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ESSAYS ON IMMIGRANTS AND THEIR IMPACT ON THE LOCAL LABOUR MARKET

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Essays on Immigrants and their Impact on the Local Labour Market

This study is based on the doctoral dissertation titled "Essays on Immigrants and their Impact on the Local Labour Market" selected as the citation-winning entry for the India Exim Bank International Economic Research Citation 2022. This dissertation was written by Dr. Ronit Mukherji. Dr. Mukherji received his Ph.D. degree in Economics from the University of British Columbia, Vancouver, Canada, in 2022, under the supervision of Prof. David Green, Prof. Michael B. Devereux, and Prof. Kevin Milligan, University of British Columbia, Vancouver, Canada.

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Executive Summary

The first chapter of the thesis delves into the impact of low-skilled immigrant entry on the declining unionization rates in the United States. It seeks to answer a fundamental question: can the entry of low-skilled immigrants explain the significant and consistent fall in unionization rates that began in the late 1960s? This chapter presents a compelling argument that the influx of immigrants has substantially altered the incentives for both native-born workers and firms to engage with labour unions, ultimately contributing to the decline in unionization rates.

The study suggests that as immigrant workers enter the labour force, they change the dynamics of the labour market. High-skilled workers find that their efforts are more rewarding in non-unionized sectors, which prompts them to leave unions. In contrast, low-skilled native workers, who now face competition from immigrant labour, become less valuable to firms if they remain unionized and demand a union wage. This dynamic results in a shift in unionization, with union membership declining at the two ends of the skill distribution and becoming concentrated in the middle.

Empirical evidence is presented to support these claims, including an instrumental variable approach that demonstrates how the entry of low-skilled immigrants has contributed to the reduction in unionization rates across different geographical regions. The analysis controls for other potential causes of the decline in union density and suggests that the decline is not solely attributed to immigrants becoming unionized. To further support these findings, a search-theoretic model is developed to illustrate the mechanisms at play, and predictions from the model serve to reinforce the research's validity. The model is then calibrated to the data, offering a detailed understanding of how low-skilled immigrant entry can account for a substantial portion (48-55%) of the overall decline in union density, underlining the significant impact of immigration on unionization trends.

This chapter makes significant contributions to the labour economics and macroeconomics literature. It distinguishes itself by highlighting the dual contributions of native-born workers and firms in the reduction of union rates and offers a comprehensive theoretical and empirical analysis of the causal link between immigrant entry and the fall in unionization rates.

The second chapter explores how fluctuations in exchange rates between the source and foreign economies influence the earnings of immigrant workers. Immigrants often divide their income between consumption in the foreign economy and remittances sent back to their source country. Therefore, changes in the exchange rate can have a significant impact on their real income.

The chapter presents two hypotheses: one suggests that an unanticipated wage shock from currency depreciation would lead to increased earnings through greater labour supply, while the other hypothesis suggests that it could lead to a decrease in earnings due to reduced labour supply, potentially following a backward-bending supply curve once income effect dominates the supply. The research findings supports the second hypothesis, indicating that a source country's currency depreciation leads to reduced earnings among immigrants. Many immigrants are remittance senders, they reduce their earnings when faced with source country currency depreciation because of the income effect dominating the supply effect when real income increases.

By examining the relationship between exchange rate fluctuations and immigrant earnings, this chapter makes a valuable contribution to understanding the behaviour of immigrant workers and the role of remittances as a mechanism influencing their earnings. It extends prior research by considering the impacts of exchange rate fluctuations on a more diverse immigrant population in Canada and offers a deeper exploration of the heterogeneous responses within different immigrant groups, nationalities, and years since immigration.

The final chapter of the thesis shifts its focus to macroeconomic conditions at the point of entry into the foreign economy and how these conditions affect immigrant earnings in both the short and long term. This chapter addresses several key questions, including how entering the labour market during an economic downturn impacts immigrant workers, their outmigration decisions, and whether long-term success differs between immigrants who enter simultaneously but vary in terms of skills, education, nationality, and gender.

The existing literature has primarily concentrated on the impact of economic downturns on college graduates, showing that such exposure to increased unemployment rates during economic crises can result in long-term earnings reductions. However, this chapter seeks to examine the effects on immigrants, a less advantaged group in the labour market and extends this analysis to encompass individuals with different skill levels and educational backgrounds. The research is based on a longitudinal dataset that matches immigrant tax returns to their initial conditions at the time of entry, providing insights into the long-term implications of initial labour market conditions on immigrant earnings, assimilation into the host country, and outmigration decisions. This study is significant as it provides a more in-depth understanding of how economic conditions at the time of entry can influence immigrant outcomes.

The chapter also contributes to the literature on how entering the labour market during a downturn can have long-lasting impacts on career choices, earnings, and even mortality rates. Moreover, it adds an important dimension by considering the heterogeneous responses among various immigrant groups, highlighting the complex interplay of factors affecting immigrants' success in the host country. Overall, this chapter provides valuable insights into the implications of macroeconomic conditions at the point of entry for immigrant earnings and assimilation, contributing to a better understanding of the challenges and opportunities faced by immigrant workers in the labour market.

1. De-unionization and Immigrant Entry

This chapter of the study, delves into the complex relationship between low-skilled immigration and the steady decline of union membership in the United States. It begins by highlighting a significant shift in the U.S. labour landscape, where union density dropped from its peak of 40% in the 1950s to just 9% by the end of the 20th century. This downward trend coincided with a substantial wave of low-skilled immigrants entering the United States. The share of immigrants as a percentage of the U.S. population increased from 3% in the 1960s to around 11% around the turn of the century. The paper emphasizes that these immigrants, particularly those arriving between the 1970s and 2000s, were predominantly low-skilled, with a significant majority lacking a high school degree. This demographic shift in the labour force raises a crucial question: is there a causal link between increased immigration and the decline in unionization rates? To answer this question, the study explores how immigrant entry affects the local labour market and the implications it has on market structures like labour unions.

This chapter contributes to labour economics and macroeconomics literature by addressing the decline in U.S. unionization rates. While previous research pointed to skill-biased technical change (SBTC) as the main cause, this chapter suggests that the entry of low-skilled immigrants can explain a large part of the union fall in the U.S. In doing so, the chapter highlights how in equilibrium the fall in union rates has a lot to do with native-born workers and firms acting against unions. Unlike prior studies, this chapter empirically supports the claim that low-skilled immigrant entry is a significant factor in declining unionization. In summary, it offers a comprehensive view of the complex factors behind the diminishing unionization trend.

This chapter contributes to the literature that examines the impact of immigrant entry into the labour market on native workers' earnings and other outcomes. This literature employs two main approaches. The first approach, exemplified by studies like Card (2001), Altonji and Card (2007), and Card (2009), compares labour market outcomes or changes in response to local immigrant inflows across different geographic locations. To address the potential sorting of migrants, they utilize the "ethnic enclave instrument." Card (1990) found that the substantial influx of Cubans to Miami in 1980 (during the Mariel Boatlift) had a minimal effect on the Miami labour market. Other papers using natural experiments to analyze the effects of immigrant entry include Fried berg (2001), Glitz (2012), and Angrist and Kugler (2003). In contrast, Borjas (2003) argues for comparing labour market outcomes across education and experience groups at the national level.

However, Borjas's identification strategy relies on the exogeneity of immigrant flows into skill experience cells. This chapter aligns with the first approach and specifically examines the impact of low-skilled immigrants on unionization rates across different geographic regions and how they affect the unionization rates of differently skilled native workers. It adds to the understanding of how immigrant entry can influence labour market dynamics and unionization rates, with a focus on low-skilled immigrants and their impact on native workers of various skill levels.

