in different ways. My wife and I have become very good friends with his family.
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Introduction

The thesis consists of three empirical essays on the labour market issues of self-employment, happiness and international trade. Previous Swedish literature has shown that immigrants are at a disadvantage in the labour market (Aldén and Hammarstedt, 2014; Carlsson and Rooth, 2007; Hammarstedt and Shukur, 2007). To ameliorate the labour market disadvantages and to facilitate the labour market integration, self-employment has been put forward by immigrants. The literature has also shown that immigrants, especially Middle Eastern immigrants, are overrepresented in Sweden's self-employment sector (Andersson and Wadensjö, 2005; Hammarstedt, 2006). Previous literature looks for the explanations of immigrants' overrepresentation in self-employment mainly in supply-side factors while demand-side factors have comparatively not received many attentions.

In developing countries, the share of self-employment among total employment is significant (Maloney, 2004). Although people who are self-employed on average earn less than who are wage-employed (Hamilton, 2000), literature from developed countries have shown that this earning disadvantage can be compensated for by factors associated with self-employment, such as autonomy. Self-employed people are more satisfied with their jobs and their lives (Andersson, 2008; Blanchflower and Oswald, 1998; Hundley, 2001; Lange, 2012; Mångs, 2013). However, such non-pecuniary return of self-employment has not been much studied in the context of developing counties.

Another rising concern among the labour economists is the labour market consequences of international trade when high-income countries are facing increased product competition from low-income countries (Krugman, 1995, 2008). The rise of China's trade with the world in the past few decades provides a good opportunity to study the labour market effect of increasing import competition from low-income countries. In US, Autor et al. (2013) has shown that the loss of manufacturing jobs due to the trade with China is more than one million. Like many western countries, Sweden has experienced a significant trade growth with China; in 2015, China was Sweden's largest trade partner.

Furthermore, I would like to thank other researchers and administrative staffs in the School of Business and Economics at Linnaeus University. Hanna and Christina provided the best assistance with administration issues and I would like to extend my special thanks to them. In addition, I would like to thank many economists at Centre d'Économie de la Sorbonne – University Paris 1 and Paris School of Economics who have advised and helped me during my visit there, especially Prof. Jérôme Gautié.

At last, I would like to express my thanks to my family for their supports during all my years in Sweden. I thank my wife Lu who takes care of my life in all aspects. I thank my parents in China who gave me the best educational opportunities. They made my trip to Sweden and my PhD studies possible.

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import sources outside European Economic Area according to Statistics Sweden. However, the characteristics of Swedish labour market are different from the labour market in the US. Thus, it is not certain to what extent the Swedish labour market and especially the manufacturing sector is responding to the rising import penetration from Chinese goods.

The purpose of the thesis is to fill in those gaps in the literature. The first two essays are about the economics of self-employment, which will improve our understanding about the role of business cycles in determining immigrant self-employment entry behaviour and about the non-pecuniary aspect of self-employment in a developing country. The third essay will enrich our knowledge about the labour market adjustment in the high-income country when facing the increased import competition from the low-income country.

Summary of the essays

Essay 1

Essay 1, “Immigrants’ self-employment over the local business cycle in Sweden” contributes to the literature in two ways. The Swedish literature about immigrant self-employment mainly considers the supply-side factors (e.g., Hammarstedt, 2001, 2004), so the study complements the literature by looking at the demand side. In addition, our study adds to the knowledge about self-employment and business cycle by incorporating immigrants, who are at a disadvantage in the labour market compared to natives. Moreover, compared with Svaleryd (2014), we stress the business cycle effect on entry into self-employment, where the effect of macroeconomic conditions on newly started self-employment could be different from that of long-term self-employment.

The business cycle could affect self-employment decision in two opposite directions. On one hand, a deterioration of economic condition would push people into self-employment due to the lower of opportunity cost for self-employment. Therefore, people with fewer resources are more likely enter into self-employment in economic downturns and rise the self-employment rate. Such a positive relationship between unemployment and self-employment is described as the “recession-push” hypothesis (Parker, 2009). On the other hand, people could be pulled into self-employment in the economic upturn when the market demand increases, which Parker (2009) terms the “prosperity-pull” hypothesis. Under this framework, recessions would affect immigrant’s decision to enter self-employment differently from natives’ decision to do so because of differences in the self-employment opportunity cost between the two groups. Moreover, immigrants in Sweden, particularly non-European immigrants, are disadvantaged in the labour market (Aldén and Hammarstedt, 2014; Carlsson and Rooth, 2007; Hammarstedt and Shukur, 2007). Furthermore, immigrants are closely related to self-employment activities; non-European immigrants, especially Middle Eastern, are
overrepresented in Sweden’s self-employment sector (Andersson and Wadensjö, 2005; Hammarstedt, 2006). Given immigrant’s labour market vulnerability and high self-employment rate, immigrants, especially from non-European countries, are more likely than natives to be pushed into self-employment when economy deteriorates.