From a modelling perspective, several papers have attempted to analyze the effects of immigrants on local labour markets. Ottaviano and Peri (2012) used a structural production function approach to examine the substitutability between natives and immigrants with similar education and experience levels. They found that immigrant entry had a more significant impact in terms of wage reduction on previous immigrants than on low-skilled natives. Chassamboulli and Palivos (2014) employed a search and matching framework to assess the impact of immigrant entry on native-born wages and found it to be substantial after calibration. Amior and Manning (2020) examined the wage effects of immigration in a monopsonistic labour market. In this work, a search and matching framework is used to explore how immigrant entry, in general equilibrium, distorts the incentives for native workers to join unions and for firms to hire unionized workers. This chapter captures the dual-sided incentives of workers and firms, resulting in changes in wages that lead to a decline in union densities.

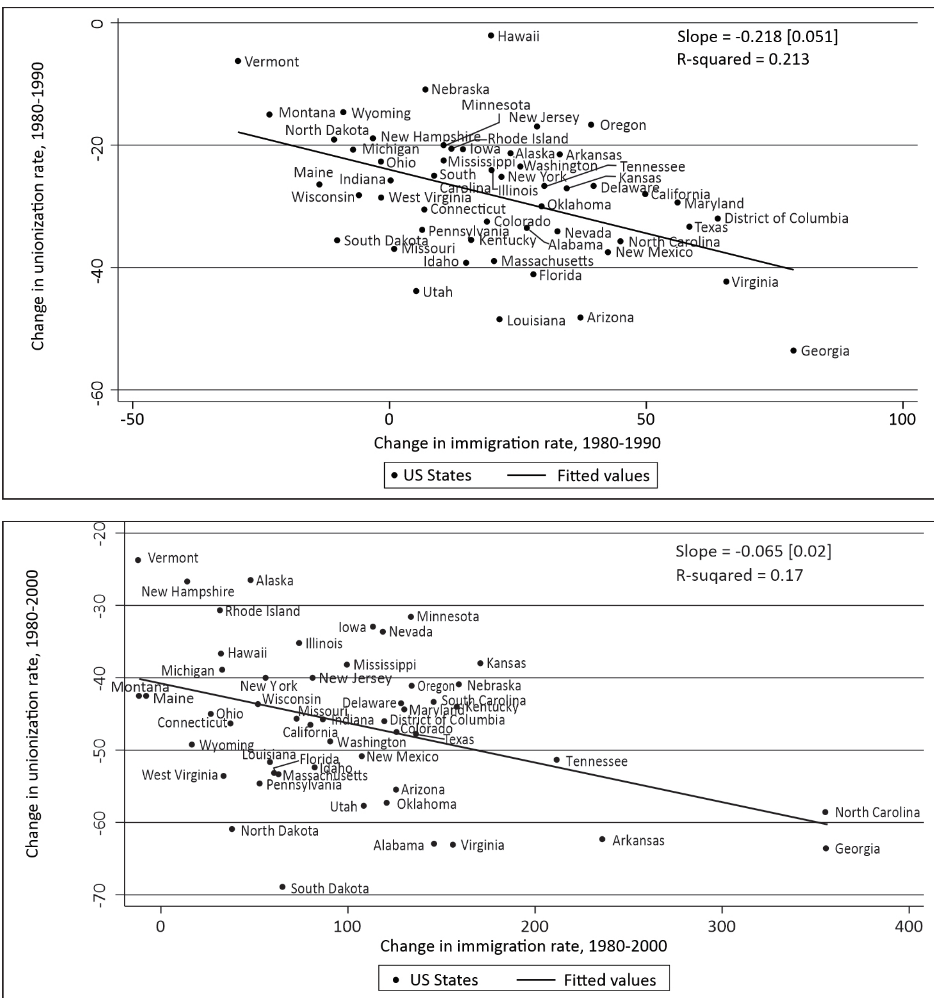
Furthermore, concerns have arisen regarding growing income inequality in the U.S., and a decline in the union rate has been suggested as a contributing factor. Studies by Card (1996), DiNardo et al. (1996), and Fortin and Lemieux (1997) have linked falling union rates to increased wage inequality. Card (2001) found that 15-20% of the rise in male wage inequality in the U.S. between 1973 and 1993 could be attributed to declining union rates. Lemieux (1998) argued that unions compress the returns to a time-invariant unobservable measure of skill, which impacts income inequality. Additionally, studies like Card (2009) have connected increased wage inequality to higher low-skilled immigrant entry. By analyzing how the entry of low-skilled immigrants leads to a decline in union rates, this analysis bridges the two critical strands of the literature on income inequality. This chapter is among the first to adopt such an approach. Moreover, the decline in unions is a significant factor behind job polarization and jobless recoveries, affecting the macroeconomy. Understanding how immigrants' entry can impact union density and, consequently, various macroeconomic concerns is crucial, especially as some countries, particularly in Europe, maintain higher union density and have recently embraced more immigrant-friendly policies.

The empirical analysis in the study is based on two primary data sources. Firstly, the U.S. Census data for the years 1960, 1970, 1980, 1990, and 2000 is utilized, along with pooled observations from the American Community Survey (ACS) for 2009-2011 and 2016-2018. The Census data provides information on immigrant entry into the United States at the state and metropolitan area levels, as well as valuable details about worker characteristics, such as industry and occupation. However, the Census does not include information on union status. To address this gap in data, the study relies on the Current Population Survey (CPS) for all union-related information. The CPS data is obtained from the National Bureau of Economic Research (NBER) website and includes data from the May supplements for the 1970s and monthly files from 1983 onwards. To ensure time consistency in union rates across states, the study follows the methodology outlined by Hirsch and Macpherson (1993). For other non-union-related information from the CPS, the study uses the March files, which provide more detailed information on location, country of birth, union status, and other relevant variables. All data sources used in the analysis come from the Integrated Public Use Microdata Series. The primary sample used consistently across the CPS and Census data includes workers aged 18 to 64 who are not self-employed, work for wages and salaries, are not enrolled in school, and report positive hours of work and earnings. Immigrants with missing information regarding their country of birth or year of arrival in the United States are excluded from the analysis.

The research posits that immigrant workers entering a region influence it in two fundamental ways. First, they alter the skill mix of the region, given their predominantly low-skilled profile. This effect was particularly pronounced in the U.S. between 1970 and 2000. Secondly, immigrants may be willing to work for lower wages than similarly skilled native-born workers because of their limited outside options. Immigrants often lack access to unemployment benefits and may prioritize work over leisure in a foreign setting, enhancing firms' outside options. These two effects of immigrant entry can contribute to a decline in union membership due to how labour unions are structured. Unions typically advocate for an egalitarian approach and seek to minimize skill differentials by paying similar wages to all members. When a significant number of low-skilled immigrants enter the U.S. labour market, it affects the incentives of native-born workers to join unions and firms to hire unionized workers. High-skilled workers may find better-paying opportunities outside of unions, and firms may resist unionization efforts more actively because they now have better outside options with low-wage-seeking immigrants. Consequently, it becomes less likely that low-skilled workers will be hired at union wages, making it more appealing for them to seek non-union employment.

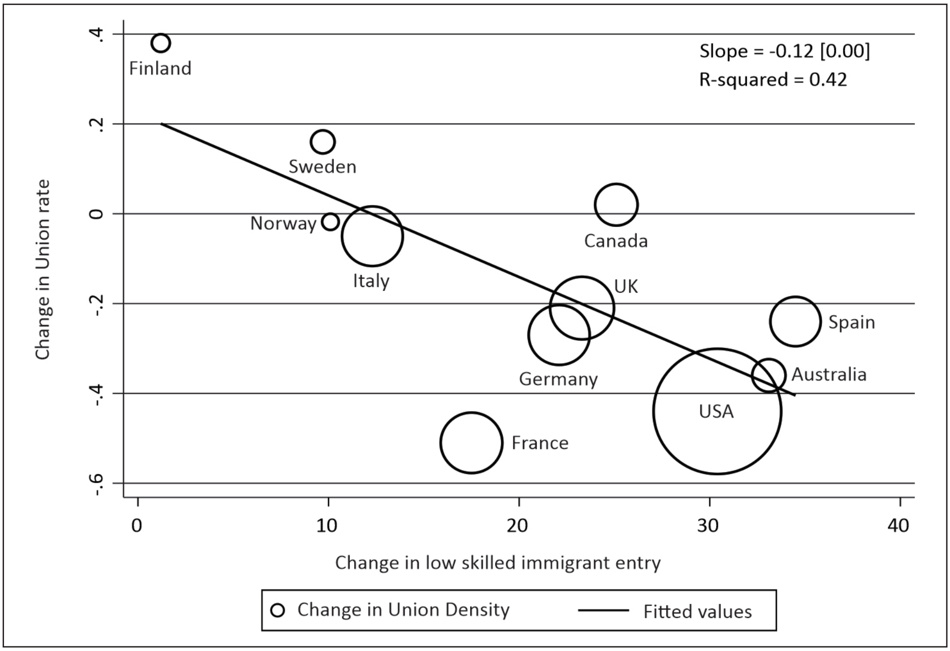
To empirically evaluate this causal mechanism, the study begins by examining correlations between immigrant entry and union membership across various dimensions, including U.S. Metropolitan Statistical Areas (MSAs), industries, and occupations. The study discovers a significant negative correlation between immigrant entry and union membership, and these correlations persist in other cross-sectional variations **(Figure 1.1)**. Furthermore, the correlation is found to hold at the international level, suggesting that the proposed causal mechanism might be applicable in diverse settings **(Figure 1.2)**.

Figure 1.1: Cross-State Evidence on De-unionization and Immigrant Entry



Note: In the left panel: Change in union rates and immigrant population shares across states between 1980 and 1990. In the right panel: Change in union rates and immigrant population shares across states between 1980 and 2000. Data on state-level unionization rates comes from CPS and Hirsch and Macpherson (1993). The p-value of the slope coefficient using robust standard errors is reported in parentheses.

Figure 1.2: International Evidence for De-unionization and Immigrant Entry



Note: Union density data for all countries are sourced from OECD Annual Trade Union Density Dataset. Estimates on immigrant entry are derived from various sources including StatsCan, Census, Migration Policy institute documents, country-specific press release and World Bank.

To establish a causal relationship, the paper needs to address two potential challenges in its identification strategy. The first challenge is endogeneity, where omitted variables could simultaneously drive both immigrant entry and the decline in union rates. The second challenge is the potential for spillover effects caused by the migration of native-born workers and firms across regions, which may violate the assumption of a closed geographical region, potentially biasing the estimates. To tackle these issues, the study employs an instrumental variable (IV) approach known as the ’ethnic enclaves’ method. This IV approach uses past immigrant stocks to predict future immigrant shocks in a region. The critical assumption here is that past immigrant stocks are not correlated with changes in current economic conditions. The empirical findings suggest that low-skilled immigrant entry can explain a substantial portion (48%) of the overall decline in union membership between 1980 and 2000. The study then conducts additional analyses to assess the robustness of these findings and examine potential alternative explanations for the decline in unionization rates. The study evaluates various factors, including the introduction of right-to-work laws, the growing importance of the service sector, and skill-biased technical change. It concludes that these factors, when considered individually, cannot fully account for the decline in unionization. Even when these alternative explanations are included in the analysis, low-skilled immigration remains a significant contributor to the decline in union density.

Table 1.1: Estimates of the impact of low-skilled immigrant entry on union rates, 1980- 2000, (States)

	(1)	(2)	Full Sample (3)	(4)	IV-1970 (5)
(Immigrant/Native) Ratio	-0.228***	-0.195**	-0.201**	-0.219***	-0.242***
	(0.066)	(0.092)	(0.095)	(0.071)	(0.102)
Log Population	x	x	x	x	x
Region Dummy	-	x	x	x	x
Average Income	-	-	x	x	x
Average Education	-	-	-	x	x
R^2	0.21	0.59	0.594	0.597	
N	51	51	51	51	51

*Note: The results are obtained from the decennial Census, 1970, 1980 and 1990. Robust standard errors are in parentheses, adjusted for clustering at state level. *p < 0.10; **p < 0.05; ***p < 0.01.*

In addition to the empirical analysis, the study presents a formal model to illustrate the proposed causal mechanism. This model uses a standard search-theoretic framework to provide a qualitative and intuitive representation of how immigrant entry affects unionization. The model aims to capture the equilibrium outcomes when immigrants enter the local labour market in the presence of unions. The model does so by allowing workers to differ in their observable skills as either high or low, and an unobservable efficiency parameter that directly impacts their productivity when matched to a firm. Unions take the non-union wages as given and set a uniform wage for all the members to maximize total union membership. The value functions of the workers and firms decide the efficiency levels at which a worker chooses to join the union and the firms hire a unionized worker. This general equilibrium framework finds that when low-skilled immigrants enter the labour market, unionization tends to shrink from the two ends of the skill distribution and gets more concentrated towards the middle. High-skilled native-born workers, who experience increased productivity due to complementary skills in the production process, find better opportunities outside unions, leading to higher non-union wages. More firms are now ready to hire these high-skilled workers given their better productivity, further pushing up their non-union wages. On the other hand, low-skilled native-born workers at union wage are now less desirable by firms for two reasons. The first is due to diminishing returns in the production function as more low-skilled workers are in the market. Second is a better outside option for firms in terms of low-wage seeking immigrants due to their lower outside options. Firms would prefer to hire immigrant workers, thus reducing their probability of hiring a unionized low-skilled native-born worker. These workers, therefore, leave the union and opt for non-union jobs.

The study uses the model to make over-identifying predictions that can be tested against the data. These predictions include an inverted ’U’ shape relationship between unionization rates and skill deciles, an increased wage gap between high and low-skilled non-union native-born workers in response to immigrant entry, and a decrease in the mean union wage. To further validate the model, the study calibrates it to the U.S. labour market between 1980 and 2000, a period marked by significant low-skilled immigrant entry. The calibration demonstrates that the model can predict approximately 48-55% of the total decline in union rates during this period. Notably, the model performs better at predicting changes in union rates toward the high and low ends of the skill distribution than in the middle. The study concludes by extending the calibration exercise to the period between 2000 and 2017, characterized by the entry of high-skilled immigrants. The findings indicate that the model still provides a reasonably accurate explanation for changes in union rates during this period.

Given the model and empirical results, the chapter is in a position to make some important policy prescriptions about immigrant workers and unions. The chapter advocates for Labour Market Integration Programs. Policymakers should develop programs that support the integration of low-skilled immigrants into the labour market. This may include language and job skills training to help immigrants secure better-paying non-union jobs. Given the findings there is also a need for economic security measures besides introducing safety nets that help immigrant workers transition into non-union jobs without experiencing significant income losses. This can include wage subsidies or unemployment insurance. Another point to bring to attention is the need for continued data collection and analysis, especially concerning unions. Enhanced data collection and analysis to continuously monitor unionization rates and understand how immigration affects labour market dynamics. Policymakers should stay informed about trends and respond proactively.

This chapter also has implications for developing countries like India, where there are migrant workers not only from different states coming and settling in specific regions but also a significant influx of immigrants from neighbouring countries, such as Bangladesh and Nepal. This research has implications for understanding the dynamics of labour markets. Just as the entry of low-skilled immigrants in the U.S. has contributed to changes in unionization patterns and wage differentials, India may also experience shifts in its labour market dynamics as immigrants join the workforce. For instance, the entry of low-skilled labour from neighbouring countries could influence the formation and behaviour of labour unions, particularly in industries where immigrant workers are employed. Insights from the chapter could influence labour policies in India and help policymakers anticipate and address potential changes in unionization and wage structures resulting from immigrant labour. In summary, this chapter provides compelling evidence that the influx of low-skilled immigrants into the U.S. labour market plays a substantial role in the decline of union membership. The study combines empirical analysis, instrumental variables, and a formal model to offer a comprehensive and robust understanding of this complex relationship, shedding light on the factors contributing to the decline in unionization rates in the United States.