To study how immigrant self-employment entry is related to the business cycle, we combine individual-level data from the Longitudinal Integration Database for Health Insurance and Labour Market Studies (LISA) with the unemployment rate at the local labour market level from the Swedish Public Employment Office. The individual fixed effect regression analysis shows that the local unemployment rate negatively affects the self-employment entry of native men and immigrant men, except from the Middle East. Contrary to Swedish natives, immigrant men from the Middle Eastern are positively affected by the local unemployment rate, meaning they are pushed into self-employment in economic downturns. Although the local unemployment rate also negatively impacts women’s self-employment entry, except immigrants from Middle East, the magnitude of the effect is much smaller, indicating the less important role of macroeconomic factors in determining women’s self-employment decision. The gender differences in self-employment response to the business cycle could suggest the importance of non-economic reasons, such as family issues, in determining female self-employment behaviour, which is in line with previous findings that women become self-employed mainly to facilitate the home production whereas men want to achieve higher earnings (Hundley, 2000).

**Essay 2**

Essay 2, “Self-employment and happiness in China” focuses on the return of self-employment in the developing country in terms of subjective well-being. To our best knowledge, there is no research has looked at the non-pecuniary return of self-employment in China with nationally representative data. Subjective well-being has the advantage over the traditional objective utility measure since it directly covers the border concept of human well-being (Clark, 2015; Frey and Stutzer, 2002). Among different measures of subjective well-being, life satisfaction data has been put forward in the self-employment literature (Binder and Coad, 2013; Markussen, et al., 2014; Sevä, et al., 2016; Zwan, et al., 2015). On one hand, some job features of self-employment, such as autonomy, more independence and greater schedule flexibility at work, could improve the life satisfaction of self-employed through the better work life balance (Zwan, et al., 2015). On the other hand, self-employment could depress life satisfaction through more work-family conflict (Parasuraman and Simmers, 2001). Such conflict could come from more job involvement and time commitment. Hence, the main contribution of the paper is from testing whether the life satisfaction of self-employment in China is significantly different from that of wage employment.
Moreover, the dualist view concludes that self-employment in developing countries is pushed into the sector due to the lack of wage employment opportunities in the formal sector, which is an involuntary choice (Fields, 1990). In contrast, the competitive view by Maloney (2004), argues that the labour market in developing countries is well integrated and self-employment in the informal sector is more likely to be a voluntary choice given the constraints. Hence, if a labour market is dualist, we shall observe a significant utility disparity between the jobs in the formal sector and the informal sector given otherwise similar observed characteristics. Using life satisfaction as a proxy for the utility, we test the hypothesis whether the life satisfaction of workers in the informal sector is significantly lower than that of wage workers in the formal sector, which contributes to the discussion of dualist labour market in developing countries.

Furthermore, previous research has also shown that self-employment gives higher job satisfaction than wage employment (Andersson, 2008; Blanchflower and Oswald, 1998; Lange, 2012; Millan, et al., 2013). However, self-employment could have different impacts on the different domains of job satisfaction since some domains are less attractive than others (Clark, et al., 2008). The third contribution of the paper is its examination of four domains of job satisfaction for the self-employed and wage-employed: satisfaction with the job, pay, working time and job security. Thus, the study complements the self-employment literature from developing countries that looks only at job and life satisfaction.

The second essay uses two waves of the China Family Panel Studies to help us understand the job quality of self-employment in one of the world’s largest developing countries. Our result shows that the life satisfaction of self-employed men is statistically significantly higher than that of wage-employed men in China. For women, there is no significantly disparity in life satisfaction between the self-employed and wage-employed. Moreover, we find no evidence of a dual labour market in China, implying that self-employment is more likely to be a voluntary behaviour. Furthermore, we examine the non-pecuniary return of self-employment on four domains of job satisfaction, of which all the results suggest that self-employment in China is not inferior to wage employment.

**Essay 3**

Essay 3, “The labour market effect of international trade: the evidence of Swedish import from China,” answers the question of how Swedish labour market, especially the manufacturing sector, is affected by the rise of import competition from China. Over the past few decades, the rise of Chinese trade with the rest of world has dramatically changed the trade pattern with the primary export of manufacturing goods. Like that of many western countries, Sweden’s trade with China has experienced rapid growth. Moreover, many high-income countries have seen the decline of manufacturing employment
during the last few decades, likely as a result of automation (Autor, 2015). With the exception of technology advances, some studies have shown that the opening of the trade with low-income countries has also contributed to the loss of manufacturing jobs in high-income countries. For instance, the loss of manufacturing jobs due to the trade with China explains about 44% and 10% of the decline of manufacturing employment in US and Norway respectively between 1990 and 2007 (Balsvik, et al., 2015).