2. The Impact of Exchange Rate Fluctuations on Earnings and Labour Supply of Immigrants

In a globalised world, the movement of people between different countries has increased tremendously. Despite the slowdown in recent years, with countries opening their border once again, it is crucial to understand how immigrant workers behave in a foreign country and what determines their success. Immigrants often have meaningful and substantial ties with the source country, and it becomes vital for policymakers to decipher if these ties affect their labour market outcomes. Do immigrants consider their income's current home country value when deciding on labour supply? Therefore, would exchange rate fluctuations impact the labour market outcomes of immigrants because they affect the purchasing power of income earned in the host country? The chapter contributes to this literature by looking at exogenous changes in the exchange rate between different countries and Canada to identify causal implications of exchange rate fluctuations on immigrants' labour market and earnings outcomes. This chapter demonstrates this effect by showing that immigrants change their labour market behaviour based on the purchasing power in their home country.

The importance of the immigrant population and the substantial attention given to their economic well-being, and in turn, how this well-being links to the remittance channel, makes this study even more crucial[1]. Another significant part of the population is second-generation immigrants who still may have significant links to their home country. Thus, how the macroeconomic conditions of the home country may affect them is vital for their well-being and prospects. This question also has a direct policy implication regarding immigrant entry and duration of stay. In this context,

[1] Source: Statistics Canada-https://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-010-x/99-010-x2011001- eng.cfm

it is to make policymakers aware that the behaviour of these immigrants can vary substantially given their family background and their links to their home country.

This chapter aims to contribute to two primary areas of literature. The first area focuses on understanding how macroeconomic conditions in immigrants' home countries affect their behaviour, earnings, and overall well-being. This line of research was notably popularized by Borjas (1985). Nekoei (2013) explored the impact of exchange rate volatility on immigrants' labour supply decisions in the U.S. Nekoei's study found that a stronger U.S. Dollar reduced immigrant earnings primarily by decreasing their work hours, with a 10% dollar appreciation leading to a 0.85% earnings decrease and a 0.55% reduction in work hours in a year. However, Nekoei's research had limitations, as it employed cross-sectional data, lacked individual fixed effects, and couldn't address long-term implications or control for outmigration and mobility.

This chapter builds upon Nekoei's work and offers improvements in several ways. Firstly, it shifts the focus to Canada, a country with a more diverse immigrant population than the U.S. and a higher proportion of first and second-generation immigrants. This allows for an investigation into whether findings from the U.S. regarding exchange rate effects apply to Canada. Secondly, this study better controls for observed and unobserved individual heterogeneity, a factor recognized as crucial in modelling immigrant labour market outcomes in various countries. Lastly, it quantifies the significance of the remittance channel as a mechanism for immigrant behaviour, an aspect often overlooked in previous studies due to the lack of remittance information. This research can place the remittance channel at the forefront of explaining changes in labour supply and earnings due to real exchange rate fluctuations.

Additionally, this work contributes to the literature on inter-temporal labour supply decisions. It considers how unanticipated wage increases may affect labour supply over time, taking into account both substitution and income effects. Previous studies have produced mixed results regarding the direction and significance of wage elasticities on labour supply. Some argue for negative or insignificant elasticities, while others suggest positive elasticities, highlighting the complexity of this issue. Blundell and MaCurdy (1999) argues that individuals are not free to set their labour supply hours. In contrast, Camerer et al. (1997) argues that nonstandard, reference-dependent preferences that exhibit loss aversion around a target income level can explain the insignificance in labour supply choices. This chapter adds to the ongoing debate in this field by considering exogenous changes coming from remittance-sending behaviour and exchange rate fluctuations.

The chapter utilizes the Survey of Labour and Income Dynamics (SLID) panel data from 1993 to 2011, providing a rotating, six-year-old sample for regression analysis. The data also includes accurate nationality and year of immigration to Canada, essential for income, hours worked, and household characteristics. It also includes information on remittances. Besides, there are two kinds of country variables used for the analysis. Firstly, macroeconomic variables are obtained from the World Bank's World Development Indicators and the International Monetary Fund's (IMF) International Financial Statistics databases.[2] The real exchange rate here is constructed using IMF data, as ERi = ei.(pCAD/pi) , where ei and pi are the nominal exchange rate (units of home country currency per Canadian dollar) and the CPI index of country i, respectively.[3]

The analysis uses the Survey of Labour Income Dynamics (SLID) to analyze the impact of immigrants born outside Canada who migrated to Canada. The sample is limited to countries with enough observations and exchange rate data from 1993-2011. The analysis focuses on 22,850 individual-year observations from immigrants from Canada's top 40 immigrant-sending countries. The data analysis will involve two empirical strategies. The first step uses an Ordinary Least Squares (OLS) strategy where the relationship of interest can be analysed using the following regression specification:

$$Y_{c,t,i} = \alpha_c + \alpha_t + \beta e_{c,t} + \gamma X_{c,t,i} + E_{c,t,i} \tag{2.1}$$

[2] country-specific data taken instead from OECD do not affect the results.

[3] For example, consider the exchange rate between India and Canada, it would be 50 Rupees/dollar multiplied by the CPI index of India

where $Y_{c,ti}$ is an individual level observable (log of earnings, weeks worked, hours in different jobs) belonging to country (c) in time (t). α_c captures country-level fixed effects and αt measures time fixed effects. $e_{c,t}$ is the log of the exchange rate between Canada and the country of the immigrant in question. $X_{c,t,i}$ controls for individual time-varying characteristics, including remittances sent to the home country. The panel nature of the data set further allows for the possibility of having individual-level fixed effects and thus control for unobserved heterogeneity in the specifications.

The study examines the relative earnings of immigrants from the top 40 immigrant-supplying countries to Canada, accounting for about 90% of the total immigrants based in Canada. The relative earnings of two otherwise similar immigrants from two different countries are correlated with the exchange rate between their home countries' currencies. The results show a significant and negative coefficient of -0.036 when controlling for year and country-fixed effects. This specification also controls various individual-level characteristics like gender, age, marital status, and years since immigration. The results suggest that in response to a 10% depreciation of the home currency relative to the Canadian Dollar, an average immigrant reduces their annual earnings by 0.36 per cent. The intuition is that a depreciation of the home currency increases the value of the immigrant's wage in home currency terms, causing them to work less. The estimates for Canada are smaller than Nekoei (2013) estimates but higher than those found by Nguyen and Duncan (2017). This might be because immigrants in Canada stay for longer, unlike in the US, where many Mexican immigrants work temporarily and often cross the border more frequently.

The chapter examines the correlation between the variation in the exchange rate and the variation in the home country's macroeconomic variables. It finds that the exchange rate effect does not contain the effect of other macroeconomic variables by using various controls in the analysis. The study also considers individual-level fixed effects, which can account for unobserved heterogeneity among immigrants. The coefficient of importance is negative and significant. The chapter examines the impact of changes in hours worked or other labour supply dimensions on an immigrant's earnings. The coefficient of -0.025, unchanged by individual controls or fixed effects, indicates that an average immigrant facing a 10% depreciation of the home currency relative to the Canadian Dollar reduces her annual hours worked by 0.25 percent. The coefficient of change in annual hours worked due to fluctuations in exchange rate falls slightly even considering individual fixed effects but remains negative and significant at -0.0227 **(Table 2.1)**. About 70% of the change in earnings can be explained by the change in working hours by the individual, while the residual can be understood as a change in hourly wages received by the immigrant in the foreign country. The results are summarized in the table below:

Table 2.1: Exchange Rate Fluctuations and Immigrant Earnings and Labour Response

	Log of Annual Earnings Estimates			Log of Annual Hours Worked Estimates		
	(1)	(2)	(3)	(4)	(5)	(6)
Log (real exchange rate)	-0.0360***	-0.0347***	-0.0357***	-0.0246***	-0.0232***	-0.0227***
	(0.013)	(0.013)	(0.010)	(0.01)	(0.01)	(0.009)
Years since arrival (YSA)	0.0281***	0.028***	0.009***	0.011***	0.011***	0.001*
	(0.003)	(0.003)	(0.002)	(0.002)	(0.002)	(0.001)
YSA squared	-0.0004***	-0.0004***	-0.0003***	-0.0004***	-0.0004***	-0.0003***
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Age	0.177***	0.177***	0.282***	0.115***	0.115***	0.151***
	(0.006)	(0.006)	(0.021)	(0.005)	(0.005)	(0.018)
Age Squared	-0.0019***	-0.0019***	-0.0027***	-0.001***	-0.001**	-0.001***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Sex (Female)	-0.551***	-0.551***		-0.263***	-0.263***	
	(0.019)	(0.019)		(0.021)	(0.012)	
Married	0.084**	0.084**		0.044**	0.044**	
	(0.032)	(0.033)		(0.02)	(0.02)	
Time Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Industry & Occupation fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Country Dummy	Yes	Yes	Yes	Yes	Yes	Yes
log (GDP)		Yes	Yes		Yes	Yes
Individual fixed effects			Yes			Yes
Observations	22,850	22,850	22,850	22,850	22,850	22,850
R^2	0.26	0.26	0.81	0.16	0.16	0.70

*Note: The results are obtained from the Survey of Labour and Income Dynamics (SLID, 1993-2011). The unit is age and time since arrival is one year. The sample is limited to all foreign citizens in Canada who are between the age of 16-64. Robust standard errors are in parentheses, adjusted for clustering at the country year level. The number of observations have been rounded to the nearest 10 digits to comply with confidentiality rules. *** Significant at 1 percent level ** Significant at 5 percent level * Significant at 10 percent level.*

Assimilation is a controversial concept in immigration studies, where the gap between a native's earnings and a new immigrant's earnings closes as the immigrant stays longer in the host country. Assimilation involves an immigrant investing in host-country-specific human and social capital and disinvesting from home-country-specific counterparts. To explore this idea, the term "disintegration" is defined as a process by which an immigrant loses ties with their home country. If immigrants' home-country ties weaken over time, the effect of home-country variables on immigrants should diminish. The exchange rate effect over time is used to measure the speed of the disintegration process and uncover a previously overlooked facet of assimilation. As the agents are farther away from their date of arrival in Canada, they are less affected by exchange rate fluctuations. The results suggest that a 10% appreciation of the Canadian Dollar leads to a 0.63% fall in earnings, and this effect falls as the person stays more years in the foreign country. It may take an immigrant about 21 years to have no impact of exchange rate fluctuations on earnings.

The study examines the impact of exchange rate fluctuations on earnings and hours worked using quantile regression estimates at various income groups. The results show that the effect of exchange rate fluctuations is more significant for lower-income groups, with the highest earnings and labour supply elasticity at -0.0966 and a decrease at -0.0424 **(Table 2.2)**.

Table 2.2: Quantile Regressions-income groups

Dependent Variable:	OLS Estimates		Quantile Regressions			
		10	25	50	75	90
	(1)	(2)	(3)	(4)	(5)	(6)
log of annual earnings	-0.0347***	-0.0966***	-0.0424***	-0.017**	-0.010	-0.013
	(0.011)	(0.026)	(0.010)	(0.007)	(0.03)	(0.11)
log of annual hours worked	-0.0232***	-0.055***	-0.027***	-0.004***	-0.001	-0.004
	(0.001)	(0.015)	(0.005)	(0.001)	(0.0001)	(0.002)

*Note: The results are obtained from the Survey of Labour and Income Dynamics (SLID, 1993-2011). All regression coefficients include the same set of control variables and have individual fixed effects. Robust standard errors are in parentheses, adjusted for clustering at the country year level. *** Significant at 1 percent level ** Significant at 5 percent level * Significant at 10 percent level*

The effect is still significant at -0.017 for the 50^{th} income quantile but lower than the average. However, no significant impact is found for the highest income quantile and the 90th decile of income. The coefficients retain their significance and magnitude when controlling for individual fixed effects. The results for the log of annual hours worked are similar but lower in magnitude than the results for log earnings, which aligns with previous findings.

The study examines the impact of exchange rate fluctuations on male immigrants, focusing on their marital status. The study explains that immigrants send remittances back to their families abroad, and the money they send would be of different value if the exchange rate changed. The results show that married immigrants react more strongly to exchange rate fluctuations, with a 10% appreciation of the Canadian real exchange rate leading to a 0.71% decrease in earnings. Single immigrants have a slightly lower effect at 0.32%. The study also finds similar numbers for the log of annual hours worked. Single immigrants show a higher increase in part-time hours worked (0.031), followed by married immigrants but not their spouses (0.019). The effect is insignificant for immigrants with their spouses living with them. The effect is significant and positive for part-time hours worked, but the magnitude is higher for single immigrants. Immigrant labour literature highlights the importance of living in enclaves for various reasons, which affects their behaviour in the foreign country and their rate of assimilation with the economy. Studies have shown that immigrants living in ethnic enclaves in Spain and Qatar tend to send more remittances and remit more frequently. This may be due to immigrants being more attached to their home country and remitting more. To investigate whether exchange rate fluctuations affect earnings differently for people living in enclaves, a study was conducted for the two most prominent immigrant groups in Canada, i.e. Indian and Chinese. The results showed that Indian immigrants in ethnic enclaves, such as Brampton, Burnaby, Surrey, and Thistletown, and Chinese immigrants in areas like Brossard, Richmond Hill, and Richmond, experienced a larger earnings drop in earnings when their home country depreciated as compared to those who are not staying in enclaves.

Consequently, the study finds that a 10% appreciation of the Canadian Dollar leads to a 0.9% fall in annual earnings for immigrant groups who send remittances back home. This effect is more pronounced when the immigrants' country of birth and individual fixed effects for GDP are considered. The effect on hours worked annually is lower and insignificant when controlling for individual fixed effects, possibly due to the lack of respondents to the survey. The findings suggest that immigrants who send remittances to their home country are more sensitive to changes in real exchange rate fluctuations. The study also finds that fluctuations in exchange rates may affect the behaviour of immigrants sending remittances. The income effect dominates the substitution effect, resulting in a negative coefficient on earnings and hours worked. The results of sending remittances at the extensive margin show no significant change in remittance-sending behaviour when the Canadian Dollar appreciates. The findings as shown in **Table 2.3**, support the idea that immigrants have a higher income effect that dominates the substitution effect when faced with exchange rate depreciation of their home country.

Table 2.3: Remittance at the extensive and intensive margin

	Sending Remittances Estimates		**Remittance Amount Estimates**	
	(OLS)	**(Probit)**	**(Logit)**	**(OLS)**
Log (real exchange rate)	-0.0026	-0.018	-0.039	0.831
	(0.023)	(0.02)	(0.051)	(0.91)
Years since arrival (YSA)	0.002	-0.040***	-0.072***	-113.001***
	(0.013)	(0.006)	(0.01)	(0.004)
YSA squared	-0.0001	0.0001	0.0001	0.908*
	(0.0003)	(0.0003)	(0.0003)	(0.43)
Age	-0.058	0.065***	0.118***	7.28***
	(0.04)	(0.01)	(0.02)	(0.132)
Age Squared	-0.056	-0.0005**	-0.0009**	0.14
	(0.04)	(0.0003)	(0.0003)	(0.14)
Married	-0.055	0.030	0.055	-710.79***
	(0.14)	(0,07)	(0.13)	(0.26)
Gender	-0.25***	-0.003	-0.002	-379.02
	(0.09)	(0.04)	(0.02)	(254.9)
Time Dummy	Yes	Yes	Yes	Yes

	Sending Remittances Estimates		Remittance Amount Estimates	
	(OLS)	**(Probit)**	**(Logit)**	**(OLS)**
Country Dummy	Yes	Yes	Yes	Yes
log (GDP)	Yes	Yes	Yes	Yes
Observations	4890	4890	4890	1280

*Note: The results are obtained from the Survey of Labour and Income Dynamics (SLID, 1993-2011). The unit is age and time since arrival is one year. The sample is limited to all foreign citizens in Canada who are between the age of 16-64. Robust standard errors are in parentheses, adjusted for clustering at country-year level. Number of observations have been rounded to the nearest 10 digits to comply with confidentiality rules. *** Significant at 1 percent level ** Significant at 5 percent level * Significant at 10 percent level.*

This chapter on Exchange Rate Fluctuations and Immigrant Earnings also has implications for policy-makers. Given the findings, immigrants need to be provided with financial literacy. Policy-makers can implement financial literacy programs targeting immigrants and their families, particularly those who rely on remittances. These programs can help them make informed decisions about remittance management during currency fluctuations. Tied closely to this, there would be a need to have Currency Exchange Services, specifically for immigrants. These would promote accessible and cost-effective currency exchange services, both in source and host countries, to reduce the financial impact of exchange rate fluctuations on remittances. Finally, the need would be to diversify income sources. Policy-makers should encourage immigrants to diversify their sources of income and investments, reducing their vulnerability to exchange rate fluctuations. This can be achieved through financial education and guidance.