However, it is not certain to what extent the workers in Sweden’s manufacturing sector are affected by increasing imports from China. To our best knowledge, our study offers the first piece of evidence from Sweden about the response of manufacturing employment to the trade shock. The reason to focus on employment rather than wages is due to the feature of Swedish labour market’s centralized wage bargaining system. Krugman (1995) predicts that in countries with rigid wages that the impact of trade shock from low-income countries is more likely to affect employment than wages.

The second contribution of the paper comes from analyzing the distributional wage earnings effect, which deviates previous literature that focuses only on the average earning. To analysis the distributional effect, we use the newly developed IV quantile regression for the group-level treatment effect by Chetverikov et al. (2016).

According to Autor et al. (2013), a regional economy in a high-income country can be affected in the short run by the exogenous shock from low-income countries through two channels. One is the “export supply shock,” where a positive supply shock from low-income country would depress the labour demand in the trade exposure industry in high-income country and labour would flow from the tradable sector into the non-tradable sector or even become unemployed in the short run. The other channel is the “import-demand shock,” where a positive shock on a low-income county’s import demand would positively affect employment in the tradable industry in the high-income country and labour would move out from both the non-tradable sector and unemployment into the tradable sector.

To study the impact of rising import penetration from China on the employment in Sweden’s manufacturing sector, we use the Swedish population register data (LISA) together with the UN Comtrade data. The study focuses on the two five-year periods: 1996 – 2001 and 2002 – 2007. During these periods, Chinese export to the world saw its most rapid growth (Husted and Nishioka, 2013). We follow Autor et al. (2013) to construct the index that measures the increasing import competition from China at the local labour market level.

Our results show that neither the employment of manufacturing employment nor the employment outside the manufacturing sector is statistically significantly affected by the rise of imported Chinese goods. Moreover, we show that the earnings’ growth of low wage earners in the
manufacturing sector is not affected by the increase of Chinese import penetration while the earnings growth of the median and higher wage earners are positively affected. Those results suggest that the increased imports from China are likely to be complementary to Swedish products.

**Policy implication and future research**

The results of these three essays enrich our understanding of the labour market issues regarding the formation of immigrant self-employment from the demand side perspective, the disparity in happiness between self-employed and wage-employed people in a developing country and the labour market consequences of the increasing import competition from low-income countries. Based on these results, relevant policy may be shaped to improve individual welfare.

In the first essay, we show that the Middle Eastern immigrants, who are at a disadvantage in the labour market, are pushed into self-employment when the economy deteriorates and that Swedish natives are pulled into self-employment during economic booms. Moreover, the effect of the size of the business cycle on men’s self-employment entry is much greater than its effect on women’s, suggesting the gender difference in self-employment response to business cycles. The results demonstrate the importance of labour market heterogeneity when policy makers consider the self-employment policy over the business cycle. It is also important to understand the performances of businesses that are formed by labour market disadvantaged group during recessions, which we leave for the future study.

The results of the second essay indicate that self-employment is less likely to be inferior to wage employment in a developing country. The paper shows the importance of subjective well-being in measuring the return of self-employment in developing countries and the governmental policy directs the self-employment shall not be only from the monetary perspective but shall also focus on other non-monetary aspects. However, due to the data limitations, our study cannot establish causality and we could not distinguish voluntary from involuntary self-employment. Future research shall try to incorporate these factors into consideration in studies of life satisfaction of the self-employed in China and other countries.

In US, due to the increasing import exposure from China, more than one million manufacturing jobs have been lost (Autor et al., 2013). In the third essay, we show that the growth of Swedish manufacturing employment is not statistically significantly affected by increasing import penetration from China. Moreover, the earning growth of the lower wage earners in the manufacturing sector is not statistically significantly affected by the trade shock while the median and higher wage earners are positively affected. One possible explanation for the insignificant employment effect is production
differentiation, such as the quality difference. Future research can explore the role of production differentiation in mitigating the potential negative labour market impact of the trade shock by using firm-level evidence. At the earning’s level, our result suggests that some attention has to be paid to the potential increase in the earning’s gap between the low and high wage-earners due to the increasing import competition from low-income countries. Finally, the trade effect may also go beyond the labour market to, for instance, the health market.

References