The research in this chapter has policy implications for India as well. India has a significant diaspora working in foreign countries, and many of them send remittances back home. Exchange rate fluctuations can have a direct impact on the real income of these Indian immigrants and the amount of remittances they can send. The findings from this research can be relevant for Indian families that rely on remittances for their livelihood. A better understanding of how exchange rate fluctuations affect immigrant earnings and remittance behaviour can assist these families in managing their finances during times of currency depreciation, helping them make more informed decisions about consumption and savings.

3. Unlucky Immigrants: The Short and Long-run Implications of Entering the Labour Market in a Recession

Policymakers are concerned about the economic assimilation of immigrants, as many perform poorly in the labour market, and the gap between immigrant earnings and native earnings is being studied.[4] Evidence on employment and scarring among immigrant groups mainly depending on their year of entry can potentially shed light on this regard. On the other hand, a seemingly unrelated strand of the literature looks at the effect of graduating in a recession on short-term and long-term labour market earnings and different labour market outcomes. It is widely agreed upon that the early years of a worker are crucial for wage growth and long-term prospects, Topel and Ward (1992). It is also a concern among economists and policymakers alike, that interruptions of the initial career progression process caused by recessions can have lasting consequences on earnings and other relevant outcomes, including health effects, human capital investment and household formation. This chapter in line with that of McDonald and Worswick (1999) combines these two strands by looking at the affect of initial conditions at labour market entry on current earnings for immigrants.[5]

The literature on the consequences of entering the labour market during an economic downturn has primarily focused on college graduates. There's a growing body of evidence showing that temporary exposure to higher unemployment rates can lead to long-term earnings reductions. Kahn (2010) used data from the National Longitudinal Study of Youth (NLSY) to demonstrate that college graduates who entered the job market during the

[4] Papers include Borjas (1985); LaLonde et al. (1992); Borjas (1995); Hu (1999); Card (2005); Lubotsky (2007); Lubotsky (2011); Abramitzky et al. (2014)

[5] They use data from Australia for evaluating this effect. Junankar and Mahuteau (2005) on the other hand evaluates the quality of jobs these immigrants get on entry.

deep recession of the early 1980s experienced earnings reductions lasting up to 15 years. Oyer (2006) and Oyer (2008) presented evidence of persistent effects on career choices for MBAs and PhD economists. Oreopoulos et al. (2012) found that college graduates in Canada suffered long-term earnings losses, particularly for those predicted to have low earnings at the start of their careers. Altonji et al. (2016) found variations in the effects of graduating in a recession based on college majors. Several studies, including Baker et al. (1994) and Beaudry and DiNardo (1991), found cohort wage effects, while Schwandt and Von Wachter (2019) documented persistent earnings reductions following a recession, especially for less advantaged entrants. They also highlighted an increase in government support to offset the negative effects on these individuals.

Åslund and Rooth (2007) explored the long-term effects of labour market conditions upon arrival for refugees in Sweden during the 1990 recession. They found that early earnings assimilation depended on the national labour market, but their analysis had small-sample issues and didn't carefully examine heterogeneity or outmigration decisions. Chiswick and Miller (2002) used the 1990 U.S. Census of Population data and found that the stage of the business cycle at entry into the U.S. labour market affected immigrant earnings for a short duration. Fern´andez and Ortega (2008) find that, compared to natives, immigrants initially faced higher participation and unemployment rates, as well as higher incidence of overeducation and temporary contracts. However, these disparities tended to decrease over time. Overall, this chapter aims to fill gaps in the literature by investigating the effects of entering the labour market during an economic downturn on immigrants. It employs longitudinal data to explore the long-term implications for immigrant earnings and assimilation behaviour, particularly for different skill groups and education levels, contributing to a more comprehensive understanding of this phenomenon.

The study uses individual-level data from the Immigration and Refugee Database (IMDB) to analyze immigrants who arrived in Canada since 1980. The database contains information on immigrant characteristics, such as age, education, marital status, and immigration category. It also provides earnings and income components from tax records, taxes paid, marital status, and geographical location of residence. The analysis is limited to immigrants aged 18-60 who entered Canada between 1987 and 2011 and excludes students who land as students and start working. The study focuses on two outcome variables: annual earnings and total income, including employment earnings and government transfers.

The regression specification used in the study aims to relate outcomes like labour income, unemployment insurance usage, and outmigration decision to varying years of experience and economic conditions an immigrant faced at market entry. The baseline specification considers the province of entry, year of entry, calendar year, and education or skill group. The main aim is to regress the outcome on the applicable initial unemployment rate with the specified controls. The main regression specification is as follows:

$$Y_{i,p,g,t} = \alpha + \beta_{t-g} u_{p,g} + \gamma_{t-g} + \delta_p + \theta_t + E_{i,p,g,t} \tag{3.1}$$

The coefficient of interest captures the effect of entering in a recession on short-run and longrun earnings. The analysis considers unemployment at the provincial level, considering individual characteristics, and controlling for individual-level characteristics like country of origin, education level, sex, marital status, age, skill and education group, family earnings, welfare benefits, and heterogeneity in terms of sex, education, and official languages. The baseline specification treats labour market entry as exogenous, but some immigrants may delay entry due to economic downturns. Still, endogeneity due to immigrants choosing their arrival time is likely not an issue, as visa processing delays were severe in the 1990s and 2000s. Also, immigrants have limited time to enter the foreign country after the arrival of a visa and there often isn't a choice to be made. The literature suggests that immigrants are more likely to migrate inter-provincially during economic downturns, potentially leading to bias in results. However, data on individual working years can help control inter-provincial migration. This data allows for the estimation of the impact of recession on immigrants and the observation of outmigration. The aim is to control these migration patterns.

The study examines the impact of initial unemployment rates on immigrants' earnings in the first 15 years of the labour market. The average annual earnings for immigrants range from 1987 to 2011, with 2.5 million immigrants and over 20 million individual-year observations. The primary result is that an increase in unemployment by 3% points leads to a 7% reduction in earnings. This effect only declines with time spent in the labour market, with the effect still significant, ten years after entry. The results align with previous findings on college graduates and recessions, but for immigrants, the impact is more persistent and long-lasting. The result is summarized in the **Table 3.1**.

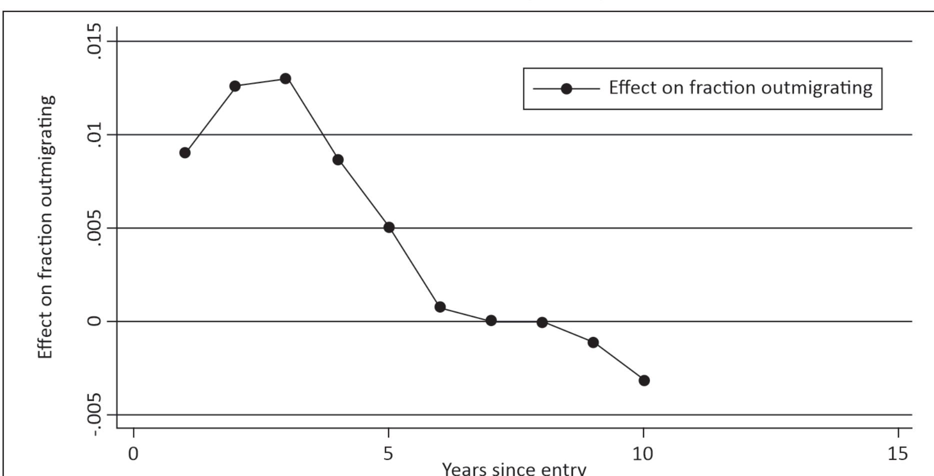
Table 3.1: Effects of unemployment rates at labour market entry on earning

Variable, Experience Group Log Employment Earnings	Full sample (Without controls) (1)	Full Sample (With Controls) (2)
Year 1	-0.0232***	-0.0235***
	(-0.027,-0.018)	(-0.028,-0.018)
Year 2	-0.0196***	-0.0201***
	(-0.026,-0.014)	(-0.027,-0.015)
Year 3	-0.0157***	-0.0167***
	(-0.023,-0.009)	(-0.024,-0.01)
Year 4	-0.0135**	-0.0149***
	(-0.022,-0.007)	(-0.021,-0.007)
Year 5	-0.0124***	-0.0138***
	(-0.021,-0.006)	(-0.020,-0.06)
Year 6	-0.0110***	-0.0125***
	(-0.020,-0.004)	(-0.019,-0.004)
Year 7	-0.0095***	-0.0117***
	(-0.017,-0.003)	(-0.018,-0.003)
Year 8	-0.0078**	-0.0103***
	(-0.014,-0.0001)	(-0.014,-0.002)
Year 9-10	-0.0063*	-0.0075**
	(-0.006,0.0001)	(-0.010,-0.00003)
Year 11-12	-0.0021	-0.0051*
	(-0.004,0.001)	(-0.005,0.0001)
Year 13-14	-0.0001	-0.0002
	(-0.003,0.001)	(-0.004,0.007)

*Note: The results are obtained from the Longitudinal Immigrant Database (IMDB, 1987-2011). All robust standard errors are adjusted for clustering at province-year level. 95% confidence intervals are in paranthesis. *** Significant at 1 percent level, ** Significant at 5 percent level, * Significant at 10 percent level.*

The study examines outmigration decisions based on unemployment rates at the time of labour market entry and earnings for immigrants who have not migrated out of the country. The results show that immigrants who stay in Canada perform better than those who outmigrate. The catch-up period is faster, as earnings are not significantly affected by the initial unemployment rate after year eight. A 3-point rise in unemployment leads to a fall in earnings of about 6%, decreasing to about 4% in years 3 and 4 and 3% by the end of year 6. The study examines the decision of outmigration and the fraction of immigrants who choose to leave Canada. It finds that a significant fraction of immigrants outmigrate in their first year, increasing in years 2 and 3. A 3-point rise in unemployment leads to 4% of all immigrants outmigrating by year 3, and a 1.5% fraction of out-migrating by year 5. The results show that immigrants who choose to leave Canada are doing worse than those who stay. This result is summarized in **Figure 3.1**.

Figure 3.1: Effects of Unemployment Rate at Labour Market Entry on Fraction Outmigrating



Immigrants face reduced earnings when entering the economy during high unemployment, supporting the 'scarring' hypothesis. Analyzing immigrant diversity helps policymakers decide whether to direct welfare plans towards certain categories or not, considering their recovery from initial earnings reductions. The study analyzes the effects of immigrant subgroups on earnings, focusing on gender. An average male immigrant worker earns C$ 12,660, while an average female worker earns C$ 7,910 a year. The results show that a 3-point rise in unemployment leads to a 6.6% decrease in earnings for men and a 7.7% decrease for women. The impact decreases over time, with men experiencing a 3% reduction by year six and women experiencing a 4% decrease. The scarring effect dissipates faster among men than women. The study examines the impact of immigration on entry- level earnings, focusing on the education group. Entry-level earnings differ significantly based on the amount of human capital investment an immigrant makes before and after arrival, potentially leading to more significant post-arrival growth in earnings. The analysis excludes immigrants who enter the country as students and obtain education from Canada, as this can account for a large share of the immigrant/native-born wage gap. Immigrants are classified into four categories based on their education in foreign countries. By the end of year 2, immigrants with less than 12 years of education experience the highest fall in earnings, while those with a high school diploma experience a slightly better effect. The effects dissipate slower for low-educated immigrants, while those with completed schooling experience better results. **Table 3.2** presents the results.

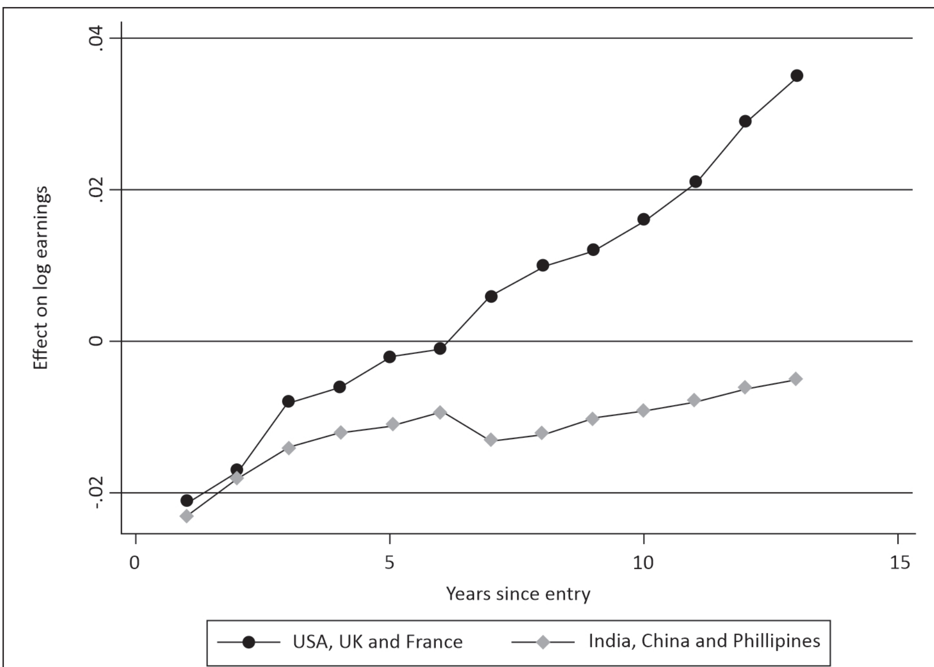
Table 3.2: Effects of state unemployment rates at labour market entry on earnings by education

Variable, Experience Group Log Employment Earnings	<12	12	12-16	16+
	(1)	(2)	(3)	(4)
Year 1-2	-0.024***	-0.017***	-0.019***	-0.020***
	(-0.03,-0.021)	(-0.027,-0.15)	(-0.028,-0.014)	(-0.029,-0.016)
Year 3-4	-0.018***	-0.013***	-0.011***	-0.017***
	(-0.024,-0.016)	(-0.019,-0.010)	(-0.015,-0.008)	(-0.022,-0.013)
Year 5-6	-0.014***	-0.011***	-0.007***	-0.008***
	(-0.019,-0.009)	(-0.015,-0.007)	(-0.011,-0.006)	(-0.011,-0.005)
Year 7-8	-0.0087***	-0.007***	-0.002*	-0.005
	(-0.014,-0.005)	(-0.011,-0.003)	(-0.005,-0.0001)	(-0.006,0.0008)
Year 9-10	-0.006***	-0.005**	0.002	-0.0001
	(-0.011,-0.003)	(-0.009,-0.001)	(-0.004,0.0009)	(-0.003,0.0015)
Year 10+	-0.005**	-0.003*	0.006	0.007
	(-0.007,-0.001)	(-0.004,0.001)	(-0.001,0.009)	(-0.0005,0.011)

*Note: The results are obtained from the Longitudinal Immigrant Database (IMDB, 1987-2011). All robust standard errors are adjusted for clustering at province year level. 95% confidence intervals are in paranthesis. *** Significant at 1 percent level, ** Significant at 5 percent level, * Significant at 10 percent level.*

The study compares immigrants from developed countries like the USA, UK, and France, who earn an average of C$ 18,530 annually, to immigrants from developing economies like India, China, and the Philippines, who earn an average of C$ 9,870 annually. Immigrants from developed countries perform better in Canada than those from developing economies in the long run. Initially, immigrants from developed economies face a similar reduction in earnings compared to those from developing economies, but the effect dissipates more quickly for immigrants from developed economies. The effect remains significant after year 10 **(Figure 3.2)**.

Figure 3.2: Effects of State Unemployment Rate on Labour Market Entry by Country



The research points to several scenarios for policy intervention. The state can design targeted support programs for immigrants who enter the labour market during economic downturns. These programs can include job placement services, upskilling opportunities, and financial assistance during the initial phases of labour market entry. In the long-run, they can develop policies that promote the long-term economic integration of immigrants. This may involve measures to enhance educational and career opportunities for immigrants, reducing the long-term impact of entering the labour market during a recession. Ensuring that immigrants have access to social services, including healthcare, housing, and legal assistance, which can support their overall well-being and economic success can also go a long way.

From an Indian perspective, the suggestions come forth in trying to understand migrant workers moving to different states in India and how the local economic conditions can impact their overall well-being. India is a diverse country with a significant migrant population, including skilled workers, students, and low-skilled labourers. Understanding how macroeconomic conditions at the time of entry impact migrant earnings and their long-term success can provide insights into the economic integration and social well-being of migrants in India. The Indian government and policymakers could use this research to design policies that support immigrants entering the labour market during economic downturns, address the challenges they may face, and enhance their overall assimilation into Indian society. It's important to adapt these recommendations to the specific context and needs of the Indian immigration landscape. Policymakers could collaborate with relevant stakeholders and continuously evaluate the effectiveness of these measures to ensure that they meet their intended goals.

4. Conclusion

In conclusion, the study consists of three chapters that delve into the behaviour and earnings of immigrants, as well as how their entry impacts the local labour market. The study employs empirical analysis using microdata to establish causal relationships between immigrant entry and local economic changes. The research combines this empirical approach with macroeconomic models and calibration tools to gain a deeper understanding of how these changes occur in the local economy.

The first chapter of the study explores whether the entry of low-skilled immigrants can explain the consistent decline in unionization rates observed in the United States. The chapter argues that immigrant entry has altered the incentives for native-born workers to join labour unions and for firms to hire unionized workers. High-skilled workers tend to leave unions to seek better compensation in non-unionized sectors, while low-skilled workers are less valued by firms if they demand union wages due to competition from immigrant workers. The data shows a decline in unionization rates concentrated around the skill distribution extremes. Empirical evidence supports the claim that low-skilled immigrant entry contributes to a decrease in union rates, and a search-theoretic framework is developed to test this mechanism. The model is calibrated to the data, suggesting that low-skilled immigrant entry can explain a significant portion, approximately 48-55%, of the total decline in union density.

The second and third chapter shift the focus to how macroeconomic conditions, both in the home and foreign economies, affect the earnings of immigrants in the short and long run. The second chapter investigates the impact of exchange rate fluctuations between the source and foreign economies on immigrant workers' earnings and labour supply. The chapter suggests that a source country's currency depreciation leads to a decrease in earnings, indicating either a backward bending supply curve. The chapter also finds that currency depreciation affects remittance payers more than others but doesn't significantly affect the remittance amount.

The last chapter examines the influence of macroeconomic conditions (such as the unemployment rate) at the point of entry for immigrants into the foreign economy and how it affects their short- and long-term earnings. The chapter seeks to answer questions related to earnings, assimilation, and outmigration decisions of immigrant workers during economic downturns and whether long-term success varies among immigrants with different skills, education, nationality, and gender who arrive simultaneously. Overall, this study employs a combination of empirical analysis and economic modelling to provide insights into the behaviour and economic outcomes of immigrants, as well as their impact on the local labour market.

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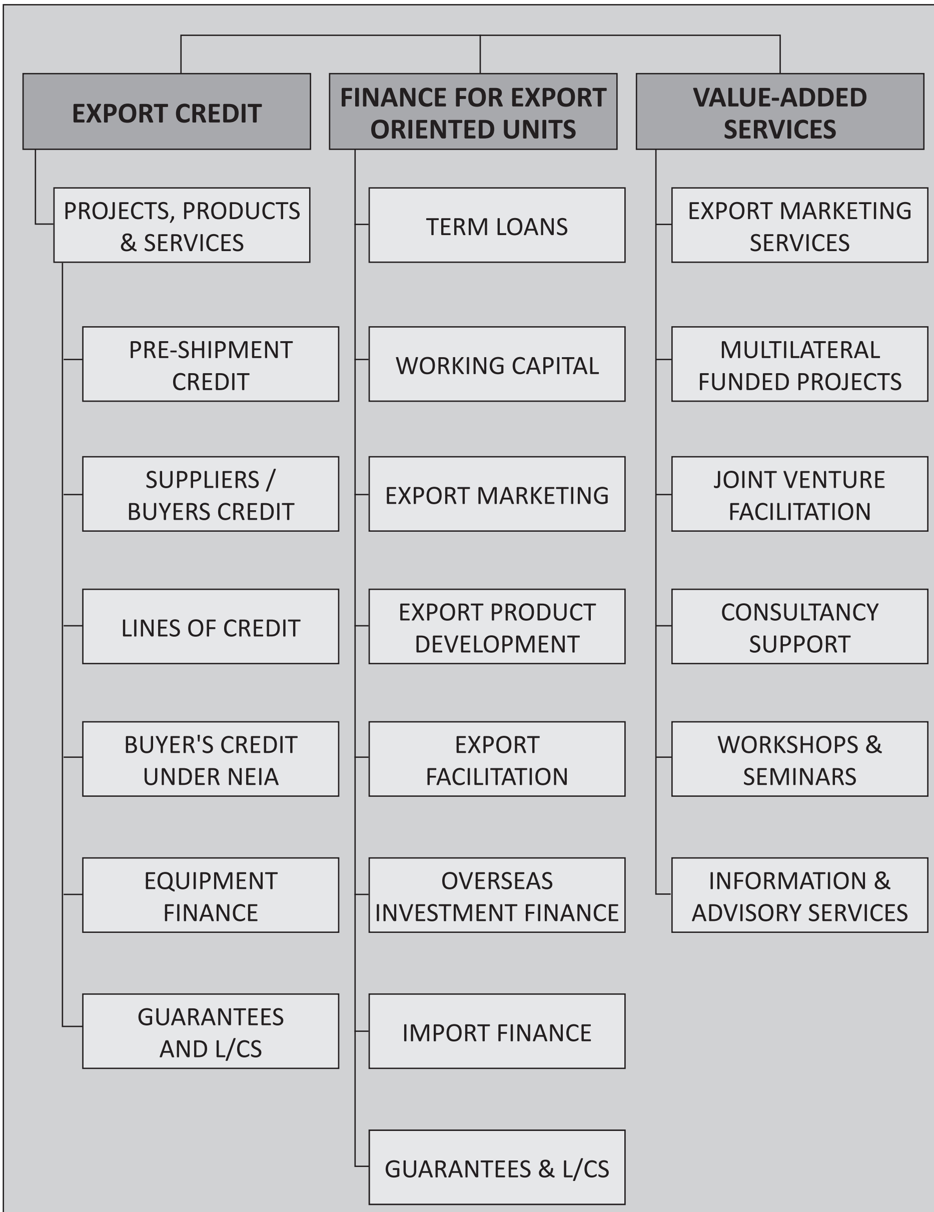

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